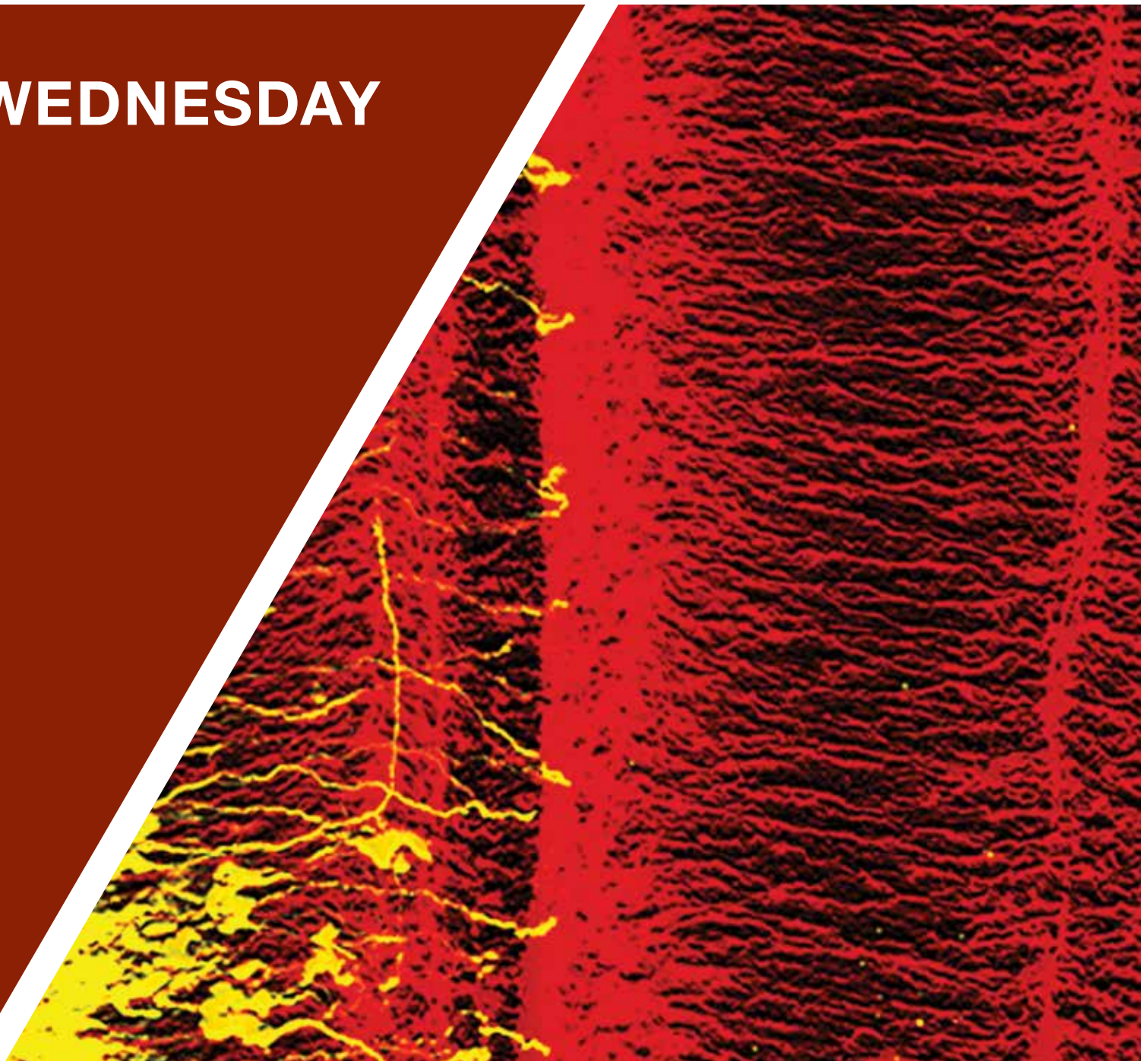
Neuroscience 2013

WEDNESDAY



SAN DIEGO | NOVEMBER 13

Scientific Session Listings 681 – 873

SfN Society for Neuroscience

Wednesday Highlights

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

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

Symposium

Eph Receptors and Ephrins: Therapeutic Targets for Neural Injury and Neurodegenerative Diseases **CME**
Chair: Ann Turnley, PhD
8:30 – 11 a.m.
San Diego Convention Center: 6F

Symposium

Law and Neuroscience
Chair: Owen Jones, JD
8:30 – 11 a.m.
San Diego Convention Center: 6A

Symposium

Neocortex: Why So Many Layers and Cell Types? **CME**
Chair: Randy M. Bruno, PhD
Co-chair: Jackie Schiller, PhD
8:30 – 11 a.m.
San Diego Convention Center: 6B

Minisymposium

Food for Thought: Experiential Hormonal and Neural Antecedents of Obesity **CME**
Chair: Ilia N. Karatsoreos, PhD
Co-chair: Matthew N. Hill, PhD
8:30 – 11 a.m.
San Diego Convention Center: 6E

Minisymposium

Neural Encoding of Fear: Hypothalamic and Brainstem Networks **CME**
Chair: Cornelius T. Gross, PhD
8:30 – 11 a.m.
San Diego Convention Center: 29D

Minisymposium

Pathological Choice: The Neuroscience of Gambling and Gambling Addiction **CME**
Chair: Luke Clark, PhD
8:30 – 11 am.
San Diego Convention Center: 28A

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

Symposium

How Do Immune Cells Shape the Brain in Health Disease and Aging? **CME**
Chair: Michal Schwartz, PhD
Co-chair: Serge Rivest, PhD
1:30 – 4 p.m.
San Diego Convention Center: 6A

Symposium

The Human Connectome in Health and Disease **CME**
Chair: Andrew Zalesky, PhD
Co-chair: Martijn van den heuvel, PhD
1:30 – 4 p.m.
San Diego Convention Center: 6B

Minisymposium

Imaging Neuronal Populations in Behaving Rodents: Paradigms for Studying Neural Circuits of Behavior in the Mammalian Cortex **CME**
Chair: Jerry L. Chen, PhD
Co-chair: Tara Keck, PhD
1:30 – 4 p.m.
San Diego Convention Center: 29D

Minisymposium

Neuroscience of Self-Control **CME**
Chair: Benjamin Hayden, PhD
Co-chair: Joseph Kable, PhD
1:30 – 4 p.m.
San Diego Convention Center: 6E

Minisymposium

Rat Genetics: Focus on Reward-Related Behavior **CME**
Chair: Judith Homberg, PhD
Co-chair: Bart Ellenbroek, PhD
1:30 – 4 p.m.
San Diego Convention Center: 6F

Minisymposium

Teaching Signals: Understanding the Neural Systems That Trigger Learning and Change Behavior **CME**
Chair: Joshua P. Johansen, PhD
Co-chair: Jennifer L. Raymond, PhD
1:30 – 4 p.m.
San Diego Convention Center: 28A

Chronological List of Wednesday 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						
681	Free Energy and Active Inference	Special Lecture		Ballroom 20	13 Wed	8:30-9:40 a.m.	1.25
682	Law and Neuroscience	Symposium		6A	13 Wed	8:30-11 am.	
683	Neocortex: Why So Many Layers and Cell Types?	Symposium		6B	13 Wed	8:30-11 am.	2.5
684	Eph Receptors and Ephrins: Therapeutic Targets for Neural Injury and Neurodegenerative Diseases	Symposium		6F	13 Wed	8:30-11 am.	2.5
685	Food for Thought: Experiential, Hormonal, and Neural Antecedents of Obesity	Minisymposium		6E	13 Wed	8:30-11 am.	2.5
686	Pathological Choice: The Neuroscience of Gambling and Gambling Addiction	Minisymposium		28A	13 Wed	8:30-11 am.	2.5
687	Neural Encoding of Fear — Hypothalamic and Brainstem Networks	Minisymposium		29D	13 Wed	8:30-11 am.	2.5
688	Glioma: A Neurocentric Look at Cancer	Special Lecture		Ballroom 20	13 Wed	10-11:10 a.m.	1.25
689	Neurocircuitry of Addiction: A Stress Surfeit Disorder	Special Lecture		Ballroom 20	13 Wed	11:30 a.m.-12:40 p.m.	1.25
	Nanosymposia (8 a.m.–noon)						
690	Molecular Mechanisms of Neuronal Differentiation	Nanosymposium		25A	13 Wed	8-9:45 a.m.	
691	Synaptic Biology Related to Alzheimer's Disease	Nanosymposium		33C	13 Wed	8-10:30 a.m.	
692	Genetic Correlates of Autism	Nanosymposium		32B	13 Wed	8-11:15 a.m.	
693	Disorders of Nervous System: Neuro-Oncology	Nanosymposium		24A	13 Wed	8-10 a.m.	
694	Direct Assessments of Human Brain Function	Nanosymposium		1B	13 Wed	8-10:45 a.m.	
695	Social Cognition: Neural Processes and Disorders	Nanosymposium		4	13 Wed	8-10:15 a.m.	
696	Circuit Dynamics Underlying Cortical and Hippocampal Learning and Memory	Nanosymposium		5B	13 Wed	8-11 a.m.	
697	Novel Methods in Molecular and Cellular Neuroscience	Nanosymposium		23A	13 Wed	8-10:15 a.m.	
698	Staining, Tracing, and Imaging Techniques	Nanosymposium		2	13 Wed	8-10 a.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
	Posters (8 a.m.–noon)						
699	Neuron-Glial Interaction	Poster	A1-A17	Halls B-H	13 Wed	8 a.m.-noon	
700	Adult Neurogenesis: Environmental and Pharmacological Regulation	Poster	A18-B18	Halls B-H	13 Wed	8 a.m.-noon	
701	Amino Acids	Poster	B19-C2	Halls B-H	13 Wed	8 a.m.-noon	
702	Nicotinic Receptors: Structure, Function, and Modulation II	Poster	C3-C20	Halls B-H	13 Wed	8 a.m.-noon	
703	Glutamate Transporter Expression, Function, and Modulation	Poster	C21-D4	Halls B-H	13 Wed	8 a.m.-noon	
704	Homeostatic Plasticity II	Poster	D5-D25	Halls B-H	13 Wed	8 a.m.-noon	
705	Synaptic Plasticity: Structural Plasticity in Disease Models	Poster	D26-E2	Halls B-H	13 Wed	8 a.m.-noon	
706	Transcription and Translation in Plasticity	Poster	E3-E34	Halls B-H	13 Wed	8 a.m.-noon	
707	Oscillations and Synchrony: Unit Studies II	Poster	E35-E46	Halls B-H	13 Wed	8 a.m.-noon	
708	Dendritic Excitability and Synaptic Integration	Poster	E47-F18	Halls B-H	13 Wed	8 a.m.-noon	
709	Astrocytes: Characterization, Physiology, and Calcium Dynamics	Poster	F19-F40	Halls B-H	13 Wed	8 a.m.-noon	
710	Alzheimer's Biology and Co-Morbidities	Poster	F41-G13	Halls B-H	13 Wed	8 a.m.-noon	
711	Alzheimer's Disease: Therapeutics	Poster	G14-G24	Halls B-H	13 Wed	8 a.m.-noon	
712	Cognitive Function Related to Alzheimer's Disease	Poster	G25-G45	Halls B-H	13 Wed	8 a.m.-noon	
713	Parkinson's Disease: Cellular Mechanisms I	Poster	G46-H7	Halls B-H	13 Wed	8 a.m.-noon	
714	Parkinson's Disease: Cellular Mechanisms II	Poster	H8-H27	Halls B-H	13 Wed	8 a.m.-noon	
715	Neurodegeneration: FTD and Lysosomal Disorders	Poster	H28-I2	Halls B-H	13 Wed	8 a.m.-noon	
716	Neurologic Disorders and Neural Stem Cells	Poster	I3-J6	Halls B-H	13 Wed	8 a.m.-noon	
717	Aging: Molecular Mechanisms	Poster	J7-K9	Halls B-H	13 Wed	8 a.m.-noon	
718	Genetic Correlates of Autism	Poster	K10-M4	Halls B-H	13 Wed	8 a.m.-noon	
719	Genetic Models of Autism in Animals	Poster	M5-N9	Halls B-H	13 Wed	8 a.m.-noon	
720	Down's Syndrome	Poster	N10-O9	Halls B-H	13 Wed	8 a.m.-noon	
721	Developmental Disorders: Animal Models and Anatomy	Poster	O10-Q10	Halls B-H	13 Wed	8 a.m.-noon	
722	Stroke: Blood Flow, Imaging and Recovery	Poster	Q11-R7	Halls B-H	13 Wed	8 a.m.-noon	
723	Ischemia: Cellular Mechanisms and Neuroprotection	Poster	R8-S14	Halls B-H	13 Wed	8 a.m.-noon	
724	Brain Injury III	Poster	S15-T17	Halls B-H	13 Wed	8 a.m.-noon	
725	Neuroinflammation and Oxidative Stress	Poster	T18-V10	Halls B-H	13 Wed	8 a.m.-noon	
726	Neurotoxicity, Neuroprotection and Inflammation	Poster	V11-W9	Halls B-H	13 Wed	8 a.m.-noon	
727	Neuroinflammation: HIV and Infections	Poster	W10-X13	Halls B-H	13 Wed	8 a.m.-noon	
728	Disorders of the Nervous System: Gene Therapy	Poster	X14-Y9	Halls B-H	13 Wed	8 a.m.-noon	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
	Posters (8 a.m.–noon)						
729	Schizophrenia and Bipolar Disorders: Mutant Animal Models	Poster	Y10-AA6	Halls B-H	13 Wed	8 a.m.-noon	
730	Mood Disorders: Experimental Therapeutics	Poster	AA7-BB6	Halls B-H	13 Wed	8 a.m.-noon	
731	Mood Disorders: Preclinical Studies and Animal Models	Poster	BB7-DD7	Halls B-H	13 Wed	8 a.m.-noon	
732	Mechanisms of Anxiety II	Poster	DD8-EE10	Halls B-H	13 Wed	8 a.m.-noon	
733	Cocaine Reinforcement, Seeking, and Reinstatement I	Poster	EE11-GG8	Halls B-H	13 Wed	8 a.m.-noon	
734	Drug Delivery: Stem Cell Treatments	Poster	GG9-HH2	Halls B-H	13 Wed	8 a.m.-noon	
735	Retina: Photoreceptors	Poster	HH3-HH16	Halls B-H	13 Wed	8 a.m.-noon	
736	Retinal Circuits: Structure and Coding	Poster	HH17-II11	Halls B-H	13 Wed	8 a.m.-noon	
737	Vision: Subcortical Pathways II	Poster	II12-JJ11	Halls B-H	13 Wed	8 a.m.-noon	
738	Visual Representation of Faces and Bodies	Poster	JJ12-LL10	Halls B-H	13 Wed	8 a.m.-noon	
739	Spinal Cord Processing: Anatomy and Physiology	Poster	LL11-NN17	Halls B-H	13 Wed	8 a.m.-noon	
740	Treatments for Persistent Pain	Poster	NN18-OO14	Halls B-H	13 Wed	8 a.m.-noon	
741	Inflammatory Pain: Nociceptor Sensitization	Poster	OO15-PP14	Halls B-H	13 Wed	8 a.m.-noon	
742	Musculoskeletal Pain	Poster	PP15-QQ7	Halls B-H	13 Wed	8 a.m.-noon	
743	Somatosensory Cortex: Anatomy and Connectivity	Poster	QQ8-RR8	Halls B-H	13 Wed	8 a.m.-noon	
744	Spinal Cord Injury: Plasticity IV	Poster	RR9-RR22	Halls B-H	13 Wed	8 a.m.-noon	
745	Motor System: Proprioceptive and Sensory Input	Poster	RR23-TT11	Halls B-H	13 Wed	8 a.m.-noon	
746	Motor Unit Plasticity: Electrophysiology	Poster	TT12-UU17	Halls B-H	13 Wed	8 a.m.-noon	
747	Neuromuscular Junction in Development and Disease	Poster	UU18-VV6	Halls B-H	13 Wed	8 a.m.-noon	
748	Cerebellum: Human Studies	Poster	VV7-VV16	Halls B-H	13 Wed	8 a.m.-noon	
749	Posture and Gait: Higher Order Control, Multi-Task Integration, and Theory	Poster	VV17-XX2	Halls B-H	13 Wed	8 a.m.-noon	
750	Voluntary Motor Control: Cortical Planning II	Poster	XX3-ZZ7	Halls B-H	13 Wed	8 a.m.-noon	
751	Oral Motor and Speech	Poster	ZZ8-ZZ23	Halls B-H	13 Wed	8 a.m.-noon	
752	Kisspeptin and Other Factors Regulating LH and Ovulation	Poster	ZZ24-AAA13	Halls B-H	13 Wed	8 a.m.-noon	
753	Neuroendocrine Anatomy and Physiology	Poster	AAA14-BBB8	Halls B-H	13 Wed	8 a.m.-noon	
754	Aggression and Defensive Behavior	Poster	BBB9-BBB18	Halls B-H	13 Wed	8 a.m.-noon	
755	Stress and Immunology	Poster	BBB19-CCC7	Halls B-H	13 Wed	8 a.m.-noon	
756	Estrogen and Sex Differences	Poster	CCC8-DDD6	Halls B-H	13 Wed	8 a.m.-noon	
757	Feeding Hormones I	Poster	DDD7-EEE4	Halls B-H	13 Wed	8 a.m.-noon	
758	Feeding Hormones II	Poster	EEE5-EEE20	Halls B-H	13 Wed	8 a.m.-noon	
759	Feeding Hormones III	Poster	EEE21-FFF6	Halls B-H	13 Wed	8 a.m.-noon	
760	Human Visual Perception and Imagery	Poster	FFF7-GGG8	Halls B-H	13 Wed	8 a.m.-noon	
761	Medial Temporal Lobe: Memory Functions - Neuropsychology	Poster	GGG9-GGG27	Halls B-H	13 Wed	8 a.m.-noon	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
762	Human Cognition: Attention	Poster	GGG28-GGG42	Halls B-H	13 Wed	8 a.m.-noon	
763	Mechanisms of Attention	Poster	GGG43-HHH15	Halls B-H	13 Wed	8 a.m.-noon	
764	Inhibitory Control II	Poster	HHH16-HHH38	Halls B-H	13 Wed	8 a.m.-noon	
765	Individual Differences: Cognition	Poster	HHH39-III21	Halls B-H	13 Wed	8 a.m.-noon	
766	Executive Function: Learning and Memory	Poster	III22-III36	Halls B-H	13 Wed	8 a.m.-noon	
767	Animal Cognition and Behavior: Timing and Temporal Processing I	Poster	III37-JJJ5	Halls B-H	13 Wed	8 a.m.-noon	
768	Cognition, Learning, and Memory: Behavioral Processes	Poster	JJJ6-JJJ19	Halls B-H	13 Wed	8 a.m.-noon	
769	Entorhinal Cortex Systems Physiology and Function	Poster	JJJ20-JJJ46	Halls B-H	13 Wed	8 a.m.-noon	
770	Hippocampal Function and Aging	Poster	JJJ47-JJJ63	Halls B-H	13 Wed	8 a.m.-noon	
771	Neural Mechanisms of Appetitive Behavior	Poster	JJJ64-KKK20	Halls B-H	13 Wed	8 a.m.-noon	
772	Memory Consolidation: Neural and Behavioral Mechanisms	Poster	KKK21-KKK39	Halls B-H	13 Wed	8 a.m.-noon	
773	Animal Cognition: Learning and Memory - Aging II	Poster	KKK40-KKK51	Halls B-H	13 Wed	8 a.m.-noon	
774	Neural Mechanisms for Social Communication	Poster	KKK52-LLL3	Halls B-H	13 Wed	8 a.m.-noon	
775	Dopamine I	Poster	LLL4-LLL18	Halls B-H	13 Wed	8 a.m.-noon	
776	Dopamine II	Poster	LLL19-LLL29	Halls B-H	13 Wed	8 a.m.-noon	
777	Dopamine III	Poster	LLL30-LLL42	Halls B-H	13 Wed	8 a.m.-noon	
778	Dopamine Receptors	Poster	LLL43-LLL50	Halls B-H	13 Wed	8 a.m.-noon	
779	Natural Rewards and Behavior	Poster	LLL51-LLL62	Halls B-H	13 Wed	8 a.m.-noon	
780	Reward Theory	Poster	LLL63-MMM12	Halls B-H	13 Wed	8 a.m.-noon	
781	Rodent Models of Negative Affective States	Poster	MMM13-MMM23	Halls B-H	13 Wed	8 a.m.-noon	
782	Motor Pattern Generation: Vertebrate Models II	Poster	MMM24-NNN5	Halls B-H	13 Wed	8 a.m.-noon	
783	New Methods for Electrophysiology: Multi-Electrode Arrays	Poster	NNN6-NNN34	Halls B-H	13 Wed	8 a.m.-noon	
784	New Methods for Stimulating Neurons	Poster	NNN35-NNN54	Halls B-H	13 Wed	8 a.m.-noon	
	Featured Programs						
785	How Do Immune Cells Shape the Brain in Health, Disease, and Aging?	Symposium		6A	13 Wed	1:30-4 p.m.	2.5
786	The Human Connectome in Health and Disease	Symposium		6B	13 Wed	1:30-4 p.m.	2.5
787	Rat Genetics: Focus on Reward-Related Behaviour	Minisymposium		6F	13 Wed	1:30-4 p.m.	2.5
788	Neuroscience of Self-Control	Minisymposium		6E	13 Wed	1:30-4 p.m.	2.5
789	Teaching Signals: Understanding the Neural Systems That Trigger Learning and Change Behavior	Minisymposium		28A	13 Wed	1:30-4 p.m.	2.5

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
790	Imaging Neuronal Populations in Behaving Rodents: Paradigms for Studying Neural Circuits of Behavior in the Mammalian Cortex	Minisymposium		29D	13 Wed	1:30-4 p.m.	2.5
	Nanosymposia (1–5 p.m.)						
791	Transplantation and Regeneration	Nanosymposium		25A	13 Wed	1-3 p.m.	
792	Neurodegenerative Diseases (AD, PD, MS, Stroke, Epilepsy)	Nanosymposium		32B	13 Wed	1-3:15 p.m.	
793	Functional Mechanisms of Attention I	Nanosymposium		2	13 Wed	1-4:15 p.m.	
	Posters (1–5 p.m.)						
794	Glial Differentiation	Poster	A1-B3	Halls B-H	13 Wed	1-5 p.m.	
795	Dendritic Growth and Branching II	Poster	B4-B17	Halls B-H	13 Wed	1-5 p.m.	
796	Regeneration: CNS II	Poster	B18-B34	Halls B-H	13 Wed	1-5 p.m.	
797	Evolution of Developmental Mechanisms	Poster	C1-C14	Halls B-H	13 Wed	1-5 p.m.	
798	Serotonin Receptors	Poster	C15-C29	Halls B-H	13 Wed	1-5 p.m.	
799	Opioid Receptors	Poster	C30-D6	Halls B-H	13 Wed	1-5 p.m.	
800	Synaptic Transmission: Synaptic Integration II	Poster	D7-D24	Halls B-H	13 Wed	1-5 p.m.	
801	LTP: Postsynaptic Mechanisms	Poster	D25-E13	Halls B-H	13 Wed	1-5 p.m.	
802	Synaptic Plasticity: Other	Poster	E14-E28	Halls B-H	13 Wed	1-5 p.m.	
803	Animal Disease: Cellular Models	Poster	E29-E48	Halls B-H	13 Wed	1-5 p.m.	
804	Synaptic Biology Related to Alzheimer's Disease I	Poster	E49-F10	Halls B-H	13 Wed	1-5 p.m.	
805	Synaptic Biology Related to Alzheimer's Disease II	Poster	F11-F26	Halls B-H	13 Wed	1-5 p.m.	
806	Parkinson's Disease: Mechanisms of Degeneration and Treatment	Poster	F27-G8	Halls B-H	13 Wed	1-5 p.m.	
807	Parkinson's Disease: Mechanisms of Cell Death and Dysfunction	Poster	G9-G36	Halls B-H	13 Wed	1-5 p.m.	
808	Neurologic Disorders	Poster	G37-G55	Halls B-H	13 Wed	1-5 p.m.	
809	Brain Imaging and Tissue Markers in Autism	Poster	G56-H22	Halls B-H	13 Wed	1-5 p.m.	
810	Fragile X Syndrome	Poster	H23-I7	Halls B-H	13 Wed	1-5 p.m.	
811	Brain Injury IV	Poster	I8-J8	Halls B-H	13 Wed	1-5 p.m.	
812	Neuroimmunology	Poster	J9-K3	Halls B-H	13 Wed	1-5 p.m.	
813	Neurotoxicity and Neuroprotection: Neuroinflammation	Poster	K4-M3	Halls B-H	13 Wed	1-5 p.m.	
814	Mood Disorders: Animal Models IV	Poster	M4-N15	Halls B-H	13 Wed	1-5 p.m.	
815	Nicotine: Neural Mechanisms of Addiction	Poster	N16-P14	Halls B-H	13 Wed	1-5 p.m.	
816	Cocaine Reinforcement, Seeking, and Reinstatement II	Poster	P15-R4	Halls B-H	13 Wed	1-5 p.m.	
817	Amphetamine and Related Drugs: Neural Mechanisms of Addiction	Poster	R5-T2	Halls B-H	13 Wed	1-5 p.m.	
818	Opioid Reinforcement, Seeking, and Reinstatement	Poster	T3-T16	Halls B-H	13 Wed	1-5 p.m.	
819	Cannabinoids: Neural Mechanisms, Addiction, Reinforcement, Seeking, Reinstatement, and Development	Poster	T17-U18	Halls B-H	13 Wed	1-5 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
820	Neural Plasticity, Dependence, and Addiction	Poster	V1-W12	Halls B-H	13 Wed	1-5 p.m.	
821	Monoamines and Behavior: Dopamine and Norepinephrine	Poster	W13-X13	Halls B-H	13 Wed	1-5 p.m.	
822	Pain, Headache, and Migraine	Poster	X14-Y9	Halls B-H	13 Wed	1-5 p.m.	
823	Striate Cortex: Ocular Dominance Plasticity	Poster	Y10-Z15	Halls B-H	13 Wed	1-5 p.m.	
824	Extrastriate Cortex: Functional Organization	Poster	Z16-BB3	Halls B-H	13 Wed	1-5 p.m.	
825	Vision: Processing of Contrast, Orientation, and Color	Poster	BB4-CC11	Halls B-H	13 Wed	1-5 p.m.	
826	Visual Perception and Eye Movements	Poster	CC12-EE10	Halls B-H	13 Wed	1-5 p.m.	
827	Spinal Cord Processing: Pharmacology	Poster	EE11-FF8	Halls B-H	13 Wed	1-5 p.m.	
828	Pain Models: Pharmacology II	Poster	FF9-HH8	Halls B-H	13 Wed	1-5 p.m.	
829	Mechanisms of Neuropathic Pain: Ion Channels	Poster	HH9-II8	Halls B-H	13 Wed	1-5 p.m.	
830	Spinal Cord Injury: Motor Systems II	Poster	II9-JJ5	Halls B-H	13 Wed	1-5 p.m.	
831	Spinal Cord Injury: Plasticity II	Poster	JJ6-LL8	Halls B-H	13 Wed	1-5 p.m.	
832	Posture and Gait: Afferent Control	Poster	LL9-NN3	Halls B-H	13 Wed	1-5 p.m.	
833	Brain-Machine Interface V	Poster	NN4-OO6	Halls B-H	13 Wed	1-5 p.m.	
834	Brain-Machine Interface VI	Poster	OO7-PP9	Halls B-H	13 Wed	1-5 p.m.	
835	Brain-Machine Interface VII	Poster	PP10-PP23	Halls B-H	13 Wed	1-5 p.m.	
836	Steroids in Cognition, Arousal, and Associated Endpoints	Poster	PP24-QQ11	Halls B-H	13 Wed	1-5 p.m.	
837	Cardiovascular Regulation II	Poster	QQ12-RR5	Halls B-H	13 Wed	1-5 p.m.	
838	Thermoregulation	Poster	RR6-RR15	Halls B-H	13 Wed	1-5 p.m.	
839	Sleep Regulators	Poster	RR16-SS3	Halls B-H	13 Wed	1-5 p.m.	
840	Energy Metabolism: Blood Flow	Poster	SS4-UU9	Halls B-H	13 Wed	1-5 p.m.	
841	Human Perception: Neuropsychological Investigations	Poster	UU10-UU26	Halls B-H	13 Wed	1-5 p.m.	
842	Human Navigation and Spatial Representation	Poster	VV1-VV22	Halls B-H	13 Wed	1-5 p.m.	
843	Human Motor and Sequence Learning	Poster	WW1-Y3	Halls B-H	13 Wed	1-5 p.m.	
845	Human Memory: Physiology of Retrieval Mechanisms	Poster	YY4-ZZ13	Halls B-H	13 Wed	1-5 p.m.	
846	Functional Mechanisms of Attention II	Poster	ZZ14-AAA11	Halls B-H	13 Wed	1-5 p.m.	
847	Attentional Networks II	Poster	AAA12-BBB4	Halls B-H	13 Wed	1-5 p.m.	
848	Language III	Poster	BBB5-BBB25	Halls B-H	13 Wed	1-5 p.m.	
849	Emotion II	Poster	BBB26-DDD8	Halls B-H	13 Wed	1-5 p.m.	
850	Language IV	Poster	DDD9-EEE16	Halls B-H	13 Wed	1-5 p.m.	
851	Working Memory and Executive Function I	Poster	EEE17-FFF13	Halls B-H	13 Wed	1-5 p.m.	
852	Human Cognition: Cognitive Development	Poster	FFF14-GGG11	Halls B-H	13 Wed	1-5 p.m.	
853	Social Cognition: Behavior and Pharmacology	Poster	GGG12-GGG25	Halls B-H	13 Wed	1-5 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
854	Neurochemical Mechanisms of Attention	Poster	GGG26-GGG39	Halls B-H	13 Wed	1-5 p.m.	
855	Behavioral Flexibility and Response Inhibition	Poster	GGG40-HHH10	Halls B-H	13 Wed	1-5 p.m.	
856	Animal Cognition and Behavior: Timing and Temporal Processing II	Poster	HHH11-HHH28	Halls B-H	13 Wed	1-5 p.m.	
857	Prefrontal and Striatal Systems: Molecular Mechanisms	Poster	HHH29-HHH38	Halls B-H	13 Wed	1-5 p.m.	
858	Animal Behavior and Cognition: Prefrontal and Striatal Systems	Poster	HHH39-III18	Halls B-H	13 Wed	1-5 p.m.	
859	Fear and Aversive Learning and Memory: Extinction II	Poster	III19-III41	Halls B-H	13 Wed	1-5 p.m.	
860	Fear and Aversive Learning and Memory: Amygdala and Extended Amygdala Circuits I	Poster	III42-JJJ22	Halls B-H	13 Wed	1-5 p.m.	
861	Fear and Aversive Learning and Memory: Amygdala and Extended Amygdala Circuits II	Poster	JJJ23-JJJ47	Halls B-H	13 Wed	1-5 p.m.	
862	Fear and Aversive Learning and Memory: Hippocampal and Other Circuits	Poster	JJJ48-JJJ68	Halls B-H	13 Wed	1-5 p.m.	
863	Animal Learning and Memory: Cortical and Hippocampal Circuits V	Poster	JJJ69-KKK22	Halls B-H	13 Wed	1-5 p.m.	
864	Animal Learning and Memory: Gamma and Theta Activity	Poster	KKK23-KKK43	Halls B-H	13 Wed	1-5 p.m.	
865	Animal Learning and Memory: Pharmacology II	Poster	KKK44-KKK64	Halls B-H	13 Wed	1-5 p.m.	
866	Neural Mechanisms for Social Behavior Across Evolutionary Phylogeny	Poster	KKK65-LLL11	Halls B-H	13 Wed	1-5 p.m.	
867	Accumbens II	Poster	LLL12-LLL24	Halls B-H	13 Wed	1-5 p.m.	
868	Cocaine and Amphetamine	Poster	LLL25-LLL36	Halls B-H	13 Wed	1-5 p.m.	
869	Neuroethology: Sex and Seasonal Differences	Poster	LLL36-LLL46	Halls B-H	13 Wed	1-5 p.m.	
870	Sensory Systems and Behavior	Poster	LLL47-LLL61	Halls B-H	13 Wed	1-5 p.m.	
871	Optical Methods for Studying Neural Networks	Poster	LLL62-MMM28	Halls B-H	13 Wed	1-5 p.m.	
872	Optogenetics: Experimental Uses	Poster	MMM29-NNN11	Halls B-H	13 Wed	1-5 p.m.	
873	Optogenetics: Tool Development	Poster	NNN12-NNN40	Halls B-H	13 Wed	1-5 p.m.	

Dynamic Posters — Wednesday AM/PM

Wednesday's dynamic poster presentations are listed below. The listing includes the locations of each dynamic posters corresponding paper poster, which will be presented on the same day as the dynamic poster presentation unless otherwise noted. 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 (1-5 p.m.)					
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Co-existing frequency dependent functional networks in neuronal systems	Shinya Ito	DP1	E44	707.11
Theme C: Disorders of the Nervous System	Serial two-photon tomography-based whole-brain activity mapping in cntnap2 ko mouse model of autism	Yongsoo Kim	DP2	M8	719.04
Theme C: Disorders of the Nervous System	SPECT imaging of direct nose-to-brain transfer of a peptide in man	John Hoekman	DP3	GG18	734.1
Theme C: Disorders of the Nervous System	The smallest stroke revealed through *in vivo* two-photon microscopy and 7T magnetic resonance imaging	Andy Shih	DP4	R1	722.09
Theme C: Disorders of the Nervous System	Illuminating neuroglial signaling in a human stem cell model of Down Syndrome	Lin Tian	DP5	O3	720.12
Theme D: Sensory and Motor Systems	Statistical wiring of thalamic receptive fields optimizes spatial sampling of the retinal image	Luis Martinez	DP6	II14	737.04
Theme D: Sensory and Motor Systems	Unveiling the motor map for vowels and plosive consonants	María Assaneo	DP7	ZZ9	751.02
Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge	Sex steroid receptor polymorphisms modulate gray matter volume in the human brain	Tuong-Vi Nguyen	DP8	AAA14	753.01
Theme F: Cognition and Behavior	Studying visual perception of mexican prehispanic painting	Lily Jimenez-Dabdoub	DP9	GGG6	760.26
Dynamic Posters (1-5 p.m.)					
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Compartmentalized opioid receptor signaling in nociceptors	Daniel Poole	DP1	C30	799.01
Theme C: Disorders of the Nervous System	Developmental changes to dentate gyrus PSD-95 expression and dendritic spine ultrastructure in a mouse model of Fragile X Syndrome	Sammy Novak	DP2	H25	810.03
Theme C: Disorders of the Nervous System	Reduced functional connectivity within "social brain" in ASD	Joshua Balsters	DP3	G57	809.02
Theme C: Disorders of the Nervous System	Diffusion-tensor metric sensitivity to white-matter changes in multiple-sclerosis and cognitive performance	Joanna Hutchison	DP4	J11	812.03
Theme C: Disorders of the Nervous System	Can we use zebrafish to identify new antipsychotics?	Andrew Rennekamp	DP5	W17	821.05
Theme D: Sensory and Motor Systems	Gait as a functional pain endpoint: Pharmacological characterization of a rat joint pain model	Benjamin Adams	DP6	GG17	828.19

Dynamic Posters — Wednesday AM/PM (continued)

Theme	Abstract Title	Presenter Name	Dynamic Poster Location	Paper Poster Location	Paper Poster Pres. No.
Theme D: Sensory and Motor Systems	Traveling waves in macaque V4 optimize post-saccadic visual processing	Theodoros Zanos	DP7	EE4	826.25
Theme F: Cognition and Behavior	Escalation of checking-like behaviour in the rat observing response task is related to information availability during periods of uncertainty: A model of obsessive-compulsive disorder	Dawn Eagle	DP8	GGG40	855.01
Theme F: Cognition and Behavior	Optogenetic excitation of the central amygdala controls choice by making an outcome more "wanted"	Mike Robinson	DP9	LLL23	867.12
Theme G: Novel Methods and Technology Development	Optical imaging and stimulation of neural activity at cellular resolution in awake, mobile mice	John Rickgauer	DP10	MMM3	871.07

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Complete Session Listing

Wednesday AM

SPECIAL LECTURE *San Diego Convention Center*

681. Free Energy and Active Inference — CME

Wed. 8:30 AM - 9:40 AM — Ballroom 20

Speaker: K. J. FRISTON, *Univ. Col. London.*

This lecture provides an overview of theoretical approaches to functional brain architectures using the free energy formulation of active inference and predictive coding. Its focus is on basic concepts and how they can be used to understand functional anatomy and the intimate relationship between action and perception. The underlying ideas will be described heuristically and their application will be illustrated using simulations of perceptual synthesis, action observation, and visual searches.

SYMPOSIUM *San Diego Convention Center*

682. Law and Neuroscience

Wed. 8:30 AM - 11:00 AM — 6A

Chair: O. JONES

This symposium, featuring interdisciplinary panelists, aims to introduce neuroscientists to the newest developments at the intersection of neuroscience and law. Recent years have seen tremendous growth both in neurolaw scholarship and courtroom encounters with neuroscience. This symposium is an excellent opportunity to foster interdisciplinary dialogue on topics such as neuroscience and responsibility, legal decision-making, neuroethics, brain-based lie detection, and more.

8:30 **682.01** Introduction.

8:35 **682.02** Lobes & robes: The intersections of neuroscience and law. O. JONES. *Vanderbilt Univ.*

9:10 **682.03** The roots of modern justice: Cognitive and neural foundations of social norms and their enforcement. R. MAROIS. *Vanderbilt Univ.*

9:45 **682.04** Neuroethical dimensions of neurolaw. M. FARAH. *Univ. Pennsylvania.*

10:20 **682.05** Beyond criminal responsibility - other issues in law and neuroscience. H. T. GREELY. *Stanford Univ.*

10:55 **682.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

683. Neocortex: Why So Many Layers and Cell Types? — CME

Wed. 8:30 AM - 11:00 AM — 6B

Chair: R. M. BRUNO
Co-Chair: J. SCHILLER

The covalent modification of DNA influences transcription during early development and throughout life, playing an important role in mediating gene-environment interactions and behavior. Recent discoveries regarding the newly identified epigenetic modification 5-hydroxymethylcytosine and how it contributes to experience-dependent neural plasticity across the lifespan, as well as how it contributes to the development of neuropsychiatric disorders such as drug addiction and schizophrenia, will be discussed.

8:30 **683.01** Introduction.

8:35 **683.02** Deep cortical layers are activated directly by thalamus. R. M. BRUNO. *Columbia Univ.*

9:10 **683.03** Interlaminar communication in visual cortex. M. SCANZIANI. *UCSD.*

9:45 **683.04** Cortical circuits and neural codes underlying tactile sensation. K. SVOBODA. *HHMI / Janelia Farm Res. Campus.*

10:20 **683.05** Starting at the top: cells and circuits of layer 1. B. CONNORS. *Brown Univ.*

10:55 **683.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

684. Eph Receptors and Ephrins: Therapeutic Targets for Neural Injury and Neurodegenerative Diseases — CME

Wed. 8:30 AM - 11:00 AM — 6F

Chair: A. TURNLEY

Eph receptors and ephrins are best known for their role as axon guidance molecules. However, increasing evidence over the last few years has indicated that they also play a major role in neural regeneration and neuroprotection in adults. This symposium will discuss their role and potential mechanisms of action in a range of neural injury and disease models, how Eph receptors or ephrins may be targeted for therapeutic purposes, and which neurological diseases or injuries may be most appropriate to treat with Eph receptor/ephrin-targeting agents.

8:30 **684.01** Introduction.

8:35 **684.02** EphA4 and neural regeneration following spinal cord injury and neuroinflammation. A. TURNLEY. *The Univ. of Melbourne.*

9:10 **684.03** Ephrin-A5 regulates axonal sprouting, recovery, and activity-dependent plasticity after stroke. S. CARMICHAEL. *Univ. of California, Los Angeles Sch. of Med.*

9:45 **684.04** EphA4 as a disease modifier of ALS in animal models and humans. W. ROBBERECHT. VIB - *Univ. Leuven.*

10:20 **684.05** Development of Eph/ephrin antagonists for use in neural repair. E. PASQUALE. *Sanford-Burnham Med. Res. Inst.*

10:55 **684.06** Closing Remarks.

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

▲ Indicates a high school or undergraduate student presenter.

MINISYMPOSIUM *San Diego Convention Center*

685. Food for Thought: Experiential, Hormonal, and Neural Antecedents of Obesity — CME

Wed. 8:30 AM - 11:00 AM — 6E

Chair: I. N. KARATSOREOS
Co-Chair: M. N. HILL

It is no secret that obesity and related disorders are one of the most significant public health risks facing modern society. Drawing from multiple areas crosscutting neuroscience research, including neural plasticity, inflammation, circadian rhythms, and reward systems, this minisymposium will use an integrative approach to explore the environment-brain-body interactions, as well as transgenerational effects that contribute to the pathogenesis of obesity.

8:30 **685.01** Introduction.

8:35 **685.02** Disruption of circadian rhythms, the metabolic syndrome, and obesity. I. N. KARATSOREOS. *Washington State Univ.*

8:55 **685.03** Emerging Links Between Hypothalamic Gliosis and Obesity Pathogenesis. J. THALER. *Univ. of Washington, Sch. of Med.*

9:15 **685.04** Endocannabinoid signalling as a contributor to the effects of glucocorticoids and leptin on feeding and weight regulation. M. N. HILL. *Univ. of Calgary.*

9:35 **685.05** Paternal cannabis exposure during adolescence reprograms offspring reward neurocircuitry in a sex-dependent manner. Y. HURD. *Ichan Sch. Med. Mount Sinai.*

9:55 **685.06** Insulin and sweetened high fat food modulates reward circuitry. S. BORGLAND. *Univ. of British Columbia.*

10:15 **685.07** Paternal transmission of nutrient deficiency: Implications of maternal-paternal interplay. F. CHAMPAGNE. *Columbia Univ.*

10:35 **685.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

686. Pathological Choice: The Neuroscience of Gambling and Gambling Addiction — CME

Wed. 8:30 AM - 11:00 AM — 28A

Chair: L. CLARK

Why do people gamble? How do gambling games work and how do they interact with individual vulnerabilities to give rise to compulsive behavior? This minisymposium will describe recent advances in understanding the neuroscience behind gambling decisions, moving from rodent slot machine play and primate electrophysiology of reward value to the clinical disorder of pathological gambling, which is set to be reclassified as the first “behavioral addiction” in the DSM5.

8:30 **686.01** Introduction.

8:35 **686.02** Dopaminergic regulation of cognitive biases under uncertainty: evidence from rodent models. C. WINSTANLEY. *Univ. British Columbia*.

8:55 **686.03** Action selection and action value in frontal-striatal circuits. B. AVERBECK. *NIMH/NIH.*

9:15 **686.04** Neural mechanisms of the gambler’s fallacy: insights from brain stimulation. G. XUE. *Inst. of Brain and Cognitive Sci.*

9:35 **686.05** ● Neural substrates of distorted cognition in gambling addiction. L. CLARK. *Univ. of Cambridge.*

9:55 **686.06** Do pathological gamblers suffer from a distorted sensitivity to reward? G. SESCOUSSE. *Radboud Univ. Nijmegen.*

10:15 **686.07** Investigating dopamine transmission in pathological gambling with [11C]raclopride and [11C]-(+)-PHNO PET. D. PAYER. *Ctr. for Addiction and Mental Hlth.*

10:35 **686.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

687. Neural Encoding of Fear — Hypothalamic and Brainstem Networks — CME

Wed. 8:30 AM - 11:00 AM — 29D

Chair: C. T. GROSS

The behavioral and physiological responses associated with fear serve a fundamental survival function across animal species. The amygdala has been widely studied for its critical role in fear, but recent work has provided renewed evidence for an essential role of downstream hypothalamic and brainstem networks in the encoding of fear. This minisymposium will explore how these hypothalamic and brainstem circuits mediate fear responses in both rodents and humans.

8:30 **687.01** Introduction.

8:35 **687.02** Role of dorsal premammillary nucleus in the behavioral and neuroendocrine responses to social threats. S. MOTTA. *Univ. of Sao Paulo*.

8:55 **687.03** Role of ventromedial hypothalamus in social and predator fear. B. SILVA. *EMBL Mouse Biol. Unit.*

9:15 **687.04** Periaqueductal grey circuits mediating freezing and flight. P. TOVOTE. *Friedrich Miescher Inst.*

9:35 **687.05** The influence of subcortical aversive expectations on prefrontal instrumental and planning processes. Q. HUYS. *ETH Zürich.*

9:55 **687.06** Survival intelligence and the nervous system. D. MOBBS. *Columbia Univ.*

10:15 **687.07** Optogenetic dissection of the role of the BNST in anxiety. A. ADHIKARI. *Stanford Univ.*

10:35 **687.08** Closing Remarks.

SPECIAL LECTURE *San Diego Convention Center*

688. Glioma: A Neurocentric Look at Cancer — CME

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

Speaker: H. SONTHEIMER, *Univ. of Alabama at Birmingham.*

Glioma research has traditionally been inspired by oncology, largely ignoring the tumor’s unique interactions with the brain. This lecture challenges us to take a more neurocentric viewpoint: many of the hallmarks of the disease, including vascular dysregulation, edema, gliosis, and progressive neuronal cell death by glutamate excitotoxicity, readily define gliomas as a neurodegenerative disease. Research into how this cancer compromises normal brain physiology holds promise for a better understanding and ultimately more effective treatment of this devastating disorder.

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

▲ Indicates a high school or undergraduate student presenter.

SPECIAL LECTURE *San Diego Convention Center*

689. ● Neurocircuitry of Addiction: A Stress Surfeit Disorder

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

Speaker: G. F. KOOB, *The Scripps Rsrch Inst.*

A key component of the pathophysiology of addiction is negative reinforcement set up by negative emotional states hypothesized to derive from dysregulation of key neurochemical elements involved in the brain stress systems within the frontal cortex, ventral striatum, and extended amygdala. Compelling evidence exists to argue that the brain stress systems play a key role in engaging the transition to addiction and maintaining dependence once initiated.

NANOSYMPOSIUM

690. Molecular Mechanisms of Neuronal Differentiation

Theme A: Development

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

8:00 **690.01** Spinal neuron identity and survival in the absence of neurosecretion. A. KANIA*; C. LAW; M. PAQUET; K. KRIDSADA; J. KALTSCHMIDT; M. VERHAGE. *(IRCM) Inst. de recherches cliniques de Montreal, McGill Univ., Univ. de Montréal, Mem. Sloan-Kettering Cancer Ctr., VU Univ. Amsterdam.*

8:15 **690.02** Role of the PR domain protein Prdm8 in neocortical development. M. INOUE*; T. KURODA; M. KATO; Y. SHINKAI; K. MIZUTANI. *Doshisha Univ., RIKEN ASI.*

8:30 **690.03** Elk-1 and Pea3 transcription factors in neuronal life-and-death struggle. I. AKSAN KURNAZ*; O. ARI; O. DEMIR; B. KANDEMIR; B. ERDOGAN; U. DAG. *YEDITEPE UNIVERSITY, Max Planck Inst., Harvard Univ., IMP.*

8:45 **690.04** Functional analysis of dlx intergenic enhancers in the developing mouse forebrain. S. FAZEL DARBANDI*; C. ESAU; L. POITRAS; C. LESAGE-PELLETIER; M. YU; G. HATCH; M. EKKER. *Ctr. For Advanced Res. In Envrn. Genomics, Univ. of Ottawa.*

9:00 **690.05** The nkx2 transcription factor family in patterning and neuronal differentiation in the ventral diencephalon of zebrafish. M. MANOLI*; W. DRIEVER. *Biol. I.*

9:15 **690.06** Prdm16 contributes critically to the fate of neural progenitors by regulating the multipolar cell phase. K. MIZUTANI*; M. INOUE; T. KURODA; Y. SHINKAI. *Doshisha Univ., Doshisha Univ., Doshisha Univ., RIKEN ASI.*

9:30 **690.07** Dynamics of 5-hydroxymethylcytosine and chromatin marks in mammalian neurogenesis. R. R. QIU*. *Bechman Res. Inst, City Hope.*

NANOSYMPOSIUM

691. Synaptic Biology Related to Alzheimer's Disease

Theme C: Disorders of the Nervous System

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

8:00 **691.01** Downregulation of Akt signaling in synaptosomes from AD transgenic mice prior to onset of disease pathology. E. SHAW; V. RAVINDRANATH*. *Indian Inst. of Sci., Indian Inst. of Sci.*

8:15 **691.02** Prevention of Alzheimer's disease progression and synaptic degradation with novel calcium channel modulators. G. E. STUTZMANN*; C. BRIGGS; S. CHAKROBORTY; C. SCHNEIDER; R. DAHL. *Rosalind Franklin Univ. /Chicago Med. Sch., Rosalind Franklin Univ. /Chicago Med. Sch.*

8:30 **691.03** Innate immune receptor PirB and its human ortholog are amyloid-β receptors and regulate synaptic plasticity in AD. T. KIM*; G. S. VIDAL; M. DJURISIC; C. M. WILLIAM; B. T. HYMAN; C. J. SHATZ. *Stanford Univ., Massachusetts Gen. Hosp.*

8:45 **691.04** Intracellular accumulation of amyloid beta disrupts dopaminergic synaptic transmission in an "*in vivo"* model of Alzheimer's disease. P. MORENO-CASTILLA*; L. RODRÍGUEZ-DURÁN; A. BÁRCENAS-FEMAT; M. ESCOBAR; F. BERMÚDEZ-RATTONI. *UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO, Facultad de Psicología-UNAM.*

9:00 **691.05** Deciphering molecular mechanisms triggering synaptic hyperactivity by amyloid-beta. I. SLUTSKY*; H. FOGEL; S. FRERE; I. SHAPIRA. *Tel Aviv Univ.*

9:15 **691.06** Correction of synaptic plasticity and spatial memory deficits in APP/PS1 mice by suppressing the eIF2alpha kinase GCN2. T. MA*; D. R. CAVENER; E. KLANN. *New York University, Ctr. For Neural Sci., Pennsylvania State Univ.*

9:30 **691.07** ● Synapse specific mophofunctional alterations in a mouse model of Alzheimer's disease in CA3 pyramidal cells. S. VIANA DA SILVA*; V. LABROUSSE; M. G. HABERL; A. FRICK; C. MULLE. *CNRS IINS UMR 5297, BEB PhD Program, INSERM U862.*

9:45 **691.08 Withdrawn.**

10:00 **691.09** Vldlr promotes spine formation. S. DUMANIS*; A. M. DIBATTISTA; H. HOE. *Georgetown Univ.*

10:15 **691.10** The roles of microglia-synapse interactions in Alzheimer's disease. M. TREMBLAY*; A. DUMAS; L. VALLIÈRES. *Univ. Laval, CHU de Québec.*

NANOSYMPOSIUM

692. Genetic Correlates of Autism

Theme C: Disorders of the Nervous System

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

8:00 **692.01** Contribution of the long noncoding RNA MSNP1AS to autism risk. D. B. CAMPBELL*; T. KERIN; K. RIVAS; N. GREPO. *USC, USC.*

8:15 **692.02** ● Identifying common functional regulatory polymorphisms in autism spectrum disorders using RNA Ampliseq. R. M. SMITH*; R. MASCARENHAS; A. C. PAPP; W. SADEE. *Ohio State Univ.*

8:30 **692.03** SHANK3 mutations associated with autism facilitate ligand binding to the Shank3 Ankyrin repeat region. H. KREIENKAMP*; M. MAMEZA; M. BAMANN; H. HÖNCK. *UKE Hamburg.*

8:45 **692.04** Shank3 deficiency induces NMDA receptor hypofunction via an actin-dependent mechanism. L. J. DUFFNEY*; J. WEI; K. R. SMITH; J. T. KITTLER; Z. YAN. *SUNY Buffalo, Univ. Col. London.*

9:00 **692.05** Region-specific differences in small non-coding RNA expression in the cortex of autism brain. B. P. ANDER*; N. BARGER; B. STAMOVA; F. R. SHARP; C. M. SCHUMANN. *UC Davis, MIND Inst.*

9:15 **692.06** Deep sequencing technology as applied to autism spectrum disorders. O. KHALID; D. BRICK; H. NETHERCOTT; E. FORTUNATO; H. KLASSEN; A. STOVER; M. BANUELOS; S. HERCULIAN; S. MONTESANO; D. MENDEZ; P. H. SCHWARTZ*. *Children's Hosp. OC, Univ. of Idaho, UCIrvine.*

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▲ Indicates a high school or undergraduate student presenter.

9:30 **692.07** Neurocarta: Aggregating and sharing disease-gene relations for the interpretation of genomics studies. P. PAVLIDIS*; L. TSENG; C. CH'NG; F. LIU; A. ZOUBAREV; N. ST GEORGES; E. PORTALES-CASAMAR. *Univ. British Columbia, Univ. of British Columbia.*

9:45 **692.08** Whole exome sequencing identifies a novel candidate autism gene, UBE3B. M. CHAHROUR*; T. W. YU; B. ATAMAN; M. ALKHAFAJI; S. R. HILL; C. R. STEVENS; M. E. GREENBERG; S. B. GABRIEL; C. A. WALSH. *Boston Children's Hospital, Harvard Med. Sch., Harvard Med. Sch., Broad Inst. of Massachusetts Inst. of Technol. and Harvard Univ.*

10:00 **692.09** Behavioral characterization of Shank3 homer binding domain deletion model of autism. M. KOUSER*; H. E. SPEED; J. M. REIMERS; C. M. DEWEY; A. J. WIDMAN; S. LIU; T. C. JARAMILLO; P. F. WORLEY; C. M. POWELL. *UTSouthwestern, John Hopkins Univ. Sch. of Med.*

10:15 **692.10** Clustering autism - Using neuroanatomical differences in 30 mouse models related to autism to gain insight into the heterogeneity of the disorder. J. ELLEGOOD*; R. HENKELMAN; J. P. LERCH. *Hosp. For Sick Children, Univ. of Toronto, Univ. of Toronto.*

10:30 **692.11** Expression of non-protein-coding antisense rnas in genomic regions linked to autism spectrum disorders. D. VELMESHEV*; M. MAGISTRI; M. FAGHIHI. *Univ. of Miami.*

10:45 **692.12** The selective macroautophagy protein Alfy is essential for the establishment of axonal connections in the mouse brain. J. M. DRAGICH*; E. EENJES; J. BOSCO; M. YOON; S. WAGURI; M. KOMATSU; A. SIMONSEN; A. YAMAMOTO. *Columbia Univ., Columbia Univ., Fukushima Med. Univ., Tokyo Metropolitan Inst. Med. Sci., Univ. of Oslo.*

11:00 **692.13** Functional genomics of human polymicrgyria. R. L. SMITH*; J. LOEB. *Wayne State Univ. Sch. of Med., Univ. of Illinois, Chicago.*

NANOSYMPOSIUM

693. Disorders of Nervous System: Neuro-Oncology

Theme C: Disorders of the Nervous System

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

8:00 **693.01** The role of pp2a antisense rna in glioma formation. J. P. ZEPECKI*; K. M. SNYDER; E. A. ARNER; A. SARKAR; N. TAPINOS. *Geisinger Clin., Geisinger Clin.*

8:15 **693.02** Antidepressants selectively induce glioblastoma apoptosis through activation of glutamate receptors. K. LIU*; W. CHIU; J. LIN; Y. LEE; J. WANG; C. WANG; C. HU; C. THEN; S. SHEN. *Taipei Med. Univ., Taipei Med. University-Shuang Ho Hosp., Natl. Yang-Ming Univ., Taipei Med. Univ.*

8:30 **693.03** A Sox2-expressing cell population with the potential to form medulloblastoma. J. AHLFELD*; U. SCHÜLLER. *LMU.*

8:45 **693.04** Mir-181 regulates the inflammatory status of glioblastoma cells. E. R. HUTCHISON*; M. P. MATTSON. *NIA.*

9:00 **693.05** Diffuse vascular leakage precedes overt neurological symptoms of post- radiation necrosis of the adult rat spinal cord. K. L. LANKFORD*; T. MATSUSHITA; J. D. KOCSIS. *Ctr. For Neurosci. & Regen. Res., Yale Univ. Sch. of Med.*

9:15 **693.06** Remodeling of language sites around brain tumors across time. D. M. WEINERT*; E. KRAUS. *Vogtland Clin.*

9:30 **693.07** Reversal of microglia silencing by the shed form of Ecrg4. J. LEE*; X. DANG; A. BORBOA; R. COIMBRA; A. BAIRD; B. P. ELICEIRI. *Univ. of California San Diego.*

9:45 **693.08** ● Achieving therapeutic mAb concentrations in the brain: Reduction of brain tumor size with the brain penetrant Angiopep-anti-HER2 conjugate, ANG4043. J. E. LACHOWICZ*; A. REGINA; M. DEMEULE; S. TRIPATHY; S. LORD-DUFOUR; J. CURRIE; T. NGUYEN; J. CASTAIGNE. *Angiochem, Inc.*

NANOSYMPOSIUM

694. Direct Assessments of Human Brain Function

Theme D: Sensory and Motor Systems

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

8:00 **694.01** Colour-based discrimination for SSVEP BCIs. O. FALZON*; K. P. CAMILLERI. *Univ. of Malta.*

8:15 **694.02** Real-time gamma mapping of eloquent cortex using high-density ECoG electrode grids. C. KAPELLER*; K. KAMADA; H. OGAWA; N. KUNII; R. PRUECKL; K. KAWAI; C. GUGER. *Guger Technologies OG, Asahikawa Med. University, Dept. of Neurosurg., The Univ. of Tokyo · Dept. of Neurosurg.*

8:30 **694.03** Variable sensory-evoked responses in autism. S. M. HAIGH*; M. BEHRMANN. *Carnegie Mellon Univ.*

8:45 **694.04** AutID: A neuroimaging reference resource for autism research. W. PEREANU*; I. DAS; B. STAN; S. BANERJEE-BASU. *Mindspec.*

9:00 **694.05** Angiogenesis is increased in autism temporal cortex, study of nestin, vimentin, pericytes and endothelial cells. E. C. AZMITIA*; M. F. ALZOOBAEE; A. S. SAINI; H. K. LYO; T. H. BUTT; J. X. WEGIEL; P. M. WHITAKER-AZMITIA; M. BOLDRINI. *NYU/ NYUMS, New York State Psychiatric Inst., Inst. for Basic Res. in Developmental Disabilities, Stony Brook Univ., Columbia Univ.*

9:15 **694.06** ● Sensory and motor mechanisms underlying impaired fine motor coordination in autism spectrum disorder (ASD). M. W. MOSCONI*; D. E. VAILLANCOURT; S. MOHANTY; L. SCHMITT; R. GREENE; J. A. SWEENEY. *Univ. of Texas Southwestern Med. Ctr., Univ. of Florida.*

9:30 **694.07** Investigating age-related changes in amygdala and hippocampus neuron number in autism. N. BARGER*; L. LUONG; C. M. SCHUMANN; D. G. AMARAL. *Univ. of California, Davis - MIND Inst.*

9:45 **694.08** Reduced size of the fetal cerebellum in autism spectrum disorder. G. ALLEN*; M. I. BRINSTER; J. RIDGEWAY; A. LEVINE; A. E. WAGNER; R. J. LANDA. *The Univ. of Texas At Austin, Texas Perinatal Group, Texas Child Study Ctr., Kennedy Krieger Inst.*

10:00 **694.09** ▲ Age-related differences in basal ganglia morphometry in individuals with and without autism. C. SAVILLE; K. E. BODNER; G. YAO; S. E. CHRIST*. *Univ. Missouri.*

10:15 **694.10** Neural plasticity in face activation following greeble training in autism. S. SCHERF*; D. ELBICH; N. MINSHEW; M. BEHRMANN. *The Pennsylvania State Univ., Pennsylvania State Univ., Univ. of Pittsburgh, Carnegie Mellon Univ.*

10:30 **694.11** Heterogeneous hypo and hyper functional connectivity during problem solving and task free resting state in autism spectrum disorder. T. IUCULANO*; K. M. CHENG; V. MENON. *Stanford Univ. Sch. of Med.*

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

▲ Indicates a high school or undergraduate student presenter.

NANOSYMPOSIUM

695. Social Cognition: Neural Processes and Disorders

Theme F: Cognition and Behavior

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

8:00 **695.01** Hierarchal neural network underlying resolution of incongruent nonverbal and verbal social information. T. WATANABE*; N. YAHATA; Y. KAWAKUBO; H. INOUE; Y. TAKANO; N. IWASHIRO; T. NATSUBORI; H. TAKAO; H. SASAKI; W. GONOI; M. MURAKAMI; M. KATSURA; A. KUNIMATSU; O. ABE; K. KASAI; Y. MIYASHITA; H. YAMASUE. *The Univ. of Tokyo, The Univ. of Tokyo, Sch. of Med., The Univ. of Tokyo, Sch. of Med., Nihon Univ. Sch. of Med.*

8:15 **695.02** Cerebral coherence between communicators marks the emergence of meaning. A. STOLK*; M. L. NOORDZIJ; L. VERHAGEN; I. VOLMAN; J. SCHOFFELEN; R. OOSTENVELD; P. HAGOORT; I. TONI. *Donders Inst. For Brain, Cognition and Behaviour, Radboud Univ., Univ. of Twente, Dept. of Cognitive Psychology and Ergonomics.*

8:30 **695.03** Synchronous brain activity across individuals underlies shared mental perspectives. J. M. LAHNAKOSKI*; E. GLEREAN; I. P. JÄÄSKELÄINEN; H. JUKKA; R. HARI; M. SAMS; L. NUMMENMAA. *Sch. of Science, Aalto Univ., Sch. of Science, Aalto Univ., Sch. of Science, Aalto Univ., Univ. of Turku, Sch. of Science, Aalto Univ., Univ. of Turku.*

8:45 **695.04** The neural basis of scarcity value for conspicuous products. A. N. PHILLIPS*; Y. YOMOGIDA; R. AOKI; A. SUGIURA; K. ABE; K. MATSUMOTO. *Tamagawa Univ., Japan Society for the Promotion of Sci., Univ. of Tokyo, Tokyo Inst. of Technol.*

9:00 **695.05** Adults with autism show atypical, but consistent, patterns of gaze to dynamic social stimuli. D. P. KENNEDY*; N. GANDHI; R. ADOLPHS. *Indiana Univ., UCSD, Caltech.*

9:15 **695.06** Affective face perception is related to social behavior in children with autism. M. COFFMAN*; R. BERNIER; A. NAPLES; A. KRESSE; C. MUKERJI; R. TILLMAN; J. MCPARTLAND. *Yale Univ., Univ. of Washington.*

9:30 **695.07** Developmental electrophysiological indices of biological motion and audio-visual integration in infants at-risk for autism. R. TILLMAN*; M. ROLISON; G. RIGHI; C. MUKERJI; A. NAPLES; M. COFFMAN; C. CUEVAS; J. FOSS-FEIG; P. HASHIM; J. MCPARTLAND. *Yale Univ.*

9:45 **695.08** Williams syndrome: A journey from the gene to social brain, neuropeptides, and unique social behavior. U. BELLUGI*; A. JARVINEN; Y. SEARCY; D. CRIVELLI; A. MUOTRI; E. HALGREN; K. SEMENDEFERI; J. KORENBERG. *The Salk Inst., Salk Instit, Univ. Cattolica del Sacro Cuore, UCSD, Ctr. for Integrated Neurosci. and Human Behavior, Brain Institute, Univ. of Utah.*

10:00 **695.09** Williams syndrome: Ribosomal profiling reveals genome-wide alterations in protein synthesis. J. R. KORENBERG*; R. WEISS; L. DAI. *Univ. of Utah, Univ. of Utah.*

NANOSYMPOSIUM

696. Circuit Dynamics Underlying Cortical and Hippocampal Learning and Memory

Theme F: Cognition and Behavior

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

8:00 **696.01** Parvalbumin-expressing interneurons provide grid cell-driven recurrent inhibition in the medial entorhinal cortex. C. BUETFERING*; K. ALLEN; W. KELSCH; M. MICHAEL; H. MONYER. *Dept. of Clin. Neurobio. of Univ. Hosp. and DKFZ, Central Inst. of Mental Health, Med. Fac. Mannheim, Univ. Heidelberg.*

8:15 **696.02** ● Within a neocortical circuit that encodes some essential information for performing specific visual shape discriminations, different neuronal ensembles encode different discriminations. A. I. GELLER*; G. ZHANG; H. ZHAO; N. COOK; M. JAN; E. CHOI; M. SVESTKA; X. WANG; R. COOK. *New Jersey Neurosci. Inst., Tufts Univ.*

8:30 **696.03** Medial prefrontal cortex inactivation impairs flexible shifting amongst behavioral strategies and associated hippocampal beta/gamma activity. K. G. GUISE*; M. SHAPIRO. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*

8:45 **696.04** Laminar profile of recognition memory processes in the perirhinal cortex of the rhesus monkey. S. GUDERIAN*; B. AVERBECK; A. MAIER; R. C. SAUNDERS; M. MISHKIN. *NIH/NIMH, Vanderbilt Univ.*

9:00 **696.05** Cell-type specific circuit connectivity of hippocampal CA1 revealed through Cre-dependent rabies tracing. Y. SUN*; A. NGUYEN; J. NGUYEN; L. LE; A. SAN ANTONIO; J. CHOI; E. M. CALLAWAY; X. XU. *Univ. of California, Irvine, The Salk Inst. for Biol. Studies.*

9:15 **696.06** Binding of specific preplay sequences to multiple novel spatial experiences in the rat. G. DRAGOI*; S. TONEGAWA. *MIT.*

9:30 **696.07** Local circuit development of hilar mossy cells in the mouse hippocampus. Y. SHI*; T. IKRAR; X. XU. *Univ. of California ,irvine.*

9:45 **696.08** Computing a direct path with grid cells. J. L. KUBIE*; F. T. SPARKS. *SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr.*

10:00 **696.09** Distinct hippocampal maps are insufficient for optimal maze response reversal learning. C. W. HARLEY*; G. M. MARTIN; D. M. SKINNER; C. M. THORPE; J. TOMLIN; S. W. WRIGHT; I. V. ODINTSOVA; D. F. MARRONE. *Mem. Univ. Newfoundland, Mem. Univ. Newfoundland, Mem. Univ. Newfoundland, Wilfred Laurier Univ., McKnight Brain Inst.*

10:15 **696.10** Modulation of hippocampal assemblies by repetitive activation of granule cells *in vitro.* M. KELLER; M. BOTH*; A. DRAGUHN; S. REICHINNEK. *Heidelberg Univ.*

10:30 **696.11** Movement direction is not coded by the firing of most entorhinal cells but required by grid cell models. F. RAUDIES*; M. P. BRANDON; G. W. CHAPMAN; M. E. HASSELMO. *Ctr. For Computat. Neurosci. and Neural Technol., UCSD, Boston Univ.*

10:45 **696.12** Long-term temporal dynamics of place cell coding properties in hippocampal area CA1. J. ZAREMBA*; N. DANIELSON; P. KAIFOSH; N. DIAMANTOPOULOU; J. GOGOS; A. LOSONCZY. *Columbia Univ.*

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NANOSYMPOSIUM

697. Novel Methods in Molecular and Cellular Neuroscience

Theme G: Novel Methods and Technology Development

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

8:00 **697.01** Highly efficient ZFN mediated genomic targeting of the rat Rosa26 locus *in vivo.* K. SCHÖNIG; D. BARTSCH*. *CIMH and Med. Fac. Mannheim, Heidelberg Univ.*

8:15 **697.02** Transcriptome-wide discovery of microRNA binding sites in human brain. R. L. BOUDREAU*; P. JIANG; B. L. GILMORE; R. M. SPENGLER; R. TIRABASSI; J. A. NELSON; C. A. ROSS; Y. XING; B. L. DAVIDSON. *Univ. Iowa, Oregon Hlth. & Sci. Univ., Johns Hopkins Univ. Sch. of Med.*

8:30 **697.03** Projection-specific transcriptomic profiling. A. R. NECTOW*; M. I. EKSTRAND; K. LATCHA; J. M. FRIEDMAN. *Rockefeller Univ., Rockefeller University/HHMI.*

8:45 **697.04** Direct visualization of protein-protein interactions within intact brains. A. CHIBA*; N. SHARIFAI; H. SAMARAJEEWA; T. DENG; T. DENG; M. BOULINA; D. KAMIYAMA. *Univ. of Miami.*

9:00 **697.05** ● ApoE-enhanced lipid nanoparticle delivery of siRNA silences neuronal gene expression *in vitro* and *in vivo.* E. RAMSAY*; R. RUNGTA; H. CHOI; P. LIN; R. KO; C. WALSH; J. TAYLOR; P. CULLIS; B. MACVICAR. *Precision Nanosystems Inc., Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

9:15 **697.06** Metabolomic analysis of individual neurons and glia combined with patch clamp electrophysiology. J. T. AERTS*; K. R. LOUIS; L. COX; J. V. SWEEDLER. *Univ. of Illinois Urbana-Champaign, Univ. of Illinois Urbana-Champaign.*

9:30 **697.07** ● Mimicking neural synapses using organic electronics. D. SIMON*; K. TYBRANDT; A. JONSSON; D. NILSSON; M. BERGGREN. *Linköping Univ., Acreo Swedish ICT AB.*

9:45 **697.08** Fast online microdialysis for serotonin and dopamine kinetics in transient neurotransmission. H. YANG*; A. B. THOMPSON; S. C. ALTIERI; A. M. ANDREWS. *UCLA.*

10:00 **697.09** Can migratory neural precursors be programmed to replace lost projection neurons in the neocortex? J. M. HEBERT; N. MCKEEHAN*. *Albert Einstein Col. of Med.*

NANOSYMPOSIUM

698. Staining, Tracing, and Imaging Techniques

Theme G: Novel Methods and Technology Development

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

8:00 **698.01** Non-invasive tracking of transplanted embryonic stem cell-derived motor neuron precursors using dual-mode optical imaging/computed tomography. A. K. SRIVASTAVA*; S. GROSS; A. A. ALMAD; N. J. MARAGAKIS; J. W. M. BULTE. *The Johns Hopkins Univ., The Johns Hopkins Univ., The Johns Hopkins Univ.*

8:15 **698.02** *In vivo* RGB marking and multicolour cell tracking in the adult brain. D. GOMEZ-NICOLA*; K. RIECKEN; B. FEHSE; V. PERRY. *Univ. of Southampton, Univ. Med. Ctr. Hamburg-Eppendorf.*

8:30 **698.03** Visualization of single endogenous mRNAs localizing to single dendritic spines in response to local synaptic stimulation. B. WU*; Y. J. YOON; R. H. SINGER. *Albert Einstein Col. of Med.*

8:45 **698.04** ● Engineered quantum dots as a novel class of voltage-sensitive probes for voltage imaging in neurons. E. MOLOKANOVA*; A. SAVCHENKO; M. ZAMKOV; G. B. BRAUN; N. PREVARSKAYA; R. SKRYMA; S. A. LIPTON. *Sanford Burnham Med. Res. Inst., Bowling Green State Univ., Natl. Inst. of Hlth. and Med. Res. U800, Lille Univ. of Sci. and Technol.*

9:00 **698.05** Real-time prediction of the reversibility of the ultrasound-induced blood-brain barrier opening using passive cavitation detection with MRI validation. T. SUN*; G. SAMIOTAKI; E. KONOFAGOU. *Columbia Univ., Columbia Univ.*

9:15 **698.06** A novel conditional anterograde viral tracing system for dissecting neural circuits. A. MCGOVERN*; N. DAVIS-POYNTER; D. G. SIMMONS; S. B. MAZZONE. *Univ. of Queensland.*

9:30 **698.07** ● Targeting microglia in the brain by delivering antibodies via nanoparticles. G. VITALIANO*; F. VITALIANO; T. KRAMER; M. NEUMEYER; J. NEUMEYER; M. TEICHER. *McLean Hosp., VXM, McLean Hosp.*

9:45 **698.08** Direct and indirect systems in mouse striatum: Spatial and genetic variation of medium spiny neuron subpopulations. M. K. MULLIGAN*; S. ROY; R. W. WILLIAMS. *UTHSC.*

POSTER

699. Neuron-Glial Interaction

Theme A: Development

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

8:00 A1 **699.01** Emergent behaviors of neuron-glia integrated networks and cluster formation. C. S. LIU*; M. MIR; G. POPESCU; M. U. GILLETTE. *Univ. of Illinois, Univ. of Illinois.*

9:00 A2 **699.02** The apical polarity complex protein, pals1, regulates the generation and organization of cerebellar cells. J. PARK*; R. PARK; U. MOON; S. CHO; S. KIM. *Shriners Hosp. Pediatric Res. Center,Temple Univ. Sch. of Medicin, Grad. Sch. of Biol. Science, Univ. of Texas.*

10:00 A3 **699.03** A comparison between rodent and human adult nerve-derived Schwann cells: Phenotypic heterogeneity, responsiveness to mitogenic factors and Schwann cell-axon interactions. K. BACALLAO*; P. V. MONJE. *Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med.*

11:00 A4 **699.04** CD4+ T lymphocytes interact with microglia to modulate hippocampal neurogenesis. D. KHAN; E. OWENS; M. ZABEN; S. B. DUNNETT; W. P. GRAY*. *Cardiff Univ., Univ. of Southampton, Cardiff Univ., Cardiff Univ., Cardiff Univ.*

8:00 A5 **699.05** Paranodal ankyrins: Enigmatic glial anchors. K. CHANG*; D. R. ZOLLINGER; K. SUSUKI; T. S. HO; E. C. COOPER; V. BENNETT; P. J. MOHLER; M. N. RASBAND. *Baylor Col. of Med., Baylor Col. of Med., Baylor Col. of Med., Duke Univ., Ohio State Univ.*

9:00 A6 **699.06** ● Role of p38 MAP Kinases in central myelination. M. PALMISANO*; K. ABIKO; E. HURLEY; C. TAVEGGIA; A. CUENDA; J. GRINSPAN; B. TRAPP; L. WRABETZ; M. L. FELTRI. *Hunter James Kelly Res. Institute, Univ. At Buffalo, Univ. Vita-Salute San Raffaele, San Raffaele Scientific Inst., Ctr. Nacional de Biotecnología/ CSIC, Children's Hosp., Lerner Res. Institute, Cleveland Clin.*

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10:00 A7 **699.07** Functional interactions between Neuregulin-1 type III and laminin 211 in radial sorting and myelination. M. GHIDINELLI*; C. FERRI; E. PAVONI; E. HURLEY; C. TAVEGGIA; L. WRABETZ; M. FELTRI. *Univ. At Buffalo, UniHSR,Vita Salute San Raffele Scientific institute, San Raffaele Scientific Institute, DIBIT, Univ. at Buffalo, San Raffaele Scientific Institute, DIBIT, Univ. at Buffalo.*

11:00 A8 **699.08** Investigation of glial Fgfr1 expression and transcriptome profiling of astrocyte specifc mRNAs in Fgfr1 mutants. K. M. SMITH*; D. J. ROGERS; L. CHOUBEY; F. M. VACCARINO. *Univ. of Louisiana At Lafayette, Univ. of Louisiana At Lafayette, Yale Sch. of Med.*

8:00 A9 **699.09** Contactin-1 contributes to myelin formation in CNS. G. COLAKOGLU*; U. BERGSTROM-TYRBERG; E. BERGLUND; B. RANSCHT. *Sanford-Burnham Med. Res. Inst.*

9:00 A10 **699.10** The role of microglia in neurogenesis and oligodendrogenesis in the early postnatal subventricular zone. K. SATO*; Y. SHIGEMOTO-MOGAMI; J. E. GOLDMAN; Y. SEKINO. *Natl. Inst. Hlth. Sci., Columbia Univ.*

10:00 A11 **699.11** Vascular endothelial growth factor receptor 1 expression in neurogenic regions of developing rat brain. M. C. WARD*; A. M. CUNNINGHAM. *Univ. of New South Wales.*

11:00 A12 **699.12** Nectin-like 1 inhibits myelination by interfering with the activation of the promyelinating PI3K/Akt signaling cascade. P. PATEL; L. JAGOT LACOUSSIÈRE; M. CHEN; P. MAUREL*. *Rutgers - The State Univ. of New Jersey, Univ. Paris-Diderot.*

8:00 A13 **699.13** Nectin-like 4 cell adhesion molecule promotes the Neuregulin-mediated PI3K/Akt intracellular signaling in Schwann cells via an ErbB2/3-independent mechanism. C. HEFFERNAN*; K. NATHANI; B. AYEE; Z. MANBURG; P. MAUREL. *Rutgers, The State Univ. of New Jersey, USA.*

9:00 A14 **699.14** Neuronal cell populations in the preterm human cerebral cortex. V. G. SUPRAMANIAM*; R. VONTELL; C. THORNTON; J. WYATT-ASHMEAD; D. EDWARDS; M. RUTHERFORD; P. GRESSENS; H. HAGBERG. *Kings' Col. London, Kings' Col. London, Univ. Paris Diderot, Sorbonne Paris Cite, Sahlgrenska Academy, Univ. of Gothenburg.*

10:00 A15 **699.15** Phosphorylation of Arf6-GEF cytohesin-1 by Fyn is required for myelination by Schwann cells. J. YAMAUCHI*; T. TORII; A. TANOUE; Y. MIYAMOTO. *Dept. Pharmacol., NICHD (japan).*

11:00 A16 **699.16** Signaling through Fyn and Arf6-GEF cytohesin-1 promotes Schwann cell migration. Y. MIYAMOTO*; T. TORII; A. TANOUE; J. YAMAUCHI. *Natl. Inst. Child Hlth. Dev.*

8:00 A17 **699.17** The roles of ankyrin-G in node of Ranvier formation *in vivo.* T. HO*; D. R. ZOLLINGER; M. XU; E. C. COOPER; M. C. STANKEWICH; V. BENNETT; M. N. RASBAND. *Baylor Col. of Med., Baylor Col. of Med., Baylor Col. of Med., Yale Univ., Duke Univ.*

POSTER

700. Adult Neurogenesis: Environmental and Pharmacological Regulation

Theme A: Development

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

8:00 A18 **700.01** Does repeated binge alcohol exposure limit the regenerative capacity of the hippocampus? M. E. MAYNARD; J. LEASURE*. *Univ. of Houston.*

9:00 A19 **700.02** Neonatal exposure to alcohol affects rat social interaction and activity in a complex environment in adulthood. K. E. BOSCHEN*; G. F. HAMILTON; J. E. DELORME; M. P. CASTIGLIONE; S. J. MODLIN; A. Y. KLINTSOVA. *Univ. of Delaware, Univ. of Delaware.*

10:00 A20 **700.03** Binge alcohol administration does not inhibit alcohol-induced reactive proliferation. C. R. GEIL*; K. NIXON. *Univ. of Kentucky.*

11:00 A21 **700.04** Binge alcohol elicits increases in nestin expression: Teasing apart hippocampal neural progenitor subtypes versus reactive astrocytes. K. CHEN*; M. L. KELSO; K. NIXON. *Univ. of Kentucky, Univ. of Nebraska Med. Ctr.*

8:00 A22 **700.05** Evaluating neural progenitor cell expansion following sevoflurane exposure in developing rat brain using micro positron emission tomography of [^{18}F] fluoro-L-thymidine. M. G. PAULE*; S. LIU; X. ZHANG; G. D. NEWPORT; S. APANA; M. BERRIDGE; W. SLIKKER, Jr.; C. WANG. *FDA's Natl. Ctr. For Toxicological Res., 3D-Imaging.*

9:00 A23 **700.06** Cellular and molecular mechanisms underlying environmental enrichment-induced hippocampal neurogenesis. C. GRÉGOIRE*; D. BONENFANT; A. LE NGUYEN; A. AUMONT; K. J. L. FERNANDES. *Univ. De Montreal.*

10:00 A24 **700.07** Neonatal exposure to perfluorohexane sulfonate in mice affects neuroprotein levels important for the developing brain. I. LEE; P. L. ERIKSSON*; H. VIBERG. *Uppsala Univ.*

11:00 A25 **700.08** Potential role of adiponectin signaling in mediating physical exercise-elicited hippocampal neurogenesis and antidepression. A. LI*; S. YAU; R. L. C. HOO; K. K. Y. CHENG; A. XU; K. SO. *The Univ. of Hong Kong, The Univ. of Hong Kong, The Univ. of Hong Kong, Univ. of British Columbia, The Univ. of Hong Kong, The Univ. of Hong Kong, The Univ. of Hong Kong, Jinan Univ.*

8:00 A26 **700.09** Estrogen masculinizes the female rat sexually-dimorphic nucleus of the preoptic area at weaning via proliferative activity. Z. HE*; X. LIU; L. CUI; L. GREENFIELD, Jr.; M. G. PAULE; S. A. FERGUSON. *Natl. Ctr. For Toxicology Res., Univ. of Arkansas for Med. Sci., Univ. of Sun Yat-sen.*

9:00 B1 **700.10** Delivery method alters the effects of elevated corticosterone on dentate gyrus neurogenesis in developing rats. M. KRASZPULSKI*; A. BROWN; S. COLLINS; Z. VALLANDINGHAM; M. B. HENNESSY; D. I. CLAFLIN. *Wright State Univ., Wright State Univ.*

10:00 B2 **700.11** ▲ Comparison of prenatal and post-weanling lead exposure and enriched versus impoverished rearing environment on visuospatial learning and memory in rats. N. G. TOLMAN*; C. LOUIS; G. GALVIN; M. SHIELDS; M. ARGUETA; T. KIPRONO; H. PATEL; J. SCHROEDER. *Connecticut Col., Connecticut Col., Wheeler High Sch.*

11:00 B3 **700.12** Developmental vulnerability of rat hippocampal neural stem cells to the neurotoxicant methylmercury (MeHg). M. POKU*; K. SOKOLOWSKI; E. DICICCO-BLOOM. *UMDNJ-Robert Wood Johnson Med. Sch. (RWJMS), Rutgers/UMDNJ-Robert Wood Johnson Med. Sch.*

8:00 B4 **700.13** Neuphy, a new synthetic compound that promotes neurogenesis. S. LEE; M. CHAN; C. CHEN; G. LAI*. *Natl. Chengchi Univ., Natl. Dong Hwa Univ.*

9:00 B5 **700.14** Environmental enrichment rescues Dyrk1A activity and hippocampal plasticity in TgDyrk1A mice. M. PONS ESPINAL*; M. MARTINEZ DE LAGRAN; M. DIERSSEN. *Ctr. For Genomic Regulation (CRG), Univ. Pompeu Fabra (UPF), CIBERER.*

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10:00 B6 **700.15** Prenatal inhibition of the kynurenine pathway leads to changes in synaptic proteins and neurogenesis markers in the adult rat offspring. O. S. KHALIL*; M. PISAR; C. M. FORREST; L. G. DARLINGTON; T. W. STONE. *Univ. of Glasgow, Epsom Gen. Hosp.*

11:00 B7 **700.16** The effects of developmental exposure to 3,3',4,4',5-pentachlorobiphenyl (PCB126) on the hippocampus in American mink (Neovison vison). D. K. BURGER*; M. ZWIERNIK; W. FOLLAND; S. J. BURSIAN; A. N. IWANIUK. *Univ. of Lethbridge, Michigan State Univ.*

8:00 B8 **700.17** Resveratrol modulates the hippocampal neurogenic- and learning and memory processes in middle age mice. G. B. RAMIREZ-RODRIGUEZ*, Sr.; M. TORRES-PÉREZ; R. TELLEZ-BALLESTEROS; N. M. VEGA-RIVERA; L. ORTIZ-LÓPEZ; G. KEMPERMANN. *Natl. Inst. of Psychiatry, Natl. Inst. of Psychiatry, Ctr. for Regenerative Therapies Dresden (CRTD).*

9:00 B9 **700.18** THIP promotes neuron survival in organotypic hippocampal slice cultures. A. J. MOSA*; Y. TAN; S. WANG; M. WOJTOWICZ. *Univ. of Toronto.*

10:00 B10 **700.19** Altered adult neurogenesis, mRNA expression, and depressive-like behaviors induced by perinatal arsenic exposure are rescued by chronic fluoxetine treatment. C. R. TYLER*; A. M. ALLAN. *Univ. of New Mexico.*

11:00 B11 **700.20** Andrographolide stimulates neurogenesis in the adult hippocampus. L. VARELA-NALLAR*; C. TAPIA-ROJAS; S. B. ARREDONDO; N. C. INESTROSA. *Fac. Ciencias Biológicas, P. Univ. Católica De Chile, Ctr. de Investigaciones Biomedicas (CIB), Facultad de Ciencias Biologicas y Facultad de Medicina, Univ. Andres Bello.*

8:00 B12 **700.21** ● ▲ Ascending exercise increases neurogenesis in the dentate gyrus of adult mouse. S. KUREBAYASHI*; T. MORI; T. WAKABAYASHI; T. KOIKE; H. YAMADA. *Shizuoka Univesity, Kansai Med. Univ.*

9:00 B13 **700.22** Atypical antipsychotics promote GABA interneurogenesis in the adult brain: Implication of HSP production. W. UKAI*; H. KANETA; M. KIGAWA; E. HASHIMOTO; T. ISHII; K. FURUSE; Y. KAKUTANI; H. TSUJINO; T. IMAI; S. KOBAYASHI; T. SAITO. *Sapporo Med. Univ.*

10:00 B14 **700.23** Curcumin increases memory retention and hippocampal neurogenesis in young mice. H. PARK*; E. LEE; Y. LEE; J. LEE. *Pusan Natl. Univ.*

11:00 B15 **700.24** Effects of gender and environmental enrichment on astrocyte gene expression across ages. N. SALMASO*; S. DAVIS-COOPER; F. M. VACCARINO. *Yale Univ.*

8:00 B16 **700.25** The MMP-1/PAR-1 axis modulates adult hippocampal neurogenesis *in vitro.* M. VALENTE*; M. ALLEN; S. LIM; K. CONANT; M. GRILLI. *Univ. of Piemonte Orientale A. Avogadro, Georgetown Univ.*

9:00 B17 **700.26** Structural characterization of the extracellular domain of caspr2 and its association with tag-1. E. N. RUBIO-MARRERO; G. VINCELLI; H. KIM; G. FALIVELLI; T. SHAIKH; B. DEMELER; P. TAYLOR; D. COMOLETTI*. *Child Hlth. Inst. of New Jersey, Skaggs Sch. of Pharm. and Pharmaceut. Sciences, Univ. of California San Diego, Central European Inst. of Technology, Masaryk Univ., The Univ. of Texas Hlth. Sci. Ctr.*

10:00 B18 **700.27** An analysis of the effects of gestational exposure to particulate air pollution on behavioral and developmental outcomes. N. C. WOODWARD*; P. PAKBIN; C. SIOUTAS; C. E. FINCH; T. E. MORGAN. *USC.*

POSTER

701. Amino Acids

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

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

8:00 B19 **701.01** Is the elevation of D-aspartate in brain regions of high proliferative activity specific for learning? A. L. CSILLAG*; T. JAKÓ; A. SZABÓ; Z. WAGNER; T. TÁBI; É. SZÖKő; G. ZACHAR. *Semmelweis Univ. Med., Semmelweis Univ. Med., Semmelweis Univ. Med.*

9:00 B20 **701.02** Analysis of roles of D-Serine and D-Aspartic acid at central pattern generator in buccal ganglion of *Aplysia.* R. KIMURA*; Y. YOSHIMI; T. NAGAHAMA. *Dept. Appl. Chem., Shibaura Inst. Technol., Dept. Biophys., Fac. Pha. Sci., Toho Univ.*

10:00 B21 **701.03** D-serine in glia and neurons derives from 3-phosphoglycerate dehydrogenase. J. T. EHMSEN*; T. MA; H. SASON; D. ROSENBERG; T. OGO; S. FURUYA; S. H. SNYDER; H. WOLOSKER. *Johns Hopkins, Technion-Israel Inst. of Technol., Kyushu Univ.*

11:00 B22 **701.04** Serine racemase function is modulated by interaction with synaptic proteins. T. MA*; S. H. SNYDER. *Johns Hopkins Univ. Sch. of Med.*

8:00 B23 **701.05** ● The majority of D-serine and serine racemase is localized to neurons in the adult mammalian brain. D. T. BALU*; S. TAKAGI; M. D. PUHL; M. A. BENNEYWORTH; J. T. COYLE. *McLean Hosp. / Harvard Univ., Grad. Sch. of Med. and Dent. Sciences,Tokyo Med. and Dent. Univ.*

9:00 B24 **701.06** Mg2+ mobilization mediated by both GABA(A) and GABA(B) receptors in rat hippocampal neurons. R. YAMANAKA*; Y. SHINDO; K. HOTTA; K. SUZUKI; K. OKA. *KEIO UNIVERSITY.*

10:00 B25 **701.07** Glutathione is a physiologic reservoir of neuronal glutamate. M. KOGA*; G. M. PARKER; J. KIM; S. P. BROWN; L. D. HESTER; Y. TANIGUCHI; A. KAMIYA; S. H. SNYDER; A. SAWA; T. W. SEDLAK. *The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med.*

11:00 B26 **701.08** Fatty acid binding protein 3 (FABP3) regulates cognitive function and an anxiety behaviors. Y. YAMAMOTO*; K. SHARIFI; A. ISLAM; M. EBRAHIMI; Y. KAGAWA; Y. YASUMOTO; H. MIYAZAKI; S. KAWAMURA; T. SAWADA; N. TOKUDA; K. FUKUNAGA; Y. OWADA. *Yamaguchi Univ., Tohoku Univ.*

8:00 B27 **701.09** ● Proteomic analysis of rat prefrontal cortex after chronic valproate treatment. T. MUTHUSAMY*; R. S. SEELAN; C. F. MANUEL; R. N. PARTHASARATHY. *Univ. of Louisville, VA Med. Ctr., Univ. of Louisville and VA Med. Ctr.*

9:00 B28 **701.10** The kainic acid lesions in cerebellar nuclei shorten the duration of generalized seizures in the kindling model of epilepsy. M. H. CERÓN*, SR; M. RUBIO OSORNIO; L. RÍOS CASTAÑEDA; J. MARTÍNEZ LAZCANO; E. GONZÁLEZ GUEVARA; V. CUSTODIO RAMÍREZ; C. PAZ TRES. *Inst. Nacional De Neurología Y Neurocirugía, Univ. Autonoma Metropolitana, Univ. Nacional Autonoma de Mèxico.*

10:00 B29 **701.11** Global inhibition of protein synthesis stimulates nitric oxide/cGKII pathway to decrease excitatory cell death through AKT activation. M. COSSENZA*; R. SOCODATO; T. MEJÍA-GARCIA; I. DOMITH; C. C. PORTUGAL; L. F. GLADULICH; R. PAES-DE-CARVALHO. *Federal Fluminense Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 B30 **701.12** Expression of Gas1 in different neuronal phenotypes of the adult mouse central nervous system. E. BAUTISTA*; N. ZARCO; P. VERGARA; R. AGUILAR-ROBLERO; J. SEGOVIA-VILA. *CINVESTAV, UNAM.*

8:00 B31 **701.13** Characterizing the expression and functions of gad65 and gad67 enzymes in the developing zebrafish embryo. L. JOHNSTON*; V. HARIHARAN; R. BALL; T. PAGE; J. D. LAUDERDALE. *Univ. of Georgia, Univ. of Georgia.*

9:00 B32 **701.14** The cytosolic splicing variant of NELL2 negatively regulates PKC-β1 in glial cells. D. LEE*; Y. LEE; E. KIM; J. PARK; E. HWANG. *Korea Inst. of Sci. and Technol. (KIST), Inst. of Hlth. Science, and Med. Res. Ctr. for Neural Dysfunction, Gyeongsang Natl. Univ. Sch. of Med.*

10:00 B33 **701.15** Ascorbate induces neuronal cell death in the retina: Effect on NMDA receptor activity. I. DOMITH*; R. SOCODATO; C. C. PORTUGAL; R. PAES-DE-CARVALHO. *Fluminense Federal Univ.*

11:00 B34 **701.16** Gapdh inhibits srr activity through nadh production. M. SUZUKI*; J. SASABE; S. AISO. *Keio Univ. Sch. of Med.*

8:00 C1 **701.17** ▲ N-methyl-D-aspartate postconditioning protects against object recognition memory impairment and cell death after mild traumatic brain injury in mice. A. GHISLANDI*; D. BAVARESCO; V. MOOJEN; B. PESCADOR; M. GARCEZ; D. DE MATOS; C. BOECK. *Univ. Do Extremo Sul Catarinense, Univ. do Extremo Sul Catarinense.*

9:00 C2 **701.18** Effects of chronic taurine administration on the protein expression and phosphorylation in rat hippocampus. A. TOYODA*; W. IIO; H. KOIKE. *Ibaraki Univ.*

POSTER

702. Nicotinic Receptors: Structure, Function, and Modulation II

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

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

8:00 C3 **702.01** Genetic analysis of the α5 nicotinic acetylcholine receptor (nAChR) in cynomolgus monkeys demonstrates conservation of the human risk variant (D398N) for nicotine-related phenotypes and identifies novel polymorphisms. L. E. SHOREY*; M. M. FORD; J. A. HOLLISTER-SMITH; K. A. GRANT; E. R. SPINDEL. *OHSU/ Oregon Natl. Primate Res. Ctr.*

9:00 C4 **702.02** Development of an oral nicotine self-administration procedure in non-human primates to evaluate the role of single-nucleotide polymorphisms in CHRNA5 towards an addiction phenotype. M. M. FORD*; D. C. ALLEN; C. A. L. STULL; L. E. SHOREY; J. A. HOLLISTER-SMITH; K. A. GRANT; E. R. SPINDEL. *Oregon Hlth. & Sci. Univ.*

10:00 C5 **702.03** Functional modulation of α3β4 and α3β4α5-containing nAChRs by the endogenous neuromodulator lynx1. A. A. GEORGE*; R. J. LUKAS; P. WHITEAKER. *The Barrow Neurolog. Inst.*

11:00 C6 **702.04** Generation of floxed α7 nAChR mice: Validation through targeted cell-specific deletion. K. T. DINELEY*; C. M. HERNANDEZ; G. ZHENGLIN; J. O. COLON-SAEZ; I. CORTEZ; P. W. LAMB; M. WAKAMIYA; J. L. YAKEL. *Univ. Tex Med. Bra, Natl. Inst. of Envrn. Hlth. Sciences, Natl. Inst. of Hlth., Univ. Tex Med. Bra.*

8:00 C7 **702.05** Deletion of the α9 and α10 nAChR subunits results in different phenotypes. B. J. MORLEY*; D. F. DOLAN; K. HALSEY; D. D. SIMMONS. *Boys Town Natl. Res. Hosp, Univ. of Michigan Med. Ctr., UCLA.*

9:00 C8 **702.06** The calcium connection: An alpha 7 nicotinic receptor pathway for axonal growth. J. NORDMAN; B. CORGIAT; N. KODAMA; Z. PEER; W. PHILLIPS; C. DEL NEGRO; N. KABBANI*. *Krasnow Inst., The Col. of William & Mary, The Col. of William & Mary.*

10:00 C9 **702.07** Biphasic effects of anatabine on nicotinic receptors and NFkB signaling. R. H. LORING*; Y. SZETO; L. GUO; M. PIRES; R. PAPKE. *Northeastern Univ., Northeastern Univ., Univ. of Florida.*

11:00 C10 **702.08** ▲ Expression of Lynx1 and Lynx2 mRNAs in adult and postnatal rat cortex and hippocampus. A. E. JACKS; J. C. DAMBORSKY; U. H. WINZER-SERHAN*. *Texas A&M Hlth. Sci. Ctr.*

8:00 C11 **702.09** ● Perinatal nicotine administration increases hippocampal Lypd6 levels in adulthood. M. S. THOMSEN*; M. M. JENSEN; B. CINAR; H. WANG; M. C. GONDRÉ-LEWIS; A. B. KLEIN; J. D. MIKKELSEN. *Copenhagen Univ. Hospital, Rigshospitalet, Copenhagen Univ. Hosp., Howard Univ. Col. of Med., Univ. of Copenhagen.*

9:00 C12 **702.10** Effects of a novel nocturnal frontal lobe epilepsy-associated nicotinic acetylcholine receptor mutation. M. M. WELTZIN*; J. WU; R. J. LUKAS; P. WHITEAKER. *The Barrow Neurolog. Inst.*

10:00 C13 **702.11** Nicotinic receptor subtype selectivity of novel nicotinic ligands with anti-depressant potential and *in vitro* correlates of their effects *in vivo.* R. J. LUKAS*; J. B. EATON; H. ZHANG; L. YU; S. K. MARXER; A. P. KOZIKOWSKI. *Barrow Neurol Inst., Univ. of Illinois at Chicago.*

11:00 C14 **702.12** Layer specific modulation of the medial prefrontal cortex through nicotinic acetylcholine receptors: Activation and desensitization by nicotine and acetylcholine. B. BLOEM*; R. B. POORTHUIS; M. B. VERHOOG; H. D. MANSVELDER. *CNCR, VU.*

8:00 C15 **702.13** ▲ Developmental nicotine exposure disrupts the density of dendritic spines on layer VI prefrontal cortical neurons. L. KANG*; C. D. BAILEY; M. K. TIAN; E. K. LAMBE. *Univ. of Toronto, Univ. of Toronto, Univ. of Guelph, Univ. of Toronto.*

9:00 C16 **702.14** Cholinergic excitation of layer VI neurons: Magnitude and receptor balance depend on region. M. K. TIAN*; C. D. BAILEY; E. K. LAMBE. *Univ. of Toronto, Univ. of Guelph.*

10:00 C17 **702.15** Dendritic α5β2* nicotinic acetylcholine receptors control synaptic plasticity rules in mouse and human layer 6 pyramidal neurons. M. B. VERHOOG*; J. OBERMAYER; J. WESTER; J. BAAYEN; C. DE KOCK; H. MANSVELDER. *VU Univ. Amsterdam, VU Univ. Med. Ctr.*

11:00 C18 **702.16** ● Effects of the nicotine metabolite cotinine on EEG evoked potential sensory gating in DBA/2 mice. H. ROBB*; S. MCGARAUGHTY; C. LEE; R. RADEK. *AbbVie, Inc.*

8:00 C19 **702.17** A signal peptide missense mutation associated with nicotine dependence contributes to α2*-nicotinic acetylcholine receptor function. B. DASH*; R. J. LUKAS; M. D. LI. *Univ. of Virginia, Barrow Neurolog. Inst.*

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

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POSTER

703. Glutamate Transporter Expression, Function, and Modulation

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

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

8:00 C20 **703.01** ● Functional Characterization of a glutamate transporter point mutation associated with Obsessive-Compulsive Disorder. D. TORRES-SALAZAR*; P. MOYA; S. G. AMARA. *Natl. Inst. of Mental Hlth.*

9:00 C21 **703.02** Changes in expression of glutamate transporter-1 (GLT1) in an intrahippocampal kainic acid model of epileptogenesis and treatment by β-lactam drugs. J. A. HUBBARD*; J. I. SZU; M. S. HSU; D. K. BINDER. *Univ. of California, Riverside, Univ. of California, Riverside.*

10:00 C22 **703.03** Na+-dependent glutamate transporters as regulators of oligodendrocyte differentiation. Z. MARTINEZ-LOZADA*; C. T. WAGGENER; A. ORTEGA; B. FUSS. *Cinvestav Del IPN, Virginia Commonwealth Univ.*

11:00 C23 **703.04** A specific role for the Na,K-ATPase α2 isoform in the support of astrocyte glutamate uptake. E. GUNNARSON*; N. B. ILLARIONOVA; H. BRISMAR; A. APERIA. *Karolinska Institutet, KTH - Royal Inst. of Technol.*

8:00 C24 **703.05** Modeling of glutamate transporters reconstituted in liposomes argues against heteroexchange being substantially faster than net uptake. Y. ZHOU*; X. WANG; A. TZINGOUNIS; N. DANBOLT; P. LARSSON. *Inst. of Basic Med. Science, Univ. of Oslo, Dept. of Physiol. and Biophysics, Dept. of Physiol. and Neurobio.*

9:00 C25 **703.06** Mapping substrate binding domains on the System xc- cystine/glutamate antiporter. S. A. PATEL*; J. L. NEWELL; M. BRADEN; C. KEYARI; P. J. DIAZ; N. R. NATALE; R. J. BRIDGES. *Univ. Montana.*

10:00 C26 **703.07** Phosphoinositide-3 kinases upregulate the cystine/glutamate antiporter system xc- via GCN2-mediated eIF2α phosphorylation and translational upregulation of ATF4 - a pathway active in glioblastomas and epilepsy. J. LEWERENZ*; P. BAXTER; R. BERGER; P. ALBRECHT; J. VAN LIEFFERINGE; M. WESTHOFF; M. HALATSCH; P. J. MEAKIN; J. D. HAYES; E. ARONICA; I. SMOLDERS; A. C. LUDOLPH; A. METHNER; A. MASSIE; G. E. HARDINGHAM; P. MAHER. *Univ. of Ulm, Univ. of Edinburgh, Heinrich Heine Univ. Düsseldorf, Vrije Univ. Brussel, Ulm Univ., Univ. of Dundee, Univ. of Amsterdam, Johannes Gutenberg Univ. Med. Ctr. Mainz, Univ. of Edinburgh, Salk Inst. for Biol. Studies.*

11:00 C27 **703.08** Role of EAAT in gliomas lacking abundant System xc- expression. S. ROBERT*; S. BUCKINGHAM; T. OGUNRINU; K. T. HOLT; M. BERENS; N. C. DANBOLT; H. SONTHEIMER. *Univ. of Alabama At Birmingham, Translational Genomic Res. Inst., Univ. of Oslo.*

8:00 C28 **703.09** Mechanism of LDN-212320 induction of glutamate transporter EAAT2 expression. C. G. LIN*; K. TAKAHASHI; L. CHANG; Q. KONG; Q. LIU; D. SCHULTE; L. LAI. *Ohio State Univ.*

9:00 C29 **703.10** Subtypes of astrocytes engage different transcriptional mechanisms to control expression of the GLT-1/EAAT2 subtype of glutamate transporter. M. GHOSH*; Z. CHEN; M. LANE; Y. YANG; Y. HSIEH; R. SATTLER; J. ROTHSTEIN; J. ROTHSTEIN; M. ROBINSON. *Children's Hosp. Of Philadelphia, John Hopkins Univ., The Children's Hosp. of Philadelphia, Tufts Univ., The Children's Hosp. of Philadelphia.*

10:00 C30 **703.11** Vesicular Glutamate Transporter 3 (VGLUT3) and Vesicular GABA Transporter (VGAT) occupy different vesicles - and VGLUT3 does not synergize VGAT activity - in neonatal superior olive. D. T. CASE; J. ALAMILLA; D. C. GILLESPIE*. *McMaster Univ., McMaster Univ.*

11:00 C31 **703.12** A small molecule modulator of glutamate transporter EAAT2 ameliorates Alzheimer's-like pathologies and memory deficits in APPSw/Ind mice. K. TAKAHASHI*; Q. KONG; N. STOUFFER; Y. LIN; D. A. SCHULTE; L. LAI; X. XING; G. D. CUNY; K. HODGETTS; M. A. GLICKSMAN; C. G. LIN. *Ohio State Univ., Brigham & Women's Hosp., Univ. of Houston.*

8:00 C32 **703.13** ROCK inhibitors decrease actin stress fibres and GFAP but enhance stellation, L-glutamate uptake and AHNAK expression in astrocytes on 3D nanoscaffolds. R. D. O'SHEA*; N. ZULAZIZ; C. L. LAU; D. R. NISBET; M. K. HORNE; P. M. BEART. *La Trobe Univ., The Florey Inst. of Neurosci. and Mental Hlth., Australian Natl. Univ.*

9:00 C33 **703.14** Regulation of mitochondrial mobility in astrocytes by neuronal activity and glutamate transport. J. G. JACKSON*; J. C. O'DONNELL; M. B. ROBINSON. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

10:00 C34 **703.15** Nitric oxide regulate the activity of GLAST and SNAT3 in Bergmann glial cells. A. M. GUILLEM*; A. BALDERAS; Z. MARTINEZ-LOZADA; L. C. R. HERNANDEZ-KELLY; A. RODRÍGUEZ; A. ORTEGA. *Cinvestav, Univ. Autónoma de Querétaro.*

11:00 D1 **703.16** Inhibition of GLT-1 attenuates insulin-evoked signaling in primary cultured neurons. K. D. MEEKER*; J. S. MEABON; D. G. COOK. *VA Med. Ctr., Univ. of Washington, Veteran's Affairs Puget Sound, Univ. of Washington, Univ. of Washington.*

8:00 D2 **703.17** Structure-function analysis of the vesicular glutamate transporter 1 C-terminus. J. JORDAN*; M. HERMAN; T. TRIMBUCH; C. ROSENMUND. *Charite Berlin.*

9:00 D3 **703.18** The impact of Muller Glial Cell maturation on spontaneous activity in the developing retina. G. S. SACK*; A. AGARWAL; D. E. BERGLES; M. B. FELLER. *Univ. of California, Berkeley, The Johns Hopkins Sch. of Med., The Johns Hopkins Sch. of Med.*

10:00 D4 **703.19** Yin yang 1 is a critical mediator in manganese-induced downregulation of glutamate transporter 1 (GLT-1). P. KARKI; A. WEBB; A. NORTH; K. SMITH; J. JOHNSON JR; D. SON; M. ASCHNER; E. Y. LEE*. *Meharry Med. Col., Meharry Med. Col., Vanderbilt Univ., Meharry Med. Col.*

POSTER

704. Homeostatic Plasticity II

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

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

8:00 D5 **704.01** Biogenesis of Lysosome-related Organelle Complex 1 subunits have distinct functions in presynaptic homeostatic plasticity. W. MA*; W. GUO; D. DICKMAN. *USC.*

9:00 D6 **704.02** Loss of NMDA receptor function occludes synaptic scaling in visual cortex *in vivo.* T. GALFIN*; M. GAO; H. WANG; J. HUANG; X. WU; H. LEE. *Johns Hopkins Univ., Johns Hopkins Univ., Cold Spring Harbor.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 D7 **704.03** Tomosyn: A key presynaptic molecular target in hippocampal neuron homeostatic plasticity. J. J. SALDATE*, JR; V. A. CAZARES; A. SUBRAMANI; A. L. WILLIAMS; E. L. STUENKEL. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

11:00 D8 **704.04** 4E-BP, the eukaryotic translation initiation factor 4E -binding protein, negatively regulates synaptic strength at the *Drosophila* NMJ and in mouse sympathetic ganglia. N. SAVIUK; J. PENNEY; K. TSURUDOME; N. SONENBERG; E. COOPER; P. HAGHIGHI*. *McGill Univ., McGill Univ.*

8:00 D9 **704.05** The interplay between amyloid precursor protein and homeostatic plasticity. C. DELBOVE*; R. M. LAZARENKO; B. EDBERG; Q. ZHANG. *Vanderbilt Univ.*

9:00 D10 **704.06** RIM-Binding protein promotes homeostatic modulation of neurotransmitter release and resupply of release-ready vesicles. G. W. DAVIS*; M. MUELLER. *Univ. California-SF.*

10:00 D11 **704.07** Subcellular targeting of glutamate receptor subtypes during homeostatic synaptic plasticity. C. SOARES*; K. F. H. LEE; W. NASSRALLAH; J. BÉÏQUE. *Univ. of Ottawa.*

11:00 D12 **704.08** A presynaptic enac channel drives homeostatic plasticity. M. A. YOUNGER*; M. MUELLER; A. TONG; E. C. G. PYM; G. W. DAVIS. *UCSF, Davis Lab., UCSF.*

8:00 D13 **704.09** Dynamic regulation of synaptic strength onto 5-HT neurons by antidepressants. S. D. GEDDES; S. ASSADZADA; R. BERGERON; S. HAJ-DAHMANE; J. BEIQUE*. *Univ. of Ottawa, OHRI, Univ. at Buffalo, State Univ. of New York.*

9:00 D14 **704.10** Homeostatic synaptic plasticity in human neurons generated from ES cells. Z. ZHANG*; Y. ZHANG; T. C. SÜDHOF; L. CHEN. *Stanford Univ., Howard Hughes Med. Inst.*

10:00 D15 **704.11** Homeostatic regulation of firing rates in rodent visual cortex. K. B. HENGEN*; M. E. LAMBO; S. D. VAN HOOSER; D. B. KATZ; G. G. TURRIGIANO. *Brandeis Univ.*

11:00 D16 **704.12** Properties of NMDA receptor dependent Ca^{2+} transients triggered by spontaneous glutamatergic neurotransmission. A. L. REESE*; E. T. KAVALALI. *UT Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr.*

8:00 D17 **704.13** Reductions in AMPA receptor activation, rather than spiking, trigger upward synaptic scaling. M. FONG*; J. P. NEWMAN; S. M. POTTER; P. WENNER. *Emory Univ. Sch. of Med., Georgia Inst. of Technol.*

9:00 D18 **704.14** Maintaining local receptor homeostasis along neuronal dendrites via endo-exocytic coupling. L. LI*; Y. LI; R. W. TSIEN. *Stanford Univ. Sch. of Med., Beijing Univ., New York Univ.*

10:00 D19 **704.15** How FGFR, Src family kinases, and lipid signals direct homeostatic control of synapse function. C. FRANK*; D. J. BRUSICH; A. M. SPRING. *Univ. of Iowa.*

11:00 D20 **704.16** Post-synaptic activity drives CPEB3 expression: A cell-autonomous regulator of synaptic AMPA receptor phenotype. C. L. BENDER*; L. SUN; S. J. LIU. *Cell Biol. and Anat. LSUHSC.*

8:00 D21 **704.17** Postsynaptic synthesis of BDNF induced by retinoic acid and its role in homeostatic synaptic plasticity. A. G. LAU*; Z. ZHENG; L. CHEN. *Stanford Univ., Stanford Univ.*

9:00 D22 **704.18** Retinaldehyde dehydroganase mediates synaptic scaling induced by blockade of neuronal activity. S. GANESAN*; F. SARTI; L. CHEN. *Stanford Univ., Stanford Univ., Univ. of California, Berkeley.*

10:00 D23 **704.19** Functional Interaction between Retinoic acid-dependent homeostatic scaling and Hebbian plasticity. K. L. ARENDT*; S. JURADO; T. C. SUDHOF; R. C. MALENKA; L. CHEN. *Stanford Univ., Stanford Univ.*

11:00 D24 **704.20** Activity dependent cleavage of neuroligin-1 regulates presynaptic function and synapse number during development. R. PEIXOTO*; H. KWON; M. EHLERS; B. SABATINI. *Harvard Med. Sch., Harvard Med. Sch., Pfizer Inc.*

8:00 D25 **704.21** Calcium-insensitive Synaptotagmin 12 is a selective regulator of homeostatic potentiation. C. J. LOCKE*; D. K. DICKMAN; G. W. DAVIS. *Univ. of California, San Francisco, USC.*

POSTER

705. Synaptic Plasticity: Structural Plasticity in Disease Models

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

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

8:00 D26 **705.01** **Withdrawn.**

9:00 D27 **705.02** Neuroadaptations in tripartite synapses in mouse orbitofrontal cortex following chronic intermittent alcohol exposure. N. M. STRAIGHT MCGUIER*; J. D. K. UYS; S. MIMITVILAI; J. E. PARKER; A. E. PADULA; M. F. LOPEZ; P. K. RANDALL; H. C. BECKER; J. J. WOODWARD; P. J. MULHOLLAND. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

10:00 D28 **705.03** Dkk1, a secreted Wnt antagonist regulated by Amyloid Beta, promotes synapse loss, synaptic deficits and long-term memory defects. D. M. LOPES; S. PURRO; M. TETER*; S. GALLI; A. MARZO; A. GIBB; P. C. SALINAS. *Univ. Col. London, Univ. Col. London, Univ. Col. London.*

11:00 D29 **705.04** The structural spine plasticity is deficient in APP knockout mice. C. ZOU*; J. HERMS. *Ctr. For Neurodegenerative Dis. (DZNE), Grad. Sch. of Systemic Neurosciences, Ludwig-Maximilians-University Munich.*

8:00 D30 **705.05** The expression of ProSAP/Shank proteins in development and aging in healthy and Alzheimer's disease brain. R. CHHABRA*; J. BOCKMANN; T. BÖCKERS; A. GRABRUCKER*. *Neurocenter of Ulm Univ., Inst. of Anat. and Cell Biology, Ulm Univ.*

9:00 D31 **705.06** ▲ Immunohistochemical and morphometric characterization of neuronal networks in the frontal cortex of the human brain in acute and chronic ischemia. V. AKULININ*; A. MYTSIK; S. STEPANOV; A. SERGEEV; P. BELICHENKO. *Omsk State Med. Acad., Univ. of California.*

10:00 D32 **705.07** Ventral root reimplantation with fibrin sealant combined with mononuclear cells therapy result in synaptic preservation and reduction of astrogliosis. R. BARBIZAN*; A. GOES; A. RODRIGUES; B. BARRAVIERA; R. FERREIRA; A. OLIVEIRA. *UNICAMP, UFMG, USP, UNESP.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 D33 **705.08** Modulation of thalamic inputs to the nucleus accumbens regulates stress-induced adaptations. D. J. CHRISTOFFEL*; J. J. WALSH; S. A. GOLDEN; M. HESHMATI; A. K. FRIEDMAN; G. E. HODES; M. L. PFAU; J. L. ABLES; K. DEISSEROTH; I. IBANEZ-TALLON; M. HAN; S. J. RUSSO. *Mount Sinai Sch. Med., Rockefeller Univ., Stanford.*

8:00 D34 **705.09** ▲ Gonadal steroids modulate synaptic plasticity in apoE targeted replacement mice. S. SAINI; M. RISHER; H. SEXTON; S. ACHESON; S. MOORE; R. C. KLEIN*. *Duke Univ., Duke Univ. Med. Ctr., Durham VA Med. Ctr.*

9:00 D35 **705.10** Bdnf regulates synapse maintenance in hippocampal ca1 pyramidal neurons after oxygen-glucose deprivation. R. GILL*; Z. THIROUIN; S. K. TYAGARAJAN; R. A. MCKINNEY. *McGill Univ., Univ. of Zurich.*

10:00 D36 **705.11** Cell-type specific polysynaptic viral tracing reveals chronic morphine-induced affects on the connectome of the medium spiny neurons of the striatum. D. NACHUN; A. MINASYAN; M. ROTH; C. J. EVANS; W. M. WALWYN*. *UCLA.*

11:00 D37 **705.12** Cortical activation of NMDARs that are active at hyperpolarized potentials in the nucleus accumbens mediates compulsive intake of alcohol by rats. T. SEIF*; S. CHANG; S. L. GIBB; J. DADGAR; B. T. CHEN; B. K. HARVEY; D. RON; R. O. MESSING; A. BONCI; F. W. HOPF. *Ernest Gallo Clin. and Res. Center, Univ. of California San Francisco, NIDA Intramural Res. Program, Solomon H. Snyder Dept. of Neuroscience, The Johns Hopkins University, Sch. of Med.*

8:00 D38 **705.13** ▲ Distinct modes of axonal outgrowth after CNS damage. E. SHEN; J. COLONNA; H. NISHIYAMA*. *Univ. Texas, Austin.*

9:00 D39 **705.14** Morphological reorganization of rat hippocampal neurons in alcohol dependence. C. D. MANDYAM*; A. KIM; E. ZAMORA-MARTINEZ; S. EDWARDS. *Scripps Res. Inst.*

10:00 D40 **705.15** Toward closing the synaptic gap: A molecular approach to explore neuronal connectivity deficiencies associated with autism. P. MARCHOT*; P. LEONE; I. P. FABRICHNY; D. COMOLETTI; M. T. MILLER; G. FERRACCI; S. U. GARCIA; S. CONROD; P. TAYLOR; Y. BOURNE. *AFMB (CNRS/AMU), BIMC (CNRS/AMU), UCSD/SSPPS, CAPM.*

11:00 D41 **705.16** Rapid structural plasticity in the frontal cortex after cocaine exposure. F. MUNOZ-CUEVAS; J. ATHILINGAM; D. PISCOPO; L. E. WILBRECHT*. *Ernest Gallo Clin. and Res. Ctr. (UCSF), Univ. of Oregon, UC Berkeley, Ernest Gallo Clin. and Res. Ctr. (UCSF).*

8:00 D42 **705.17** Linking variants of the Wolfram Syndrome 1 (WFS1) gene to altered intracellular Ca++ homeostasis in neurons. A. H. KOTTMANN*; N. INAMDAR; M. WU; M. PEREZ-GARCIA. *City Univ. of New York, New York Inst. of Technol., Skirball.*

9:00 E1 **705.18** Radiation-induced cognitive dysfunction is associated with alterations to dendritic structure. V. K. PARIHAR*; K. TRAN; B. M. CRAVER; M. M. ACHARYA; C. L. LIMOLI. *Univ. of California.*

10:00 E2 **705.19** Retrograde injury signaling in a mouse hippocampal explant model of axon injury. G. PATHAK*; S. SHAH. *Univ. of Maryland Col. Park, UCSD.*

POSTER

706. Transcription and Translation in Plasticity

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

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

8:00 E3 **706.01** Differential expression of BDNF transcripts during classical conditioning is regulated by distinct patterns of DNA methylation. G. AMBIGAPATHY*; Z. ZHENG; J. KEIFER. *Neurosci Group, Basic Biomed. Sci., Univ. South Dakota Sanford Sch. Med.*

9:00 E4 **706.02** Matrix metalloproteinase 9, MMP-9 mRNA is translationally regulated by FMRP at the synapse. M. DZIEMBOWSKA*; J. MILEK; A. JANUSZ; L. PACINI; C. BAGNI; L. KACZMAREK. *Nencki Inst. of Exptl. Biol., Dept. of Biomedicine and Prevention, Univ. of Rome, Ctr. for Human Genetics, Katholieke Univ. Leuven.*

10:00 E5 **706.03** Link between plasticity-related proteins - MMP-9 and BDNF. K. KALITA-BYKOWSKA*; B. KUZNIEWSKA; A. MALIK; J. JAWORSKI; L. KACZMAREK. *Nencki Inst. of Exptl. Biol., Intl. Inst. of Mol. and Cell. Biol.*

11:00 E6 **706.04** Phosphorylation of ribosomal protein S6 as a mechanism to regulate translation at activated synapses. P. SALGADO*; O. STEWARD. *Univ. of California, Irvine, Univ. of California, Irvine.*

8:00 E7 **706.05** ● Epigenetic transcriptional activation of monocyte chemotactic protein 3 in spinal astrocytes by peripheral neuropathy. D. IKEGAMI*; S. IMAI; A. YAMASHITA; M. NARITA; H. TAKESHIMA; T. USHIJIMA; M. NARITA. *Hoshi Univ., Natl. Cancer Ctr. Res. Inst.*

9:00 E8 **706.06** Rapid translational regulation of neurogranin in response to experience and activity. K. J. JONES*; H. HWANG; C. M. SAENZ; W. XU. *MIT.*

10:00 E9 **706.07** Neuronal activity and BDNF drive the expression of nuclear architecture protein Satb2 in primary hippocampal cultures. C. JAITNER; G. DECHANT; G. APOSTOLOVA*. *Innsbruck Med. Univ.*

11:00 E10 **706.08** Exosomal vesicles released by neurons contain microRNAs that can modulate gene expression of neighboring cells. A. SOULA*; P. ROBILLARD; S. ELRAMAH; A. CALAS; M. PETREL; E. GONTIER; M. LANDRY; A. FAVEREAUX. *Univ. of Bordeaux.*

8:00 E11 **706.09** CaM, a critical signal for triggering CREB phosphorylation and gene expression, is carried into the nucleus by γCaMKII. H. MA*; R. D. GROTH; S. M. COHEN; J. F. EMERY; B. LI; R. W. TSIEN. *New York Univ., Pfizer Inc.*

9:00 E12 **706.10** A role for pick1 in argonaute2 localization and function. A. ANTONIOU*; L. M. R. COCKBILL; J. G. HANLEY. *Univ. of Bristol.*

10:00 E13 **706.11** Excitation-transcription coupling requires coincident Ca^{2+} elevation and Ca_V gating movements. M. R. TADROSS*; B. LI; R. W. TSIEN. *HHMI Janelia Farm, Stanford Univ., NYU.*

11:00 E14 **706.12** Memory in a single brain cell: An activity-associated chromatin modifying complex. N. E. OEY*; H. M. A. VANDONGEN; A. M. J. VANDONGEN. *Duke-Nus Grad. Med. Sch.*

8:00 E15 **706.13** RNA sequencing of ribosome-associated mRNAs in hippocampal pyramidal neurons following LTP induction. P. B. CHEN*; V. M. HO; T. J. O'DELL; G. COPPOLA; C. BLUM; A. Y. HUANG; K. C. MARTIN. *UCLA, UCLA, UCLA, UCLA.*

9:00 E16 **706.14** Postsynaptic bZIP transcription factors contribute to persistent long-term synaptic plasticity. J. HU*; A. LEVINE; Y. CHEN; Y. SUNG; S. SCHACHER. *Columbia Univ. Col. Physicians & Surgeons.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 E17 **706.15** ● mTOR and Netrin signaling regulate presynaptic beta-catenin translation. T. NAGENDRAN*; T. TRAN; S. GUPTON; A. M. TAYLOR. *Univ. Of North Carolina, Univ. Of North Carolina, Univ. Of North Carolina.*

11:00 E18 **706.16** Action potential regulation of Arc expression. C. COLOMER; H. R. GEIS; N. TANKE; I. MARCELO; J. G. G. BORST; S. A. KUSHNER; A. R. HOUWELING*. *Erasmus MC.*

8:00 E19 **706.17** Stimulus induced release of single β-actin mRNAs from neuronal RNA granules. A. R. BUXBAUM*; R. H. SINGER. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

9:00 E20 **706.18** Neuron-specific inhibition of nfkb by nfkb-inducing kinase. S. W. BARGER*; X. MAO; A. M. MOERMAN-HERZOG; B. PHANAVANH. *Univ. Arkansas Med. Sci., Univ. Arkansas Med. Sci., Central Arkansas Veterans Hlthcr Syst, Washington Univ. Sch. of Med.*

10:00 E21 **706.19** Selective memory storage by spatial patterning of protein synthesis. C. O'DONNELL*; T. J. SEJNOWSKI. *Salk Inst. For Biol. Studies, Salk Inst. For Biol. Studies, UCSD.*

11:00 E22 **706.20** Stimulation-dependent RNA localization in hippocampal neurons. Y. J. YOON*; B. WU; R. H. SINGER. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

8:00 E23 **706.21** The low-complexity region of FXR2P regulates its subcellular localization and aggregation state. E. E. STACKPOLE*; M. R. AKINS; J. R. FALLON. *Brown Univ., Drexel.*

9:00 E24 **706.22** Local dendritic stimulation induces local synaptic incorporation of newly synthesized PSD95. Y. GENG*; J. YANG; M. T. BUTKO; H. KIM; N. JEON; R. Y. TSIEN; M. Z. LIN. *Stanford Univ., Univ. of California at San Diego, Seoul Natl. Univ.*

10:00 E25 **706.23** New ribosomes are required for the maintenance of synaptic plasticity. K. D. ALLEN; C. HARTE; J. SPLEET; D. SYLVAIN; M. TROY-REGIER; P. VAN DE NES; J. WOLK; W. OXBERRY; J. ALARCON; A. I. HERNANDEZ*. *Medgar Evers College-CUNY, SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr.*

11:00 E26 **706.24** Correlated light and electron microscopy imaging of neuronal synaptic protein turnover using TimeSTAMP. S. PALIDA*; M. T. BUTKO; M. MACKEY; M. H. ELLISMAN; R. Y. TSIEN. *UCSD, UCSD.*

8:00 E27 **706.25** microRNA-326 bidirectionally regulates synaptic efficacy in the adult dentate gyrus *in vivo.* B. BERENTSEN*; K. T. RØNNESTAD; K. WIBRAND; C. R. BRAMHAM. *Univ. of Bergen, Inst. of Biomedicine, KG Jebsen Ctr. for Res. on Neuropsychiatric Disorders.*

9:00 E28 **706.26** Post-translational modifications associated with H3.3 nucleosomal dynamics mediate neural plasticity. W. WENDERSKI*; R. C. BAGOT; L. SHEN; H. MOLINA; B. A. GARCIA; C. D. ALLIS; I. S. MAZE. *The Rockefeller Univ., Icahn Sch. of Med. at Mount Sinai, Univ. of Pennsylvania.*

10:00 E29 **706.27** H3.3 nucleosomal dynamics regulate synaptic development and plasticity in post-replicative neurons. I. S. MAZE*; R. C. BAGOT; W. WENDERSKI; N. TZAVARAS; K. NOH; R. SADEH; Y. GUO; C. IONETE; S. AKBARIAN; H. MOLINA; E. J. NESTLER; R. D. BLITZER; L. SHEN; C. D. ALLIS. *The Rockefeller Univ., Mount Sinai Sch. of Med., Mount Sinai Sch. of Med., UMass Mem. Med. Ctr., The Rockefeller Univ.*

11:00 E30 **706.28** Acute newly-synthesized proteins are required for plasticity of visual avoidance behavior in Xenopus. W. SHEN*; H. LIU; L. SCHIAPARELLI; D. MCCLATCHY; J. R. YATES III; H. T. CLINE. *Hangzhou Normal Univ., The Scripps Res. Inst., The Scripps Res. Inst., The Scripps Res. Inst.*

8:00 E31 **706.29** Identification of the newly synthesized proteins required for synaptic plasticity in Xenopus laevis. H. LIU*; W. SHEN; L. SCHIAPARELLI; D. MCCLATCHY; J. YATES, III; H. T. CLINE. *The Scripps Res. Inst., The Scripps Res. Inst., Hangzhou Normal Univ., The Scripps Res. Inst.*

9:00 E32 **706.30** Real-time observation of transcription at single molecule resolution in the brain. H. PARK*; H. LIM; R. H. SINGER. *Albert Einstein Col. of Med., Hunter College, CUNY.*

10:00 E33 **706.31** ● Protein Synthesis Monitoring in live neurons using fluorescent labeled tRNA FRET pairs. Z. SMILANSKY*; I. FARRELL; S. BARHOOM; D. DAHARY; J. D. FARNUM; M. EHRLICH; O. ELROY-STEIN; B. S. COOPERMAN; P. W. VANDERKLISH. *Anima Cell Metrology, The Scripps Res. Inst., Tel Aviv Univ., Univ. of Pennsylvania.*

POSTER

707. Oscillations and Synchrony: Unit Studies II

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

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

8:00 E34 **707.01** Pyramidal neurons in superficial layers of cortex spontaneously organize as neuronal avalanches. T. E. BELLAY*; A. KLAUS; S. SESHADRI; D. PLENZ. *Section On Critical Brain Dynamics, NIMH, NIMH.*

9:00 E35 **707.02** The simultaneous silence of neurons explains structured higher-order interactions in ensemble spiking activity. H. SHIMAZAKI*; K. SADEGHI; Y. IKEGAYA; T. TOYOIZUMI. *RIKEN Brain Sci. Inst., Commonwealth Computer Res. Inc., The Univ. of Tokyo.*

10:00 E36 **707.03** Circuit analysis in the hippocampus with large-scale silicon probe recordings. A. BERENYI*; J. D. LONG; A. J. NAGY; S. FUJISAWA; G. BUZSAKI. *Univ. of Szeged, Neurosci. Institute, NYU Sch. of Med., Ctr. for Mol. and Behavioral Neuroscience, Rutgers Univ., Brain Sci. Inst.*

11:00 E37 **707.04** Highly conformable conducting polymer based Electrocorticography probe for *in vivo* recordings. D. KHODAGHOLY*; M. SESSOLO; G. GIRARDEAU; G. MALLIARAS; G. BUZSAKI. *NYU Langone Med. Ctr., Ecole Nationale Supérieure des Mines.*

8:00 E38 **707.05** Pairwise correlation graphs of hippocampal population activity have highly non-random, low-dimensional clique topology. C. GIUSTI*; K. MARKU; E. PASTALKOVA; C. CURTO; V. ITSKOV. *Univ. of Nebraska -- Lincoln, Univ. of Nebraska -- Lincoln, Janelia Farm Res. Campus, HHMI.*

9:00 E39 **707.06** ● The role of cannabinoid receptor 2 in mediating theta oscillation power between the amygdala and ventral hippocampus of the mouse. H. J. STRATTON*; J. WU. *Barrow Neurolog. Inst., Arizona State Univ.*

10:00 E40 **707.07** Evolution of a motor program in dynamical and physical space. A. M. BRUNO*; W. N. FROST; M. D. HUMPHRIES. *Rosalind Franklin Univ. of Med. and Sci., Univ. of Manchester, Rosalind Franklin Univ. of Med. and Sci.*

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

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11:00 E41 **707.08** Cellular generators and dynamics of local field potentials in the dentate gyrus. A. FERNÁNDEZ RUIZ*; S. MUÑOZ; M. SANCHO; V. MAKAROV; Ó. HERRERAS. *Cajal Inst. CSIC, Fac. of Physics, Univ. Complutense, Fac. of Mathematics, Univ. Complutense.*

8:00 E42 **707.09** Inhibition guarantees ceaseless cortex network dynamics. W. L. SHEW*; D. B. LARREMORE; S. YU; D. PLENZ; E. O. OTT; F. SORRENTINO; J. G. RESTREPO. *Univ. of Arkansas, Harvard Sch. of Publ. Hlth., NIH, Univ. of Maryland, Univ. of New Mexico, Univ. of Colorado.*

9:00 E43 **707.10** Impact of repeated nicotine exposure on prefrontal cortical firing and local field potentials in behaving rats. L. S. BUENO*, JR; Y. B. KIM; J. WOOD; N. W. SIMON; B. MOGHADDAM. *Univ. of Sao Paulo, Univ. of Pittsburgh.*

10:00 E44-DP1 **707.11** Co-existing frequency dependent functional networks in neuronal systems. S. ITO*; P. RYDYGIER; F. YEH; E. HIOLSKI; A. M. LITKE; J. M. BEGGS. *Univ. of California, Santa Cruz, AGH Univ. of Sci. and Technol., Indiana Univ., Univ. of California, Univ. of California, Santa Cruz.*

11:00 E45 **707.12** Phase difference does not predict directional influence in a model of cortico-cortical master-slave networks. F. S. MATIAS*; L. L. GOLLO; P. V. CARELLI; S. L. BRESSLER; M. COPELLI; C. R. MIRASSO. *Univ. Federal De Pernambuco - Departemento De Física, Inst. de Física Interdisciplinar y Sistemas Complejos, CSIC-UIB, Campus Univesitat de les Illes Balears E- 07122, Ctr. for Complex Systems and Brain Sciences, Dept. of Psychology, Florida Atlantic University, FL 33431.*

8:00 E46 **707.13** Oscillations in spontaneous and visually evoked activity of neurons in superficial layers of cat superior colliculus. A. T. FOIK; G. MOCHOL; W. J. WALESZCZYK*. *The Nencki Inst., Inst. d'Investigacions Biomèdiques August Pi I Sunyer (IDIBAPS).*

POSTER

708. Dendritic Excitability and Synaptic Integration

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

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

8:00 E47 **708.01** Altered dendritic synaptic integration and input/output coupling in a mouse model of Aβ-amyloidosis. Z. SISKOVA; H. KANEKO; D. JUSTUS; T. BEUTEL; D. FRIEDRICHS; C. MÜLLER; P. SPINDLER; J. PITSCH; A. BECKER; S. REMY*. *DZNE German Ctr. For Neurodegenerative Dis., Univ. of Bonn, Univ. of Bonn.*

9:00 E48 **708.02** Detection of dendritic potentials from O-LM interneurons by voltage imaging. J. WENG*; C. LIEN. *Natl. Yang-Ming Univ.*

10:00 E49 **708.03** ● The electrical role of dendritic spines probed by voltage-imaging of EPSPs. M. POPOVIC; N. T. CARNEVALE; D. ZECEVIC*. *Yale Univ. Sch. Med., Yale Univ. Sch. Med.*

11:00 E50 **708.04** The adaptation of spike back-propagation delays in cortical neurons. Y. BUSKILA*; A. VAN SCHAIK. *Univ. of Western Sydney.*

8:00 E51 **708.05** The axon initial segment arises from a 'privileged' dendrite at a large and variable distance from the soma in midbrain dopamine neurons. E. B. MARGOLIS*; P. T. FONG; H. L. FIELDS. *Ernest Gallo Clin. & Resch Ctr., UCSF.*

9:00 E52 **708.06** Robust propagation and initiation of action potentials in medial entorhinal stellate cell dendrites. H. HU*; J. F. STORM. *Inst. of Sci. and Technol. Austria, Inst. of Basal Medicine, Univ. of Oslo.*

10:00 E53 **708.07** Ca^{2+} sparks and puffs are generated and interact in pyramidal neuron dendrites. K. MIYAZAKI; W. N. ROSS*. *New York Med. Col.*

11:00 E54 **708.08** Estimation of excitatory and inhibitory synaptic inputs from intracellular recordings *in vivo.* M. PELKO*; P. PUGGIONI; I. DUGIUD; M. VAN ROSSUM. *Univ. of Edinburgh, Univ. of Edinburgh, Univ. of Freiburg, Univ. of Edinburgh.*

8:00 F1 **708.09** The cellular mechanism of dendritic calcium spikes in the apical dendrite of L5 pyramidal neurons. A. KORNGREEN*; M. ALMOG. *Bar-Ilan Univ., Bar-Ilan Univ.*

9:00 F2 **708.10** ● Hippocampal sharp waves associated dendritic calcium transients revealed by three dimension acousto-optic imaging in parvalbumin positive interneurons. D. PALFI*; B. CHIOVINI; G. TURI; A. KASZÁS; K. SPITZER; G. SZALAY; G. KATONA; B. RÓZSA. *PPKE, IEM HAS.*

10:00 F3 **708.11** Spread of back-propagating action potential regulates the layer-specific location arising neural plasticity along dendrites: An optical imaging study with voltage-sensitive dye. M. KONDO*; T. AIHARA. *Tamagawa Univ., JSPS Res. Fellow, Brain Sci. Institute, Tamagawa Univ.*

11:00 F4 **708.12** Regulation of dendritic integration by K^+ channels in hippocampal CA3 pyramidal neurons. J. K. MAKARA*; J. C. MAGEE. *Inst. of Exptl. Med., Janelia Farm Res. Campus.*

8:00 F5 **708.13** Cortical-driven dendritic spikes are reliable triggers of action potentials in hippocampal Ca^2neurons. Q. SUN*; S. A. SIEGELBAUM. *Columbia Univ., Columbia University/Howard Hughes Med. Inst.*

9:00 F6 **708.14** Impact of voltage-sensitive ion channels on subthreshold synaptic responses at individual dendritic spines of layer 5 pyramidal neurons. H. J. SEONG*; A. G. CARTER. *Ctr. For Neural Science, New York Univ.*

10:00 F7 **708.15** Glutamate uncaging, supralinear summation and blockade of potassium channels, in neocortical layer 3 pyramidal dendrites. Á. BIRÓ; A. BRÉMAUD; J. FALCK; A. RUIZ; A. M. THOMSON*. *UCL Sch. of Pharm.*

11:00 F8 **708.16** Long-term changes in neuronal excitability produced by low-dose radiation. R. VLKOLINSKY; I. V. SOKOLOVA*; C. SCHNEIDER; M. BEZAIRE; I. SOLTESZ; G. NELSON. *Loma Linda Univ., Univ. of California, Irvine.*

8:00 F9 **708.17** Mathematical reduction of dendritic morphologies reveals synaptic synergies and their role in integrating distinct synaptic pathways. W. A. M. WYBO; B. TORBEN-NIELSEN*; M. GEWALTIG. *EPFL, Blue Brain Project.*

9:00 F10 **708.18** Dendritic integration in hippocampal subiculum pyramidal neurons. M. T. HARNETT*; J. C. MAGEE. *Janelia Farm Res. Campus, Howard Hughes Med. Inst.*

10:00 F11 **708.19** Without non-linear dendrites neurons approximate poorly. R. D. CAZÉ*; M. HUMPHRIES; B. GUTKIN; S. SCHULTZ. *Imperial Col., Ecole Normale Superieure.*

11:00 F12 **708.20** Dendritic inhibition of layer 5 pyramidal cells by specific populations of interneurons in the prefrontal cortex. J. J. MARLIN*; A. G. CARTER. *New York Univ., New York Univ. Sch. of Med.*

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

▲ Indicates a high school or undergraduate student presenter.

8:00 F13 **708.21** Modulation of action potential-triggered dendritic calcium signals by local input resistance in dentate gyrus granule cells. J. BRUNNER*; J. SZABADICS. *Inst. of Exptl. Med.*

9:00 F14 **708.22** NMDA spikes in dendrites of thalamocortical neurons. S. AUGUSTINAITE*; B. KUHN; P. J. HELM; P. HEGGELUND. *Okinawa Inst. of Sci. and Technol. Grad. Univ., Inst. of Basic Med. Sciences, Univ. of Oslo, Ctr. for Mol. Biol. and Neurosci. and the Letten Ctr. – Lab. for Mol. Neuroscience, Inst. of Basic Med. Sciences, Univ. of Oslo.*

10:00 F15 **708.23** Neuronal subtype-specific dendritic processing of commissural and hippocampal inputs to the prefrontal cortex. N. C. DEMBROW*; B. E. KALMBACH; R. A. CHITWOOD; E. D. MCCORD; B. V. ZEMELMAN; D. JOHNSTON. *Univ. Texas, Austin.*

11:00 F16 **708.24** ▲ The analysis of input integration around the dendritic branches in dentate granule cells. T. KAMIJO; Y. FUKUSHIMA; Y. KUBOTA; E. HIDA*; T. AIHARA; H. HAYAKAWA. *Tamagawa Univ., Kawasaki Univ. of Med. Welfare, Natl. Inst. for Physiological Sci., Tamagawa Univ.*

8:00 F17 **708.25** Contribution of extrasynaptic nmda receptors and adenosine receptors to synaptically-evoked nmda spikes and glutamate-evoked plateau potentials. K. OIKONOMOU*; M. RICH; S. ANTIC. *Univ. of Connecticut Hlth. Ctr.*

9:00 F18 **708.26** ● Fast 3D imaging of neural network and dendritic activity during brain oscillations in near-cubic-millimeter volume up to sub-millisecond temporal resolution. B. ROZSA*; G. KATONA; G. SZALAY; K. SPITZER; M. VERESS; D. PÁLFI; B. CHIOVINI; P. MAÁK. *Inst.of Exptl. Med., Inst. of Exptl. Med. of Hungarian Acad. of Sci., Budapest Univ. of Technol. and Econ., Pázmány Péter Catholic Univ., Inst. of Exptl. Med. of Hungarian Acad. of Sci.*

POSTER

709. Astrocytes: Characterization, Physiology, and Calcium Dynamics

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

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

8:00 F19 **709.01** *Drosophila* astrocyte-like glia show heterogeneity in their morphology and voltage-gated currents. S. E. MACNAMEE*; S. W. LEE; L. A. OLAND. *Univ. of Arizona.*

9:00 F20 **709.02** Dual patch voltage clamping study of low membrane resistance astrocytes *in situ*. B. MA*; G. XU; W. WANG; M. ZHOU. *The Ohio State Univ., Huazhong, Univ. of Sci. and Technol.*

10:00 F21 **709.03** Compartmentalization in perivascular astrocytes. M. Y. INYUSHIN*; J. BENEDIKT; Y. V. KUCHERYAVYHK; L. Y. KUCHERYAVYKH; L. V. ROJAS; M. J. EATON; S. N. SKATCHKOV. *Univ. Central del Caribe.*

11:00 F22 **709.04** Electrophysiological characterization of Tweety family of chloride channels in rat astrocytes. B. C. BEUTTLER; J. T. KING*; J. WATANABE. *Pomona Col., Pomona Col.*

8:00 F23 **709.05** Spontaneous short-term oscillations of astrocytes. S. UJITA*; A. ASADA; N. MATSUKI; Y. IKEGAYA. *Univ. of Tokyo, Grad. Sch. of Pharmaceut. Science, Lab. of Chem. Pharm.*

9:00 F24 **709.06** Astrocytic gap junctional networks suppress cellular damages in an *in vitro* model of ischemia. T. SHINOTSUKA*; M. YASUI; M. NURIYA. *Keio Univ.*

10:00 F25 **709.07** Awake i*n vivo* Ca^{2+} responses in astrocytic processes of mouse visual cortex. R. GARCIA*; M. GOARD; J. PETRAVICZ; M. SUR. *MIT.*

11:00 F26 **709.08** Examining the role of astrocytic Gq-GPCR and Ca^{2+} signaling in functional hyperemia *in vivo.* D. E. BONDER*; K. D. MCCARTHY. *UNC Chapel Hill.*

8:00 F27 **709.09** Elimination of neuronal driven Ca^{2+} activity in hippocampal astrocytes in inositol trisphosphate receptor type 2 knock-out (IP3R2KO) mice. X. XIE*; K. D. MCCARTHY. *UNC Chapel Hill.*

9:00 F28 **709.10** The basis for calcium signalling in fine processes of astrocytes in the adult mouse. R. L. RUNGTA*; B. A. MACVICAR. *Univ. British Columbia, Univ. of British Columbia.*

10:00 F29 **709.11** Homer1 proteins and the tuning of astrocytic calcium signaling pathways. L. BUSCEMI*; V. GINET; F. PETRELLI; C. CALÌ; P. SPAGNUOLO; C. SALA; A. TRUTTMANN; G. KNOTT; L. HIRT; J. PUYAL; P. BEZZI. *Univ. of Lausanne, CHUV, EPFL, Natl. Res. Council, CHUV.*

11:00 F30 **709.12** Stimulus driven calcium response in astrocytes is likely to depend on concurrent sodium co-transport by glutamate transporters and glutamate receptor activation: A computational study. K. MERGENTHALER*; E. JUNGNICKEL; J. PETRAVICZ; D. ROY; M. SUR; K. OBERMAYER. *Technische Univ. Berlin, MIT.*

8:00 F31 **709.13** Spatiotemporal dynamics of Ca^{2+} signaling in single hippocampal astrocytes. A. V. SEMYANOV*; Y. WU; X. TANG; M. ARIZONO; H. BANNAI; P. SHIH; Y. DEMBITSKAYA; V. KAZANTSEV; M. TANAKA; S. ITOHARA; K. MIKOSHIBA. *RIKEN Brain Sci. Inst. - Wako, Niznhy Novgorod State Univ.*

9:00 F32 **709.14** Astrocyte calcium signals in the adult mouse striatum measured with genetically encoded calcium indicators. R. JIANG*; L. KAMMEL; X. TONG; J. XU; B. KHAKH. *UCLA.*

10:00 F33 **709.15** Role and regulation of calcium-triggered lysosome exocytosis in astrocyte. S. S. C.*; M. NEDERGAARD; J. K. JAISWAL. *Childrens Natl. Med. Ctr., Univ. of Rochester Med. Ctr.*

11:00 F34 **709.16** Dual-color imaging of neural activity reveals inhibitory effects of astrocytes on neuronal networks. J. '. KEITER*; J. AKERBOOM; J. MARVIN; L. LOOGER; L. TIAN. *UC Davis, Janelia Farm Res. Campus.*

8:00 F35 **709.17** Ionic and metabolic constraints on the susceptibility and duration of large neuronal discharges. M. L. GERTZ*; Z. GREGURIć FERENčEK. *George Mason Univ.*

9:00 F36 **709.18** Regulation of cell-cell junctions by ephrin-A3: Possible implications for astrocyte function. E. RUBIO DE LA TORRE GIL*; X. SILVEYRA; E. B. PASQUALE. *Sanford Burnham Med. Res. Inst.*

10:00 F37 **709.19** Next generation sequencing reveals novel cell type specific markers and splicing complexity of neurons and glia in the brain. S. A. SLOAN*; Y. ZHANG; K. CHEN; A. SCHOLZE; M. BENNETT; H. PHATNANI; P. GUARNIERI; S. LIMERICK; C. ZHANG; T. MANIATIS; B. BARRES; J. WU. *Stanford Univ., The Univ. of Texas at Houston, Columbia Univ.*

11:00 F38 **709.20** Accelerated astrogliogenesis and modulated extracellular signaling of RASopathic human astrocytes. R. KRENCIK*; E. M. ULLIAN. *Univ. of California - San Francisco, Univ. of California - San Francisco.*

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

▲ Indicates a high school or undergraduate student presenter.

8:00 F39 **709.21** ● A thyroid hormone transporter mediates uptake of Sulforhodamine 101 into astrocytes. C. SCHNELL; S. P. WICHERT; A. SHAHMORADI; S. MAYERL; Y. HAGOS; H. HEUER; M. J. ROSSNER; S. HÜLSMANN*. *Univ. Med. Ctr. Göttingen, DFG Res. Ctr. Nanoscale Microscopy and Mol. Physiol. of the Brain (CNMPB), Max-Planck-Institute of Exptl. Med., Leibniz Inst. for Age Res., Univ. Med. Ctr. Göttingen, Dept. of Psychiatry, Georg August Univ. Goettingen.*

9:00 F40 **709.22** Invertebrate meninges: Characterization in calanoid copepods (Crustacea). F. MERCIER; T. WEATHERBY; D. K. HARTLINE*. *Univ. Hawaii.*

POSTER

710. Alzheimer's Biology and Co-Morbidities

Theme C: Disorders of the Nervous System

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

8:00 F41 **710.01** Hypertension increases tau hyperphosphorylation and Aβ production in pigs. Y. SHIH*; C. LEE; M. JIANG; P. LIN; Y. KUO. *Inst. of Basic Med. Sciences, Natl. Cheng Kung Univ., Dept. of Cell Biol. and Anatomy, Natl. Cheng Kung Univ., Dept. of Surgery, Natl. Cheng Kung Univ.*

9:00 F42 **710.02** UV accelerates amyloid precursor protein processing (APP) and disrupts APP axonal transport. A. ALMENAR-QUERALT*; T. FALZONE; C. LILLO; R. L. KILLIAN; A. S. ARREOLA; E. D. NIEDERST; K. NG; S. N. KIM; S. P. BRIGGS; D. S. WILLIAMS; L. S. B. GOLDSTEIN. *Univ. of California, San Diego (UCSD), Univ. of California, San Diego (UCSD).*

10:00 F43 **710.03** Effects of corticosterone and DHEA on hippocampal pathology in a mouse model of Alzheimer's disease. A. TRENTANI; S. KUIPERS*. *Univ. of Bergen, Univ. Bergen, K.G. Jebsen Ctr. for Res. on Neuropsychiatric Disorders.*

11:00 F44 **710.04** Anesthetic propofol attenuates caspase activation and enhances cognitive function in aged mice. Y. ZHANG*; H. SHAO; Y. DONG; Z. XIE. *Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*

8:00 F45 **710.05** Herpes Simplex Virus type 1 (HSV-1) reduces the expression of presynatic proteins in rat cortical neurons by a mechanism involving glycogen synthase kinase-3β and amyloid-β protein. R. PIACENTINI*; D. D. LI PUMA; M. E. MARCOCCI; C. RIPOLI; L. CIVITELLI; G. DE CHIARA; A. T. PALAMARA; C. GRASSI. *Univ. Cattolica Del Sacro Cuore, Sapienza Univ. of Rome, Linkoping Univ., CNR.*

9:00 F46 **710.06** Abnormal hypothalamic leptin signaling and metabolic dysfunction in mice overexpressing the amyloid precursor protein. M. ISHII*; C. IADECOLA. *Weill Cornell Med. Col.*

10:00 G1 **710.07** ● Targeting gonadotropin-releasing hormone in Alzheimer´s disease. G. H. SYVERSTAD; S. NURUDDIN; S. LILLEHAUG; A. KROGENÆS; E. ROPSTAD; L. N. G. NILSSON; T. B. LEERGAARD; I. R. H. HARALDSEN; R. TORP*. *Inst. of Basic Med. Sci. Univ. of Oslo, Norwegian Sch. of Vet. Sci., Dept. of Pharmacol., Dept. of Neuropsychiatry and Psychosomatic Med.*

11:00 G2 **710.08** ● Sleep alterations in 5XFAD mice,a model of Alzheimer's disease. M. SETHI*; M. STRIZ; S. JOSHI; R. L. WEBB; T. L. BECKETT; H. CANTER; J. BRIGHAM; K. D. DONOHUE; M. P. MURPHY; B. F. O'HARA; M. J. DUNCAN. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

8:00 G3 **710.09** Characterization of the sleep-wake cycle in the TgCRND8 mouse model of Amyloidosis. J. COLBY-MILLEY*; J. CHABOT; J. BREITNER; A. ADAMANTIDIS; R. QUIRION. *Douglas Mental Hlth. Univ. Inst.*

9:00 G4 **710.10** Heme oxygenase-2 deficiency worsens behavioral impairments in the 3xTG model of Alzheimer's disease. T. W. SEDLAK*; A. SERRITELLA; G. PARKER; M. PLETNIKOV; M. MATTSON; S. H. SNYDER. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Johns Hopkins.*

10:00 G5 **710.11** Hyperinsulinemia and prediabetes induce central nervous system abnormalities and cognitive impairment in APP/PS1 mice. A. M. LECHUGA-SANCHO; J. RAMOS-RODRIGUEZ; O. ORTIZ-BARAJAS; P. ROMERO; M. GARCIA ALLOZA*. *Dept. of Pediatrics, Sch. of Medicine. Univ. of Cadiz (Spain), Div. of Physiology, Sch. of Med.*

11:00 G6 **710.12** No change in capillary length in AD mouse. M. J. WEST*; G. NIKOLAJSEN. *Univ. Aarhus.*

8:00 G7 **710.13** ● Examination of the retina in triple transgenic mice of Alzheimer's disease. R. C. CHANG*; K. CHIU; C. K. M. LOK; R. S. TURNER; Y. MATSUOKA; K. F. SO. *Lab. of Neurodegenerative Diseases, LKS Fac. of Medicine, Univ. of Hong Kong, LKS Fac. of Medicine, The Univ. of Hong Kong, The Univ. of Hong Kong, Georgetown Univ. Med. Ctr.*

9:00 G8 **710.14** ▲ Dephosphorylation of tau in lactating rats subjected to acute restraint stress. D. STEINMETZ; S. N. CAMPBELL; E. RAMOS; T. MORALES; R. A. RISSMAN*. *UCSD Sch. Med., UCSD Sch. Med., UNAM.*

10:00 G9 **710.15** Corticotropin-releasing factor receptor 1 antagonism reduces early stage cognitive deficits in Alzheimer's disease transgenic mice. C. ZHANG*; S. NUBER; K. C. RICE; E. MASLIAH; R. A. RISSMAN. *UCSD, Natl. Inst. on Drug Abuse and Natl. Inst. on Alcohol Abuse and Alcoholism, Natl. Inst. of Hlth.*

11:00 G10 **710.16** Effects of a poor maternal diet on stress-induced tau phosphorylation in offspring: Implications in HPA axis reactivity and neuroplasticity. S. N. CAMPBELL*; N. M. GRISSOM; B. GEORGE; T. M. REYES; R. A. RISSMAN. *UCSD, Univ. of Pennsylvania.*

8:00 G11 **710.17** Impact of *in vitro* stress exposure on tau phosphorylation, aggregation and axonal transport. M. H. LE; T. C. HEXOM*; A. WEISSMILLER; O. NATERA; C. WU; R. A. RISSMAN. *UCSD Sch. of Med., UCSD Sch. of Med.*

9:00 G12 **710.18** ApoE allelic frequencies in the middle aged in Maryland. R. J. CASTELLANI*; B. LI; A. FASHORI; L. LI; K. T. WHITE; H. ZIELKE. *Univ. Maryland, Baltimore, Univ. of Maryland, Office of the Chief Med. Examiner.*

10:00 G13 **710.19** Role of early life exposure of lead in Alzheimer's disease: A systematic review of LEARn model. S. MODGIL*; V. L. SHARMA; A. ANAND. *Post Grad. Inst. of Med. Educ. & Res., Panjab Univ., Post Grad. Inst. of Med. Educ. & Res.*

POSTER

711. Alzheimer's Disease: Therapeutics

Theme C: Disorders of the Nervous System

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

8:00 G14 **711.01** Memantine improves fragmentation of sleep in patients with Alzheimer's disease but not Dementia with Lewy bodies. I. ISHIKAWA; H. SHINNO*; N. ANDO; T. MORI; S. DANJO; M. KIDO; N. HIGASA; Y. NAKAMURA. *Kagawa Univ. Sch. Med., Kagawa Univ. Sch. Med.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 G15 **711.02** Anti-Aggregation effect of AA-peptide on ß-Amyloid peptides in Alzheimer's diseases. C. CAO*; H. WU; Y. LI; G. BAI; Y. NIU; Q. QIAO; X. LIN; J. CAI. *Col. of Pharm. Univ. of South Florida, Univ. of South Florida, Univ. of South Florida.*

10:00 G16 **711.03** A combination approach in a canine model of aging: Effects of immunotherapy and behavioral enrichment on beta-amyloid pathology. P. R. DAVIS*; T. BECKETT; G. GIANNINI; T. PLATT; M. P. MURPHY; E. BARRETT; E. HEAD. *Univ. of Kentucky, Lovelace Resp. Res. Inst., Lovelace Resp. Res. Inst.*

11:00 G17 **711.04** Improvements in memory after medial septum stimulation are associated with changes in hippocampal cholinergic activity and neurogenesis. D. JEONG*; J. LEE; S. LEE; W. CHANG; S. KIM; J. CHANG. *Brain Korea 21 Project Med. Sci.&Yonsei Univ. Coll. of Med., Sch. of Electrical Engin. and Computer Science, Seoul Natl. Univ., Dept. of Neurosurg. & Brain Res. institution, Yonsei Univ. Col. of Med.*

8:00 G18 **711.05** ● Modulation of tumor necrosis factor alpha by a small molecule inhibitor improves cognition and reduces neuroinflammation in the 3xTg mouse model. P. GABBITA*; P. ESLAMI; M. JOHNSON; N. KOBRITZ; S. VARADARAJAN; S. SHARMA; L. ZHU; F. ZEMLAN; M. HARRIS-WHITE. *P2D Biosci., VA-GLAHS, and David Geffen Sch. of Med. UCLA, Univ. of North Carolina-Wilmington.*

9:00 G19 **711.06** ● Suppression of natural age-associated basal forebrain cholinergic degeneration by the p75 neurotrophin receptor ligand, LM11A-31. Y. XIE; R. B. MEEKER*; S. M. MASSA; F. M. LONGO. *Univ. of North Carolina- Chapel Hill, Univ. of North Carolina, SFVAMC/ University of California, Stanford Univ.*

10:00 G20 **711.07** Munc 18 (p67, nsec1, rbsec1) distinguishes the inhibitory effects of a peptide (TFP5) on the activity of Cdk5/p35 and Cdk5/p25. N. D. AMIN*; V. SHUKLA; P. REDDY; Y. ZHENG; B. BALACHANDRAN; P. GRANT; H. PANT. *NIH, NIH, Ningxia People's Hosp.*

11:00 G21 **711.08** Rescue of Alzheimer's disease phenotypes in model mice by truncated peptide from p35, a Cdk5 activator. V. SHUKLA*; Y. ZHENG; S. K. MISHRA; N. D. AMIN; J. STEINER; P. GRANT; S. KESAVAPANY; H. C. PANT. *NIH, Ningxia People's Hosp., NIH, Yong Loo Lin Sch. of Med.*

8:00 G22 **711.09** ● The reliability and effects of age on CSF measures of β-amyloid and tau in Beagle dogs: Implications for a natural animal model of Alzheimer's disease progression. C. DE RIVERA*; B. CHAKRAVARTHY; S. KELLY; J. BAULK; M. L. BROOKS; B. MILGRAM; J. A. ARAUJO. *Univ. of Toronto, Vivocore Inc., Natl. Res. Council, CanCog, InterVivo Solutions Inc.*

9:00 G23 **711.10** ● Longitudinal mri monitoring of a tau-transgenic mouse model for Alzheimer's disease. S. DU*; S. SANKARANARAYANAN; M. MEADOWCROFT; D. STOCK; A. PENA; R. ROACHE; H. MALONE; D. BARTEN; P. CHOW; R. RISINGER; C. ALBRIGHT; W. HAYES. *Bristol-Myers Squibb, Bristol-Myers Squibb, Bristol Myers Squibb.*

10:00 G24 **711.11** Rapid changes in ISF Aβ levels in relation to synaptic activity *in vivo.* C. M. YUEDE*; C. LI; J. R. CIRRITO. *Washington Univ., Knight Alzheimer's Dis. Res. Ctr., Hope Ctr. for Neurolog. Disorders, Florida Intl. Univ.*

POSTER

712. Cognitive Function Related to Alzheimer's Disease

Theme C: Disorders of the Nervous System

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

8:00 G25 **712.01** Cell cycle, ATM, TIGAR and the loss of protection against oxidative stress in Alzheimer's disease. P. L. KATSEL*; W. TAN; P. FAM; D. PUROHIT; V. HAROUTUNIAN. *Mount Sinai Med. Ctr., Mount Sinai Med. Ctr., JJ Peters VA Med. Ctr.*

9:00 G26 **712.02** ● Characterization of BNC375, a novel α7 nAChR positive allosteric modulator for the treatment of cognitive impairment in Alzheimer's disease. S. M. O'CONNOR*; B. HUYARD; C. COLES; P. KOLESIK; Y. KOLEV; S. WAGNER; E. ANDRIAMBELOSON; A. HARVEY; A. A. GRISHIN. *Bionomics Limited, Neurofit SAS.*

10:00 G27 **712.03** ▲ The beta amyloid peptide 25-35 causes changes in the cholinergic markers and spatial memory in rats injured in Magnocellularis nucleus. A. PATRICIO*; A. DÍAZ; J. GUEVARA; J. AGUILERA; I. D. LIMÓN. *Benemerita Univ. Autonoma De Puebla, Univ. Nacional Autónoma de México, Univ. Autonoma de Barcelona.*

11:00 G28 **712.04** Neuronal DNA double-strand breaks in health and disease. E. SUBERBIELLE*; P. SANCHEZ; D. H. KIM; X. WANG; L. MUCKE. *J. David Gladstone Inst., Univ. of California San Francisco.*

8:00 G29 **712.05** Effects of ADDLs on AMPA receptors trafficking and synaptic plasticity. N. SUN; J. HAO; X. LI; K. SUN; Z. BAO; X. SHI; C. GAO*. *Xuzhou Med. Col., Xuzhou Med. Col.*

9:00 G30 **712.06** Cognitive impairments induced by intracerebroventricular (ICV) injection of streptozotocin (STZ) in the rat. T. D. WOLINSKY*; A. HERNIER; E. ESNEAULT; R. TROUDET; Z. ATCHA; V. CASTAGNE; D. VIRLEY. *Porsolt.*

10:00 G31 **712.07** Silent stroke and beta-amyloid aggregation combine to produce deleterious effects on cognition in the middle-aged rat. D. C. GIDYK*; N. S. HONG; D. BENIS; A. MORRISON; R. J. KEELEY; R. J. MCDONALD. *Univ. of Lethbridge.*

11:00 G32 **712.08** Companion retards the development of memory deficit in APP/PS1 mice. Y. HSIAO*; P. GEAN. *Dept. of Pharmacology, Natl. Cheng-Kung Univ.*

8:00 G33 **712.09** Osmotin attenuates the amyloid beta-induced hippocampal neuronal damages in mice. G. YOON*; T. ALI; S. ALI SHAH; H. LEE; M. KIM. *Gyeongsang Natl. Univ.*

9:00 G34 **712.10** ▲ The Aβ25-35 in basolateral amygdala induces a delay in extinction of conditioned taste aversion and changes dendritic morphology of neurons. G. RAMIREZ MEJIA*; L. ORTEGA-HERNANDEZ; L. PEREZ-JIMENEZ; G. FLORES; I. D. LIMON. *Lab. de Neurofarmacologia, Benemérita Univ. Autónoma de Puebla, Lab. de Neuropsiquiatría.*

10:00 G35 **712.11** Behavioral effects of anatabine in wild-type and transgenic mouse models of Alzheimer's disease. M. VERMA*; D. BEAULIEU-ABDELAHAD; F. CRAWFORD; M. MULLAN; D. PARIS. *Roskamp Inst.*

11:00 G36 **712.12** Comprehensive behavioral characterization of an APP/PS-1 double knock-in mouse model of Alzheimer's disease. S. J. WEBSTER*; A. D. BACHSTETTER; L. J. VAN ELDIK. *Univ. of Kentucky.*

8:00 G37 **712.13** Knowledge about food in patients with primary dementia. F. FORONI*; G. PERGOLA; M. SILVERI; P. ROSSI; E. LIACI; R. I. RUMIATI. *SISSA, Univ. Cattolica.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 G38 **712.14** The injection of peptide Aβ25-35 in the CA1 region of rat hippocampal modifies the process of neurogenesis and long term memory. E. RAMIREZ*, SR; A. DÍAZ; J. GUEVARA; J. MORAN; G. FLORES; D. LIMÓN. *Benemérita Univ. Autónoma De Puebla, Benemerita Univ. Autonoma de Puebla, Univ. Nacional Autonoma de Mexico, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla.*

10:00 G39 **712.15** Deletion of LRP1 in vascular mural cell impairs synaptic plasticity. T. KANEKIYO*; C. LIU; G. BU. *Mayo Clin.*

11:00 G40 **712.16** ▲ 17-AAG improves cognitive process and increases response of the Heat Shock Proteins in a model lesion with Aβ25-35 in hippocampus of the rat. L. O. HERNANDEZ*; G. RAMIREZ-MEJIA; J. GUEVARA; I. D. LIMON. *LABORATORIO DE NEUROFARMACOLOGIA, DEPARTAMENTO DE BIOQUIMICA-UNAM, LABORATORIO EXPERIMENTAL DE ENFERMEDADES NEURODEGENERATIVAS INNN-MVS.*

8:00 G41 **712.17** Olfactory set and reversal learning in the 3xTG-AD mouse model of Alzheimer's disease. K. M. RODDICK*; H. M. SHELLINCK; R. E. BROWN. *Dalhousie Univ.*

9:00 G42 **712.18** Relief of paranoid syndrome in a 78 years old woman by cooling the forebrain. B. BARRERA-MERA*. *Fac Med, UNAM.*

10:00 G43 **712.19** Investigating the potential of stem cell based therapy in an immunotoxin mouse model of Alzheimer's disease. D. TIWARI*; H. WARDEN; J. M. HAYNES; J. A. NICOLAZZO; C. W. POUTON; J. L. SHORT. *Monash Univ.*

11:00 G44 **712.20** Effects of dietary composition on cognition and development of Alzheimer's disease. I. KADISH*; A. KUMAR; U. BEITNERE; T. VAN GROEN. *Univ. Alabama Birmingham, Univ. of Latvia.*

POSTER

713. Parkinson's Disease: Cellular Mechanisms I

Theme C: Disorders of the Nervous System

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

8:00 G45 **713.01** The role of alpha-synuclein multimers in attenuating neurotransmitter release. L. WANG*; U. DAS; S. ROY. *UCSD.*

9:00 G46 **713.02** ● Transcriptional regulation of cholecystokinin gene by DJ-1. T. YAMANE*; H. KITAURA; S. M. M. IGUCHI-ARIGA; H. ARIGA. *Hokkaido Univ., Hokkaido Univ.*

10:00 G47 **713.03** ● Transcriptional effects of LRRK2 kinase inhibition in LRRK2-expressing immune cells. K. V. CHRISTENSEN*; M. HENTZER; J. C. DAECHSEL; M. C. HERZIG; G. P. SMITH. *H. Lundbeck A/S.*

11:00 G48 **713.04** Analyses of metabolic dynamics in iPSC-derived neurons from patient with familial Parkinson's disease. N. KUZUMAKI*; Y. IMAIZUMI; W. AKAMATSU; Y. OKADA; T. MATSUMOTO; N. IZAWA; T. HISHIKI; Y. SUDA; M. NARITA; M. SUEMATSU; N. HATTORI; H. OKANO. *Keio Univ., Juntendo Univ. Grad. Sch. of Medicine, Dept. of Neurol., Keio University, Sch. of Medicine, Dept. of Biochem., Hoshi University, Dept. of Pharmacol.*

8:00 G49 **713.05** Altered protein homeostasis and bioenergetics in fibroblasts derived from patients with sporadic Parkinson's disease. G. AMBROSI*; C. GHEZZI; R. ZANGAGLIA; B. MINAFRA; C. PACCHETTI; S. SEPE; M. T. ARMENTERO; P. G. MASTROBERARDINO; F. BLANDINI. *Natl. Inst. of Neurol. IRCCS C.Mondino, Erasmus Med. Ctr.*

9:00 G50 **713.06** Mortalin interacts both α-synuclein and DJ-1 and enhances rotenone-induced neurotoxicity. J. JIN*; J. XU; Y. LI; J. LIANG; A. BAO; J. LUO. *Zhejiang Univ. Sch. of Med., Zhejiang Univ. Sch. of Med.*

10:00 G51 **713.07** Identification of the Alpha-Synuclein Transmission Receptor. X. MAO*; J. XU; G. UMANAH; Y. XIONG; S. BRAHMACHARI; J. ZHANG; Z. CHI; J. SHIN; S. KARUPPAGOUNDER; D. KIM; H. KO; V. DAWSON; T. DAWSON. *The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn., Diana Helis Henry Med. Res. Fndn., The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med.*

11:00 G52 **713.08** The Parkinson´s disease associated PARK7 c.192G>C mutation leads to a complete loss of DJ-1 protein in patient-based cellular models. C. D. OBERMAIER; K. WICHER; N. WEISSCHUH; B. SCHMID; B. MAURER; A. HUMMEL; S. HOFFMANN; L. F. BURBULLA; D. KRAINC; T. GASSER; B. WISSINGER; R. KRUGER*. *DZNE, German Ctr. for Neurodegenerative Dis., Grad. Sch. for Cell. and Mol. Neuroscience, Univ. of Tuebingen, Dept. of Neurodegenerative Dis. and Hertie Inst. for Clin. Brain Research, Univ. of Tuebingen, Mol. Genet. Laboratory, Inst. for Ophthalmic Research, Univ. Clinics Tuebingen, Dept. of Med. Genetics, Poznań Univ. of Med. Sci., Dept. of Neurology, Massachusetts Gen. Hospital, Harvard Med. School, MassGeneral Inst. for Neurodegenerative Dis., Ctr. of Neurol. and Hertie Institute, Univ. of Tubingen.*

8:00 G53 **713.09** Human dopaminergic neurons with Parkinson's disease-linked PINK1 mutations as a model to study mitochondrial function in disease-relevant neurons. L. A. SCARFFE*; S. A. ANDRABI; D. STEVENS; H. KIM; D. KOZIOROWSKI; A. FRIEDMAN; M. BOCZARSKA-JEDYNAK; B. JASINSKA-MYGA; G. OPALA; O. ROSS; Z. K. WSZOLEK; V. L. DAWSON; T. M. DAWSON. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn., Johns Hopkins Univ. Sch. of Med., Med. Univ. of Warsaw, Med. Univ. of Silesia, Mayo Clin. Florida, Mayo Clin. Florida, Johns Hopkins Univ. Sch. of Med.*

9:00 G54 **713.10** Identification of a novel interacting partner of LRRK2. P. ATHANASOPOULOS; W. JACOB; R. HEUMANN*. *Ruhr-Universität Bochum, Ruhr-Universitat Bochum.*

10:00 G55 **713.11** Deep sequencing reveals transcriptional regulation by nicotine in dopaminergic neurons. B. M. HENLEY*; R. SRINIVASAN; B. COHEN; C. XIAO; E. MACKEY; B. WILLIAMS; S. MCKINNEY; P. DESPANDE; B. J. WOLD; H. A. LESTER. *Caltech, California Inst. of Technology, 156-29 Caltech,.*

11:00 G56 **713.12** Characterization of PINK1 mutations associated with Parkinson's disease in mammalian cells and *Drosophila.* S. SONG*; S. JANG; J. CHUNG. *Seoul Natl. Univ.*

8:00 G57 **713.13** Nicotinamide nucleotide transhydrogenase (Nnt) function links respiration dependent H_2O_2 consumption to the mitochondrial thioredoxin/peroxiredoxin system. P. LOPERT*; M. PATEL. *Univ. of Colorado Denver.*

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

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9:00 G58 **713.14** The E3 ubiquitin ligase Nedd4 facilitates the endosomal targeting of extracellular alpha-synuclein. N. SUGENO*; T. HASEGAWA; M. KONNO; E. MIURA; R. OSHIMA; A. KIKUCHI; M. AOKI; A. TAKEDA. *Tohoku Univ.*

10:00 G59 **713.15** Lysosomal degradation of α-synuclein is inceased by tyrosine phosphorylation in the SH-SY5Y cells. H. CHOI*; H. KIM; Y. SUH. *Korea Brain Res. Inst.*

11:00 G60 **713.16** DHA peroxidation induced neural cell death,but alpha-synuclein play a neuroprotective role with proteolysis system in SH-SY5Y cells overexpressed alpha-synuclein. M. SHAMOTO-NAGAI*; S. HISAKA; T. OSAWA; M. NAOI; W. MARUYAMA. *Natl. Ctr. For Geriatrics and Gerontology, Meijo Univ., Aichi Gakuin Univ.*

8:00 H1 **713.17** ▲ Oxidative stress precedes dopaminergic cell deaths induced by modified alpha synuclein. W. XIANG*; J. C. M. SCHLACHETZKI; S. MENGES; J. WINKLER; J. KLUCKEN; C. BECKER. *Inst. of Biochem., Dept. of Mol. Neurology, Univ. Hosp. Erlangen.*

9:00 H2 **713.18** Impaired mitochondrial bioenergetics, mass, and functional morphology in synaptosomes derived from brain regions containing central dopamine neurons in parkin deficient mice. H. HAWONG*; J. R. PATTERSON; J. L. GOUDREAU; K. LOOKINGLAND. *MICHIGAN STATE UNIVERSITY, MICHIGAN STATE UNIVERSITY, MICHIGAN STATE UNIVERSITY, MICHIGAN STATE UNIVERSITY.*

10:00 H3 **713.19** AMP kinase activation augments K-ATP current in rat subthalamic nucleus neurons. K. SHEN*; S. W. JOHNSON. *Oregon Hlth. Sci. Univ., Veterans Affairs Med. Ctr.*

11:00 H4 **713.20** Pharmacological blockade of the Na+/Ca^{2+} exchanger provides protection to vulnerable dopamine neurons. P. P. MICHEL*; C. MARITAZ; D. TOULORGE; S. GUERREIRO; E. C. HIRSCH. *Brain and Spinal Cord Institute, UPMC UMR S975, INSERM U975, CNRS UMR 7225.*

8:00 H5 **713.21** Interplay of alpha-synuclein species with microtubule network and kinesin-dependent transport. I. PROTS; V. VEBER; S. BREY; S. CAMPIONI; K. BUDER; R. RIEK; K. BÖHM; B. WINNER*. *Universitätsklinikum Erlangen, Swiss Federal Inst. of Technol. Zurich, Leibniz Inst. for Age Res. - Fritz Lipmann Inst. e.V.*

9:00 H6 **713.22** Role and function of Narp in L-dopa-induced dyskinesia development. M. MALERBI*. *CR-ICM INSERM.*

POSTER

714. Parkinson's Disease: Cellular Mechanisms II

Theme C: Disorders of the Nervous System

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

8:00 H7 **714.01** Effect of S129 phosphorylation on internalization of extracellular alpha-synuclein fibrils. F. SAMUEL*; A. C. GIASSI; V. NG; P. E. FRASER; P. E. FRASER; A. TANDON. *Tanz CRND, Univ. of Toronto.*

9:00 H8 **714.02** Intraneuronal behaviour of alpha-synuclein when exposed to exogenous fibrils. D. SRI RENGANATHAN*; F. SAMUEL; A. C. C. GIASSI; J. SEVALLE; P. E. FRASER; A. TANDON. *Univ. of Toronto, Univ. of Toronto.*

10:00 H9 **714.03** Lmx1a and Lmx1b: Formation and maintenance of midbrain dopaminergic neuron circuitry. H. DOUCET-BEAUPRÉ; M. LEVESQUE*. *Laval Univ., Ctr. de recherche de l'Institut universitaire en santé mentale de Québec.*

11:00 H10 **714.04** Effect of Parkinson disease-associated LRRK2 mutations on microtubules. D. BOASSA*; P. NGUYEN; S. PHAN; L. R. KETT; J. HU; W. T. DAUER; M. H. ELLISMAN. *Univ. of California San Diego, Univ. of Michigan Med. Sch.*

8:00 H11 **714.05** Mitochondrial fission in dopamine neurons. A. BERTHET*; J. ZHANG; J. ZHANG; J. AHMAD; T. HNASKO; H. SESAKI; R. EDWARDS; E. HUANG; K. NAKAMURA. *Gladstone Inst. of Neurolog. Dis. Univ. of California, San Franci, Dept. of Pathology, Univ. of California, San Francisco, California, Dept. of Neurosciences, Translational Neurosciences Institute, Univ. of California, San Diego, Dept. of Cell Biology, Sch. of Medicine, Johns Hopkins University, Baltimore, Maryland, 5Departments of Neurol. and Physiol. Grad. Programs in Neuroscience, Biomed. Sci. and Cell Biology, Univ. of California, San Francisco.*

9:00 H12 **714.06** ● Function of PGC-1alpha in the modulation of alpha-synuclein oligomerization. J. ESCHBACH; A. WITTING*; A. SCHEFFOLD; B. MORRISON; K. RUDOLPH; P. WEYDT; A. LASPADA; A. LUDOLPH; K. DANZER. *Univ. Ulm, univ Ulm, Univ. of California.*

10:00 H13 **714.07** Autophagy contributes to Lewy body formation in a human cell model of sporadic Parkinson's disease. P. A. TRIMMER*; E. N. CRONIN-FURMAN. *Virginia Commonwealth Univ., Univ. of Virginia, Parkinson's and Movement Disorders Ctr.*

11:00 H14 **714.08** Mitochondrial oxidative stress induces alpha-synuclein translation in neurites of dopaminergic neurons. G. JE*; A. CRISTÓVÃO; S. GUHATHAKURTA; E. BOK; L. LOOGER; V. BELOUSOV; Y. KIM. *#308 Burnett Sch. of Biomed. Sci. Colledge of Med. UCF, Howard Hughes Med. Institute, Janelia Farm Res. Campus, Shemyakin-Ovchinnikov Inst. of Bioorganic Chem.*

8:00 H15 **714.09** Astroglia-dependent protective mechanisms of urate in a cellular model of Parkinson's disease. R. BAKSHI*; M. MAGUIRE; R. LOGAN; X. CHEN; M. A. SCHWARZSCHILD. *Massachusetts Gen. Hosp.*

9:00 H16 **714.10** Post-transcriptional regulation of α-Synuclein by LRRK2. J. BOON*; B. WOLOZIN. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med.*

10:00 H17 **714.11** Calcium signaling analysis and apolipoprotein E reduction in human cortical astrocytes treated with γ-synuclein. A. O. KOOB*; C. LOOSBROCK; M. BRYANT; K. HOFFMAN; E. DANIELS. *Univ. of Wisconsin - River Falls, Univ. of Wisconsin - River Falls.*

11:00 H18 **714.12** Real-time monitoring of basal and activity-dependent mitochondrial bioenergetics in cultured mouse dopamine neurons. C. PACELLI*; N. GIGUÈRE; L. E. TRUDEAU. *Univ. of Montreal.*

8:00 H19 **714.13** ● Modeling Parkinson's disease using iPS cells from patients with LRRK2 mutation. I. SINGEC*; D. KARLSSON; J. JOSHI; K. FISHER. *Pfizer, Pfizer.*

9:00 H20 **714.14** ● Elucidating the role of LRRK2 mutations on T cell signaling and activation in Parkinson's disease. D. COOK*; M. G. TANSEY. *Emory Univ., Emory Univ.*

10:00 H21 **714.15** Pathological changes in RNA binding proteins in Parkinson's disease. C. B. TRENGROVE*; T. VANDERWEYDE; B. WOLOZIN. *Boston Univ.*

11:00 H22 **714.16** Tet1 and H3k27me3-mediated epigenetic regulation of alpha-synuclein in Parkinson's disease. S. GUHATHAKURTA; G. JE; E. BOK; A. CRISTOVAO; Y. KIM*. *Burnett Sch. of Biomed. Sci.*

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

▲ Indicates a high school or undergraduate student presenter.

8:00 H23 **714.17** Dyskinesia and FosB/ΔFosB immunoreactivity in the striatum induced by different doses of Levodopa in 6-hydroxidopamine lesioned rats. V. PALAFOX*; G. RAMÍREZ-GARCÍA; D. JUÁREZ-TORRES; J. AGUILERA; I. D. LIMÓN. *Benemerita Univ. Autonoma De Puebla, Univ. Autonoma of Brcelona.*

9:00 H24 **714.18** VPS35: A potential role on α-Synuclein aggregate propagation. S. ELEUTERI*; K. KOSBERG; J. FIELDS; S. MICHAEL; A. ADAME; H. LASHUEL; E. MASLIAH. *UCSD, Ecole Polytechnique Fédérale de Lausanne (EPFL),.*

10:00 H25 **714.19** ● Retromer (VPS35) dysfunction in Parkinson's disease. L. N. MUNSIE*; D. A. BECCANO-KELLY; M. VOLTA; I. TATARNIKOV; L. TAPIA; P. CHOU; J. KHINDA; C. VILARINO-GUEL; A. M. MILNERWOOD; M. J. FARRER. *Univ. of British Columbia, Univ. of British Columbia.*

11:00 H26 **714.20** α-synuclein expression increases glutamate level in hek 293 cells. J. SHIM; D. NGUYEN; M. PAIK; G. PHUKAN; G. LEE*. *Ajou Univ., Natl. Inst. of Drug Control, Sunchon Natl. Univ., Ajou Univ., Ajou Univ. Sch. of Med.*

POSTER

715. Neurodegeneration: FTD and Lysosomal Disorders

Theme C: Disorders of the Nervous System

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

8:00 H27 **715.01** Aberrant self-schema representation as putative basis of psychosis in affected C9ORF72 mutation carriers. L. DOWNEY*; P. D. FLETCHER; H. L. GOLDEN; C. J. MAHONEY; J. AUGUSTUS; S. J. CRUTCH; J. D. WARREN. *Inst. of Neurol., Inst. of Neurology, UCL.*

9:00 H28 **715.02** ▲ Disease in left uncinate fasciculus correlates with apathy in behavioral variant frontotemporal dementia. J. POWERS*; C. T. MCMILLAN; P. A. YUSHKEVICH; M. GROSSMAN. *Univ. of Pennsylvania Perelman Sch. of Med., Univ. of Pennsylvania Perelman Sch. of Med.*

10:00 H29 **715.03** ▲ Cognitive estimation deficits in patients with behavioral variant frontotemporal dementia (bvFTD). T. A. BISBING*; C. MCMILLAN; K. RASCOVSKY; M. GROSSMAN. *Univ. of Pennsylvania.*

11:00 H30 **715.04** Human induced pluripotent stem cell and direct reprogramming models of medium spiny and von Economo neuron dysfunction in Frontotemporal dementia. K. M. HASTON; H. ZAHED; M. C. OLDHAM; W. W. SEELEY; S. BARMADA*; S. M. FINKBEINER. *Gladstone Inst., Gladstone Inst., Univ. of California, San Francisco, UCSF Memory and Aging Ctr., Gladstone Inst., Gladstone Inst.*

8:00 H31 **715.05** Sleep and EEG abnormalities in sheep carrying a natural CLN5 gene mutation causing ovine ceroid lipofuscinosis (Batten's disease). N. PERENTOS*; R. MASON; N. L. MITCHELL; A. Q. MARTINS; D. N. PALMER; A. J. MORTON. *Univ. of Cambridge, Lincoln Univ.*

9:00 H32 **715.06** Molecular pathogenesis of adult-onset neuronal ceroid lipofuscinosis. Y. ZHANG*; M. X. HENDERSON; E. J. SALM; S. S. CHANDRA. *Yale Sch. of Med., Yale Sch. of Med.*

10:00 H33 **715.07** Defective lysosomal maturation of Cathepsin D contributes to the pathogenesis of Infantile Batten Disease. G. CHANDRA*; A. SAHA; C. SARKAR; M. MORALLE; S. PENG; Z. ZHANG; M. BAGH; A. B. MUKHERJEE. *NIH.*

11:00 H34 **715.08** ▲ c-Abl induces neuronal gene repression by increasing HDAC2 levels in Niemann Pick type C models. P. A. CONTRERAS*; M. A. GONZALEZ; M. J. YAÑEZ; E. SETO; A. R. ALVAREZ; S. ZANLUNGO. *Pontificia Univ. Catolica De Chile, Pontificia Univ. Catolica De Chile, Pontificia Univ. Catolica De Chile, H. Lee Moffitt Cancer Ctr. and Res. Inst.*

8:00 H35 **715.09** Synaptic dysfunction and early neuropathology in the mouse model of mucolipidosis type IV. Y. GRISHCHUK*; S. SRI; W. MA; N. RUDINSKIY; M. COTTLE; K. STEMBER; E. SAPP; M. DIFIGLIA; R. BETENSKIY; B. HYMAN; R. KELLEHER; J. COOPER; S. SLAUGENHAUPT. *Massachusetts Gen. Hospital/Harvard Med. Sch., King's Colledge London, Massachusetts Gen. Hospital/Harvard Med. Sch., Harvard Sch. of Publ. Hlth.*

9:00 H36 **715.10** Adeno-associated virus 2/5 prevents seizures in a mouse model of infantile neuronal ceroid lipofuscinosis. J. T. DEARBORN*; S. L. MACAULEY; D. F. WOZNIAK; S. C. FOWLER; M. S. SANDS. *Washington Univ. Sch. of Med., Univ. of Kansas.*

10:00 I1 **715.11** ● Treatment of Sanfilippo B syndrome with choroid plexus-directed gene therapy with mannose 6-phosphate-independent lysosomal targeting. P. DICKSON*; S. KAN; S. Q. LE; E. LOTSHAW; M. R. HADDAD; E. CHOI; A. DONSANTE; S. G. KALER. *Harbor-Ucla, NIH/NICHD.*

POSTER

716. Neurologic Disorders and Neural Stem Cells

Theme C: Disorders of the Nervous System

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

8:00 I2 **716.01** The NINDS Repository: A unique resource of patient-derived, highly characterized primary fibroblasts and induced pluripotent stem cells for neurodegenerative disease research. C. A. PEREZ*; S. HEIL; K. FECENKO-TACKA; M. O'ROURKE; K. PANCKERI; C. RHODA; M. SELF; K. HODGES; M. SUTHERLAND; R. A. CORRIVEAU; C. TARN. *Coriell Inst., NINDS Repository, Coriell Stem Cell Biobank, Coriell Cell Culture Lab., Natl. Inst. for Neurolog. Disorders and Stroke (NINDS-NIH).*

9:00 I3 **716.02** Pgrn-dependent regulation of sirt1 in neural progenitor cells. S. SATO*; K. MIURA; A. TSUTIYA; Y. TANAKA; R. OHTANI-KANEKO; M. NISHIHARA; T. NEDACHI. *Toyo Univ., the Univ. of Tokyo.*

10:00 I4 **716.03** ● Robust survival of human neural stem cells following transplantation in adult minipig brain. T. LAM; D. QUACH; R. LEAVITT; I. NGUYEN; D. LEE; M. P. HEFFERAN; S. JUHAS; J. JUHASOVA; J. MOTLIK; M. MARSALA; M. WU; T. HAZEL; K. JOHE*. *Neuralstem Inc., Inst. of Animal Physiol. and Genet., Univ. of California - San Diego, Neurodigitech LLC, Neuralstem Inc.*

11:00 I5 **716.04** ● Safety profile of transplanting human neural stem cells into the phrenic nucleus of mini pig. R. LEAVITT; D. QUACH; T. LAM; I. NGUYEN; D. LEE; M. P. HEFFERAN; M. WU; T. G. HAZEL*; T. FEDERICI; N. BOULIS; K. JOHE. *Neuralstem Inc., Neurodigitech LLC, Neuralstem, Inc, Emory Univ.*

8:00 I6 **716.05** miR-126 modulates neurotoxicity and growth factor activities in neurons by regulating PI3K/AKT/GSK-3β signaling. K. C. SONNTAG*; W. KIM; Y. LEE; A. SHANMUGAVADIVU; D. L. MCPHIE; K. KIM; B. M. COHEN. *McLean Hospital/Harvard Med. Sch., McLean Hospital, Harvard Med. Sch.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 I7 **716.06** Understanding the formation of the USH2 complex using biochemical assays. Q. CHEN*; P. VACHALI; Z. SHEN; J. YANG. *John A Moran Eye Center, The Unversity of Utah.*

10:00 I8 **716.07** C/EBPβ expression in the brain during HIV infection: Implications for neuronal autophagy. J. A. FIELDS*; S. ELEUTERI; K. KOSBERG; A. ADAME; E. MASLIAH. *UCSD, UCSD.*

11:00 I9 **716.08** Possible beneficial effect of peroxisome proliferator-activated receptor (PPAR) - α and γ agonist against haloperidol induced tardive dyskinesia in rats. P. KUMAR*; S. GROVER; K. SINGH; V. SHARMA; R. BUDHIRAJA. *Baba Farid Inst. of Pharm., ISF Col. of Pharm.*

8:00 I10 **716.09** AAV-mediated gigaxonin expression ameliorates the phenotype of gigaxonin knockout mice overexpressing light and heavy human neurofilaments. A. DUFLOCQ*; R. PERROT; G. SOUCY; C. BAREIL; S. J. GRAY; J. JULIEN. *CRCHUL - Univ. Laval, Univ. d'Angers - CNRS, Univ. of North Carolina.*

9:00 I11 **716.10** Axonal pathology in myelinated nerves of Caspr mutant mice with a deficiency of paranodal junctions at the paranode. Y. TAKAGISHI*; K. KATANOSAKA; I. SASAKI; Y. MURATA. *Nagoya Univ.*

10:00 I12 **716.11** Ovarian steroids regulate gene expression related to DNA repair and common neurodegenerative diseases in serotonin neurons of macaques. A. P. REDDY; C. L. BETHEA*. *Oregon Natl. Primate Res. Ctr., Oregon Natl. Primate Res. Ctr.*

11:00 I13 **716.12** Motor training attenuates corticosterone-suppressed cell proliferation in the layer I of the motor cortex and improves motor functions. J. LEE*; B. LAU; J. LEUNG; H. WONG; K. SO. *The Univ. of Hong Kong, The Univ. of Hong Kong, Dept. of Rehabil. Sciences, The Hong Kong Polytechnic Univ., The Univ. of Hong Kong, Jinan Univ.*

8:00 I14 **716.13** Familial Dysautonomia: An evaluation of anxiety using the elevated plus maze. K. J. KUJAWA; F. LEFCORT*; A. M. BABCOCK. *Montana State Univ., Montana State Univ.*

9:00 I15 **716.14** p47 is downstream of VCP and neurofibromin in regulation of dendritic spine density in neurons. Y. SHIH*; Y. HSUEH. *Academia Sinica.*

10:00 I16 **716.15** Hyperglycemia decreases the pericyte coverage of brain capillary endothelium. T. KATO*; Y. SEKINE; H. NOZAKI; S. HIROKAWA; T. SATO; M. YOKOYAMA; M. NISHIZAWA; O. ONODERA. *Brain Res. Inst. Niigata Univ., Brain Res. Inst. Niigata Univ., Brain Res. Inst. Niigata Univ.*

11:00 I17 **716.16** Acid base regulatory mechanisms in astrocytes derived from chronic mountain sickness patients. H. YAO*; H. ZHAO; B. FREITAS; J. WANG; A. MUOTRI; G. HADDAD. *UCSD, The Rady Children's Hospital-San Diego, UCSD, UCSD.*

8:00 I18 **716.17** The Hereditary Spastic Paraplegia gene spastin is required for normal locomotion in *Drosophila melanogaster.* J. C. STRAUTMAN*; S. T. MADABATTULA; A. C. MAGICO; G. A. ROULEAU; F. V. BOLDUC. *Univ. of Alberta, McGill Univ., Univ. of Alberta.*

9:00 J1 **716.18** Wfs1 deficiency affects expression levels of endoplasmatic reticulum stress associated genes (Grp78, Grp94, Xbp1) in mouse brain. A. ALTPERE*; S. SÜTT; T. VISNAPUU; E. VASAR. *Univ. of Tartu.*

10:00 J2 **716.19** Evaluation of a neural-derived peptide on apoptosis in rats with traumatic spinal cord injury. R. H. RODRIGUEZ BARRERA*; A. FLORES; H. MESTRE; E. GARCIA-VENCES; V. Y. GONZALEZ-PUERTOS; A. M. FERNANDEZ-PRESAS; M. KONIGSBERG; A. IBARRA. *Univ. Autónoma Metropolitana Iztapalapa, Univ. Anáhuac México Norte, Ctr. de Investigación del Proyecto CAMINA A.C, Univ. Autónoma Metropolitana Iztapalapa, Univ. Autónoma Metropolitana Iztapalapa, Univ. Autonoma de México.*

11:00 J3 **716.20** ● Pauses in deep brain stimulation promote tremor and thalamic bursting. B. D. SWAN; D. T. BROCKER; J. D. HILLIARD; R. E. GROSS; D. A. TURNER; W. M. GRILL*. *Duke Univ., Univ. of Florida Col. of Med., Emory Univ. Sch. of Med., Duke Univ. Med. Ctr.*

8:00 J4 **716.21** ATF4 regulates puma expression in oxidative stress-induced neuronal cell death. P. SWAN*; S. CREGAN. *Robarts Res. Inst., Univ. of Western Ontario.*

9:00 J5 **716.22** Behavior and neuropathology in a progranulin haploinsufficient mouse model. C. VOLLERT*; S. GREGORY; K. NGO; H. POURZARGHAM; J. ERIKSEN. *Univ. of Houston.*

10:00 J6 **716.23** Altered network properties in corpus callosotomy. H. PARK*; J. KIM; B. PARK; M. YOON; J. LEE; J. LEE. *Yonsei Univ. Col. Med., Yonsei Univ. Col. of Med., Yonsei Univ. college of medicine, Severance Children's Hospital, Yonsei Univ. Col. of Med.*

POSTER

717. Aging: Molecular Mechanisms

Theme C: Disorders of the Nervous System

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

8:00 J7 **717.01** Extrachromosomal micro-DNA as potential predictors for human disease. C. HUSKO*; A. MICELI; E. FORBES; G. TORRES; J. LEHESTE. *NYIT-COM, NYIT-COM.*

9:00 J8 **717.02** Extrachromosomal circular 5SrDNA: A potential trigger for human aging. A. MICELI*; C. HUSKO; E. FORBES; G. TORRES; J. LEHESTE. *NYIT-COM.*

10:00 J9 **717.03** A heterozygous frame-shift mutation in CAV1 is associated with a severe neonatal progeroid and lipodystrophy syndrome. I. SCHRAUWEN*; S. SZELINGER; A. L. SINIARD; A. KURDOGLU; J. CORNEVEAUX; K. RAMSEY; D. W. CRAIG; V. NARAYANAN; M. J. HUENTELMAN. *Tgen.*

11:00 J10 **717.04** Effects of histone deacetylase inhibitor Valproic acid on haloperidol-treated aged mice. J. MONTALVO-ORTIZ*; J. KEEGAN; C. GALLARDO; D. FANG; M. MATSUMOTO; N. GERST; K. TETSUKA; J. CSERNANSKY; H. DONG. *Northwestern Univ., Northwestern Univ., Astellas Res. Inst. of America LLC.*

8:00 J11 **717.05** A molecular mechanism for age-related memory loss: The histone binding protein RbAp48. E. PAVLOPOULOS*; S. JONES; S. KOSMIDIS; M. CLOSE; C. KIM; O. KOVALERCHIK; S. A. SMALL; E. R. KANDEL. *Columbia Univ.*

9:00 J12 **717.06** ▲ The role of post-transcriptional control in age-associated enhancement of inflammatory cytokine expression following acute intrahippocampal interleukin-1β. S. E. ROYER*; S. C. HOPP; R. M. KAERCHER; H. M. BROTHERS; I. BARDOU; G. L. WENK. *Ohio State Univ., Ohio State Univ.*

10:00 J13 **717.07** Microarray analysis of Cdk5 loss-of-function. K. A. MCLINDEN*; E. GINIGER. *NIH.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 J14 **717.08** β2-microglobulin regulates the age-related decline in adult neurogenesis and cognitive function. L. SMITH; Y. HE; J. PARK; G. BIERI; J. LUO; J. BOUCHARD; R. WABL; J. GRANT; R. NARASHIMA; T. WYSS-CORAY; S. A. VILLEDA*. *Univ. of California San Francisco (UCSF), Stanford Univ.*

8:00 J15 **717.09** Age and sex differences in central nervous system Major Histocompatibility Complex I (MHCI) regulation. W. M. FREEMAN*; C. A. VAN KIRK; D. R. MASSER; W. E. SONNTAG. *Penn State Col. of Med., Penn State Col. of Medicin, Oklahoma Univ. Hlth. Sci. Ctr.*

9:00 J16 **717.10** 17β-estradiol regulates the biosynthesis of mature microRNA at multiple levels in the aged female rat hippocampus. Y. S. RAO*; N. N. MOTT; T. R. PAK. *Stritch Sch. of Medicine, Loyola Univ. Chicago, Loyola Univ. Chicago.*

10:00 J17 **717.11** Identification of novel mechanisms associated with the onset of memory decline in middle-aged mice. C. C. KACZOROWSKI*. *Med. Col. of Wisconsin.*

11:00 J18 **717.12** Mouse brain synaptic mitochondrial proteome alterations and aging: Implications for Alzheimer's disease pathogenesis. K. L. STAUCH*; H. FOX. *Univ. of Nebraska Med. Ctr.*

8:00 K1 **717.13** Proteostatic dysregulation drives aberrant morphology of aging mechanosensory neurons. E. VAYNDORF*; C. NICHOLS; C. PARKER; S. HUNTER; M. TOTH; J. A. PARKER; C. NERI; M. DRISCOLL; B. TAYLOR. *Univ. of Alaska Fairbanks, Rutgers, State Univ. of New Jersey, INSERM, Univ. of Montreal.*

9:00 K2 **717.14** Age-related changes of cerebellar Vesl/Homer expression correlate with decline in motor coordination. S. KAJA*; Y. NAUMCHUK; N. SUMIEN; N. KHULLAR; M. A. MOORE; B. C. GERDES; M. J. FORSTER; P. KOULEN. *Univ. of Missouri - Kansas City, Univ. of Missouri - Kansas City, Univ. of North Texas Hlth. Sci. Ctr., Univ. of Missouri - Kansas City.*

10:00 K3 **717.15** Age-dependent decline of Protein kinase C epsilon-mediated expression of activity-regulated cytoskeleton-associated protein in the hippocampus of Fischer 344 rats. C. COHAN*; C. B. WRIGHT; M. A. PEREZ-PINZON. *Univ. of Miami.*

11:00 K4 **717.16** Changes of the extracellular matrix and extracellular space diffusion parameters in the thalamus of aged Bral2 deficient mice. M. CICANIC*; M. EDAMATSU; Y. BEKKU; E. SYKOVA; T. OOHASHI; L. VARGOVA. *Charles University, 2nd Fac. of Med., Inst. of Exptl. Med., Okayama Univ. Grad. Sch. of Medicine, Dent. and Pharmaceut. Sci.*

8:00 K5 **717.17** Extracellular calcium during and after hyponatremia. J. ODACKAL; S. HRABETOVA*. *SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr.*

9:00 K6 **717.18** Activation of NF-kappa κB signaling in the hippocampus without cholinergic input was aggravated by chronic stress. S. LEE*; M. KIM; J. HAN. *Konkuk Univ.*

10:00 K7 **717.19** Ependymal cells express and traffic Mucins in a Marcks-dependent manner, a process required for their maintenance and aging in the mouse brain. H. T. GHASHGHAEI*; N. MUTHUSAMY; J. WEIMER. *North Carolina State Univ., Univ. of South Dakota Sanford Sch. of Med.*

11:00 K8 **717.20** Bicarbonate/phi sensitive soluble adenylyl cyclase (sac) regulates lysosomal ph. N. RAHMAN*; F. R. MAXFIELD; L. R. LEVIN; J. BUCK. *Weill Cornell Med. Col., Weill Cornell Med. Col.*

8:00 K9 **717.21** ● Linking lipid metabolism to the decline in subventricular zone neurogenesis during aging and Alzheimer's disease. L. HAMILTON*; A. AUMONT; H. XU; S. A. L. BENNETT; F. CALON; K. J. L. FERNANDES. *Univ. de Montreal, Univ. of Ottawa, Univ. de Laval.*

POSTER

718. Genetic Correlates of Autism

Theme C: Disorders of the Nervous System

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

8:00 K10 **718.01** Transgenic mouse model inducibly expressing mutant DISC1 in cerebellum. A. V. SHEVELKIN*; B. ABAZYAN; O. A. PLETNIKOVA; C. A. ROSS; J. C. TRONCOSO; H. ZENG; M. V. PLETNIKOV. *P.K.Anokhin Inst. Norm Physiol, Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Allen Inst. for Brain Sci., Johns Hopkins Univ. Sch. of Med.*

9:00 K11 **718.02** Purinergic P2X4R KO mice exhibit altered expression of glutamate ionotropic receptor subunits: Implications for autism spectrum disorders. S. KHOJA*; L. R. WYATT; L. ASATRYAN; M. W. JAKOWEC; M. BORTOLATO; R. L. ALKANA; D. L. DAVIES. *USC, USC, USC, Univ. of Kansas.*

10:00 K12 **718.03** An autism-associated neuroligin-3 mutation impairs developmental synapse elimination in the cerebellum. E. LAI*; H. NAKAYAMA; T. NAKAZAWA; K. TABUCHI; K. HASHIMOTO; M. KANO. *The Univ. of Tokyo, Hiroshima Univ., Shinshu Univ.*

11:00 L1 **718.04** De novo missense mutations identified in autism lead to disruption of Reelin biosynthesis. D. LAMMERT*; B. HOWELL. *SUNY Upstate Med. Univ.*

8:00 L2 **718.05** CC2D1A loss of function causes intellectual disability and autism and disrupts protein trafficking. S. DI COSTANZO; R. SHAHEEN; D. E. TAMBUNAN; V. MITSIALIS; A. CINQUINO; M. GHAZIUDDIN; R. HILL; D. SABBAGH; M. A. SALIH; F. S. AL KURAYA; C. A. WALSH; M. MANZINI*. *The George Washington Univ., King Faisal Specialist Hosp. and Res. Ctr., Boston Children's Hosp., Univ. of Michigan Hlth. Syst., King Saud Univ. Col. of Med.*

9:00 L3 **718.06** Brain enhancer activities at the gene-poor 5p14.1 Autism-associated locus. Y. U. INOUE*; T. INOUE. *Natl. Inst. of Neuroscience, NCNP.*

10:00 L4 **718.07** Analysis of early postnatal autistic spectrum disorder gene expression in MAOA KO mice. A. KARDYS; K. CHEN; J. LAPIERRE; Y. CHEN; S. FLINK; B. TABAKOFF; J. C. SHIH*. *USC, USC, Univ. of Colorado Denver, USC.*

11:00 L5 **718.08** Neurexin-2 knockout mice display autistic-like behavioral phenotypes and alterations in glutamatergic-related brain proteins. J. DACHTLER*; N. T. WATT; J. RODGERS; N. M. HOOPER; S. J. CLAPCOTE. *Univ. of Leeds.*

8:00 L6 **718.09** Methyl-CpG-binding protein 2 (MeCP2) deficiency leads to altered astrocyte function. V. A. CUDDAPAH*; S. NWAOBI; C. THOMPSON; M. OLSEN. *Univ. of Alabama at Birmingham.*

9:00 L7 **718.10** Allelic specificity of ube3a expression in the mouse brain during postnatal development. M. C. JUDSON*; J. O. SOSA-PAGAN; B. D. PHILPOT. *Unc-Chapel Hill, Duke Univ., UNC-Chapel Hill.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 L8 **718.11** 22q11.2 copy number variation: Cellular and behavioral phenotypes of Tbx1 deficiency in postnatal neural progenitor cells and mice. T. HIRAMOTO*; S. BOKU; M. BECKERT; P. Ó BROIN; G. KANG; T. TAKAHASHI; A. HISHIMOTO; T. IZUMI; K. TANIGAKI; J. PENA; A. GOLDEN; N. HIROI. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med., Shiga Med. Col. Res. Inst., Albert Einstein Col. of Med.*

11:00 L9 **718.12** ● High resolution copy number variation analysis using droplet digital PCR. J. BERMAN*; J. REGAN; N. HEREDIA; D. SKVORTSOV; N. KLITGORD; S. TZONEV; G. KARLIN-NEUMANN; E. HEFNER. *Digital Biol. Center, Bio-Rad Labs.*

8:00 L10 **718.13** The chromodomain helicase DNA-binding 5 (CHD5) knockout mouse as an epigenetic model of neurodevelopmental dysfunction. M. T. PISANSKY*; J. C. GEWIRTZ; M. O'CONNOR; T. NICK; I. GOTTESMAN; A. BAGCHI. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

9:00 L11 **718.14** Behavioral analysis of acute- and prenatal zinc deficient animals. S. GRABRUCKER*; S. GAUB; M. ECKERT; K. MANGUS; G. EHRET; T. M. BOECKERS; A. M. GRABRUCKER. *Ulm Univ., Neurocenter of Ulm Univ., Univ. Ulm.*

10:00 L12 **718.15** Prenatal exposure to valproic acid causes sex-dependent behavioral abnormalities and cortical pathology in mice. Y. HARA*; S. KATAOKA; Y. MAEDA; E. TAKANO; Y. AGO; K. TAKUMA; T. MATSUDA. *Osaka Univ., United Grad. Sch. of Child Develop. , Osaka Univ. , Kanazawa Univ. , Hamamatsu Univ. Sch. of Medicine, Chiba Univ. and Univ. of Fukui.*

11:00 L13 **718.16** Cerebellar control of rough-and-tumble play behavior in a pre-clinical model of Autism Spectrum Disorder involving inflammation. C. L. WRIGHT*; J. F. HOFFMAN; M. M. MCCARTHY. *Univ. of Maryland, Univ. of Maryland, Univ. of Maryland, Sch. of Med.*

8:00 L14 **718.17** Stereotypical alterations in cortical patterning are associated with maternal illness-induced placental dysfunction in a mouse model of ASD. P. A. CARPENTIER; H. MOON*; U. HADITSCH; A. BRAUN; A. CANTU; R. PRICE; K. ISMAIL; J. WEIMANN; H. LEE; V. SARAVANAPANDIA; M. RIVERA; T. PALMER. *Stanford Univ.*

9:00 L15 **718.18** Brain region- and sex-dependent changes in the thyroid hormone regulated gene expression in autism spectrum disorders (ASD). A. KHAN; A. ZAVACKI; E. M. SAJDEL-SULKOWSKA*. *Harvard Med. School/ McLean Hosp., Harvard Med. School/BWH, Harvard Med. Sch/BWH.*

10:00 L16 **718.19** Zinc deficiency dysregulates a synaptic pathway associated with autism spectrum disorders. A. M. GRABRUCKER*; L. JANNETTI; S. GRABRUCKER; M. ECKERT; R. CHHABRA; K. MANGUS; S. PFAENDER; M. R. KREUTZ; G. EHRET; T. M. BOECKERS. *Neurocenter of Ulm Univ., Univ. Ulm, Univ. Ulm, Leibniz Inst. for Neurobio.*

11:00 L17 **718.20** Postpartum gene expression changes in the medial preoptic area exhibit a high concordance with autism and other mental health disorders. T. DRIESSEN*; B. E. EISINGER; C. ZHAO; M. C. SAUL; S. C. GAMMIE. *Univ. of Wisconsin-Madison.*

8:00 L18 **718.21** Dexamethasone but not hydrocortisone decreases proliferation of neuroprogenitor cells in subventricular zone in neonatal rats. Y. FENG*; J. WANG; A. J. BHATT. *Dept. of Pediatrics, Univ. of Mississippi Med. Ctr., Dept. of Pathology, Univ. of Mississippi Med. Ctr., Dept. of Pediatrics, Univ. of Mississippi Med. Ctr.*

9:00 M1 **718.22** A postnatal sensitive period in cerebellar development where disruption of a prostaglandin E2 mediated estradiol signaling pathway may be a risk factor for Autism Spectrum Disorder. J. F. HOFFMAN*; C. L. WRIGHT; M. M. MCCARTHY. *Univ. of Maryland, Sch. of Medicine; Pharmacol.*

10:00 M2 **718.23** ▲ The influence of dysfunctional copper homeostasis on glutamatergic synapses in the central nervous system. T. BAECKER*; K. MANGUS; T. M. BOECKERS; A. M. GRABRUCKER. *Neurocenter of Ulm Univ., Ulm Univ.*

11:00 M3 **718.24** The interaction between α7nAChR and maternal infection in regulating schizophrenia- and autism-like behaviors. W. WU*; P. H. PATTERSON. *Caltech.*

8:00 M4 **718.25** ▲ Characterization of neuronal morphology in a shank3 exon 21 deletion mouse model of autism. N. GUPTA*; M. KOUSER; P. WORLEY; C. POWELL. *Univ. of Texas At Southwestern, Johns Hopkins Univ.*

POSTER

719. Genetic Models of Autism in Animals

Theme C: Disorders of the Nervous System

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

8:00 M5 **719.01** *In vivo* reconstitution of autism associated PTEN point mutations results in neuronal hypertrophy. C. J. FRICANO*; T. DESPENZA, Jr.; M. R. WILLIAMS; M. LI; B. W. LUIKART. *Geisel Sch. of Med. At Dartmouth Col.*

9:00 M6 **719.02** Retroviral depletion of PTEN in newborn granule neurons of the dentate gyrus results in increased dendrite-directed synapse formation. M. R. WILLIAMS*; D. R. RACINE; B. W. LUIKART. *Dartmouth Med. Sch., Dartmouth Col.*

10:00 M7 **719.03** Electrophysiological characterization of the Cntnap2/CASPR2 knockout mouse, a model for ASD. M. T. LAZARO*; O. PEÑAGARIKANO; H. DONG; D. H. GESCHWIND; P. GOLSHANI. *Univ. of California, Univ. of California, Univ. of California.*

11:00 M8-DP2 **719.04** Serial two-photon tomography-based whole-brain activity mapping in cntnap2 ko mouse model of autism. Y. KIM*; K. PRADHAN; G. FITZGERALD; K. UMADEVI VENKATARAJU; P. OSTEN. *Cold Spring Harbor Lab.*

8:00 M9 **719.05** The effects of FG7142 on pemoline-induced self-injury: Potential role of anxiety. V. X. YUAN*; D. P. DEVINE. *Univ. of Florida.*

9:00 M10 **719.06** Analysis of excitation/inhibition balance in 16p 11.2 (df/+) mouse brain by STP tomography of c-fos expression. J. TARANDA*; Y. KIM; K. PRADHAN; K. UMADEVI VENKATARAJU; P. OSTEN. *Cold Spring Harbor Lab.*

10:00 M11 **719.07** *In vivo* discovery of new pharmacologic agents for treatment of anxiety and social deficits in brain-specific cacna1c-deficient mice. A. C. KATZMAN*; J. K. BRITT; L. MCDANIEL; A. S. LEE; M. E. BYRNE; A. M. RAJADHYAKSHA; A. A. PIEPER. *Univ. of Iowa, Weill Cornell Med. Col.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 M12 **719.08** Cav1.2 and Cav1.3 Ca^{2+} channel signaling in long-term memory and cognitive flexibility - implications for autism spectrum disorder. Z. R. DARUWALLA*; M. BOBOILA; C. SCHMUCKERMAIR; F. HOFMANN; J. STRIESSNIG; N. SINGEWALD; A. RAJADHYAKSHA. *Pediatric Neurology, Weill Cornell Med. Col., Brain and Mind Institute, Weill Cornell Med. Col., Brain and Mind Institute, Weill Cornell Med. Col., Inst. of Pharm. and CMBI, 4Institute for Pharmacology, Tech. Univ. Munich, Inst. of Pharmacy, Ctr. of Mol. Biosciences, Univ. of Innsbruck.*

8:00 M13 **719.09** ▲ Abnormal neuronal connectivity and social behavioral deficits in NrCAM-deficient mice. S. O. LAWANTO*; E. D. MAPPUS; K. N. LAWANTO; K. LISTON; M. C. BUHUSI. *Utah State Univ., Clemson Univ.*

9:00 M14 **719.10** Gluten and casein-derived opiate peptides alter redox status and produce global changes in DNA methylation associated with epigenetic-based differences in gene expression. R. C. DETH*; N. HODGSON; M. TRIVEDI. *Northeastern Univ.*

10:00 M15 **719.11** Strategies to rescue cognitive deficits due to synGAP1 haploinsuffisancy. M. H. BERRYER; F. F. HAMDAN; G. DI CRISTO*; J. L. MICHAUD. *Ctr. de Recherche de l'Hôpital Sainte-Justine, CHU Ste.justine-University of Montreal.*

11:00 M16 **719.12** Intrinsic excitability defects in specific subtypes of medial prefrontal cortex pyramidal neurons in a mouse model of autism. A. C. BRUMBACK*; V. S. SOHAL. *Univ. of California, San Francisco, Univ. of California, San Francisco.*

8:00 M17 **719.13** Bidirectional regulation of social behavior and cortical gene expression in mouse models of idic15 autism and angelman syndrome via nuclear Ube3a. D. C. STOPPEL*; E. OZKAYNAK; S. E. P. SMITH; F. MOHAMMAD; R. ARNAOUT; M. P. ANDERSON. *Beth Israel Deaconess Med. Ctr., Mayo Clin. Col. of Med.*

9:00 M18 **719.14** The E3 ubiquitin ligase component cereblon is recruited to aggresomes by proteasomal stress. S. WAKABAYASHI*; T. ASAHI; N. SAWAMURA. *Waseda Univ.*

10:00 N1 **719.15** The influence of basolateral amygdala lesion on behavior in rats model of autism. K. PTASZEK*; K. PLUCINSKA; D. MYSLINSKA. *Univ. of Gdansk/Department of Animal and Human Physiol.*

11:00 N2 **719.16** Hippocampal synaptic abnormalities and autism like behaviors associated with disruption of the non-canonical Wnt gene Prickle2. L. P. SOWERS*; L. LOO; Y. WU; T. WASSINK; P. J. FERGUSON; J. A. WEMMIE; G. RICHERSON; D. P. MOHAPATRA; A. G. BASSUK. *Univ. of Iowa.*

8:00 N3 **719.17** Neuroligin-1 deficient mice exhibit pathway-specific alterations in striatal NMDA receptor-mediated currents. F. ESPINOSA*; J. M. REIMERS; C. F. OCHOA; C. M. DEWEY; C. M. POWELL. *U.T. Southwestern Med. Ctr.*

9:00 N4 **719.18** Amygdala hyperexcitability and enhanced LTP in the SERT ala56 mouse model of autism spectrum disorder. H. IWAMOTO*; J. VEENSTRA-VANDERWEELE; R. D. BLAKELY. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

10:00 N5 **719.19** A reciprocal translocation disrupts Auts2 gene expression in a novel mutant strain, 16Gso. P. A. WEISNER*; J. J. CERQUA; E. T. BALTZ; L. J. STUBBS. *Univ. of Illinois At Champaign-Urbana.*

11:00 N6 **719.20** Cell number and density in the developing brain of a mouse model of autism with macrocephaly. Y. CHEN*; D. T. PAGE. *The Scripps Res. Institute, Scripps Florida.*

8:00 N7 **719.21** Sociability and amygdala-dependent memory deficits in Dishevelled mutant mice. B. A. BABINEAU*; J. NAKATANI; H. BELINSON; A. WYNSHAW-BORIS. *Univ. of California San Francisco, Shiga Univ. of Med. Sci., Case Western Reserve Univ.*

9:00 N8 **719.22** Engrailed 2 regulates hippocampal neurogenesis, apoptosis and synaptic activity. M. GENESTINE SCHMITT*; M. DURENS; Y. HUAN; S. HU; M. PLUMMER; Z. PANG; J. H. MILONIG; E. DICICCO-BLOOM. *UMDNJ-RWJMS, Rutgers Univ., Ctr. for Advanced Biotech. and Med.*

10:00 N9 **719.23** ● Characterization of the impact of the innate Disc1 truncation on the BTBR mouse model of autism. S. M. MCTIGHE*; M. PLETCHER; C. ARTURI; P. STOLYAR; S. J. SUKOFF RIZZO; V. L. REINHART; Z. A. HUGHES; D. G. SMITH. *Pfizer Neurosci., Pfizer, Autism Speaks.*

POSTER

720. Down's Syndrome

Theme C: Disorders of the Nervous System

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

8:00 N10 **720.01** Ultrasonic vocalizations during male-female interaction in the mouse model of Down syndrome Ts65Dn. B. L. ZAMPIERI; F. FERNANDEZ; J. PEARSON; M. R. STASKO; A. C. COSTA*. *Case Western Reserve Univ., Faculdade de Medicina de São José do Rio Preto, Johns Hopkins Univ. Sch. of Med., Univ. of Colorado Denver.*

9:00 N11 **720.02** Mitochondrial function in Down's syndrome and relationship with aging. C. J. MCALLISTER*; A. SLEIGH; S. H. ZAMAN; L. P. E. WATSON; M. J. WALPERT; A. J. HOLLAND. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge.*

10:00 N12 **720.03** ● NFATc4 activity study in a neural cell line established from a murine model of Down syndrome. P. S. SALAZAR*; P. ITURRA; A. CÁRDENAS; P. CAVIEDES. *Fac. of Medicine, Univ. of Chile, ICBM, Fac. of Medicine, Univ. of Chile, CINV, Univ. of Valparaíso, ICBM, Fac. of Medicine, Univ. of Chile.*

11:00 N13 **720.04** ● PICALM affects the age at onset of Alzheimer's disease in Down syndrome. E. L. JONES*; K. MOK; M. HANNEY; D. HAROLD; R. SIMS; J. WILLIAMS; C. BALLARD. *King's Col. London, Univ. Col. London, Cardiff Univ.*

8:00 N14 **720.05** Synaptic vesicle endocytosis in the Ts65Dn mouse model of Down's syndrome. J. R. K. MARLAND; M. A. COUSIN*. *Univ. of Edinburgh.*

9:00 N15 **720.06** Study the early signs of degenerative neuronal phenotypes in mouse models of Down syndrome. A. BECKER; M. PITTMAN; I. MAHAPARN; S. FUNG; L. DO; P. V. BELICHENKO*. *UCSD.*

10:00 N16 **720.07** Aberrant glutamatergic transmission and behavioral deficits in a murine model of Down's syndrome. G. KAUR; A. SHARMA; W. XU; M. OHNO; D. A. WILSON; D. N. GUILFOYLE; E. LEVY*. *Nathan S. Kline Inst., NYU Sch. of Med., Albert Einstein Col. of Med.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 N17 **720.08** ● Anti-β-amyloid antibody induced by a liposomal vaccine restored cognitive deficits in a mouse model of Down syndrome. P. V. BELICHENKO; R. MADANI; M. PIHLGREN; A. BECKER; R. L. NOSHENY; A. M. KLESCHEVNIKOV; J. S. VALLETTA; G. R. LINKE; M. T. MALONEY; A. PLASSARD; V. GIRIENS; D. HICKMAN; P. REIS; A. GRANET; D. MLAKI; M. LOPEZ-DEBER; A. PFEIFER; A. MUHS; W. C. MOBLEY*. *UCSD, AC Immune SA, Stanford Med. Sch.*

8:00 N18 **720.09** Delay of developmental excitatory to inhibitory GABA switch in Down syndrome: Reduced expression of KCC2 in neonatal Ts65Dn mice. L. V. LYSENKO*; F. MADAMBA; J. KIM; A. RUPARELIA; A. M. KLESCHEVNIKOV. *UCSD.*

9:00 O1 **720.10** ▲ Sleep, slow wave fragmentation, and language in Down syndrome. B. I. DEMARA*; G. SPANÒ; U. TOOLEY; L. YAMAGUCHI; J. EDGIN. *The Univ. of Arizona.*

10:00 O2 **720.11** The association of SET expression with BACE1 and its implications in Down syndrome. X. ZHANG; Y. WU; W. CHEN; M. ZHANG; S. ZHANG; F. CAI; H. ZOU; W. SONG*. *The Univ. of British Columbia, Univ. British Columbia.*

11:00 O3-DP5 **720.12** Illuminating neuroglial signaling in a human stem cell model of Down Syndrome. L. TIAN*; X. GUAN; C. CHEN; P. JIANG; W. DENG. *Univ. of California, Davis.*

8:00 O4 **720.13** Chronic P7C3 treatment restores neurogenic deficits in the Ts65Dn mouse model of Down Syndrome. S. E. LATCHNEY*; T. JARAMILLO; P. D. RIVERA; C. M. POWELL; A. J. EISCH. *UT Southwestern Med. Ctr., UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.*

9:00 O5 **720.14** A validation of biomarkers for the identification of treatment efficacy of EGCG in Down syndrome. L. XICOTA; R. DE LA TORRE*; R. FREIXAS; N. JANEL; A. GARCIA-PEREZ; S. DE SOLA; M. FARRÉ; J. RODRÍGUEZ; S. CATUARA; I. DUEÑAS; S. VIDELA; H. BLÉHAUT; J. DELABAR; M. DIERSSEN. *IMIM-Hospital Del Mar Med. Res. Inst., Ctr. of Genomic Regulation, Imim-Hospital Del Mar Res. Inst., Univ. Paris Diderot, Fundació Catalana Síndrome de Down, Fondation Jérôme Lejeune.*

10:00 O6 **720.15** ● Increased expression of DSCAM and its action on neuronal morphological parameters in immortalized cell models of Down Syndrome. Possible role of the PAK effector pathway. R. D. PÉREZ*; J. BARNIER; R. CAVIEDES; A. CÁRDENAS; P. A. CAVIEDES. *Univ. of Chile, Ctr. de Neurosciences Paris-Sud CNPS, ICBM, Fac. of Medicine,University of Chile, Univ. of Valparaiso.*

11:00 O7 **720.16** Temporal transcriptome analysis by RNASeq to functionally characterize the developing hippocampus of the Down syndrome trisomy mouse model Ts65Dn. L. H. DO*; N. SINGHAL; F. B. MADAMBA; A. BECKER; P. V. BELICHENKO; W. C. MOBLEY. *UCSD.*

8:00 O8 **720.17** Failure of norepinephrine signaling despite an abundance of β2 adrenergic receptor expression in the dentate gyrus of the Ts65Dn mouse model of Down Syndrome. V. DANG*; B. MEDINA; D. DAS; S. MOGHADAM; B. LIN; A. SALEHI. *VA Palo Alto Hlth. Care Syst., Stanford Univ.*

9:00 O9 **720.18** Dysregulation of Trombospondin-1 contributes to long-term memory impairment and dendritic spine pathology *in vivo.* M. D. TORRES*; M. D. TORRES*; J. BUSCIGLIO. *Univ. of California, Irvine, Univ. of California, Irvine.*

POSTER

721. Developmental Disorders: Animal Models and Anatomy

Theme C: Disorders of the Nervous System

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

8:00 O10 **721.01** A translational model of diplegic cerebral palsy: Evaluating abnormalities in neurobehavioural gait and white matter myelination. S. D. FAULKNER*; C. A. RUFF; W. FOLTZ; E. ARMSTRONG; J. YAGER; M. G. FEHLINGS. *Toronto Western Res. Institute, Univ. Hlth. Network, STTARR Innovation Ctr., Univ. of Alberta.*

9:00 O11 **721.02** Neuronal subtype-specific effects of ERK/MAPK signaling in the developing neocortex. J. NEWBERN*; L. XING; R. LARSEN; X. LI; Y. WU; B. PHILPOT; W. D. SNIDER. *UNC Sch. Med.*

10:00 O12 **721.03** ▲ GABAergic network defects in a *C. elegans* mutant for an intelectual disability-associated gene. A. RODRIGUES; P. E. MACIEL*; C. BESSA. *Univ. of Minho, Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sci.*

11:00 P1 **721.04** Differential alterations of dorsolateral and ventrolateral prefontal cortex in adult macaques with neonatal hippocampal lesion: A diffusion tensor imaging study. Y. MENG; C. PAYNE; X. HU; J. BACHEVALIER; X. ZHANG*. *Emory Univ., Emory Univ., Emory Univ., Yerkes Natl. Primate Res. Center, Emory Univ.*

8:00 P2 **721.05** Primate-like laminar expression patterns for genes of psychiatric relevance in the neocortex of the tree shrew. C. A. BAKER*; R. FLEFIL; L. CONATSER; D. FITZPATRICK; M. M. BOLTON. *Max Planck Florida Inst., Max Planck Florida Inst.*

9:00 P3 **721.06** Genetic ablation of betaII-spectrin in the central nervous system results in axon degeneration, epilepsy and postnatal lethality. C. ZHANG*; Y. HUANG; P. ZHU; J. G. REED; M. COSTA-MATTIOLI; J. L. NOEBELS; M. N. RASBAND. *Baylor Col. Med.*

10:00 P4 **721.07** *Drosophila* Pak (p21-activated kinase) regulates brain structure and neurite arbor morphogenesis. S. A. LEWIS*; L. A. O'NEILL; L. L. RESTIFO. *Univ. of Arizona, Univ. of Arizona.*

11:00 P5 **721.08** USP9X is a novel x-linked intellectual disability gene that regulates neuronal migration and axon growth. L. JOLLY*; C. HOMAN; S. WOOD; J. GECZ. *The Univ. of Adelaide, Griffith Univ.*

8:00 P6 **721.09** Identification and characterization of novel loci interacting with the Kallmann Syndrome gene kal-1. C. A. DIAZ-BALZAC*; H. E. BUELOW. *Albert Einstein Col. of Med.*

9:00 P7 **721.10** Glutamate delta-1 receptor regulates dendritic spine morphology and density in cortico-limbic circuit. S. C. GUPTA*; P. S. SURYAVANSHI; B. J. MORLEY; S. M. DRAVID. *Creighton Univ., Boys Town Natl. Res. Hosp.*

10:00 P8 **721.11** Cofilin and its phosphorylation at Ser3 are essential for the polarization and migration of cortical neurons. X. CHAI; L. FAN; H. SHAO; S. ZHAO; H. LONG; H. MANNHERZ; A. FAILLA; M. FROTSCHER*. *Univ. Hamburg, Univ. Lanzhou, Huazhong Agr. Univ., Univ. Ruhr.*

11:00 P9 **721.12** The effect of embryonic alcohol on amino acid neurotransmitters in zebrafish. S. MAHABIR*; D. CHATTERJEE; R. GERLAI. *Univ. of Toronto Mississauga, Univ. of Toronto Mississauga.*

8:00 P10 **721.13** ● Analysis of the mouse model of human heterotopia caused by ectopic expression of Reelin. K. ISHII*; K. KUBO; K. NAKAJIMA. *Keio Univ. Sch. of Med.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 P11 **721.14** Autistic-like molecular and behavioral phenotype in glutamate delta-1 mutant mice. P. S. SURYAVANSHI*; R. YADAV; S. C. GUPTA; B. G. HILLMAN; J. M. BHATT; D. J. STAIRS; S. M. DRAVID. *CREIGHTON UNIVERSITY, UNIVERSITY OF FLORIDA, CREIGHTON UNIVERSITY, UNIVERSITY OF ALABAMA AT BIRMINGHAM, CREIGHTON UNIVERSITY.*

10:00 P12 **721.15** Dysphagia and disrupted cranial nerve development in a mouse model of DiGeorge/22q11.2 Deletion Syndrome. A. LA MANTIA*; T. M. MAYNARD; B. A. KARPINSKI; M. S. FRALISH; S. NUWAYHID; I. ZOHN; X. WANG; D. MENDELOWITZ; S. A. MOODY. *The George Washington Univ. Sch. of Med., The George Washington Univ. Sch. of Med. and Hlth. Sci., Children's Natl. Med. Ctr., The George Washington Univ. Sch. of Med. and Hlth. Sci., The George Washington Univ. Sch. of Med. and Hlth. Sci.*

11:00 P13 **721.16** Neuronal hypoactivation of the subthalamic nucleus in an inbred model of restricted, repetitive behavior. A. MUEHLMANN*; Z. BUCHWALD; G. EDINGTON; M. H. LEWIS. *Univ. of Florida.*

8:00 P14 **721.17** Antidepressant effects of DNA methyltransferase inhibition in a rodent model of depression. J. COHEN*; M. E. GLOVER; H. AKIL; S. M. CLINTON. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Michigan.*

9:00 P15 **721.18** Early-life antidepressant exposure exacerbates depression-like behavior in a rat model of co-morbid anxiety and depression. M. E. GLOVER*; P. C. PUGH; J. L. COHEN; H. AKIL; S. M. CLINTON. *Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham, Univ. of Michigan.*

10:00 P16 **721.19** Intra-striatal injection of Slitrk-1 siRNA induces excessive stereotypy behaviors: An animal model of Tourrette syndrome? J. DU*; H. LEE; L. CHIOU. *Taipei City Hosp., Col. of Medicine, Natl. Taiwan Univ., Col. of Medicine, Natl. Taiwan Univ., Natl. Taiwan Univ.*

11:00 P17 **721.20** Selective removal of parvalbumin interneurons from striatal networks to model the network pathophysiology of Tourette syndrome. M. XU*; V. POGORELOV; L. LI; C. PITTENGER. *Dept. of Psychiatry/ Yale, Dept. of Psychiatry/ Yale, Child Study Ctr., Dept. of Psychology, and Interdepartmental Neurosci. Program.*

8:00 P18 **721.21** Perinatal escitalopram vs genetic SERT insufficiency inversely program adult serotonin states associated with anxiety. A. M. ANDREWS*; H. YANG; H. J. O'BRIEN; M. F. VALDEZ; J. G. HENSLER; D. SENTURK; S. C. ALTIERI. *UCLA, Univ. of Texas Hlth. Sci. Ctr., UCLA.*

9:00 Q1 **721.22** Developmental exposure to PFOS induces complex alterations in the acoustic startle reaction in zebrafish larvae. P. KILIAN; N. ONISHCHENKO; S. CECCATELLI*; S. SPULBER. *Dept. of Neuroscience, Karolinska Institutet.*

10:00 Q2 **721.23** Developmental alteration of GABAB receptor function results in behavioral deficits in adulthood. M. M. BOLTON*; C. F. HEANEY; A. S. MURTISHAW; J. W. KINNEY. *Univ. of Nevada, Las Vegas.*

11:00 Q3 **721.24** Epigenetic changes in neurodevelopment leading to anxiety- and depression-like behaviors in rats. C. R. MCCOY*; R. K. SIMMONS; H. AKIL; S. M. CLINTON. *UAB, Univ. of Alabama Birmingham, Univ. of Michigan.*

8:00 Q4 **721.25** Neurodevelopment in the amygdala and prefrontal cortex within a novel rat model of depression. S. M. CLINTON*; M. E. GLOVER; R. K. SIMMONS; H. AKIL; P. PUGH. *Univ. of Alabama-Birmingham, Univ. of Michigan.*

9:00 Q5 **721.26** Development and transcriptome profiling of a neuronal model of Lesch-Nyhan disease. L. CRAPPER*; C. GIGEK; G. MAUSSION; C. ERNST. *McGill Univ., McGill Univ.*

10:00 Q6 **721.27** Mice lacking the synapse-associated cell adhesion molecule Kirrel3 display altered sensory input processing and changes in day-night activity pattern. L. A. VÖLKER*; S. KELLER; B. MAAR; B. SCHUTTE; A. BILKEI-GORZO; I. RÁCZ; A. ZIMMER; R. J. WAGENER; B. SCHERMER; T. BENZING; M. HÖHNE. *Univ. of Cologne, Univ. of Bonn, Georg-August-University, Univ. of Cologne, Univ. of Cologne.*

11:00 Q7 **721.28** Spinal cord astrocyte dysfunction in an animal model of Alexander Disease. H. R. MINKEL*; T. Z. ANWER; M. BRENNER; M. L. OLSEN. *Univ. of Alabama At Birmingham, Univ. of Alabama at Birmingham, Univ. of Alabama At Birmingham.*

8:00 Q8 **721.29** Modeling the natural history of pelizaeus merzbacher disease (pmd). I. D. DUNCAN*; J. A. MAYER; C. M. SMITH; A. B. RADCLIFF. *Univ. Wisconsin Sch. Vet Med.*

9:00 Q9 **721.30** Hippocampal inflammation in the NS-PTEN knockout mouse model of cortical dysplasia. L. NGUYEN*; A. L. BREWSTER; A. E. ANDERSON. *Jan and Dan Duncan Neurolog. Res. Inst., Baylor Col. of Med.*

10:00 Q10 **721.31** Postnatal role for histone deacetylase 1 and 2 in behavioral and neuronal homeostasis. M. MAHGOUB*; M. ADACHI; L. M. MONTEGGIA. *UTSW Med. Ctr. At Dallas.*

POSTER

722. Stroke: Blood Flow, Imaging and Recovery

Theme C: Disorders of the Nervous System

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

8:00 Q11 **722.01** Protease-activated receptor-1 (PAR-1) knockdown minimizes ischemic injury in rats subjected to Middle cerebral artery occlusion (MCAo). P. S. RAJPUT*; B. CHEN; J. LAMB; B. R. PEREIRA; P. D. LYDEN. *Cedar-Sinai Med. Ctr.*

9:00 Q12 **722.02** Elevation of S100B contributes to subarachnoid hemorrhage (SAH)-associated cerebrovascular dysfunction and neurological deficits. H. XU*; P. POLAK; C. PAISANSATHAN; D. PELLIGRINO. *Univ. Illinois Chicago.*

10:00 Q13 **722.03** The hand therassist to enhance upper extremity motor rehabilitation after stroke. J. A. KLEIM*; N. GAW; J. LAITANO; M. SANTELLO. *Arizona State Univ.*

11:00 Q14 **722.04** The *in vivo* assessment of post-stroke effect on decreased cerebral blood flow regulation in MCAO model. J. SIM*; A. JO; C. HEO; O. BANG; Y. LEE; G. JHON; M. SUH. *Sungkyunkwan Univ., Inst. for Basic Sci., Sungkyunkwan Univ., Ewha Womans Univ., Sungkyunkwan Univ.*

8:00 Q15 **722.05** The time window of heightened plasticity after ischemic stroke is extended by fluoxetine in a mouse model. E. M. GIBSON; K. L. NG; R. J. O'BRIEN; J. W. KRAKAUER; S. ZEILER*. *Johns Hopkins, Johns Hopkins.*

9:00 Q16 **722.06** The TRPC3 inhibitor Pyr3 improves outcomes and attenuates astrogliosis after intracerebral hemorrhage in mice. H. SHIRAKAWA*; M. MUNAKATA; J. MIYANOHARA; T. MIYAKE; T. NAKAGAWA; S. KANEKO. *Grad Sch. Pharm Sci, Kyoto Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 Q17 **722.07** Sex specific behavioral deficits following induced hypoxic ischemic brain injury in rodents. A. L. SMITH*; M. ALEXANDER; T. S. ROSENKRANTZ; R. H. FITCH. *Univ. of Connecticut, Univ. of Connecticut Heath Ctr.*

11:00 Q18 **722.08** Development of a rat model of perinatal stroke : Focus on motor recovery. M. GENNARO*; L. GHERARDINI; S. FIORI; A. GUZZETTA; N. BERARDI; G. CIONI; T. PIZZORUSSO. *Inst. of Neurosci. CNR, Univ. of Pisa, Inst. of Clin. Physiology, Consiglio Nazionale delle Ricerche, Dept. of Developmental Neuroscience, IRCCS Stella Maris and Univ. of Pisa, Inst. of Neurosci. CNR, Pisa, Italy Dept. of Neuroscience, Psychology, Drug Res. and Child Hlth. NEUROFARBA, Univ. of Florence, Pisa University, Dept. of Developmental Neuroscience, IRCCS Stella Maris and Univ. of Pisa, Dept. of Neuroscience, Psychology, Drug Res. and Child Hlth. NEUROFARBA, Univ. of Florence, Inst. of Neurosci. CNR, Pisa, Italy, Dept. of Neuroscience, Psychology, Drug Res. and Child Hlth. NEUROFARBA, Univ. of Florence.*

8:00 R1-DP4 **722.09** The smallest stroke revealed through *in vivo* two-photon microscopy and 7T magnetic resonance imaging. A. Y. SHIH*; Z. J. TAYLOR; J. A. HELPERN; S. K. HUI. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

9:00 R2 **722.10** Meteorological and physiological variables associated with stroke. R. NOCERA*; P. PETRUCELLI; E. STANDER. *Drexel Col. of Med.*

10:00 R3 **722.11** Acute collateral flow dynamics following experimental stroke in differentially collateralized mouse strains. Y. AKAMATSU*; C. C. LEE; J. LIU. *UCSF, SFVAMC.*

11:00 R4 **722.12** Reorganization of ipsilateral motor cortex by constraint-induced movement therapy in capsular hemorrhage rat. A. ISHIDA*; T. UMEDA; T. ISA; H. HIDA. *Nagoya City Univ. Grad. Sch. of Med. Sci., Natl. Inst. for Physiological Sci., Yokohama City Univ. Grad. Sch. of Med.*

8:00 R5 **722.13** Early constraint-induced movement therapy is better in internal capsule hemorrhage model rats: Involvement of NMDA receptors. Y. UEDA; A. ISHIDA; S. MISUMI; Y. SHIMIZU; C. JUNG; K. ISHIDA; H. HIDA*. *Nagoya City Univ. Grad Sch. Med. Sci., Nagoya Univ. Grad. Sch. of Med.*

9:00 R6 **722.14** Temporal profile of basic fibroblast growth factor and its clinical implications in ischemic stroke - Research for Biomarkers in Ischemic Stroke (REBIOS) -. K. NAKAMURA*; T. AGO; R. MATSUO; J. KURODA; Y. WAKISAKA; T. ISOMURA; H. AWANO; K. SUZUKI; M. KAMOUCHI; Y. KIYOHARA; H. OOBOSHI; T. KITAZONO. *Fukuoka Dent. Col. Med. and Dent. Hosp., Grad. Sch. of Med. Sciences, Kyushu Univ., MOLECUENCE Corp., Grad. Sch. of Med. Sciences, Kyushu Univ.*

10:00 R7 **722.15** Endogenous biomarker expression in pimonidazole-identified ischemic penumbra. R. D. SWEAZEY*; B. C. HONG-GOKA; S. TOPALOV; E. T. CURFMAN; F. F. CHANG. *Indiana Univ. Sch. Med-Ft Wayne, UCSF-Fresno Alzheimer's & Memory Ctr.*

POSTER

723. Ischemia: Cellular Mechanisms and Neuroprotection

Theme C: Disorders of the Nervous System

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

8:00 R8 **723.01** Adoptive regulatory T cell therapy reduces recombinant tissue plasminogen activator-induced hemorrhage after stroke. L. MAO*; P. LI; X. HU; J. CHEN; F. ZHANG. *Fudan Univ., Univ. of Pittsburgh Sch. of Med., Fudan Univ.*

9:00 R9 **723.02** ● ▲ Resveratrol and ethanol down regulate glucose transporters expression in cerebral ischemia *in vivo.* A. TORNES*; A. ORTÍZ-PLATA; M. I. SALAZAR; J. PEDRAZA-CHAVERRI; P. AGUILERA; M. ESPINOZA-ROJO. *Inst. Nacional De Neurología Y Neurocirugía, Univ. Autónoma de Guerrero, Inst. Nacional De Neurología Y Neurocirugía, Inst. Politécnico Nacional, Univ. Nacional Autónoma de México, Univ. Autónoma de Guerrero.*

10:00 R10 **723.03** Isoflurane suppresses cortical spreading depolarizations compared to propofol - implications for neurocritical care. D. FEUERSTEIN; M. TAKAGAKI; T. KUMAGAI; M. GRAMER; R. GRAF*. *MPI Neurolog. Res.*

11:00 S1 **723.04** Cool or heat? An ROS approach to the therapeutic hypothermia. V. ADAM-VIZI*; K. KOVÁCS; L. TRETTER. *Semmelweis Univ., Hungarian Acad. of Sci.*

8:00 S2 **723.05** Optogenetic neuronal stimulation enhances neurotrophin expression in the contralesional motor cortex after stroke. M. Y. CHENG*; E. H. WANG; W. J. WOODSON; G. SUN; A. ARAC; L. FENNO; K. DEISSEROTH; G. K. STEINBERG. *Stanford Univ., Stanford Univ.*

9:00 S3 **723.06** Local administration of AAV-BDNF to subventricular zone induces functional recovery in stroke rats. Y. WANG*; S. YU; H. SHEN; B. HARVEY. *Natl. Inst. Drug Abuse, NIDA, Natl. Hlth. Res. Inst.*

10:00 S4 **723.07** ● Protective activity of (1S,2E,4R,6R,7E,11E)-2,7,11-cembratriene-4,6-diol analogues against diisopropylfluorophosphate neurotoxicity. V. A. ETEROVIC*; A. DEL VALLE-RODRIGEZ; D. PEREZ; M. CARRASCO; M. A. KHANFAR; K. A. EL SAYED; P. A. FERCHMIN. *Univ. Central Del Caribe, The Univ. of Jordan, ULM Col. of Pharm.*

11:00 S5 **723.08** Fumarate protects neurons against oxygen-glucose deprivation and attenuates focal cerebral ischemic injury. R. LIN*; J. CAI; R. ROSENWASSER; L. IACOVITTI. *Thomas Jefferson Univ., Thomas Jefferson Univ.*

8:00 S6 **723.09** miR-29 protects mitochondria and reduces neuronal vulnerability to forebrain ischemia. Y. OUYANG*; L. XU; Y. LU; X. SUN; S. YUE; X. XIONG; R. G. GIFFARD. *Stanford Univ. Sch. Med.*

9:00 S7 **723.10** SalvinorinA preserves neurological functions in a neonatal mouse hypoxia model. R. LIU*; F. MATSUNAGA; X. CUI; N. MA; J. MA; T. ABEL. *Univ. of Pennsylvania, Univ. of Pennsylvania, TongRen Hosp., Univ. of Pennsylvania.*

10:00 S8 **723.11** Modulatory effects of local adenosine monophosphate -activated protein kinase (AMPK) signalling on mitochondrial motility in mouse primary cortical neurons using microfluidic devices. O. WATTERS; J. SCHMID; H. G. KÖNIG; H. DÜSSMANN; J. H. PREHN*. *Royal Col. of Surgeons in Ireland.*

11:00 S9 **723.12** Ubiquilin protects cells against oxidative stress and ischemic stroke caused injury in mice. Y. LIU*; L. LÜ; G. GAOFENG DONG; C. LAWRENCE; M. WATT; G. FORSTER; X. WANG; H. WANG. *Univ. of South Dakota.*

8:00 S10 **723.13** M-type k+ channel openers: *in vivo* neuroprotective role during cerebrovascular stroke. S. M. BIERBOWER*; F. CHOVEAU; M. SHAPIRO. *Univ. of Texas Hlth. Sci. Ctr.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 S11 **723.14** Comparison of electrophysiological alterations of autonomic and somatosensory nervous system of glucose intolerant animal. L. MOREIRA-JUNIOR; F. W. FERREIRA-DA-SILVA; K. S. SILVA-ALVES*; M. LEMOS-DOS-SANTOS; O. C. DO VALE; A. A. C. ALBUQUERQUE; A. N. COELHO-DE-SOUZA; J. H. LEAL-CARDOSO. *State Univ. of Ceara, Federal Univ. of Ceara.*

10:00 S12 **723.15** Decreased excitability in neurons re-programmed from skin fibroblasts of chronic mountain sickness patients. X. GU*; H. ZHAO; M. E. PAMENTER; G. G. HADDAD. *Univ. of California San Diego, Univ. of California San Diego, Univ. of British Columbia, Univ. of California San Diego, Rady Children's Hosp.*

11:00 S13 **723.16** Altered functional connectivity and hemodynamics following ischemic stroke in mice. A. Q. BAUER*; A. W. KRAFT; P. W. WRIGHT; J. LEE; J. P. CULVER. *Washington Univ. In St. Louis, Washington Univ. in St. Louis, Washington Univ. in St. Louis, Washington Univ. in St. Louis.*

8:00 S14 **723.17** Well-Jing points bloodletting acupuncture selectively slows down the brain interstitial fluid drainage in the thalamus. H. HAN*; C. HE; Z. KAI; Z. BO; Y. JUNHAO; L. DONG. *Peking Univ. Third Hosp., Dept. of Radiology, Peking Univ. Third Hosp., Beijing Key Lab. of Magnetic Resonance Imaging Device and Technique, Dept. of Anat. and Histology, Sch. of Basic Med. Sciences, Peking Univ., Dept. of Chinese Traditional Medicine, Peking Univ. Third Hosp.*

POSTER

724. Brain Injury III

Theme C: Disorders of the Nervous System

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

8:00 S15 **724.01** Mechanoporation following traumatic brain injury: Are membrane-resealing agents effective? L. L. KRAFJACK*; D. P. FOX; R. RAGHUPATHI. *Drexel Univ. Col. of Med.*

9:00 S16 **724.02** Differential regulation of phosphodiesterase isoforms in rat hippocampus after primary blast-induced traumatic brain injury. Y. WANG*; T. W. SAWYER; T. WEISS; P. NELSON; G. HENNES; J. BARNES. *Defence R&D Canada-Suffield.*

10:00 S17 **724.03** Effects of traumatic brain injury on cognitive outcomes in DARPP-32 gene knock-out mice. C. DIXON*; J. W. BALES; S. S. SHIN; H. Q. YAN; X. MA; S. CULVER; M. E. SULLIVAN. *Univ. of Pittsburgh, Univ. of Washington.*

11:00 S18 **724.04** Pharmacologic modulation of $p75^{NTR}$ inhibits gliosis following traumatic brain injury in rats. J. SHI*; F. M. LONGO; S. M. MASSA. *Dept. of Veterans Affairs Med. Ctr. and Univ. of California, Stanford Univ.*

8:00 T1 **724.05** Effects of traumatic brain injury and ethanol exposure on synapsin phosphorylation in the striatum. J. P. CARUSO*; L. SUSICK; J. LOWING; A. CONTI. *Wayne State Univ.*

9:00 T2 **724.06** Manual intracranial pressure elevation exacerbates traumatic brain injury- induced somatosensory hypersensitivity correlated with neuronal and myelin pathology. A. D. LAFRENAYE*; J. T. POVLISHOCK. *VCU.*

10:00 T3 **724.07** Blocking p75NTR signaling prevents white matter damage after traumatic brain injury. S. LEE*; A. LIN; J. SACRAMENTO; E. SALEGIO; L. MANNENT; M. CASTEL; B. CANOLLE; S. DELBARY-GOSSART; B. FERZAZ; J. BRESNAHAN; M. S. BEATTIE. *UCSF, Sanofi R&D.*

11:00 T4 **724.08** Neuronal STAT3 activation is essential for transforming mature RGCs into a regenerative state and optic nerve regeneration upon inflammatory stimulation. D. FISCHER*; M. LEIBINGER; A. ANDREADAKI. *Univ. of Düsseldorf.*

8:00 T5 **724.09** Effects of chronic TBI and CX3CR1 deficiency on cognitive and synaptic function. J. M. MORGANTI*; T. D. JOPSON; S. ROSI. *Univ. of California San Francisco, Univ. of California San Francisco.*

9:00 T6 **724.10** Temporal analysis of TBI-induced macrophage infiltration into brain parenchyma. A. CHOU; J. M. MORGANTI; T. JOPSON; S. ROSI*. *Univ. of California San Francisco.*

10:00 T7 **724.11** Repeated binge ethanol and neural stem cell response after traumatic brain injury. S. T. TON*; I. C. VAAGENES; D. J. SHEPHERD; S. TSAI; V. HUSAK; G. L. KARTJE; C. M. PAPADOPOULOS. *Loyola Univ. Chicago, Hines VA Hosp.*

11:00 T8 **724.12** DTI markers of cellular change following very mild closed head TBI in rodents. C. A. BRANCH*; K. BRANCH; A. CHIN; M. CUI; M. LIPTON; S. LEE. *Albert Einstein Col. of Med.*

8:00 T9 **724.13** Investigating the role of mTOR signaling in traumatic brain injury using *in vivo* and *in vitro* injury models. I. K. NIKOLAEVA*; L. BAEHR; B. L. FIRESTEIN; D. F. MEANEY; G. D'ARCANGELO. *Rutgers State Univ. of New Jersey, Rutgers State Univ. of New Jersey, Univ. of Pennsylvania.*

9:00 T10 **724.14** Attenuation of sensorimotor deficits following Wnt3a administration in mouse traumatic brain injury. J. Y. ZHANG*; J. SUN; S. P. YU; L. WEI. *Emory Univ., Beijing Friendship Hosp., Emory Univ., Emory Univ.*

10:00 T11 **724.15** Culturing layer specific neocortical neurons as a cell replacement therapy following traumatic brain injury. N. P. CRAMER*; M. CHATTERJEE; F. LISCHKA; S. JULIANO. *Uniformed Services Univ. of the Hlth. Sci., Ctr. for Neurosci. and Regenerative Med., Uniformed Services Univ. of the Hlth. Sci.*

11:00 T12 **724.16** The efficacy of progesterone as a treatment for infant head injury. A. J. MATAMOROS; J. W. HUH; P. Q. MENNELLA*; R. RAGHUPATHI. *Delaware State Univ., Children's Hosp. of Philadelphia, Bay Path Col., Drexel Univ. Col. of Med.*

8:00 T13 **724.17** Protection against post-traumatic seizure susceptibility by resibufogenin. S. MUKHERJEE; L. A. SHAPIRO; R. M. SANCHEZ*. *Texas A&M Hlth. Sci. Ctr., Central Texas Veterans Hlth. Care Syst., Scott & White Hosp.*

9:00 T14 **724.18** Effect of water soluble analogs of progesterone on edema and inflammation after acute traumatic brain injury: A comparative dose response study. B. WALI*; I. SAYEED; D. GUTHRIE; S. WON; M. G. NATCHUS; D. G. STEIN. *Emory Univ., Emory Univ.*

10:00 T15 **724.19** Cognitive deficits and anxiety-like behavior in a pre-clinical model of mild TBI. J. HOU; R. NELSON; G. MUSTAFA; C. NGUYEN; E. ORIANNA; A. SINHA-ROY; P. BOSE; F. J. THOMPSON*. *Univ. of Florida, Malcom Randall VAMC, Univ. of Florida, Univ. of Florida.*

11:00 T16 **724.20** Reduction of central noradrenrgic projections to prefrontal cortex, hippocampus, and thalamic nucleus following closed-head traumatic brain injury in rats. S. TSUDA*; J. HOU; R. NELSON; C. NGUYEN; G. MUSTAFA; R. PARMER; F. THOMPSON; P. BOSE. *Univ. of Florida, Univ. of Florida, North Florida/South Georgia Veterans Hlth. Syst., Univ. of Florida, Univ. of Florida, Univ. of Florida.*

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

▲ Indicates a high school or undergraduate student presenter.

8:00 T17 **724.21** ▲ Differential effects of varied rehabilitative approaches on cortical dendritic density and NogoA in an animal model of traumatic brain injury. L. PEREZ; N. A. DONLAN; T. A. JONES; D. A. KOZLOWSKI*. *DePaul Univ., Univ. of Texas- Austin.*

POSTER

725. Neuroinflammation and Oxidative Stress

Theme C: Disorders of the Nervous System

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

8:00 T18 **725.01** Gender and age dependent effect of nanoscale particulate urban air pollutants on APP processing. M. CACCIOTTOLO*; P. PAKBIN; C. SIOUTAS; T. MORGAN; C. FINCH. *USC Davis Sch. of Gerontology, USC Viterbi Sch. of Engin.*

9:00 U1 **725.02** Acute nanoparticulate matter exposure on brain: Inflammatory responses progress from nose to cortex. H. CHENG*; H. ZHANG; P. PAKBIN; C. SIOUTAS; H. J. FORMAN; T. E. MORGAN; C. E. FINCH. *USC.*

10:00 U2 **725.03** Nano-particulate matter from urban air pollution alters glutamatergic functions of CA1 neurons via nitrosylation. D. A. DAVIS*; J. P. WALSH; P. PAKBIN; C. SIOUTAS; T. E. MORGAN; C. E. FINCH. *USC, USC.*

11:00 U3 **725.04** A long-lasting learning impairment, less anxiety-like response and hippocampal injury in adult rats following a neonatal lipopolysaccharide exposure. L. TIEN*; K. WANG; L. FAN; A. KAIZAKI; Y. PANG; Z. CAI. *Fu Jen Catholic Univ., Shin Kong Wu Ho-Su Mem. Hosp., Univ. of Mississippi Med. Ctr., Showa Univ.*

8:00 U4 **725.05** Intranasal administration of insulin-like growth factor-1 ameliorates brain dopaminergic neuronal injury and improves motor behavioral performance in juvenile rats following neonatal exposure to lipopolysaccharide. L. FAN*; L. TIEN; Z. CAI; A. J. BHATT; Y. PANG. *Univ. Mississippi Med. Ctr., Fu Jen Catholic Univ.*

9:00 U5 **725.06** Effect of chronic oxidative stress state on ADAM 9, ADAM 10 and presenilin 1 and presenilin 2 in hippocampus of rats exposed to low doses of ozone. S. L. RIVAS-ARANCIBIA*; M. MOCTEZUMA-SALGADO; P. JIMÉNEZ-ESPÍNDOLA; D. CASTILLO-GUZMÁN; G. BORGONIO-PÉREZ; E. FERREIRA-GARCIDUEÑAS. *Facultad De Medicina, UNAM, Facultad De Medicina, UNAM.*

10:00 U6 **725.07** Neurotoxicity assessment of iron oxide nanoparticles: *in vitro* and *in vivo* studies. Z. K. BINIENDA*; Y. ZHANG; S. LANTZ; S. LIACHENKO; J. RAMU; E. CUEVAS; H. ROSAS-HERNANDEZ; M. G. PAULE; W. SLIKKER, Jr.; S. F. ALI; S. IMAM. *Natl. Ctr. Toxicological Res/Food and Drug Adm.*

11:00 U7 **725.08** Towards understanding the regulation of tryptophan hydroxylase-2 by heat shock proteins. S. HO; Y. CHEN; D. C. W. TAN; S. CAI; L. TAN; H. WANG; X. ZHANG*. *Duke-NUS GMS Singapore, Natl. Univ. of Singapore, Temasek Polytechnic, Nanyang Technological Univ., Natl. Univ. of Singapore, Duke Univ. Med. Ctr.*

8:00 U8 **725.09** ● Measurement of proteome dynamics in brain and cerebrospinal fluid (CSF) by heavy water labeling: Lipopolysaccharide-induced neuro-inflammation, treatment with a FMS kinase inhibitor and translation into human CSF. M. SHANKARAN*; T. E. ANGEL; D. G. VILLEGAS; J. DECARIS; C. L. KING; W. E. HOLMES; J. C. PRICE; S. M. TURNER; B. L. WEST; M. K. HELLERSTEIN. *KineMed Inc., Plexxikon Inc., Univ. of California.*

9:00 U9 **725.10** Paclitaxel affects axonal mitochondria in a murine model of Chemotherapy-induced Peripheral Neuropathy. I. BOBYLEV*; A. JOSHI; C. RITTER; H. LEHMANN. *Univ. Hosp. of Cologne.*

10:00 U10 **725.11** The effects of calcium dysregulation on neuroinflammation- and age-associated memory deficits. S. C. HOPP*; R. M. KAERCHER; S. E. ROYER; H. M. D'ANGELO; L. ADZOVIC; G. L. WENK. *Ohio State Univ., Ohio State Univ.*

11:00 U11 **725.12** Direct interaction of paroxetine with mitochondrial proteins mediates neuroprotection. J. P. STEINER*; M. BACHANI; M. LEE; T. WANG; G. LI; W. LI; D. STRAYER; N. HAUGHEY; A. NATH. *Natl. Inst. of Health/ NINDS, Johns Hopkins Univ. Sch. of Med., Natl. Inst. of Health/NINDS, Thomas Jefferson Univ.*

8:00 U12 **725.13** Neuroinflammation alters the progression of ataxia telangiectasia in ATM-deficient mice. T. HUI*; Y. YANG; J. LI; K. HERRUP. *Hong Kong Univ. of Sci. and Technol., Case Western Reserve Univ., Rutgers Univ.*

9:00 U13 **725.14** PPARα activation negatively regulates lipopolysaccharide-induced MyD88 gene activation in the microglial cell line EOC2. S. NAMURA*; G. WANG; D. LI. *Morehouse Schl Med., Morehouse Sch. of Med.*

10:00 U14 **725.15** Anti-ALS drug riluzole attenuates pericyte loss in diabetic retinopathy of streptozotocin-treated mouse. J. CHOI*; K. CHO; Y. CHUNG; Y. YOON; H. BYUN; J. KOH. *Asan Inst. For Life Sci., Asan medical center, Asan medical center.*

11:00 U15 **725.16** ▲ Activation of c-fos by herpes simplex virus type i in neuroblastoma cells. B. HOLT; G. D. GRIFFIN*. *Tuskegee Univ., Tuskegee Univ.*

8:00 U16 **725.17** Environmental tobacco smoke induces transcription of pro-inflammatory genes in brain during a systemic inflammatory response. T. MARCOURAKIS*; A. C. C. S. DURÃO; W. N. BRANDÃO; L. H. L. TORRES; N. L. V. SILVA; R. C. T. GARCIA; L. M. M. DATI; T. MAUAD; J. P. S. PERON; N. O. S. CAMARA. *Univ. of Sao Paulo, Univ. of Sao Paulo, Sao Paulo Univ. Med. Sch.*

9:00 U17 **725.18** ● The selective androgen receptor modulator RAD140 is neuroprotective for hippocampal neurons *in vitro* and *in vivo.* V. A. MOSER*; A. JAYARAMAN; A. CHRISTENSEN; R. VEST; C. P. MILLER; G. HATTERSLEY; C. J. PIKE. *USC, Radius Hlth. Inc.*

10:00 U18 **725.19** ▲ Age mediated estrogenic neuroprotection in primary astrocytes. A. LEEK*; J. L. ROBERTS; J. M. KING; C. GERALL; A. CASTILLEJOS. *Trinity Univ.*

11:00 V1 **725.20** Tri-ortho-cresylphosphate impairs neurite outgrowth and glutamate sensitivity of central nervous system neurons. V. HAUSHERR*; C. VAN THRIEL; N. SCHÖBEL. *Ifado-Leibniz Res. Ctr. For Working Envrn. and Human Factors.*

8:00 V2 **725.21** CX3CR1-mediated neuronal survival and inflammatory response in human and animal models of cervical spondylotic myelopathy. W. YU*; S. K. KARADIMAS; M. G. FEHLINGS. *Divisions of Genet. & Develop. and Neurosurgery, Toronto Western Res., Divisions of Genet. & Develop. and Neurosurgery, Toronto Western Res. Inst. and Krembil Neurosci. Centre, Toronto Western Hospital, Univ. Hlth. Network,, Divisions of Genet. & Develop. and Neurosurgery, Toronto Western Res. Inst. and Krembil Neurosci. Centre, Toronto Western Hospital, Univ. Hlth. Network,.*

9:00 V3 **725.22** A splice variant of carboxypeptidase E (CPE-ΔN) neuroprotects primary cultured cortical neurons via up-regulation of FGF2 expression. Y. CHENG; X. QIN; L. E. EIDEN*; Y. PENG. *NICHD, NIH, NIH, NIMH-IRP.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 V4 **725.23** ▲ The role of prostaglandin E2(PGE2) receptor type 1 (EP1) in hemorrhagic stroke. C. CHAMBERS*; N. SINGH; S. DORE. *CTRND, Univ. of Florida Col. of Med., CTRND, Univ. of Florida Col. of Med.*

11:00 V5 **725.24** Circulating TGFβ1 activates cortical MIP-1α in the cortex during hepatic encephalopathy. M. A. MCMILLIN*; C. GALINDO; G. FRAMPTON; H. PAE; S. DEMORROW. *Texas A&M Hlth. Sci. Ctr., Central Texas Veterans Hlth. Care Syst., Scott & White Mem. Hosp.*

8:00 V6 **725.25** Production of CCL2 by astrocytes in the inflamed CNS is critical for the development of EAE through the recruitment of myeloid cells from the periphery. M. A. DELGADO*. *Univ. of California, Davis.*

9:00 V7 **725.26** The de-regulation of glycolytic flux in a model of excitotoxic injury. H. DUESSMANN*; N. M. CONNOLLY; H. J. HUBER; J. H. M. PREHN. *Royal Col. of Surgeons In Ireland.*

10:00 V8 **725.27** Phagocytes from blood to brain is promoted by antioxidants. I. M. STROMBERG*; A. REHNMARK; G. ORÄDD; A. VIREL. *Umea Univ/Integ. Med. Biol.*

11:00 V9 **725.28** Impaired GABAergic inhibition and audiogenic seizures in mice lacing both selenoprotein P and selenocysteine lyase. C. N. BYRNS*; M. W. PITTS; C. L. GILMAN; A. V. RAMAN; A. C. HASHIMOTO; M. J. BERRY. *Univ. of Hawaii Manoa John A. Burns Sch. of Med.*

8:00 V10 **725.29** L-type calcium channel blockers attenuate human glial neurotoxicity. S. HASHIOKA*; A. KLEGERIS; P. L. MCGEER. *Shimane Univ., The Univ. of British Columbia, The Univ. of British Columbia Okanagan.*

POSTER

726. Neurotoxicity, Neuroprotection and Inflammation

Theme C: Disorders of the Nervous System

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

8:00 V11 **726.01** Repression of microglia activation and neuroinflammation by the translocator protein 18 kDa. H. SHIM*; K. BAE; S. YU. *Daegu Gyeongbuk Inst. of Sci. and Technol.*

9:00 V12 **726.02** Suppression of neuroinflammation by translocator protein 18 kDa (TSPO) via NF-κB inhibition. K. BAE*; H. SHIM; S. YU. *Dgist.*

10:00 W1 **726.03** Neurosteroidal agonists of NGF receptors: Neuroprotective properties and neurogenic actions in 2D/3D neural stem cell cultures. I. PEDIADITAKIS*; P. EFSTATHOPOULOS; A. KOURGIANTAKI; D. TZERANIS; I. YANNAS; J. ARÉVALO; T. CALOGEROPOULOU; I. CHARALAMPOPOULOS; A. GRAVANIS. *Univ. of Crete,Faculty of Med., Fndn. of Res. & Technology-Hellas (IESL-FORTH), Massachusetts Inst. of Technol. (MIT), Inst. of Neurosciences Castilla y León (INCyL), Inst. of Biomed. Res. of Salamanca (IBSAL), Univ. of Salamanca, Inst. of Biology, Med. Chemistry, Biotechnology, Natl. Hellenic Res. Fndn.*

11:00 W2 **726.04** Temporal profiles of inflammatory signals in trimethyltin-induced neurotoxicity *in vivo* and *in vitro*. J. KIM*; S. LEE; J. KIM; Y. SON; M. YANG; S. KIM; J. KIM; T. SHIN; C. MOON. *Chonnam Natl. Univ., Michigan State Univ., Chonnam Natl. Univ., Jeju Natl. Univ.*

8:00 W3 **726.05** Neil3 DNA glycosylase protects mitochondrial DNA from oxidative stress induced damage in neural stem cells. K. SCHEFFLER; W. WANG*; R. SUKANTHAN; M. BJØRAS; L. EIDE. *Univ. of Oslo, Univ. of Oslo.*

9:00 W4 **726.06** A novel senescence mechanism associated with hypoxia and AIMP3 in placenta derived adult mesenchymal stem cells and neural precursor cells. C. KIM; H. KIM; S. KIM; J. MOON*. *CHA Univ., Ctr. for Medicinal Protein Network and Systems Biology, Seoul Natl. Univ.*

10:00 W5 **726.07** Edge of Ciliary Epithelium Cells over the Umbilical Cord Blood derived blood cells in rescue of retinal degeneration. S. BAMMIDI*; S. PRABHAKAR; A. ANAND. *Post Grad. Inst. of Med. Educ. and Res.*

11:00 W6 **726.08** Profound inhibition of neurogenesis after irradiation in association with p53 deficiency. Z. CHENG*; Y. LI; F. LU; S. WONG. *Sunnybrook Hlth. Sci. Ctr.*

8:00 W7 **726.09** The targeted activation of CREB in astrocytes promotes the bioenergetic rescue of cortex after a focal cryolesion. L. PARDO; A. SCHLUTER; A. BARCO; M. GIRALT; J. HIDALGO; R. MATEU; L. GIMÉNEZ-LLORT; R. MASGRAU; A. PUJOL; E. GALEA*. *Univ. Autònoma, Idibell, Inst. of Neurosciences.*

9:00 W8 **726.10** Hypertrophied Iba1-positive microglia are not all CD68-positive. C. SEGOVIA; S. A. BENKOVIC; R. C. SWITZER III*. *NeuroScience Associates.*

10:00 W9 **726.11** Evaluating the effect of extracellular matrix bioscaffolds on microglia phenotype. F. MENG*; C. J. MEDBERRY; S. F. BADYLAK. *McGowan Inst. For Regenerative Med.*

POSTER

727. Neuroinflammation: HIV and Infections

Theme C: Disorders of the Nervous System

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

8:00 W10 **727.01** Methamphetamine and antiretroviral therapy in NeuroAIDS. A. B. SANCHEZ*; M. KINOMOTO; C. M. DE ROZIERES; C. J. COX; I. C. CATALAN; R. MAUNG; N. E. SEJBUK; M. M. HOEFER; M. KAUL. *Sanford-Burnham Med. Res. Inst., Univ. of California San Diego.*

9:00 W11 **727.02** Brain diffusion tensor imaging in HIV infected subjects and the gp120 transgenic mouse model. G. G. BROWN*; M. SCADENG; R. BUSSELL; S. L. ARCHIBALD; C. L. ACHIM; S. SEMENOVA; J. P. KESBY; A. MARKOU; S. P. WOODS; I. GRANT; &. THE TMARC GROUP. *VASDHS, Univ. of California San Diego, Univ. of California San Diego.*

10:00 W12 **727.03** ● A new small animal model of AIDS: The HIV-1 transgenic NUDE rat (HIV-1TGNR),its importance for understanding HIV neuropathology. F. J. DENARO*; S. DAVINELLI; S. CURRELI; F. BENEDETTI; S. KRISHNAN; H. DAVIS; G. SCAPAGNINI; W. ROYAL; D. ZELLA; J. BRYANT. *Morgan State Univ., Inst. of Human Virology, Univ. Molise, Inst. of Human Virology, Univ. of Maryland Sch. of Med.*

11:00 W13 **727.04** Astrocytes, through Wnts, induce CD4 expression on CD8 T cells to generate a double positive (CD4+CD8+) T cell phenotype, which is found in the CNS of HIV infected humanized mice and has a higher survival rate than infiltrating CD4+ T cells. M. H. RICHARDS; M. S. SEATON; L. AL-HARTHI*. *Rush Univ. Med. Ctr.*

8:00 W14 **727.05** Neuroinflammation in the limbic system of young adult HIV-1 transgenic rats. L. CHEN*; W. N. WAYMAN; A. L. PERSONS; X. HU; T. C. NAPIER. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

9:00 W15 **727.06** LRRK2 knockout is neuroprotective in models of HIV-1 associated neurocognitive disorders. J. M. PUCCINI*; D. F. MARKER; J. BARBIERI; S. LU; H. A. GELBARD. *Univ. of Rochester Med. Ctr.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 W16 **727.07** A voltage-gated potassium channel regulates neuronal resilience and death in neuro-HIV infection. A. J. SHEPHERD*; L. LOO; D. P. MOHAPATRA. *The Univ. of Iowa Carver Col. of Med.*

11:00 W17 **727.08** Increased γ-aminobutyric acid transporter 1 (GAT-1) suggests dampening of inhibitory drive in the anterior cingulate cortex of patients with HIV encephalitis (HIVE). T. BUZHDYGAN*; J. LISINICCHIA; V. PATEL; B. GELMAN. *Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

8:00 W18 **727.09** Influence of hepatitis C status on brain metabolites: Evidence for neuroinflammation in HIV infected patients. N. M. ZAHR*; D. MAYER; E. V. SULLIVAN; A. PFEFFERBAUM. *Stanford Univ. Sch. of Med., SRI Intl.*

9:00 X1 **727.10** A new pediatric model of neuroaids: The hiv-1 transgenic rat. L. EDELSTEIN*; F. DENARO; H. DAVIS; S. DAVINELLI; S. CURRELI; F. BENEDETTI; S. KRISHNAN; G. SCAPAGNINI; D. ZELLA; J. BRYANT. *Medimark Corp., Morgan State Univ., Inst. of Human Virology, Univ. of Molise.*

10:00 X2 **727.11** RNA deep sequencing analysis reveals that nicotine restores impaired gene expression by viral proteins in the brains of HIV-1 transgenic rats. J. CAO*; S. WANG; J. WANG; W. CUI; T. NESIL; M. VIGORITO; S. L. CHANG; M. D. LI. *Dept. of Psychiatry & Neurobehavioral Sciences, Univ. of Virginia, Dept. of Psychiatry and Neurobehavioral Sciences, Univ. of Virginia, Sch. of Biomed. Engineering, Tianjin Med. Univ., First Affiliated Hospital, Zhejiang Univ., Inst. of NeuroImmune Pharmacology, Dept. of Psychology, Seton Hall Univ., Inst. of NeuroImmune Pharmacology,Department of Biol. Sciences, Seton Hall Univ.*

11:00 X3 **727.12** Differential roles of mature and proNGF in the regulation of human macrophage activation by HIV. K. S. WILLIAMS*; D. A. KILLEBREW; G. P. CLARY; Y. XIE; R. B. MEEKER. *Univ. of North Carolina Sch. of Med.*

8:00 X4 **727.13** Human parechovirus 3 encephalitis is an emerging pathogenic cause of periventricular leukomalacia. C. J. CHIANG*; S. BISSEL; C. WINKLER; M. RICHER; R. AUER; J. KOFLER; G. MURDOCH; C. WILEY. *Univ. of Pittsburgh Med. Ctr., Carnegie Mellon Univ., Univ. de Montréal.*

9:00 X5 **727.14** Effect of HIV-1 Nef on sensory neuron excitability in neuropathic pain. Y. L. CHEN*; S. ARCHAJEE; C. POWER; P. A. SMITH. *Univ. of Alberta, Univ. of Calgary, Univ. of Alberta.*

10:00 X6 **727.15** Alterations in immunoreactive L-type calcium channel protein in the medial prefrontal cortex of young adult HIV-1 transgenic rats. W. N. WAYMAN*; L. CHEN; T. C. NAPIER; X. HU. *Rush Univ., Rush Univ., Rush Univ.*

11:00 X7 **727.16** The HIV-1 protein Tat increases the number of inhibitory synapses via a process that is reversible and mediated by NMDA receptors. N. J. HARGUS*; S. A. THAYER. *Univ. of Minnesota.*

8:00 X8 **727.17** Associations of structural brain connectivity with historical and current HIV disease severity in youth with perinatally acquired HIV. K. A. UBAN*; M. M. HERTING; J. B. COLBY; R. YOGEV; P. L. WILLIAMS; K. M. MALEE; J. G. CSERNANSKY; L. WANG; Y. HUO; E. R. SOWELL; P. COORDINATING CENTER. *Children's Hosp. Los Angeles, Children's Hosp. Los Angeles, Children's Hosp. of Chicago, Harvard Sch. of Publ. Hlth., Northwestern Univ. Feinberg Sch. of Med., PHACS Coordinating Center* .

9:00 X9 **727.18** The association of current and historical HIV disease severity with functional brain connectivity in adolescents with perinatally acquired HIV infection. M. M. HERTING; K. A. UBAN; D. FAIR; R. YOGEV; P. WILLIAMS; K. M. MALEE; J. G. CSERNANSKY; L. WANG; Y. HUO; E. R. SOWELL*; P. H. A. C. S. TEAM. *USC/CHLA, Oregon Hlth. & Sci. Univ., Northwestern Univ. Feinberg Sch. of Med., Harvard Sch. of Publ. Hlth., Tulane Univ.*

10:00 X10 **727.19** Calpain cleavage of the cell cycle protein E2F1 in neurons. J. ZYSKIND*; Y. WANG; J. TING; G. CHO; K. JORDAN-SCIUTTO. *Univ. of Pennsylvania.*

11:00 X11 **727.20** Brain network connectivity disruptions in HIV/AIDS. C. D. LEONARDO*; T. M. NIR; N. JAHANSHAD; A. GONGVATANA; B. NAVIA; R. COHEN; P. M. THOMPSON. *UCLA Sch. of Med., Brown Univ. Sch. of Medicine, Providence, RI, USA, Tufts Univ. Sch. of Medicine, Boston, MA, USA, Dept. of Publ. Heath and Community Medicine, Tufts Sch. of Medicine, Jaharis Family Ctr. for Biomed. Research, 150 Harrison Ave, Boston, MA 02111, USA, Dept. of Aging-Geriatric Research, Univ. of Florida Col. of Medicine, Gainesville, FL 32603, USA.*

8:00 X12 **727.21** IFN-β mediated neuroprotection in HIV-1 associated brain injury. V. E. THANEY*; M. M. HOEFER; M. KAUL. *Sanford Burnham Med. Res. Inst.*

9:00 X13 **727.22** Dysregulation of the urea cycle during cerebral malaria. J. M. VELEZ*; H. VAN DER HEYDE; I. GRAMAGLIA. *La Jolla Infectious Dis. Inst.*

POSTER

728. Disorders of the Nervous System: Gene Therapy

Theme C: Disorders of the Nervous System

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

8:00 X14 **728.01** AAV-mediated delivery of a recombinant single chain antibody against misfolded superoxide dismutase for treatment of amyotrophic lateral sclerosis. P. PATEL*; J. KRIZ; M. GRAVEL; G. SOUCY; C. BAREIL; C. GRAVEL; J. JULIEN. *Dept. of Neurosci. and Psychiatry, Ctr. De Recherche Du CHUL (CHUQ), Inst. universitaire en santé mentale de Québec.*

9:00 X15 **728.02** A comparative study of the effects of lentiviral vector mediated overexpression of six neurotrophic factors on axon regeneration in a model of autologous nerve transplantation. S. A. HOYNG*; F. DE WINTER; S. GNAVI; R. DE BOER; L. I. BOON; L. M. KORVERS; M. R. TANNEMAAT; M. J. MALESSY; J. VERHAAGEN. *Netherlands Inst. for Neurosci., Leiden Univ. Med. Ctr., Neurosci. Inst. Cavalieri Ottolenghi Fndn., Vrije Univ. Amsterdam.*

10:00 X16 **728.03** ▲ Intra-drg transduction with aav-2/8 carrying mu-conotoxin sbiiia gene, nav channel blocker, for the amelioration of chronic pain. B. H. PRIDDY*; S. JERGOVA; S. GAJAVELLI; J. IMPERIAL; B. OLIVERA; J. SAGEN. *Miami Project To Cure Paralysis - Lois Pope Life Ctr., The Miami Project to Cure Paralysis, Univ. of Utah.*

11:00 X17 **728.04** Evaluation of a 2.5kb rat TH promoter to mediate dopamine neuron-specific expression of genes that induce axon regeneration following transduction by AAV delivery. A. ROLLAND*; T. KAREVA; N. KHOLODILOV; R. E. BURKE. *Columbia Univ.*

8:00 X18 **728.05** Enhanced cns transduction and transgene expression by rAAV capsid tyrosine mutants. N. M. KANAAN*; C. SORTWELL; S. GOMBASH; N. KUHN; T. GRABINSKI; W. HAUSWIRTH; S. BOYE; V. CHIODO; F. MANFREDSSON. *Michigan State Univ., Michigan State Univ., Univ. of Florida.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 Y1 **728.06** ▲ Gene therapy strategies for dominant mutations: *in vitro* repair of rhodopsin by Spliceosome-mediated RNA trans-splicing. A. BEMELMANS*; A. BERGER; M. GAILLARD; C. JOSÉPHINE; S. LORAIN; M. DESROSIERS; P. FABRE; C. PECCATE; L. GARCIA; T. VOIT; J. SAHEL. *CEA, MIRCen, URA2210 CEA/CNRS, Ctr. de recherche Inst. de la Vision, Univ. Pierre et Marie Curie UM80, Inserm U968, CNRS UMR7210, Insitut de Myologie, Inserm, Univ. de Versailles Saint-Quentin.*

10:00 Y2 **728.07** Targeted gene delivery to the peripheral nervous system mediated by biomaterial-based vectors. A. P. PEGO*; H. OLIVEIRA; C. D. LOPES; L. R. PIRES; S. SIMÕES; P. HINTERDORFER. *INEB - Inst. De Engenharia Biomédica, CNC - Univ. de Coimbra, Univ. of Linz.*

11:00 Y3 **728.08** Characterizing regulated GDNF expression using destabilizing domains in the of 6-OHDA rodent model. L. QUINTINO; E. ELGSTRAND WETTERGREN; C. ISAKSSON; C. LUNDBERG*. *CNS Gene Therapy, CNS Gene Therapy.*

8:00 Y4 **728.09** Preclinical studies supporting a gene therapy trial for Giant Axonal Neuropathy. S. J. GRAY*; D. ARMAO; I. OGUZ; B. PANIAGUA; S. NAGABHUSHAN KALBURGI; L. BACHABOINA; J. C. FOX; H. SHIH; A. RUMPLE; E. MALTBIE; R. J. SAMULSKI. *Univ. of North Carolina, Univ. of North Carolina, Univ. of North Carolina, Univ. of North Carolina.*

9:00 Y5 **728.10** Using single systemic rAAV injections as a tool to study the role of aspartoacylase in the nervous system. S. AHMED*; J. LI; H. LI; Q. SU; T. N. SEYFRIED; D. KIRSCHNER; E. M. SIKOGLU; C. MOORE; R. MATALON; G. GAO. *Univ. of Massachusetts Med. Sch., Boston Col., Univ. of Texas Med. Br.*

10:00 Y6 **728.11** Using *in vivo* optical imaging to study extracellular diffusion of adeno-associated virus (AAV) in rat neocortex. D. J. WOLAK; M. E. PIZZO; R. G. THORNE*. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

11:00 Y7 **728.12** OPRM1 methylation contributes to opioid tolerance in cancer patients. C. T. VIET*; D. DANG; Y. YE; B. L. SCHMIDT. *New York Univ., Bluestone Ctr. for Clin. Res.*

8:00 Y8 **728.13** Development of recombinant adeno-associated vectors for widespread, regulatable therapeutic gene delivery to the CNS. B. E. DEVERMAN*; B. P. SIMPSON; P. L. PRAVDO; P. H. PATTERSON. *California Inst. Tech., California Inst. Tech.*

9:00 Y9 **728.14** Development of chimeric AAV vectors for retrograde axonal transport and sensory neuron transduction. J. MCCALL*; E. KIENLE; D. GRIMM; A. BLESCH. *Sektion Neuroregeneration, Klinik Für Paraplegiologie, Bioquant, Heidelberg Univ.*

POSTER

729. Schizophrenia and Bipolar Disorders: Mutant Animal Models

Theme C: Disorders of the Nervous System

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

8:00 Y10 **729.01** Disrupted topography of burst-like activity in midbrain dopamine neurons of conditional SK3 knockout mice: Relevance to positive symptoms of schizophrenia. H. MOORE*; M. O. CHOHAN; N. CHUHMA; S. MINGOTE; A. S. KALMBACH; B. C. FIELD; S. WACHSBERGER; B. P. INBAR; J. E. LIZARDI-ORTIZ; E. MOSHAROV; D. L. SULZER; J. P. ADELMAN; S. RAYPORT. *New York State Psychiatric Inst., Columbia Univ., New York State Psychiatric Inst., Columbia Univ., Columbia Univ., Oregon Hlth. & Sci. Univ.*

9:00 Z1 **729.02** Disrupted topography of burst firing in midbrain dopamine neurons of conditional NR1 knockout mice: Relevance to motivational and cognitive symptoms of schizophrenia. A. S. KALMBACH*; M. O. CHOHAN; N. CHUHMA; S. MINGOTE; B. P. INBAR; J. E. LIZARDI-ORTIZ; E. MOSHAROV; D. L. SULZER; H. MOORE; S. RAYPORT. *Columbia Univ., New York State Psychiatric Inst., New York State Psychiatric Inst., Columbia Univ., Columbia Univ.*

10:00 Z2 **729.03** Behavioral phenotyping of adult Akt1 deficient mice after experiencing neonatal poly(I:C) immune challenge. W. WONG*; C. HUANG; W. LAI. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*

11:00 Z3 **729.04** ● Altered hippocampal-medial prefrontal cortex connectivity *in vitro* and *in vivo* in a transgenic Disc1 mouse model of psychiatric disease. M. KURIHARA*; J. DUNLOP; N. J. BRANDON; Z. A. HUGHES; A. D. RANDALL; J. T. BROWN. *Univ. of Bristol, Pfizer Res. and Develop.*

8:00 Z4 **729.05** The interplay of cannabinoid signaling and DISC1 during adolescence: Effects on prefrontal cortex function in adulthood. M. D. BALLINGER*; B. ABAZYAN; Y. TANIGUCHI; A. SAITO; C. HUANG; K. ITO; D. F. WONG; M. PLETNIKOV; A. KAMIYA. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

9:00 Z5 **729.06** Dopamine function and schizophrenia-like behaviors are altered in ErbB4 null mice. M. SKIRZEWSKI*; A. BUONANNO. *NIH/NICHD.*

10:00 Z6 **729.07** ErbB4 signaling through cytoskeletal effectors regulates dendrite spine formation and stability. M. A. COOPER*; A. J. KOLESKE. *Yale Sch. of Med., Yale Sch. of Med.*

11:00 Z7 **729.08** ● Derivation and characterization of neural stem cells from a mouse model of psychiatric disease. A. DE KONING; N. M. WALTON*; K. TAJINDA; S. MIYAKE; Q. CHEN; A. K. GROSS; J. H. KOGAN; C. L. HEUSNER; R. SHIN; K. TAMURA; M. MATSUMOTO. *CNS, Astellas Res. Inst. of America LLC.*

8:00 Z8 **729.09** DISC1 regulation of D-serine production is specific to astrocytes. S. ABAZYAN*; T. MA; B. ABAZYAN; J. NOMURA; C. YANG; A. SAWA; S. SNYDER; M. PLETNIKOV. *Johns Hopkins Univ., Johns Hopkins Univ., Hiroshima Univ. Grad. Sch. of Biomed. Sci.*

9:00 Z9 **729.10** An optogenetic approach to study hippocampal prefrontal connectivity in 15q13.3 mice. N. HOVELSØ*; J. BASTLUND; A. MØRK; F. SOTTY; J. THELIN. *H. Lundbeck A/S, Univ. of Copenhagen.*

10:00 Z10 **729.11** Genetic mutations in astrocytes and adolescent cannabis exposure contribute to dysfunctions in adulthood in psychiatric disorders. B. ABAZYAN; M. BALLINGER; S. ABAZYAN; C. YANG; A. KAMIYA; M. V. PLETNIKOV*. *John Hopkins Univ. Sch. Med.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 Z11 **729.12** Vesicular Monoamine Transporter1 (VMAT1) depletion in mice produces behavioral deficits: Potential model for psychiatric disorders. K. A. WEBSTER*; T. M. HILLHOUSE; B. L. JOSEPH; T. J. DONAHUE; K. FISHER-STENGER; J. J. WINDLE; J. K. STEWART; J. H. PORTER. *Virginia Commonwealth Univ., Univ. of Richmond, Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

8:00 Z12 **729.13** Immature dentate gyrus, a candidate endophenotype for psychotic disorders, emerges after adolescence in Schnurri-2 KO mice. K. TAKAO*; H. HAGIHARA; K. OHIRA; H. SHOJI; S. HATTORI; H. KOSHIMIZU; J. UMEMORI; T. TAKAGI; S. ISHII; T. MIYAKAWA. *Natl. Inst. For Physiological Sci., Fujita Hlth. Univ., JST, CREST, RIKEN, Inst. for Developmental Res.*

9:00 Z13 **729.14** Involvement of the receptor for advanced glycation end-product (RAGE) in redox dysregulation and neuroinflammation in an animal model of schizophrenia. D. DWIR; J. H. CABUNGCAL*; P. STEULLET; R. TIROUVANZIAM; K. Q. DO. *Dept. of Psychiatry, Univ. Hosp. of Lausanne, Res. Emory Univ. Sch. of Medicine, Dept. of Pediatrics Div. of Pulmonary, Allergy & Immunology, Cystic Fibrosis and Sleep (PACS).*

10:00 Z14 **729.15** ● Involvement of medial habenula-interpeduncular nucleus pathway in adaptation and social memory. Y. KOBAYASHI*; A. OBA-ASAKA; K. YASUDA; Y. HAYASHI; N. KOGO; H. KAWASAKI; S. ITOHARA. *RIKEN Brain Sci. Inst., Kyushu Univ.*

11:00 Z15 **729.16** MicroPET imaging reveals alterations of basal and methamphetamine-induced striatal dopamine D2 receptor activity in adult but not adolescent Akt1 deficient male mice. D. LUO*; T. HWANG; R. YEN; C. CHANG; W. LAI. *Natl. Taiwan Univ., Dept. of Psychiatry, Natl. Taiwan Univ. Hosp., Dept. of Nuclear Medicine, Natl. Taiwan Univ. Hosp., Neurobio. and Cognitive Sci. Center, Natl. Taiwan Univ.*

8:00 Z16 **729.17** Neurogranin knockout mouse demonstrates a sensorimotor gating deficit. A. A. KRAMER*; J. E. TOMORSKY; N. Z. GERGES. *Med. Col. of Wisconsin.*

9:00 Z17 **729.18** Susceptibility genes for Autism and Schizophrenia influence the expression of synaptic markers during postnatal development. D. TROPEA*; S. BELLINI; E. PETIT; J. WADDINGTON; A. CORVIN. *Trinity Col. Dublin, Royal Col. of Surgeons in Ireland.*

10:00 Z18 **729.19** Expression of mutant DISC1 in astrocytes affects neuronal maturation. M. XIA*; A. SHEVELKIN; M. KOGA; C. YANG; T. SEDLAK; M. PLETNIKOV. *The Johns Hopkins Univ. Sch. of Med., Guangxi Univ. of Traditional Chinese Med., The Johns Hopkins Univ. Sch. of Med.*

11:00 AA1 **729.20** Behavioral responses of *Drosphila melanogaster* lines carrying SNAP25 or Syntaxin point mutations. O. ROSSETTO; A. MEGIGHIAN*; M. SCORZETO; M. RIGONI; C. MONTECUCCO; M. A. ZORDAN. *Univ. of Padova, Univ. of Padova.*

8:00 AA2 **729.21** Impaired interval timing and spatial-temporal integration in mice deficient in CHL1, a gene associated with schizophrenia. M. C. BUHUSI*; I. SCRIPA; C. L. WILLIAMS; C. V. BUHUSI. *Utah State Univ., Duke Univ.*

9:00 AA3 **729.22** Hearing loss in a mouse model of 22q11 Deletion Syndrome. J. F. LINDEN*; J. FUCHS; F. A. ZINNAMON; R. R. TAYLOR; S. IVINS; P. J. SCAMBLER; A. FORGE; A. TUCKER. *Univ. Col. London, King's Col. London, Univ. Col. London, Univ. Col. London.*

10:00 AA4 **729.23** Characterization of a mouse model of the 1q21.1 microdeletion syndrome. K. W. FEJGIN*; J. B. LAURIDSEN; V. NIELSEN; D. CLAUSEN; P. H. LARSEN; I. V. KLEWE; S. RASMUSSEN; J. NIELSEN; M. DIDRIKSEN. *H. Lundbeck A/S, H. Lundbeck A/S.*

11:00 AA5 **729.24** Impaired white matter integrity in a mouse model of redox dysregulation relevant to schizophrenia. A. CORCOBA GARCÍA; J. M. N. DUARTE; Y. VAN DE LOOIJ; R. GRUETTER; K. Q. DO*. *Ctr. for Psychiatric Neurosci., École Polytechnique Fédérale de Lausanne, Univ. Hosp., Univ. of Geneva, Univ. Hosp., SYNAPSY - The Synaptic Bases of Mental Dis., SYNAPSY - The Synaptic Bases of Mental Dis.*

8:00 AA6 **729.25** Impaired cognitive function in KCNH2-3.1 transgenic mice. G. V. CARR*; R. XUN; A. BEBENSEE; Q. TIAN; J. CHEN; F. PAPALEO; D. R. WEINBERGER. *NIMH, Lieber Inst. for Brain Develop., Inst. Italiano di Tecnologia, Univ. degli Studi di Padova.*

POSTER

730. Mood Disorders: Experimental Therapeutics

Theme C: Disorders of the Nervous System

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

8:00 AA7 **730.01** ▲ Chronic vmPFC DBS boosts serotonergic neuroplasticity and normalizes behavioral sequelae of social defeat in the mouse. A. VEERAKUMAR*; C. CHALLIS; J. BOULDEN; P. GUPTA; S. G. BECK; O. BERTON. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia Res. Inst.*

9:00 AA8 **730.02** Pre-running prevents depressive phenotype and enhances hippocampal neurogenesis and synaptic plasticity despite of decreased neurotrophic factors in stressed rats. S. YAU; A. LI; E. ZHANG; J. J. LEE; Y. CHING; A. XU; B. R. CHRISTIE*; T. M. LEE; K. SO. *Univ. of Victoria, The Univ. of Hong Kong, The Univ. of Hong Kong, The Univ. of Hong Kong.*

10:00 AA9 **730.03** The cognitive enhancer methylphenidate potentiates NMDA receptors in prefrontal cortex. J. CHENG*; Z. XIONG; S. LIU; Z. YAN. *SUNY At Buffalo.*

11:00 AA10 **730.04** ● *In vivo* insulin-like growth factor I (IGF-1) elicits persistent enhancement of long-term potentiation (LTP) of synaptic transmission correlated with antidepressant actions. X. ZHANG*; J. BURGDORF; A. L. GROSS; R. A. KROES; P. K. STANTON; J. R. MOSKAL. *New York Med. Coll, Northwestern Univ., Naurex Inc.*

8:00 AA11 **730.05** ● Insulin-like growth factor I produces a long-lasting antidepressant-like effect in rats through modulation of long-term synaptic plasticity: Behavioral studies. J. S. BURGDORF*; X. ZHANG; A. L. GROSS; R. A. KROES; P. K. STANTON; J. R. MOSKAL. *Northwestern Univ., New York Med. Col., Naurex Inc.*

9:00 AA12 **730.06** Creatine administered chronically causes antidepressant-like effect and modulates hippocampal proteins implicated in neuroplasticity. A. S. RODRIGUES*; F. L. PAZINI; J. M. ROSA; A. OLIVEIRA; C. M. RIBEIRO; V. LIEBERKNECHT; M. P. CUNHA. *Univ. Federal De Santa Catarina.*

10:00 AA13 **730.07** The opposing effects of dietary creatine on hippocampal neurogenesis- and synaptic plasticity-related gene expression in sham-operated versus gonadectomized rats are influenced by sex hormones. P. J. ALLEN*; R. B. KANAREK; J. F. DEBOLD; M. RIOS. *Tufts Univ., Tufts Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 AA14 **730.08** ● ▲ Intranasal delivery of a conjugated serotonin transporter siRNA evokes antidepressant responses in stressed mice via internalization into serotonergic neurons. A. FERRÉS-COY; M. GALOFRÉ; F. PILAR-CUELLÁR; R. VIDAL; V. PAZ; R. CORTÉS; Á. PAZOS; E. M. VALDIZÁN; A. MONTEFELTRO; F. ARTIGAS; A. BORTOLOZZI*. *IIBB-CSIC-IDIBAPS-CIBERSAM, IBBTEC-CIBERSAM, IIBB-CSIC-IDIBAPS-CIBERNED, nLife Therapeutics, S.L., IIBB-CSIC-IDIBAPS-CIBERSAM.*

8:00 AA15 **730.09** Depressant-like phenotype and activation of p38MAPK elicited by TNF-α are prevented by ascorbic acid treatment. M. MORETTI*; J. BUDNI; A. E. FREITAS; V. B. NEIS; C. M. RIBEIRO; G. O. BALEN; D. K. RIEGER; R. B. LEAL; A. L. S. RODRIGUES. *Federal Univ. of Santa Catarina.*

9:00 AA16 **730.10** Combined activation of 5-HT1A and σ1 receptors enhances prefrontal dopamine release in adrenalectomized/castrated mice. N. HIRAMATSU*; Y. AGO; K. MORI; A. NISHIMURA; K. TAKUMA; T. MATSUDA. *Osaka Univ., United Grad. Sch. of Child Development, Osaka University, Kanazawa University, Hamamatsu Univ. Sch. of Medicine, Chiba Univ. and Univ. of Fukui.*

10:00 AA17 **730.11** Caffeine intake reverts memory impairment and abnormal hippocampal synaptic function in bred-based depressed mice. R. A. CUNHA*; N. J. MACHADO; A. ARDAIS; M. P. KASTER; P. GARÇÃO; H. B. SILVA; D. I. RODRIGUES; A. SIMÕES; D. POCHMANN; A. R. TOMÉ; L. O. PORCIUNCULA; A. KOFALVI; I. M. ARAÚJO; P. AGOSTINHO; J. VAUGEOIS; M. EL YACOUBI; C. V. GOMES. *CNC -Center For Neurosci. and Cell Biol., Univ. of Coimbra, Univ. of Coimbra, Federal Univ. of Rio Grande do Sul, Univ. of Lyon, Univ. of Rouen.*

11:00 AA18 **730.12** ● The rapid antidepressant effects of GLYX-13 may be mediated in part by an early phase long term potentiation (E-LTP)-like mechanism. A. L. GROSS*; J. S. BURGDORF; M. E. SCHMIDT; R. A. KROES; P. K. STANTON; J. R. MOSKAL. *Naurex Inc, Northwestern Univ., New York Med. Col.*

8:00 BB1 **730.13** ● A single dose of vortioxetine or ketamine, but not fluoxetine, increases transcript levels of genes involved in neuroplasticity in the rat prefrontal cortex. K. G. DU JARDIN*; N. LIEBENBERG; H. MÜLLER; C. SANCHEZ; G. WEGENER; B. ELFVING. *Aarhus Univ., Lundbeck Res. USA, Inc.*

9:00 BB2 **730.14** Effects of trkb ligands on depression-like behaviors and dendritic changes after inflammation. J. ZHANG; J. WU; Q. REN; S. LI; Y. SHIRAYAMA; K. HASHIMOTO*. *Chiba Univ. Ctr. Forensic Men Hlth.*

10:00 BB3 **730.15** Effects of acute ketamine administration on chronic stress-induced cognitive deficits in rats. J. D. JETT*; L. C. EVANS; D. J. LODGE; D. A. MORILAK. *Univ. Texas Hlth. Sci. Ctr, SA.*

11:00 BB4 **730.16** ● Involvement of CaMKIV in antidepressant actions. S. NAKAGAWA*; N. SONG; A. KATO; Y. AN; T. INOUE; X. LI; I. KUSUMI. *Hokkaido Univ. Grad Sch. Med., the First Hosp. of China Med. Univ.*

8:00 BB5 **730.17** ▲ Local electrical stimulations of the ventral prelimbic cortex ameliorates depressive-like behavioral traits in a genetic rat model for major depression. H. SAIDA*; R. GAL; A. ZANGEN. *Ben- Gurion Univ.*

9:00 BB6 **730.18** Antidepressants' antagonist effect on zinc activated cation channel (zacn). C. SONG*; Y. CHANG. *Barrow Neurolog. Institute, St. Joseph's Hosp. and Med. Ctr.*

POSTER

731. Mood Disorders: Preclinical Studies and Animal Models

Theme C: Disorders of the Nervous System

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

8:00 BB7 **731.01** Alteration in the epigenetic regulation following overexpression of glucocorticoid receptor in the mice forebrain. S. CHAUDHURY*; E. K. HEBDA-BAUER; Q. WEI; V. SHARMA; A. SEASHOLTZ; S. J. WATSON; H. AKIL. *MBNI Univ. of Michigan.*

9:00 BB8 **731.02** FGF2 alters the mTOR signaling pathway in the hippocampus of wild type and glucocorticoid receptor-overexpressing mice. E. K. HEBDA-BAUER*; L. A. DOKAS; Q. WEI; A. F. SEASHOLTZ; S. J. WATSON; H. AKIL. *Univ. Michigan.*

10:00 BB9 **731.03** Cortical GluN2B-containing NMDA receptors mediate the cellular changes underlying ketamine's rapid antidepressant effects. O. H. MILLER*; L. YANG; E. A. HARGRODER; B. J. HALL. *Tulane University, Neurosci. Program, Tulane University, Cell and Mol. Biol.*

11:00 BB10 **731.04** New conditional knock-out models of VMAT2 with independent alterations of dopamine, serotonin or noradrenaline. E. ISINGRINI*; L. PERRET; Q. RAINER; S. SAGHEBY; L. MOQUIN; A. GRATTON; B. GIROS. *McGill University, Douglas Inst., McGill University, Mental Hlth. Douglas Inst.*

8:00 BB11 **731.05** Assessing the neurotransmitter type-specific impact of corticotropin-releasing hormone receptor type 2 (CRHR2) on anxiety-related behavior and hypothalamus-pituitary-adrenal (HPA) axis regulation. A. KOLARZ*; N. DEDIC; M. SCHIEVEN; E. A. ANDERZHANOVA; C. T. WOTJAK; F. HOLSBOER; W. WURST; J. M. DEUSSING. *Max Planck Inst. of Psychiatry, Helmholtz Zentrum.*

9:00 BB12 **731.06** Effects of an enriched environment and antidepressant treatments on expression of depression-related genes in normal wild type and depressed BDNF mutant mice. K. SAKATA*; S. JHA. *Univ. Tennessee.*

10:00 CC1 **731.07** Chronic valproate restores hyperactivity, cognitive deficits and epileptiform activity in adolescent SNAP-25 heterozygous (SNAP-25+/−) mice. D. BRAIDA; L. PONZONI; R. MARTUCCI; E. FOCCHI; I. CORRADINI; M. MATTEOLI; M. SALA*. *Univ. Degli Studi Di Milano,, Fondazione IRCCS Don Gnocchi, Fondazione Fratelli Confalonieri,, Humanitas Clin. and Res. Ctr., CNR, Inst. of Neuroscience,.*

11:00 CC2 **731.08** ● Investigation of the behavioral role of an allosteric site on the serotonin transporter using a transgenic mouse model. K. E. MURRAY*; T. A. STOWE; F. ZEJNELOVIC; K. J. RESSLER; M. J. OWENS. *Emory Univ.*

8:00 CC3 **731.09** Limbic neuropeptide Y-1 receptors modulate vulnerability to social and metabolic challenges depending upon gender and maternal environment. P. PALANZA*; R. PANELLI; L. GIOIOSA; S. PARMIGIANI; A. BARTOLOMUCCI; P. MELE; A. LONGO; C. EVA. *Univ. of Parma, Univ. of Minnesota, Univ. of Torino.*

9:00 CC4 **731.10** Axonal targeting of the serotonin transporter is contingent upon ER exit via SEC24C in rat serotonergic neurons. T. MONTGOMERY*; T. STEINKELLNER; S. SUCIC; F. KOBAN; H. H. SITTE; M. FREISSMUTH*. *Conway Inst., Inst. of Pharmacology, Med. Univ. of Vienna.*

10:00 CC5 **731.11** Antidepressant effects of the trh analogue eep (pglu-his-pro-nh2) using the defensive burying assay. R. L. LLOYD; N. E. MARTIN; L. R. DREWES*. *Univ. of Minnesota, Univ. of Minnesota.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 CC6 **731.12** Antidepressant activity of the macerate of G.dalenii in depression-like features associated with epileptic seizures and that associated with chronic exposure to stress: a comparative study. G. T. NGOUPAYE*; E. NGO BUM; W. M. U. DANIELS. *Univ. of Dschang-Dschang Cameroon, Univ. of Ngaoundere, Discipline of Human Physiology, Sch. of Lab. Med. and Med. Sciences, Univ. of KwaZulu-Natal, Durban, South Africa.*

8:00 CC7 **731.13** Antidepressant-like effects of trans-resveratrol and piperine combination in rats and evidence for the involvement of monoaminergic mechanism and cAMP/PKA/CREB/BDNF signalling. C. ZHANG*; Y. AN; T. SHAO; L. RUAN; J. PAN; Y. XU; J. M. O'DONNELL. *West Virginia Univ., Univ. of Pittsburgh, Wenzhou Med. Collage.*

9:00 CC8 **731.14** Differential behavioral effects of the 5-HT_4-receptor agonist RS-67,333 in mice models of chronic depression/anxiety. R. VIDAL; A. DIAZ; E. CASTRO*; F. PILAR-CUELLAR; R. LINGE; A. MARTIN; J. AMIGO; E. M. VALDIZAN; A. PAZOS. *Inst. De Biomedicina Y Biotecnologia De Cantabria IBBTEC (UC-CSIC-SODERCAN)., CIBERSAM.*

10:00 CC9 **731.15** ● Elucidating the muscarinic receptor subtypes involved in scopolamine's antidepressant-like effects in animal models. J. SHOBLOCK*; W. CHEN; N. WELTY; G. CHEN. *Janssen Res. & Development, L.L.C.*

11:00 CC10 **731.16** Involvement of hippocampal transient receptor potential vaniloid type 1 channel in the behavior of rats submitted to forced swim stress. A. C. VANVOSSEN*; C. LINO-DE-OLIVEIRA; L. J. BERTOGLIO. *Univ. Federal De Santa Catarina.*

8:00 CC11 **731.17** ▲ Antidepressant effect of embedding thread in acupoints in rats with social isolation. A. DÁVILA-HERNÁNDEZ; E. RAMÍREZ-SAN JUAN; S. R. ZAMUDIO*; C. CAMPOS-RODRÍGUEZ; R. GONZALEZ-GONZÁLEZ. *INSTITUTO POLITÉCNICO NACIONAL, Inst. Politécnico Nacional.*

9:00 CC12 **731.18** A role of RGS4 in the actions of antidepressant drugs in mouse models of depression and neuropathic pain. V. MITSI; M. STRATINAKI; A. VARIDAKI; S. J. RUSSO; S. GHOSE; B. J. CALDARONE; C. A. TAMMINGA; E. J. NESTLER; V. ZACHARIOU*. *Univ. of Crete Fac. of Med., Mount Sinai Sch. of Med., UT Southwestern Med. Ctr., Harvard NeuroDiscovery Ctr., Icahn Sch. of Med. at Mount Sinai.*

10:00 CC13 **731.19** ● Signaling pathways involved in the antidepressant-like effects of long-term estradiol in ovariectomized rats. S. BENMANSOUR*; O. ADENIJI; A. PRIVRATSKY; A. FRAZER. *UTHSCSA.*

11:00 CC14 **731.20** Susceptibility and resilience to repeated social defeat stress is associated with altered expression of hippocampal microRNAs. K. A. SCOTT*; R. M. O'CONNOR; H. M. SAVIGNAC; G. M. MOLONEY; T. G. DINAN; J. F. CRYAN. *Univ. Col. Cork, Univ. of Oxford, Univ. Col. Cork.*

8:00 DD1 **731.21** Inhibition of stress-induced glutamate release in CA3 by leptin contributes to its antidepresant-like effect. X. WANG; X. LU*. *Univ. Texas Hlth. Sci. Ctr. At San Antonio.*

9:00 DD2 **731.22** ▲ Role of adenosine A_{2A} receptors in the ventromedial striatum and in the amygdala to control behavioral modifications in rats subjected to repeated restraint stress. N. GONÇALVES*; N. J. MACHADO; C. M. SOUZA; L. PEREIRA DE ALMEIDA; R. A. CUNHA. *CNC - Ctr. For Neurosci. and Cell Biol., Fac. of Medicine, Univ. of Coimbra, Fac. of Pharmacy, Univ. of Coimbra.*

10:00 DD3 **731.23** a GLT-1 mediated mechanism is implicated in the effects of chronic variable stress on an inbred rat model of the novelty-seeking phenotype. C. AYDIN*; A. M. MEDINA; K. FROHMADER; S. WATSON; H. AKIL. *Universty of Michigan.*

11:00 DD4 **731.24** RGS9-2 modulates the actions of opiate and antidepressant drugs in neuropathic pain models. V. MITSI*; D. TERZI; J. FENG; E. MANOURAS; S. GASPARI; X. LIU; L. SHEN; V. ZACHARIOU. *Univ. of Crete, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

8:00 DD5 **731.25** Anti-depressive effects of Acer tegmentosum in ovariectomized female rats. H. SHIM*; H. PARK; Y. AHN; D. HAHM; H. LEE; I. SHIM. *Grad. School, Col. of Korean Medicine, Kyung Hee Univ., Acupuncture and Meridian Sci. Res. Center, Col. of Korean Medicine, Kyung Hee Univ.*

9:00 DD6 **731.26** Psychopharmacology of efavirenz, a leading HIV antiretroviral drug. J. A. SCHETZ*; M. B. GATCH; M. J. FORSTER; J. GONZÁLEZ MAESO. *Univ. N Texas Hlth. Sci. Ctr., Mount Sinai Sch. of Med.*

10:00 DD7 **731.27** Activity-based anorexia induces changes in markers of neuroplasticity in the mesolimbic reward pathway. S. J. KLENOTICH*; E. V. HO; S. C. DULAWA. *Univ. of Chicago, Univ. of Chicago.*

POSTER

732. Mechanisms of Anxiety II

Theme C: Disorders of the Nervous System

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

8:00 DD8 **732.01** Neurochemical and behavioral responses of psychiatric disorder model mice to social encounter. K. TAKUMA*; S. HASEBE; T. TANAKA; S. NISHIYAMA; Y. MAEDA; R. ARAKI; Y. AGO; T. MATSUDA. *Grad. Sch. Pharmaceut. Sci., Osaka Univ., Unit-Grad. Sch. Child Dev., Osaka Univ., Kanazawa Univ., Hamamatsu Univ. Sch. Med., Chiba Univ. and Univ. Fukui.*

9:00 DD9 **732.02** Activation of CB1 receptors decreases marble burying and is unaffected by co-administered 5HT antagonist. A. STAVNEZER*; M. KIRCHNER. *Col. of Wooster, Col. of Wooster.*

10:00 DD10 **732.03** Anxiolytic-like effect of danshensu in mice. G. KWON*; S. PARK; H. LEE; H. WOO; Y. AHN; Q. GAO; J. CHEONG; D. JANG; J. RYU. *Kyung Hee Univ., Sahmyook Univ., Kyung Hee East-West Pharmaceut. Res. Inst.*

11:00 DD11 **732.04** Effect of adolescent social isolation on adult social interaction and activity of locus coeruleus (LC)-norepinephrine (NE) neurons in female rats. A. L. CURTIS*; S. LUZ; S. BHATNAGAR; R. VALENTINO. *Children's Hosp. Philadelphia.*

8:00 DD12 **732.05** Acute exposure of anxiolytic drugs: Predator responses in zebrafish (Danio rerio). D. SEGUIN*; R. GERLAI. *Univ. of Toronto.*

9:00 DD13 **732.06** Process- and outcome-dependent quenching of behavioral motivation in an animal model of compulsive-like behavior. K. L. HOFFMAN*; R. I. RUEDA MORALES. *Univ. Autonoma Tlaxcala-Cinvestav.*

10:00 DD14 **732.07** Synaptic molecular landscape of successful fear erasure by the combination of fluoxetine treatment and extinction training. N. N. KARPOVA*; D. POPOVA; A. ÁGÚSTSDÓTTIR; J. LINDHOLM; E. CASTRÉN. *Univ. of Helsinki.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 DD15 **732.08** CXCL12 has differential effects on anxiety behavior based on the site of release within the rat dorsal raphe nucleus. R. K. VASUDEVA*; M. D. O. BUFFARA; D. FUNSETH; L. G. KIRBY. *Temple Univ. Sch. of Med., Temple Univ. Sch. of Med., Linkoping Univ., Temple Univ. Sch. of Med.*

8:00 DD16 **732.09** Comparison of activation of phenotypically-distinct neurons in the extended amygdala following exposure to two different unconditioned anxiogenic stimuli. J. PARRILLA-CARRERO*. *Univ. of South Carolina, Sch. of Med.*

9:00 DD17 **732.10** The potential relevance of myelin dysfunction on behavior. K. MAHERAS*; M. GALLOWAY; F. GHODDOUSSI; A. GOW. *Wayne State Univ., Wayne State Univ., Wayne State Univ.*

10:00 DD18 **732.11** Microglial acid-sensing t-cell death associated gene-8 (tdag8) receptor: Linking neuroinflammation and panic responses. L. L. VOLLMER*; L. BAILEY; K. LI; I. LEWKOWICH; R. W. PUTNAM; R. SAH. *Univ. Of Cincinnati, Wright State Univ., Cincinnati Children's Hosp. Med. Ctr.*

11:00 EE1 **732.12** Repeated cortico-striatal stimulation generates persistent OCD-like behavior. S. E. AHMARI*; T. SPELLMAN; N. L. DOUGLASS; M. A. KHEIRBEK; A. CLARK; K. DEISSEROTH; J. GORDON; R. HEN. *Columbia Univ., Stanford Univ.*

8:00 EE2 **732.13** The molecular role of Slitrk5 in pathophysiology of OCD. S. SHMELKOV*; T. CARDOZO. *NYU Sch. of Med.*

9:00 EE3 **732.14** The interaction of mGluR7 and dopamine in a murine model of obsessive-compulsive disorder. A. K. RAMSEY*; D. KLAKOTSKAIA; T. SCHACHTMAN; S. HOWELL; R. RICHARDSON; E. WOODALL; C. WEINSTEIN; P. SERFOZO; A. SIMONYI. *Univ. of Missouri, Univ. of Missouri, Univ. of Missouri.*

10:00 EE4 **732.15** Network analysis of resting state fMRI in pediatric OCD using graph theory. C. C. ARMSTRONG; J. PIACENTINI; T. D. MOODY; J. BROWN; D. ARIENZO; J. G. LEVITT; J. D. FEUSNER*; J. O'NEILL. *UCLA, UCLA Semel Inst. For Neurosci. and Human Behavior, UCLA.*

11:00 EE5 **732.16** Effects of acute ketamine pretreatment on obsessive-compulsive-like behaviors in the 5-HT1BR-stimulated mouse model of OCD. S. THOMPSON*; S. KLENOTICH; S. DULAWA. *Univ. of Chicago, Univ. of Chicago.*

8:00 EE6 **732.17** Involvement of the Mirror Neuron System in Obsessive Compulsive Disorder: Disgust and relief toward third person or rubber hand contamination and washing. B. JALAL; V. S. RAMACHANDRAN*. *UCSD.*

9:00 EE7 **732.18** Activity-based anorexia: Correlation of food restriction-induced hyperactivity with trait anxiety and GABAergic innervation of hippocampal pyramidal cells. G. S. WABLE*; J. MIN; T. G. CHOWDHURY; K. TATEYAMA; C. AOKI. *Ctr. for Neural Science, New York Univ., New York Univ.*

10:00 EE8 **732.19** Neuroanatomical specificity of methylglyoxal in reducing anxiety-like behavior in mice. K. M. JOHNSTON*; A. A. PALMER. *Univ. of Chicago, Univ. of Chicago.*

11:00 EE9 **732.20** Interoceptive sensations can induce panic in humans with bilateral amygdala damage. S. S. KHALSA*; R. HURLEMANN; J. FEINSTEIN; W. LI; J. FEUSNER; R. ADOLPHS. *UCLA Dept. of Psychiatry, Univ. of Bonn, Caltech, UCLA.*

8:00 EE10 **732.21** An anxiolytic role for the orexin 2 / hypocretin a receptor in the basolateral amygdala. D. H. ARENDT*; J. HASSELL; H. LI; J. K. ACHUA; D. J. GUARNIERI; R. J. DILEONE; P. J. RONAN; C. H. SUMMERS. *Univ. South Dakota, Yale Univ., Avera Res. Inst.*

POSTER

733. Cocaine Reinforcement, Seeking, and Reinstatement I

Theme C: Disorders of the Nervous System

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

8:00 EE11 **733.01** Cocaine-predictive taste stimuli induce a negative affective state, decrease dopamine signaling, and cause drug-seeking. M. A. ROBBLE*; C. CHAN; A. L. EBBEN; K. VINEHOUT; D. S. WHEELER; R. A. WHEELER. *Marquette Univ.*

9:00 EE12 **733.02** Ventral tegmental area regulation of stress-induced reinstatement of cocaine-seeking behavior. J. M. BLACKTOP*; G. SCHAFER; D. A. BAKER; A. F. SEASHOLTZ; J. R. MANTSCH. *MARQUETTE UNIV/ BIOMED SCI, Univ. of Michigan.*

10:00 EE13 **733.03** Role of projections from ventral medial prefrontal cortex to nucleus accumbens shell in context-induced reinstatement of cocaine seeking. F. C. CRUZ*; K. R. BABIN; R. M. LEAO; J. M. BOSSERT; Y. SHAHAM; B. T. HOPE. *NIH.*

11:00 EE14 **733.04** MMPs-2 and -9 mediate synaptic plasticity underpinning relapse to cocaine seeking. A. W. SMITH*; Y. M. KUPCHIK; C. D. GIPSON; M. D. SCOFIELD; P. W. KALIVAS. *Med. Univ. of South Carolina.*

8:00 EE15 **733.05** Augmented cocaine-induced reinstatement following chronic electric footshock stress-induced escalation of cocaine self-administration in rats. J. R. MCREYNOLDS*; J. R. MANTSCH. *Marquette Univ.*

9:00 EE16 **733.06** ● Individual differences in cocaine self-administration stem from the relative magnitude of the drug's positive and negative consequences. A. ETTENBERG*; V. FOMENKO; K. KAGANOVSKY; K. SHELTON; J. WENZEL. *Univ. of California.*

10:00 EE17 **733.07** Impact of perineuronal nets on cocaine-induced plasticity in the medial prefrontal cortex. M. SLAKER*; L. CHURCHILL; R. P. TODD; D. ZULOAGA; J. RABER; B. A. SORG. *Washington State Univ., Washington State Univ., Oregon Hlth. & Sci. Univ.*

11:00 EE18 **733.08** Interactions between CRF-R1 and beta-2 adrenergic receptors in a BNST-to-VTA pathway mediate stress-induced reinstatement in rats. O. VRANJKOVIC*; C. H. GERNDT; D. A. BAKER; J. R. MANTSCH. *Marquette Univ., Marquette Univ.*

8:00 FF1 **733.09** The modulating effects of companions on cocaine-produc hedonic effect. W. TZENG*; C. Y. WANG; L. YU. *Inst. of Basic Med. Sciences, Natl. Cheng Kung Univ. Col. of M, Inst. of Behavioral Medicine, Natl. Cheng Kung Univ. Col. of Med.*

9:00 FF2 **733.10** Effect of DREADD-mediated modulation of G-protein coupled signaling in the lateral habenula on cocaine reinforced operant responding. S. G. NAIR*; D. SMIRNOV; J. F. NEUMAIER. *Univ. of Washington, Univ. of Washington.*

10:00 FF3 **733.11** One-trial behavioral sensitization in preweanling rats: Importance of the D1 receptor. M. A. MOHD-YUSOF*; A. E. GONZALEZ; S. A. MCDOUGALL. *California State Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 FF4 **733.12** Cocaine self-administration and phosphorylation of the NR2B NMDA receptor subunit in conditional cyclin-dependent kinase 5 knockout mice. S. D. PHILIBIN*; F. PLATTNER; D. W. SELF; J. A. BIBB. *Univ. of Texas, Southwestern Med. Ctr.*

8:00 FF5 **733.13** Modulating craving states in cocaine addiction via real-time fMRI feedback. R. R. SAVJANI*; M. CAI; D. G. Y. THOMPSON-LAKE; Y. CUI; J. LISINSKI; R. DE LA GARZA; S. LACONTE; D. M. EAGLEMAN. *Baylor Col. of Med., Baylor Col. of Med., MD Anderson Cancer Ctr., Virginia Tech. Carilion Res. Inst., Baylor Col. of Med.*

9:00 FF6 **733.14** Evidence of selective sensitivity to devaluation in ventral pallidum neurons. C. CHAN*; D. S. WHEELER; R. A. WHEELER. *Marquette Univ.*

10:00 FF7 **733.15** Enhanced cocaine-seeking behavior after optogenetic stimulation of the accumbens shell to lateral hypothalamic (AcbSh-LH) pathway. E. B. LARSON*; A. M. WISSMAN; D. W. SELF. *UT Southwestern.*

11:00 FF8 **733.16** Sodium benzoate facilitates the extinction of cocaine-induced conditioned place preference. Y. TSAI*; P. WU; L. YU. *Inst. of Behavioral Medicine, Natl. Cheng Kung Univ., Inst. of Physiology, Natl. Cheng Kung Univ. Col. of Med.*

8:00 FF9 **733.17** Accumbens shell neuronal ensembles in context-induced reinstatement of cocaine seeking. K. R. BABIN*; F. C. CRUZ; R. M. LEAO; J. M. BOSSERT; Y. SHAHAM; B. T. HOPE. *Natl. Inst. On Drug Abuse.*

9:00 FF10 **733.18** The influence of an aversive stimulus on nucleus accumbens encoding of cue-induced reinstatement of cocaine seeking. D. S. WHEELER*; M. A. ROBBLE; R. A. WHEELER. *Marquette Univ.*

10:00 GG1 **733.19** Scaffolding proteins in reinstatement of cocaine abuse. V. KUMARESAN*; D. H. FARB; D. F. MIERKE. *Boston Univ. Sch. of Med., Dartmouth Col.*

11:00 GG2 **733.20** Kainic acid-induced lesions of the lateral habenula reduce the anxiogenic response of cocaine in a runway model of drug self-administration. K. SHELTON*; J. M. WENZEL; S. SVED; J. A. KAISER; A. ETTENBERG. *Univ. of California, Santa Barbara.*

8:00 GG3 **733.21** Norepinephrine signaling within the bed nucleus of the stria terminalis is integral to the anxiogenic response to IV cocaine in rats. J. M. WENZEL*; J. L. LANE; H. M. DOMINGUEZ; Z. SU; A. ETTENBERG. *Univ. of California.*

9:00 GG4 **733.22** CRF regulation of dopamine signaling and cocaine-seeking. R. C. TWINING*; M. A. ROBBLE; C. LUNG CHAN; A. J. EBBON; A. JACOBSEN; D. S. WHEELER; J. R. MANTSCH; R. A. WHEELER. *Marquette Univ.*

10:00 GG5 **733.23** Blockade of endogenous mu opioid receptor signaling in the nucleus accumbens core attenuates incubation of cocaine seeking behavior. D. GUZMAN*; D. SIMMONS; C. S. SMAGULA; D. W. SELF. *UT Southwestern Med. Ctr.*

11:00 GG6 **733.24** AT-202, a nociceptin receptor agonist, blocks drug- and stress-induced reinstatement of extinguished cocaine conditioned place preference. T. V. KHROYAN*; W. POLGAR; L. TOLL; F. JIANG; N. T. ZAVERI. *SRI Intl., Torrey Pines, Astraea Therapeut.*

8:00 GG7 **733.25** Acupuncture increases GABA release in the ventral tegmental area and reduces cocaine-seeking behavior. W. JIN*; H. KIM; B. LEE; K. KIM; C. YANG. *Daegu Haany Univ., Daegu Haany Univ.*

9:00 GG8 **733.26** Blockade of GluN2B and GluN2A subunits of NMDA receptors in dmPFC immediately after cocaine self administration differentially regulates drug seeking behavior. A. M. ZELEK-MOLIK*; L. DOWDLE; W. SUN; B. GO; J. F. MCGINTY. *Med. Univ. of South Carolina.*

POSTER

734. Drug Delivery: Stem Cell Treatments

Theme C: Disorders of the Nervous System

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

8:00 GG9 **734.01** Aromatic-turmerone induces neural stem cell proliferation *in vitro* and *in vivo.* M. A. RUEGER*; J. HUCKLENBROICH; R. KLEIN; B. NEUMAIER; R. GRAF; G. R. FINK; M. SCHROETER. *Univ. of Cologne, Max-Planck-Institute for Neurolog. Res., Univ. of Cologne.*

9:00 GG10 **734.02** Metal-organic platforms for drug delivery. D. J. LEVINE*; J. R. LONG. *Univ. of California, Berkeley.*

10:00 GG11 **734.03** Evaluation of direct drug transport to the brain of small molecules after intranasal administration in rats. D. DHUYVETTER*; T. RAUWS; H. BORGHYS. *Janssen Res. @ Develop.*

11:00 GG12 **734.04** ● Mitochondrial function comparison of neurons derived from Human induced pluripotent stem cells to traditional neuronal in-vitro systems. T. N. GRAMMATOPOULOS*; L. STILES; E. RITOU; J. KAMA; A. FERREE; O. SHIRIHAI. *BioEnergetics LLC, Boston Univ. Med. Ctr.*

8:00 GG13 **734.05** ● Drug delivery into the brain via mucosal engrafting. R. E. KOHMAN*; S. RAMANLAL; R. E. FELDMAN; X. HAN; B. S. BLEIER. *Boston Univ., Massachusetts Eye and Ear Infirmary, Harvard Med. Sch.*

9:00 GG14 **734.06** ● Do human pluripotent stem cells ameliorate NMDA-induced hippocampal degeneration and related functional deficits? S. K. SINGH; T. L. UHLENDORF; A. O. KOPYOV; L. PELTZ; K. ORTIZ; R. W. COHEN; O. V. KOPYOV*. *California State University, Northridge, Celavie Biosciences, LLC.*

10:00 GG15 **734.07** MONNA, a potent and selective blocker for TMEM16A/Anoctamin-1. S. OH*; S. HWANG; J. JUNG; K. YU; J. KIM; J. CHOI; H. HARTZELL; E. RHO; C. LEE. *Korea Inst. of Sci. and Technol., Emory Univ.*

11:00 GG16 **734.08** ● Human embryonic stem cells produce structural and functional improvements in the spastic Han-Wistar rat model of Ataxia. T. L. UHLENDORF; R. L. NURYYEV; S. S. DOAD; A. O. KOPYOV; K. ORTIZ; L. PELTZ; O. KOPYOV; R. W. COHEN*. *Calif State Univ, Northridge, Celavie Biosci. LLC.*

8:00 GG17 **734.09** ● Implantable pump system for on-demand drug administration in rodents. T. HOANG; C. GUTIERREZ; C. JONES; G. SHACKLEFORD; E. MENG*. *Fluid Synchrony LLC, Children's Hosp. of Los Angeles, USC.*

9:00 GG18-DP3 **734.10** ● SPECT imaging of direct nose-to-brain transfer of a peptide in man. J. D. HOEKMAN*; M. HITE; A. BRUNELLE; C. FULLER; P. KIM; A. CHIU; Z. FORCADE. *Impel Neuropharma.*

10:00 HH1 **734.11** Investigation of microglia-derived extracellular vesicles by means of enzyme and immunocytochemistry. A. KITTEL*; B. GYÖRGY; T. G. SZABÓ; K. PÁLÓCZY; D. BONCZ; E. I. BUZÁS. *IEM HAS, Dept Genetics, Cell- and Immunobiol.*

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11:00 HH2 **734.12** Tetrahydroisoquinolines as selective antagonists for the orexin 1 receptor. Y. ZHANG*; D. PERREY; N. GERMAN; B. GILMOUR; J. LI; D. HARRIS; B. F. THOMAS. *Res. Triangle Inst., Univ. at Buffalo, State Univ. of New York.*

POSTER

735. Retina: Photoreceptors

Theme D: Sensory and Motor Systems

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

8:00 HH3 **735.01** A new functional role for Mechanistic/ Mammalian Target of Rapamycin Complex 1 (TORC1) in the circadian regulation of L-type voltage- gated calcium channels in avian cone photoreceptors. C. C. HUANG; M. L. KO; G. Y. KO*. *Texas A&M Univ., Texas A&M Univ.*

9:00 HH4 **735.02** Diacylglycerol activates the light-dependent channels TRP and TRPL in the light- sensitive microvilli of *Drosophila melanogaster* photoreceptors. R. A. DELGADO*; Y. MUÑOZ; H. PEÑA; P. GIAVALISCO; A. ROTH; J. BACIGALUPO. *Univ. of Chile, Tech. Univ. Federico Santa María, Max Planck Inst. of Mol. Plant Physiol.*

10:00 HH5 **735.03** Uneven distribution of intrinsically photosensitive retinal ganglion cells (ipRGCs) in adult rats. X. LI*; B. LIN; K. SO. *Dept. of Anatomy, LKS Fac. of Medicine, the Univ. of Hong Kong, State key laboratory of brain and cognitive science, HKU, Dept. of Ophthalmology, HKU, Res. centre of heart, brain, hromone and health aging, HKU, GHM institute of CNS regeneration, Jinan Univ.*

11:00 HH6 **735.04** Integration of retinal progenitors derived from human embryonic stem cells with the retina of RCS rat. K. XIONG*; X. WANG; D. GU; G. ZHOU. *Shanghai Med. Ctr. of Fudan Univ.*

8:00 HH7 **735.05** Transdifferentiation of müller glial cells into photoreceptors by the combination of Sonic Hedgehog and Wnt-3a. ; X. KAI; Z. GUOMIN. *Fudan Univ.*

9:00 HH8 **735.06** Cell death pathways leading to photoreceptor degeneration in retina lacking interphotoreceptor retinoid-binding protein. M. JIN*; K. SATO; S. LI. *LSU Sch. Med. Neurosci Ctr.*

10:00 HH9 **735.07** Enhancing visual performance while avoiding retinal damage: A contribution of macular pigment. D. SNODDERLY*; J. M. STRINGHAM. *Univ. Texas, Univ. of Georgia.*

11:00 HH10 **735.08** β-arrestin dependent deactivation of mouse melanopsin. E. G. CAMERON*; P. R. ROBINSON. *UMBC.*

8:00 HH11 **735.09** The PDZ-LIM protein CLP36 in the chicken retina: Putative role in neuroplastic changes. H. RÍOS*; A. R. PAGANELLI; N. S. FOSSER; L. RONCO. *Sch. of Medicine, UBA.*

9:00 HH12 **735.10** ● Two-cone signal integration in the human retina. K. S. BRUCE*; W. M. HARMENING; W. S. TUTEN; S. KLEIN; T. CARNEY; A. ROORDA; L. C. SINCICH. *Univ. of Alabama At Birmingham, Univ. of Bonn, Univ. of California Berkeley.*

10:00 HH13 **735.11** Mouse cone distribution matches statistics of retinal images. V. MENON*; R. IYER; C. O'CONNELL; R. KATTI; N. CAIN; C. KOCH; S. MIHALAS. *Allen Inst. For Brain Sci., MIT, Caltech.*

11:00 HH14 **735.12** Glucocorticoid receptor alpha and beta in the retina. M. D. MARQUIONI RAMELLA; T. P. BACHOR; M. A. CUBILLA; A. M. SUBURO*. *Univ. Austral.*

8:00 HH15 **735.13** A mechanism for sustained and broadband signaling by a ganglion cell photoreceptor. A. J. EMANUEL*; M. H. DO. *Boston Children's Hosp., Harvard Univ., Harvard Med. Sch.*

9:00 HH16 **735.14** Evaluation of the role of arrestin in melanopsin function. L. S. MURE*; M. HATORI; J. DEMAS; S. PANDA. *The Salk Inst., St Olaf college.*

POSTER

736. Retinal Circuits: Structure and Coding

Theme D: Sensory and Motor Systems

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

8:00 HH17 **736.01** Interactions between irradiance and temporal contrast coding in the mouse dLGN. R. STORCHI*; P. ORLOWSKA; A. E. ALLEN; R. BEDFORD; T. M. BROWN; M. A. MONTEMURRO; R. S. PETERSEN; R. J. LUCAS. *Univ. of Manchester, Jagiellonian University, Inst. of Zoology, Univ. of Manchester.*

9:00 HH18 **736.02** Distinct temporal encoding pathways in the visual system start at retinal cone bipolar cells in the mouse retina. T. ICHINOSE*; B. FYK-KOLODZIEJ; J. A. COHN. *Wayne State Univ. Sch. of Med., Washington Univ. Sch. of Med.*

10:00 II1 **736.03** ● Rate versus latency coding in the developing and mature mouse retina. J. M. BARRETT*; G. PORTELLI; P. KORNPROBST; P. DEGENAAR; E. SERNAGOR. *Newcastle Univ., INRIA, Newcastle Univ.*

11:00 II2 **736.04** Error correction in the retinal population code. J. PRENTICE*; O. MARRE; G. TKACIK; M. J. BERRY, II. *Princeton Univ., Inst. de la Vision, UMRS 968 UPMC, INSERM, CNRS U7210, IST Austria, Princeton Univ.*

8:00 II3 **736.05** Projection-specific properties of mouse retinal ganglion cells. G. J. MURPHY*; G. GAUVAIN. *Janelia Farm Res. Campus / HHMI.*

9:00 II4 **736.06** A genetic strategy to assess brain targets of retinal ganglion cell subtypes. M. S. EVARTS; X. DUAN; B. OUELLETTE; J. A. HARRIS; H. ZENG; J. R. SANES*. *Harvard Univ., Allen Inst. for Brain Sci.*

10:00 II5 **736.07** RNA-binding protein with multiple splicing is a specific marker of mammalian retinal ganglion cells. A. RODRIGUEZ; L. PÉREZ DE SEVILLA MÜLLER; N. C. BRECHA*. *David Geffen Sch. Med. At UCLA.*

11:00 II6 **736.08** A morphometric cluster analysis of retinal ganglion cell diversity in the macaque monkey. D. A. VAN DER LIST; W. USREY*. *Univ. of California, Davis, UC Davis.*

8:00 II7 **736.09** Light adaptation modulates the spatial distribution of inhibition to the retinal OFF pathway. R. MAZADE*; E. D. EGGERS. *Univ. of Arizona, Univ. of Arizona.*

9:00 II8 **736.10** Intrinsically bursting AII amacrine cells drive oscillations both in wildtype and rd1 retina. H. CHOI*; M. S. CEMBROWSKI; J. H. SINGER; W. L. KATH; H. RIECKE. *Northwestern Univ., HHMI Janelia Farm Res. Campus, Univ. of Maryland.*

10:00 II9 **736.11** Filtering and recurrent connectivity shape higher-order correlations in retinal circuits. A. K. BARREIRO*; J. GJORGJIEVA; F. RIEKE; E. SHEA-BROWN. *Southern Methodist Univ., Harvard Univ., Univ. of Washington, Univ. of Washington.*

11:00 II10 **736.12** Optimal sensory coding by populations of On and Off neurons. J. GJORGJIEVA*; M. MEISTER; H. SOMPOLINSKY. *Harvard Univ., Caltech, Hebrew Univ. of Jerusalem.*

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

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POSTER

737. Vision: Subcortical Pathways II

Theme D: Sensory and Motor Systems

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

8:00 II11 **737.01** Are thalamic bursts suitable for sensory suppression? K. JOO; H. SHIN; S. CHUNG*. *Korea Inst. of Sci. and Technol., Inst. for Basic Sci.*

9:00 II12 **737.02** The role of high-voltage-activated (HVA) Ca^{2+} channels in retinogeniculate synaptic transmission. G. GOVINDAIAH; M. MCCALL; R. G. GREGG; W. GUIDO*. *Univ. of Louisville, Univ. of Louisville, Univ. of Louisville.*

10:00 II13 **737.03** Cell-class and distance dependence of noise correlations in marmoset lateral geniculate nucleus. N. ZEATER*; S. K. CHEONG; S. G. SOLOMON; B. DREHER; J. W. MORLEY; P. R. MARTIN. *ARC Ctr. of Excellence In Vision Science, The Univ. of Sydney, Save Sight Institute, The Univ. of Sydney, Sch. of Med. Sciences, The Univ. of Sydney, Sch. of Medicine, The Univ. of Western Sydney, Sch. of Med. Sciences, The Univ. of New South Wales.*

11:00 II14-DP6 **737.04** Statistical wiring of thalamic receptive fields optimizes spatial sampling of the retinal image. L. M. MARTINEZ*; M. MOLANO-MAZON; X. WANG; F. T. SOMMER; J. A. HIRSCH. *Inst. De Neurociencias De Alicante. CSIC-UMH, The Salk Inst. for Biol. Studies, Univ. of California, Berkeley, USC.*

8:00 II15 **737.05** Representation of the visual field in the anterior thalamus and associated visually guided behaviors in leopard frogs. E. RECKTENWALD; L. SKORINA; E. DUDKIN; C. NEEB; E. R. GRUBERG*. *Temple Univ., Penn State Univ. Brandywine.*

9:00 II16 **737.06** ● Information processing by retinothalamic circuits contributes to contrast adaptation. W. ZHANG; S. WU; F. T. SOMMER; J. A. HIRSCH; T. J. SEJNOWSKI; X. WANG*. *Inst. of Neuroscience, Chinese Acad. of Sci., Beijing Normal Univ., Univ. of California at Berkeley, USC, Salk Inst. for Biol. Studies, Univ. of California at San Diego, Qualcomm Res.*

10:00 II17 **737.07** Spatiotemporal development of visual responses in the lateral geniculate nucleus. C. W. KILEY*; W. M. USREY. *UC Davis.*

11:00 II18 **737.08** Monocular deprivation alters the size of FoxP2-positive neurons in the cat lateral geniculate nucleus. K. DUFFY*; K. HOLMAN; D. E. MITCHELL. *Dalhousie.*

8:00 JJ1 **737.09** Intra-retinal influences of melanopsin on photopic vision. A. E. ALLEN*; T. M. BROWN; R. J. LUCAS. *Univ. of Manchester.*

9:00 JJ2 **737.10** Spatiotemporal receptive field structures in the retinogeniculate connections of the cat. N. SUEMATSU*; T. NAITO; T. MIYOSHI; H. SAWAI; H. SATO. *Lab. of Cogni. and Behav. Neurosci., Grad. Sch. of Front. Biosci., Osaka Univ., Lab. of Cogni. and Behav. Neurosci., Grad. Sch. of Med., Osaka Univ., Lab. of Int. Physiol., Grad. Sch. of Med., Osaka Univ.*

10:00 JJ3 **737.11** Corticogeniculate feedback modulates the gain of LGN responses in the ferret. J. M. HASSE*; V. L. MOCK; J. R. HEMBROOK-SHORT; F. BRIGGS. *Geisel Sch. of Med. At Dartmouth.*

11:00 JJ4 **737.12** State-dependent plasticity of corticothalamic inputs on relay cells in the rat dorsal lateral geniculate nucleus. K. R. LOUIS*; S. CRANDALL; C. COX. *Univ. of Illinios At Urbana-Champaign, Univ. of Illinois.*

8:00 JJ5 **737.13** Directional selective neurons in rabbit LGNd project to layer 4 of V1 and are modulated by brain state. X. HEI*; C. R. STOELZEL; J. ZHUANG; Y. BERESHPOLOVA; J. M. HUFF; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, Univ. of California, SUNY State Col. of Optometry.*

9:00 JJ6 **737.14** Differential activity-dependent expression of vesicular glutamate transporters 1 and 2 in the lateral geniculate nucleus of owl monkeys (Aotus trivirgatus) following monocular inactivation. P. BALARAM*; T. TAKAHATA; J. H. KAAS. *Vanderbilt Univ., Vanderbilt Univ.*

10:00 JJ7 **737.15** Structure, function and outputs of a novel type of ganglion-cell photoreceptor. L. E. QUATTROCHI*; M. ESTEVEZ; I. KIM; D. M. BERSON. *Brown Univ.*

11:00 JJ8 **737.16** Hemispheric differences in the anatomical connectivity of the human lateral geniculate nucleus. M. G. CHICA; K. A. SCHNEIDER*. *York Univ.*

8:00 JJ9 **737.17** Resolving the layers of the lateral geniculate nucleus using high-resolution magnetic resonance imaging of a postmortem brain. L. MCKETTON*; N. GUPTA; Y. YUCEL; K. A. SCHNEIDER. *York Univ., Univ. of Toronto, St. Michael's Hosp.*

9:00 JJ10 **737.18** Delineating geniculo-cortical connectivity and topographical mapping in the *Ex vivi* macaque brain using probabilistic tractography. K. TANG-WRIGHT*; H. BRIDGE; T. KAUER; T. B. DYRBY; J. SALLET; K. MILLER; B. AHMED; K. KRUG. *Oxford Univ., Oxford Univ., DRCMR, Oxford Univ., Oxford Univ.*

10:00 JJ11 **737.19** Identifying visual motion pathways in humans with probabilistic diffusion tensor tractography. B. ALLEN*; F. PESTILLI; B. A. WANDELL; B. ROKERS. *Univ. of Wisconsin - Madison, Stanford Univ.*

POSTER

738. Visual Representation of Faces and Bodies

Theme D: Sensory and Motor Systems

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

8:00 JJ12 **738.01** Objective and sensitive definition of electrophysiological face-selective responses by means of fast periodic stimulation. B. ROSSION*; K. TORFS; J. LIU-SHUANG; T. RETTER; G. VAN BELLE; C. JACQUES. *Univ. catholique Louvain.*

9:00 JJ13 **738.02** Development of high-level visual fasciculi correlates with face perception. J. GOMEZ*; F. PESTILLI; G. GOLARAI; N. WITTHOFT; A. LIBERMAN; K. GRILL-SPECTOR. *Stanford Univ., Stanford Univ., Univ. of California, Berkeley.*

10:00 JJ14 **738.03** Emergence of face-viewing preference in infant macaques. T. N. SAVAGE*; K. SRIHASAM; M. LIVINGSTONE. *Harvard Med. Sch.*

11:00 JJ15 **738.04** Specificity of the face inversion effect in rhesus macaques. S. W. LI*; N. LIU; K. JONES; J. ELLIS; L. G. UNGERLEIDER. *Natl. Inst. of Mental Hlth.*

8:00 JJ16 **738.05** Features that drive face cells: A comparison across face patches. X. CHENG*; T. B. CRAPSE; D. Y. TSAO. *Caltech.*

9:00 JJ17 **738.06** Distinct face and body selective areas in marmoset cerebral cortex. C. HUNG*; C. YEN; J. CIUCHTA; D. PAPOTI; A. C. SILVA; D. A. LEOPOLD. *SCNI, LN, NIMH, NIH, CMU, LFMI, NINDS, NIH.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 JJ18 **738.07** Encoding others' action by temporal-frontal circuit including mirror system in marmoset. W. SUZUKI*; T. BANNO; N. MIYAKAWA; H. ABE; N. ICHINOHE. *Natl. Ctr. of Neurol. and Psychiatry, Natl. Inst. of Neurosci.*

11:00 KK1 **738.08** An investigation of complex visual stimulus representation in awake marmosets using fMRI. J. L. CIUCHTA*; C. HUNG; C. C. YEN; D. PAPOTI; D. A. LEOPOLD; A. C. SILVA. *CMU, LFMI, NINDS, NIH, NIMH, NIH.*

8:00 KK2 **738.09** Resting-state fMRI data in humans reveals behaviorally-relevant connectivity between the 'anterior face patch' in perirhinal cortex and fusiform face area. E. B. O'NEIL*; R. HUTCHISON; D. MCLEAN; S. KÖHLER. *Western Univ., Robarts Res. Inst.*

9:00 KK3 **738.10** Neural correlates of face adaptation by event-related potentials (ERP) recordings. X. WANG*; H. XU. *Div. of Psychology, Nanyang Technological Univ.*

10:00 KK4 **738.11** Mapping the fMRI response to dynamic faces across the visual field in face-selective regions of visual cortex. D. PITCHER*; L. G. UNGERLEIDER. *NIH/NIMH, NIMH.*

11:00 KK5 **738.12** Lateralization of face perception studied by electrical stimulation of the human fusiform gyrus. V. RANGARAJAN*; D. HERMES; B. L. FOSTER; C. JACQUES; J. PARVIZI. *Stanford Univ., Univ. Catholique de Louvain.*

8:00 KK6 **738.13** Human inferior temporal cortex population-scale physiology during perception of noisy pictures of faces and places. K. J. MILLER*; K. GRILL-SPECTOR; D. HERMES; J. OJEMANN; R. RAO; J. PARVIZI. *Stanford Univ., Stanford Univ., Univ. of Washington.*

9:00 KK7 **738.14** The effect of local feature inversion on the processing of upright and inverted faces. G. VAN BELLE*; J. TAUBERT; B. ROSSION; W. VANDUFFEL; R. VOGELS. *Univ. of Louvain, Neuro- Psychophysiology, KU Leuven, Athinoula A. Martinos Ctr. for Biomed. Imaging, Massachusetts Gen. Hosp., Havard Med. Sch.*

10:00 KK8 **738.15** Expertise and cortical maps are emergent properties of a self-organizing neural model of visual processing. G. WALLIS*. *Univ. of Queensland.*

11:00 LL1 **738.16** EEG theta and mu oscillations during perception of human and robot actions. B. A. URGEN*; M. PLANK; H. ISHIGURO; H. POIZNER; A. P. SAYGIN. *UCSD, UCSD, Osaka Univ.*

8:00 LL2 **738.17** The effect of microstimulation of face patches ML and AM on the percept of facial identity in the macaque monkey. S. MOELLER; D. Y. TSAO*. *Caltech.*

9:00 LL3 **738.18** Independent processing of stimulus dimensions: A new signal detection model applied to the perception of face identity and expression. F. A. SOTO*; R. MUSGRAVE; L. VUCOVICH; F. ASHBY. *Dept. of Psychological & Brain Sci.*

10:00 LL4 **738.19** Feature selectivity of single neurons of the macaque middle superior temporal sulcus body patch examined with Bubbles. I. D. POPIVANOV*; P. G. SCHYNS; R. VOGELS. *KU Leuven, Inst. of Neurosci. and Psychology.*

11:00 LL5 **738.20** Comparing the effect of inversion on face-selective cell responses inside and outside the fMRI defined face patches in monkeys. J. TAUBERT*; G. VAN BELLE; C. JACQUES; B. ROSSION; W. VANDUFFEL; R. VOGELS. *Univ. of Louvain, KU Leuven, Univ. of Louvain, Univ. of Louvain, Havard Med. Sch.*

8:00 LL6 **738.21** ● The limitation of HMAX V1-like features for face recognition. V. H. CHAN*; M. HASAN. *Qualcomm, Inc., MIT.*

9:00 LL7 **738.22** Other-race effect in facial expression identification: An event-related potential study. C. CHEN*; S. CHO. *Natl. Taiwan Univ., Fu-Jen Catholic Univ.*

10:00 LL8 **738.23** The amygdala controls which visual areas show sensitivity to fear. N. FURL*; R. HENSON; K. FRISTON; A. CALDER. *MRC-CBU, Wellcome Ctr. for Neuroimaging.*

11:00 LL9 **738.24** Mapping population receptive fields in face-selective regions of human visual cortex. K. GRILL-SPECTOR*; K. S. WEINER; E. ZOHARY; K. N. KAY. *Stanford Univ., Hebrew Univ.*

8:00 LL10 **738.25** Curvature: A crucial dimension for face processing. X. YUE*; I. POURLADIAN; L. G. UNGERLEIDER. *NIH, NIH.*

POSTER

739. Spinal Cord Processing: Anatomy and Physiology

Theme D: Sensory and Motor Systems

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

8:00 LL11 **739.01** Effects of VGF-derived peptides on C-fiber evoked potentials in dorsal horn of spinal cord. J. WAATAJA; R. SPELTZ; C. FAIRBANKS; C. HONDA; G. L. WILCOX*; L. VULCHANOVA. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. Minnesota Med. Sch., Univ. of Minnesota.*

9:00 LL12 **739.02** Effects of VGF-derived peptides on neurons of the spinal dorsal horn. C. N. HONDA*; X. ZHANG; L. VULCHANOVA. *Univ. of Minnesota, Univ. of Minnesota.*

10:00 MM1 **739.03** Loss of inhibitory interneurons that contain galanin or nitric oxide synthase from the spinal dorsal horn of mice lacking Bhlhb5. A. J. TODD*; E. BERESFORD-POLGAR; N. BASEER; S. ROSS. *Univ. Glasgow, Univ. of Glasgow, Univ. of Pittsburgh.*

11:00 MM2 **739.04** GFP neurons in the dorsal horn of the PrP-GFP mouse express nNOS and/or galanin, and innervate giant neurons in lamina I. N. BASEER*; F. GARZILLO; E. BERESFORD-POLGAR; A. J. TODD. *Univ. of Glasgow.*

8:00 MM3 **739.05** Functional differences between neurochemically-defined populations of inhibitory interneurons in the rat spinal dorsal horn. E. POLGAR*; T. C. P. SARDELLA; S. Y. X. TIONG; A. J. TODD. *Univ. Glasgow, Univ. of Glasgow.*

9:00 MM4 **739.06** Morphological and physiological properties of NPY expressing cells of superficial dorsal horn. R. P. GANLEY*; N. IWAGAKI; A. J. TODD; J. S. RIDDELL. *Univ. of Glasgow, Univ. of Glasgow.*

10:00 MM5 **739.07** Morphological and physiological characterization of a subset of lamina II inhibitory interneurons in young adult mice. N. IWAGAKI*; R. P. GANLEY; A. J. TODD; J. S. RIDDELL. *Univ. of Glasgow.*

11:00 MM6 **739.08** A subset of lamina II excitatory interneuron relaying low-threshold mechanoreceptive input to lamina I projection neurons in the rat spinal cord. T. YASAKA*; S. Y. X. TIONG; E. POLGAR; T. FUJITA; E. KUMAMOTO; A. J. TODD. *Saga Univ., CMVLS.*

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

▲ Indicates a high school or undergraduate student presenter.

8:00 MM7 **739.09** Calretinin expression identifies two functionally different neuron populations in mouse superficial dorsal horn. B. A. GRAHAM; J. F. MADDEN; R. J. CALLISTER; P. JOBLING*; K. A. BOYLE; D. I. HUGHES. *Univ. of Newcastle, Univ. of Glasglow.*

9:00 MM8 **739.10** ▲ Imaging spinal responses to itch. ; C. SPRENGER; C. BÜCHEL. *Univ. Med. Ctr. Hamburg Eppendorf Dept. of Systems Neurosci.*

10:00 MM9 **739.11** Scratching inhibits serotonin-evoked responses of rat dorsal horn neurons in a site- and state-dependent manner. E. E. CARSTENS*; K. NISHIDA; K. TAKECHI; M. IODI CARSTENS; T. AKIYAMA. *Univ. California Davis, Ehime Univ. Sch. of Med.*

11:00 MM10 **739.12** Spinal neurotransmitters in histaminergic and non-histaminergic itch. M. TOMINAGA*; T. AKIYAMA; M. CARSTENS; E. CARSTENS. *Juntendo Univ. Inst. For Envrn. and Gender Specific Med., Univ. California, Davis.*

8:00 NN1 **739.13** Intradermal endothelin-1 excites bombesin-responsive superficial dorsal horn neurons in the mouse. T. AKIYAMA*; M. NAGAMINE; A. DAVOODI; M. CARSTENS; F. CEVIKBAS; M. STEINHOFF; E. CARSTENS. *Univ. California, Davis, Univ. California, San Francisco.*

9:00 NN2 **739.14** Low-threshold afferent-driven inhibition of spinal lamina I neurons: A postsynaptic gate controlling pain. B. V. SAFRONOV*; L. LUZ; P. SZUCS. *IBMC.*

10:00 NN3 **739.15** Biophysical and synaptic properties of glutamatergic interneurons in the mouse spinal dorsal horn. K. HAENRAETS*; P. PUNNAKKAL; H. WILDNER; H. ZEILHOFER. *Univ. of Zurich, Inst. of Pharmacol. and Toxicology, Swiss Federal Inst. of Technol. (ETH) Zurich.*

11:00 NN4 **739.16** Local unilateral ablation of glycinergic interneurons in the spinal dorsal horn causes thermal and mechanical hyperalgesia and induces spontaneous pain behavior. E. FOSTER; H. WILDNER; I. BROLL; M. JEGEN; M. R. BOSL; H. U. ZEILHOFER*. *Inst. of Pharmacology, Univ. of Zurich, ETH Zurich, Univ. of Wurzburg.*

8:00 NN5 **739.17** Endocannabinoid-dependent plasticity at spinal nociceptor synapses. C. VON SCHOULTZ*; A. KATO; W. T. RALVENIUS; P. PUNNAKKAL; R. NYILAS; I. KATONA; H. U. ZEILHOFER. *Univ. of Zurich, The Univ. of Tokyo, Univ. of Basel, Hungarian Acad. of Sci.*

9:00 NN6 **739.18** SK-channels in the spinal cord dorsal horn in chronic inflammatory pain. L. HIPÓLITO; A. FAKIRA; D. CABAÑERO; J. MORÓN CONCEPCIÓN; Z. MELYAN*. *Columbia Univ.*

10:00 NN7 **739.19** Neonatal tissue injury reduces the intrinsic excitability of adult superficial dorsal horn neurons. J. LI; M. L. BACCEI*. *Univ. Cincinnati.*

11:00 NN8 **739.20** Spinal coding of innocuous and noxious peripheral stimulation at the single cell and population level in the developing rodent dorsal horn. S. C. KOCH*; M. FITZGERALD. *UCL.*

8:00 NN9 **739.21** Mechanical hypersensitivity in mice lacking class I MHC molecules. B. SHARIF; A. JOGASURIA; A. I. BASBAUM; R. SHARIF NAEINI*. *McGill Univ., Univ. of California Berkeley, Univ. of California San Francisco, McGill Univ.*

9:00 NN10 **739.22** Using transcutaneous electrical nerve stimulation (TENS) to block acute and summed pain: Who gets gate-controlled? M. MARTEL*; P. GOFFAUX; K. BERGERON-VÉZINA; S. MARCHAND; G. LEONARD. *Univ. of Sherbrooke.*

10:00 NN11 **739.23** ● The effects of spinal cord stimulation on dorsal horn projection neurons in rats depend on stimulation frequency. T. ZHANG*; J. J. JANIK; W. M. GRILL. *Duke Univ., Stryker Corp., Duke Univ., Duke Univ.*

11:00 NN12 **739.24** ● Spinal cord stimulation at conventional and kilohertz-frequency produces intensity-and frequency-dependent: Inhibition of mechanical hypersensitivity and segmental mechanisms in a rat model of neuropathic pain. Y. GUAN; R. SHECHTER; F. YANG; Q. XU; Y. CHEONG; S. HE; A. SDRULLA; A. F. CARTERET; X. DONG; R. A. MEYER; S. N. RAJA; P. W. WACNIK*. *Johns Hopkins Univ., Medtronic Neuromodulation Res.*

8:00 NN13 **739.25** Reliability of the conditioned pain modulation paradigm assessed with the nociceptive withdrawal reflex. J. BIURRUN MANRESA*; P. VUILLEUMIER; R. FRITSCHE; C. OEHLER; L. ARENDT-NIELSEN; O. K. ANDERSEN; M. CURATOLO. *Aalborg Univ., Univ. of Washington Med. Ctr., Inselspital - Bern Univ. Hosp.*

9:00 NN14 **739.26** Activation of peripheral nerve fibers by electrical stimulation in the sole of the foot. K. S. FRAHM*; C. D. MØRCH; K. HENNINGS; W. M. GRILL; O. K. ANDERSEN. *Aalborg Univ., Aalborg Univ., Aalborg Univ., Duke Univ.*

10:00 NN15 **739.27** Paw withdrawal from noxious stimuli is coordinated with postural readjustment. D. BLIVIS; G. HASPEL*; P. Z. MANNES; M. J. O'DONOVAN; M. J. IADAROLA. *Natl. Inst. of Neurolog. Disorders and Stroke, New Jersey Inst. of Technol., NIDCR.*

11:00 NN16 **739.28** Atoh1-lineage cells in the spinal cord define spatially and morphologically distinct neurons with common firing properties. H. C. LAI*; R. M. YUENGERT; K. HORI; J. R. GIBSON; K. M. HUBER; J. E. JOHNSON. *UT Southwestern Med., Natl. Inst. of Neurosci.*

POSTER

740. Treatments for Persistent Pain

Theme D: Sensory and Motor Systems

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

8:00 NN17 **740.01** Coadministration of opioid (morphine or tramadol) and indomethacin or opioid (morphine or tramadol) and acetaminophen produces a synergistic analgesic effect on either inflammatory or neuropathic pain model in rats. T. SHINOZAKI; T. ISHIMURA; T. NONAKA; T. YAMAMOTO*. *Kumamoto Univ. Hosp.*

9:00 NN18 **740.02** N-Acetylaspartylglutamate (NAAG) peptidase inhibitor injections in the Locus Coeruleus contralateral and ipsilateral to formalin-induced footpad inflammation produce analgesia via different mechanisms. T. NONAKA; T. YAMADA; T. ISHIMURA; D. ZUO; J. H. NEALE*; T. YAMAMOTO. *Kumamoto Univ. Hosp., Shenyang PharmaceuticalUniversity, Georgetown Univ.*

10:00 OO1 **740.03** Ibudilast attenuates bone cancer pain in a mouse model. O. SAITO*; T. YAMAMOTO; T. AOE. *Natl. Cancer Ctr. , Central Hosp., Grad. Sch. of Med. Science, Kumamoto Univ., Grad. Sch. of Medicine, Chiba Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 OO2 **740.04** Neuropathic pain in mice is reduced by AAV5-mediated overexpression of human arginine decarboxylase in the spinal cord and dorsal root ganglia. C. A. FAIRBANKS*; P. D. BRAUN; L. BELUR; D. J. SCHUSTER; S. A. SCHNELL; C. D. PETERSON; R. H. SPELTZ-PAIZ; K. F. KITTO; M. S. RIEDL; C. C. CHURCHILL; R. S. MCIVOR; G. L. WILCOX; L. VULCHANOVA. *Univ. Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

8:00 OO3 **740.05** Sustained relief of traumatic neuropathic pain by AAV-targeted expression of CBD3 peptide in rat dorsal root ganglion. H. YU*; G. FISCHER; B. PAN; D. VILCEANU; Q. H. HOGAN. *Med. Col. of Wisconsin, Zablocki VAMC.*

9:00 OO4 **740.06** ▲ The design and evaluation of $CGRP_{8-37}$ recombinant peptide construct in a model of nerve injury-induced pain in rats. C. COSNER; P. CHEN; F. NASIRINEZHAD; S. JERGOVA*; B. PRIDDY; N. PATHAK; S. GAJAVELLI; J. SAGEN. *Univ. of Miami, Miller Sch. of Med.*

10:00 OO5 **740.07** Antinociceptive effects of AAV2/8-mediated delivery of compound conopeptide constructs in a rat spinal cord injury pain model. P. CHEN*; S. JERGOVA; F. NASIRINEZHAD; N. PATHAK; C. GORDON; J. IMPERIAL; B. M. OLIVERA; S. GAJAVELLI; J. SAGEN. *Univ. of Miami, Univ. of Utah.*

11:00 OO6 **740.08** Carbonic anhydrase viii is a new inhibitor of chronic pain. Z. ZHUANG*; E. FU; B. KEELER; D. ERASSO; J. CUI; R. LEVITT. *Univ. Miami.*

8:00 OO7 **740.09** ● Agonistic modulator(s)of GABAA receptors as promising candidate(s) for the treatment of neuropathic pain. B. HASSE*; G. KOOPMANS. *Algiax Pharmaceuticals GmbH.*

9:00 OO8 **740.10** Bidirectional effects of electroacupuncture on the COX-2 expression in the spinal cord of arthritis and the gastric mucosa of gastritis in rats. S. KOO*; D. SONG; B. JEONG; H. LEE. *Pusan Natl. Univ.*

10:00 OO9 **740.11** The role of immune cells in pain-relieving effect of bone marrow stromal cells in rats. W. GUO*; S. IMAI; S. ZOU; F. WEI; R. DUBNER; K. REN. *Univ. of Maryland.*

11:00 OO10 **740.12** Chemokines as key mediators of the antihyperalgesic effect of bone marrow stromal cells in rats. S. IMAI; W. GUO; S. ZOU; F. WEI; R. DUBNER; K. REN*. *Univ. of Maryland Sch. of Dent.*

8:00 OO11 **740.13** ● Evaluation of TRPA1 antagonists as pain therapeutics. S. G. LEHTO*; B. D. YOUNGBLOOD; M. ZHANG; A. D. WEYER; D. X. D. ZHU; L. SCHENKEL; A. A. BOEZIO; E. CHEUNG; M. COOKE; K. COPELAND; H. DEAK; R. EMKEY; R. GRACEFFA; P. OLIVIERI; H. GUNAYDIN; J. LEE; S. RAO; W. WANG; M. WELLS; R. YIN; V. YU; Y. TEFFERA; C. L. STUCKY; B. D. MOYER; S. GEUNS-MEYER; K. D. WILD; N. R. GAVVA. *Amgen, Med. Col. of Wisconsin, Amgen, Amgen, Amgen, Amgen.*

9:00 OO12 **740.14** TRPV1 expression in mouse inflammatory pain model using electroacupuncture at low or high frequencies. M. L. SILVA*; J. R. T. SILVA; S. H. FERREIRA. *Unversity of Sao Paulo, Univ. of São Paulo, Univ. of São Paulo.*

10:00 OO13 **740.15** Pioglitazone reduces pain and spinal dorsal horn sensitization in the Zucker Diabetic Fatty rat model of type 2 diabetes. R. B. GRIGGS*; R. R. DONAHUE; B. K. TAYLOR. *Univ. of Kentucky.*

11:00 OO14 **740.16** A new approach to pain therapies by receptor engineering for antihyperalgesia. Y. XU*; Y. TAKAHASHI; T. S. TILLMAN; N. R. BRANDON; P. TANG. *Univ. Pittsburgh Sch. Med.*

POSTER

741. Inflammatory Pain: Nociceptor Sensitization

Theme D: Sensory and Motor Systems

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

8:00 OO15 **741.01** COX2/PGE2/EP signaling in the paw sensitizes nociceptive dorsal root ganglion neurons by stimulating the synthesis and axonal trafficking of EP1 and EP4 receptors. B. ST-JACQUES; R. QUIRION; W. MA*. *McGill Univ., McGill Univ., McGill Univ.*

9:00 OO16 **741.02** Prostaglandin E2 sensitizes capsaicin induced pain by increasing cell surface trafficking of TRPV1 in dorsal root ganglion neurons *in vivo* and *in vitro.* S. M. JAFFAL*; B. ST-JACQUES; R. QUIRION; W. MA. *McGill Univ., McGill Univ., McGill Univ.*

10:00 OO17 **741.03** Relationship between naproxen alone or naproxen/tizanidine blood levels and its anti-inflammatory effect in rats. S. I. PATIÑO-CAMACHO*. *Escuela Superior De Medicina IPN.*

11:00 OO18 **741.04** Inhibition of Tetrodotoxin-resistant sodium current by D1/D5 dopamine receptors in dorsal root ganglia neurons. M. PUOPOLO*; W. GALBAVY; E. SAFAIE; M. REBECCHI. *Stony Brook Med., Stony Brook Med.*

8:00 PP1 **741.05** Sphingosine 1-phosphate enhances excitability of sensory neurons through sphingosine 1-phosphate receptors 1 and/or 3. C. LI*; G. D. NICOL. *Indiana Univ. Sch. of Med.*

9:00 PP2 **741.06** Interleukin-1β induces substance P release from primary afferent terminals independently of NMDA receptors. W. CHEN*; J. A. MCROBERTS; J. G. MARVIZON. *UCLA.*

10:00 PP3 **741.07** Translational studies of pain: Electrohpysiological validation of UVB induced sensitisation in rodents and QST profiling of healthy human volunteers. J. O'NEILL*; S. SIKANDAR; S. B. MCMAHON; A. H. DICKENSON. *UCL, Kings Col. London.*

11:00 PP4 **741.08** Ultraviolet-B (UVB) irradiation alters mechanical sensitivity of unmyelinated nociceptors in the pig skin, *in vivo.* O. OBREJA*; F. WERLAND; M. HIRTH; E. FORSCH; A. BISTRON; R. RUKWIED; M. RINGKAMP; R. DE COL; B. TURNQUIST; M. SCHMELZ. *Univ. Heidelberg, Johns Hopkins Sch. of Med., Bethel Univ.*

8:00 PP5 **741.09** TTX-resistant action potential conduction in cultured porcine DRG neurites. R. W. CARR*; R. JONAS; A. KLUSCH; M. PETERSEN; M. SCHMELZ. *Heidelberg Univ.*

9:00 PP6 **741.10** ● An innervated skin model to study the neurocutaneous crosstalk in atopic dermatitis. D. ROGGENKAMP; S. KÖPNICK; F. STÄB; H. WENCK; M. SCHMELZ*; G. NEUFANG. *Beiersdorf AG, Heidelberg Univ.*

10:00 PP7 **741.11** Serotonin from dermal mast cells elicits persistent pruritus in a novel rat model of atopic dermatitis. T. HAN; S. BACK; S. LEE; H. LEE; H. KIM; S. KIM; S. KEE; H. S. NA*. *Korea Univ. Med. Col., Yonsei Univ. Sci. and Technol. Col., Korea Univ. Med. Col.*

11:00 PP8 **741.12** The role of ERK1/2 signaling in the peripheral nociceptive circuit. D. E. O'BRIEN*; B. J. ALTER; S. K. VOGT; G. E. LANDRETH; J. P. GOLDEN; R. W. GEREAU, IV. *Washington Univ. In St. Louis, UCSF, Washington Univ. in St. Louis, Case Western Reserve Univ., Washington Univ. In St. Louis.*

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

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8:00 PP9 **741.13** Role of the spinal 5-HT_{2B} receptors in rats submitted to neuropathic pain. V. GRANADOS-SOTO*; P. BARRAGAN-IGLESIAS; J. B. PINEDA-FARIAS; C. CERVANTES-DURAN. *Departmento de Farmacobiologia, Cinvestav, Sede Sur, Dept. de Farmacobiologia, Cinvestav, Sede Sur.*

9:00 PP10 **741.14** ● Young Huntington mice produce less pain behavior in inflammatory pain model and less inflammatory response in spinal cord. Y. LIU; J. Y. CHAN*; Y. LIN; Y. TSAI; S. WU. *Natl. Cheng-Kung Univ. and Hosp., Kaohsiung Chang Gung Mem. Hosp., Dept. of physiology and anesthesiology, Natl. Cheng-Kung Univ.*

10:00 PP11 **741.15** Sympathetic fiber sprouting in the inflamed joint and surrounding skin contributes to pain related-behavior in arthritis. G. M. LONGO*; M. OSIKOWICZ; A. RIBEIRO-DA-SILVA. *McGill Univ.*

11:00 PP12 **741.16** Electrophysiological characterization of ionotropic glutamate receptors in the peripheral terminals of rat DRG neurons. W. K. MYERS; D. K. PATNEAU*. *OSU Ctr. Hlth. Sci.*

8:00 PP13 **741.17** Reactive Oxygen Species (ROS) contributes to TRPV1 sensitivity in a mouse model of sickle cell disease. M. ESCOBAR-KLUMPH*; K. J. ZAPPIA; C. L. STUCKY. *Med. Col. of Wisconsin.*

POSTER

742. Musculoskeletal Pain

Theme D: Sensory and Motor Systems

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

8:00 PP14 **742.01** Regulation of gastric function during acute nociceptive stimulation of paraspinal muscles in urethane-anesthetised rats. M. PICHE*; N. WATANABE; H. HOTTA. *Univ. Du Quebec A Trois-Rivieres, Tokyo Metropolitan Inst. of Gerontology.*

9:00 PP15 **742.02** Dysregulation of somato-autonomic reflexes in a rat model of chronic back pain. S. HOULE*; H. HOTTA; D. RAMLA; X. ZOTTIG; R. JEFFREY-GAUTHIER; M. MARTINOLI; M. PICHÉ. *Univ. du Québec à Trois-Rivières, Tokyo Metropolitan Inst. of Gerontology, Univ. du Québec à Trois-Rivières.*

10:00 PP16 **742.03** Pain modulation induced by respiration: Phase and frequency effects. M. ARSENAULT*; A. LADOUCEUR; A. LEHMANN; P. RAINVILLE; M. PICHÉ. *Univ. de Montréal, Univ. du Québec à Trois-Rivières.*

11:00 PP17 **742.04** ● Consistent individual cardiovascular responses to long-lasting muscle pain in humans: Implications for the development of hypertension with chronic pain. A. FAZALBHOY*; I. BIRZNIEKS; V. MACEFIELD. *Neurosci. Res. Australia.*

8:00 PP18 **742.05** microRNA biomarkers of complex persistent pain conditions. B. P. CISZEK*; A. A. KHAN; D. A. ZOLNOUN; E. BAIR; W. MAIXNER; A. G. NACKLEY. *Univ. of North Carolina, Univ. of North Carolina.*

9:00 PP19 **742.06** Contribution of peripheral and central nitric oxide to catechol-o-methyltransferase-dependent pain. J. HARTUNG*; M. S. CONRAD; N. GOEL; A. G. NACKLEY. *Univ. of North Carolina, Univ. of Illinois at Urbana-Champaign, Univ. of North Carolina.*

10:00 PP20 **742.07** New model of muscle hyperalgesia induced by sustained isometric contraction of the gastrocnemius muscle of rats and the involvement of PGE2, sympathetic amines and ATP. M. G. OLIVEIRA-FUSARO*; C. FUSARO; D. F. S. SANTOS; B. MELO; C. O. JORGE; S. KRIMON; C. PARADA. *Fac. of Applied Science, State Univ. of Campinas, Sao Francisco Univ., State Univ. of Campinas.*

11:00 PP21 **742.08** Acid sensing ion channels contribute to mechanical hyperalgesia in an animal model of exercise -enhanced pain. N. GREGORY*; K. SLUKA. *Univ. of Iowa, Univ. of Iowa.*

8:00 PP22 **742.09** SPARC gene expression increases in patients with chronic lower back pain. B. RISENMAY; J. JESSOP; A. T. WHITE; R. W. HUGHEN; T. A. VANHAITSMA; K. C. LIGHT; A. R. LIGHT*. *Univ. Utah, Univ. Utah.*

9:00 PP23 **742.10** NSAIDs inhibit axonal growth of rat sensory neurons cultured together with injured intervertebral disc *in vitro.* S. ORITA*; K. YAMAUCHI; Y. SAKUMA; G. KUBOTA; Y. OIKAWA; K. INAGE; T. SAINOH; J. SATO; T. ISHIKAWA; M. MIYAGI; K. TAKAHASHI; S. OHTORI. *Grad. Sch. of Medicine, Chiba Univ.*

10:00 PP24 **742.11** Investigation of dichotomizing sensory nerve fibers projecting to the lumbar multifidus muscles and intervertebral disk or facet joint or sacroiliac joint in rats. M. MIYAGI*; T. UMIMURA; T. ISHIKAWA; H. KAMODA; K. YAMAUCHI; K. TAKAHASHI; S. OHTORI. *Chiba Univ., Sch. of Medicine, Chiba University,.*

11:00 QQ1 **742.12** ● The efficacy of LP-iDOPE as a near-infrared probe in the management of pain caused by spinal metastasis. K. YAMAUCHI*; Y. TAMURA; K. INAGE; S. ORITA; A. SUGANAMI; K. TAKAHASHI; S. OHTORI. *Chiba Univ., Chiba Univ.*

8:00 QQ2 **742.13** A preclinical model of advanced osteoarthritis pain: possible neuropathic components. I. IMBERT; J. HAVELIN; J. CORMIER; F. PORRECA; T. E. KING*. *Univ. of New England, Univ. of Arizona.*

9:00 QQ3 **742.14** Quadriceps muscle soreness disrupts lower body movement and EMG activity during downslope walking. M. SABATIER*. *Emory Univ.*

10:00 QQ4 **742.15** Involvement of glial cell in chronic muscle pain induced by Freund's Complete Adjuvant in rats. M. FREITAS*; R. BONIFÁCIO; S. MENSE; U. HOHEISEL; M. CHACUR. *Univ. of Sao Paulo, Heidelberg University, Med. Fac. Mannheim.*

11:00 QQ5 **742.16** Impaired neural drive in subjects with low back pain. S. CHIOU; Y. SHIH; L. CHOU; A. H. MCGREGOR; P. H. STRUTTON*. *Imperial Col. London, Natl. Yang-Ming Univ.*

8:00 QQ6 **742.17** The short-term antinociceptive effect of therapeutic ultrasound on multiple segmentally-linked myofascial trigger points: A double-blind randomized control trial. J. KNAPMAN*; M. A. TOMIZZA; S. M. CLUTTON; J. Z. SRBELY. *Univ. of Guelph, Univ. of Gueph.*

9:00 QQ7 **742.18** Confocal immunohistochemical investigation of the relationship of nerve, lymphatic and blood vessels in the mouse skeletal muscle. J. ZHANG*; W. HUANG; S. KANG; R. W. HUGHEN; R. ZHANG; L. R. LIGHT. *Univ. of Utah.*

POSTER

743. Somatosensory Cortex: Anatomy and Connectivity

Theme D: Sensory and Motor Systems

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

8:00 QQ8 **743.01** Automated segmentation and focused annotation of Serial Blockface EM data from mouse retina and neocortex. M. BERNING; P. HENNIG; M. HELMSTAEDTER*. *Max Planck Inst. of Neurobio., Max Planck Inst. for Intelligent Systems.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 QQ9 **743.02** Optical imaging of electrical stimulation in somatosensory and motor cortices: A novel approach to tracing functional connectivity. K. A. KUDYBA; R. M. FRIEDMAN*; O. A. GHARBAWIE; A. W. ROE. *Vanderbilt Univ.*

10:00 QQ10 **743.03** Connectomic analysis of circuits in layers 4 and 2/3 of a cortical column in mouse barrel cortex. K. M. BOERGENS*; B. COWGILL; M. BERNING; I. G. YU; N. MARAHORI; K. L. BRIGGMAN; M. HELMSTAEDTER. *Max Planck Inst. of Neurobio., Natl. Inst. Of Hlth.*

11:00 QQ11 **743.04** In silico LFPs in a morphologically detailed reconstruction of the neocortical column. M. W. REIMANN*; C. A. ANASTASSIOU; C. KOCH; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL, Allen Inst. for Brain Sci.*

8:00 QQ12 **743.05** Biophysical mechanisms of network-timing-dependent plasticity. G. CHINDEMI; D. KELLER; V. DELATTRE; S. RAMASWAMY; E. B. MULLER*; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL.*

9:00 QQ13 **743.06** Impact of network activity on the extracellular ionic environment and vice versa. D. KELLER*; G. CHINDEMI; S. RAMASWAMY; J. G. KING; W. VAN GEIT; V. DELATTRE; E. B. MULLER; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL.*

10:00 QQ14 **743.07** ▲ An improved algorithm for the automated reconstruction of the mouse barrel cortex at single neuron resolution. V. YE*; J. WONG; M. GINGER; A. FRICK; C. HUANG. *The Univ. of Southern California, neurocentre magendie.*

11:00 QQ15 **743.08** Fine control of state-dependent responses to stimulation in a reconstructed model of the neocortical tissue by extracellular Ca^{2+}. E. B. MULLER; M. REIMANN; D. KELLER; S. RAMASWAMY; G. CHINDEMI; V. DELATTRE; W. VAN GEIT*; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL.*

8:00 QQ16 **743.09** ● High-resolution analysis of the molecular compositions of synapses on dendritic spines in the somatosensory cortex using array tomography. N. A. O'ROURKE*; N. C. WEILER; F. C. COLLMAN; S. J. SMITH. *Stanford Univ. Sch. of Med.*

9:00 QQ17 **743.10** Predictive in silico reconstruction of prevalent polysynaptic pathways in the neocortical microcircuit. S. RAMASWAMY*; E. B. MULLER; M. REIMANN; J. G. KING; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL.*

10:00 QQ18 **743.11** Multi-scale model simplification of detailed neural microcircuits. M. GEWALTIG*; A. ANTROBUS; S. BUCHER; A. CHALIMOURDA; G. CHINDEMI; C. EROE; W. WYBO; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL.*

11:00 QQ19 **743.12** The brain activity map of mouse barrel cortex. S. P. PERON*; V. IYER; Z. GUO; C. GUO; K. SVOBODA. *Hhmi/Janelia Farm Res. Campus.*

8:00 QQ20 **743.13** Membrane potential activity of neurons in barrel cortex during an object-localization task. J. YU*; K. SVOBODA. *HHMI Janelia Farm Res. Campus.*

9:00 QQ21 **743.14** Dual channel photostimulation reveals sensorimotor convergence in neural circuitry of the mouse vibrissal system. B. M. HOOKS*; J. Y. LIN; R. Y. TSIEN; K. SVOBODA. *HHMI, UCSD, Howard Hughes Med. Institute, Univ. of California, San Diego.*

10:00 QQ22 **743.15** Barrel cortex codes object location during whisker-guided locomotion. N. J. SOFRONIEW*; J. COHEN; S. A. HIRES; S. PERON; J. FREEMAN; N. LI; Z. GUO; A. LEE; K. SVOBODA. *Janelia Farm Res. Campus / HHMI.*

11:00 QQ23 **743.16** The barrel cortex 'Connectome' and its functional implications for sensory processing. M. OBERLAENDER*; R. EGGER; R. T. NARAYANAN; V. J. DERCKSEN; C. P. J. DE KOCK; B. SAKMANN. *Max Planck Inst. For Biol. Cybernetics, Zuse Inst. Berlin, VU Univ. Amsterdam, Max Planck Florida Inst.*

8:00 QQ24 **743.17** Transformation of neural codes between the ventral posteromedial nucleus of the thalamus and layer 4 of barrel cortex during active sensation. D. A. GUTNISKY*; M. TO; M. BALE; R. S. PETERSEN; K. SVOBODA. *Janelia Farm, Flinders Univ., Univ. of Manchester.*

9:00 QQ25 **743.18** Synaptic properties of the S1 to M1 pathway in the mouse. I. PETROF*; S. M. SHERMAN. *Univ. Chicago, Univ. of Chicago.*

10:00 QQ26 **743.19** Mapping local and long-range inputs to cortical chandelier cells. J. TUCCIARONE*; J. LU; M. HE; J. HUANG. *Cold Spring Harbor Lab., Stony Brook Univ.*

11:00 RR1 **743.20** Mesoscale cortical response patterns to competing thalamic inputs. A. SEDERBERG*; J. N. MACLEAN; S. E. PALMER. *Univ. of Chicago.*

8:00 RR2 **743.21** Laminar distribution of cross-frequency coupling during spontaneous activity in rat area S1FI. R. C. SOTERO; A. BORTEL; S. NAAMAN; S. KADKHODAEIAN BAKHTIARI; P. KROPF; A. SHMUEL*. *McGill Univ.*

9:00 RR3 **743.22** Long-range cortical activation evoked by intracortical stimulation (ICMS): The contribution of antidromic action potentials. M. P. VANNI*; T. H. MURPHY. *Univ. of British Columbia.*

10:00 RR4 **743.23** A subclass of Fast Spiking Parvalbumin (FS-PV) interneurons expresses genes for the metallopeptidases AdamTS and neprilysin. A. J. URBAN; J. P. ROSSIER*; A. BERNARD; S. A. SORENSEN; M. HAWRYLYCZ; E. S. LEIN. *Optogenetics and Brain Imaging, Allen Inst. for Brain Sci.*

11:00 RR5 **743.24** Selective participation of corticopontine and commissural neurons in ipsilateral corticocortical projections from the rat frontal cortex. Y. UETA; Y. KAWAGUCHI*. *Natl. Inst. Physiol Sci., JST, CREST, The Grad. Univ. for Advanced Studies (SOKENDAI).*

8:00 RR6 **743.25** Distinct representations of active and passive touch in layer 2/3 of mouse primary somatosensory barrel cortex. Y. KREMER*; C. C. H. PETERSEN. *Lab. of Sensory Processing, Ecole Polytechnique Fédérale de Lausanne, EPFL.*

9:00 RR7 **743.26** Spectral analysis of cortical activity during manipulation of unstable objects reveals task-dependent spatiotemporal features. A. REYES*; E. L. LAWRENCE; S. BABIKIAN; C. N. HECK; C. Y. LIU; F. J. VALERO-CUEVAS. *USC, USC, USC, USC.*

10:00 RR8 **743.27** Inferring interactions between cell types from multiple calcium imaging snapshots of the same neural circuit. S. C. TURAGA*; L. BUESING; A. M. PACKER; M. HAUSSER; J. H. MACKE. *Gatsby Unit, UCL, Univ. Col. London, Univ. Col. London, Max Planck Inst. for Biol. Cybernetics, Bernstein Ctr. for Computat. Neurosci.*

POSTER

744. Spinal Cord Injury: Plasticity IV

Theme D: Sensory and Motor Systems

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

8:00 RR9 **744.01** ▲ Time-dependent adaptations during bilateral arm movements after tetraplegia. G. T. MEYER*; M. A. PEREZ. *Univ. of Pittsburgh.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 RR10 **744.02** Endogenous cell responses to spinal cord injury and after mesencymal precursor transplantation. G. W. PLANT*; C. CZISCH; S. VOON-LEE; S. HODGETTS; C. PLANT. *Stanford Univ., Univ. of Western Australia.*

10:00 RR11 **744.03** Forehead paralysis in healthy people desensitizes their hands to touch. A. GHOSH*; S. HAENZI; G. STEFANICS; T. LANARAS; M. CALCAGNI. *Inst. of Neuroinformatics, Lab. for Social and Neural Systems Res., Univ. Hosp. Zurich.*

11:00 RR12 **744.04** Reorganization of corticospinal maps in distal and proximal upper-limb muscles after tetraplegia. T. TAZOE; M. A. PEREZ*. *Univ. of Pittsburgh, Res. Institute, Natl. Rehabil. Ctr. for Persons with Diesabilities.*

8:00 RR13 **744.05** AYX1 improves locomotion and reduces neuropathic pain after spinal cord injury. C. P. BOWES*; J. LI; M. KLUKINOV; G. PLANT. *Stanford Univ.*

9:00 RR14 **744.06** Potentiation of corticospinal synaptic plasticity in spinal cord injured patients. K. L. BUNDAY*; M. A. PEREZ. *Univ. of Pittsburgh.*

10:00 RR15 **744.07** Therapy induced expansion of axial trunk motor cortex after complete spinal transection in the adult rat is correlated to behavioral recovery. K. A. MOXON*; J. S. SHUMSKY; P. D. GANZER. *Drexel Univ., Drexel Univ. Col. of Med.*

11:00 RR16 **744.08** Cortical changes after robot rehabilitation of spinalized rats with active stepping compared to those with passive hindlimbs. C. S. OZA*; U. I. UDOEKWERE; S. F. GISZTER. *Drexel Univ., Drexel Univ., Marquette Univ.*

8:00 RR17 **744.09** Locomotor training after spinal cord injury in humans potentiates activity of spinal inhibitory circuitry. M. KNIKOU*; C. K. MUMMIDISETTY; A. C. SMITH. *City Univ. of New York, Rehabil. Inst. of Chicago, Northwestern Univ., Northwestern Univ.*

9:00 RR18 **744.10** Anatomical and functional profiles of revascularization in the injured mouse spinal cord. J. C. HSU*; C. CHEN; T. KO; Y. CHIANG. *Natl. Cheng-Kung Univ. Col. of Med., Taipei Med. University, Sch. of Med.*

10:00 RR19 **744.11** Temporal dispersion of corticospinal volleys is impaired in humans with spinal cord injury. J. CIRILLO*; M. A. PEREZ. *Univ. of Pittsburgh.*

11:00 RR20 **744.12** DHA and Curcumin treatment ameliorates sensorimotor behavior through molecular integration of spinal cord and brain. M. S. ANDRADE*; C. FENG; L. Z. YING; F. GOMEZ-PINILLA. *Univ. of São Paulo, Univ. of California at Los Angeles.*

8:00 RR21 **744.13** Remote cerebral inflammatory response predicts clinical output after decompressive surgery in cervical spondylotic myelopathy. S. C. CRACIUNAS*; M. R. GORGAN; A. BANI-AHMED; C. M. CIRSTEA. *Bagdasar - Arseni Hosp., Kansas Univ. Med. Ctr.*

9:00 RR22 **744.14** Feasibility of dorsal root entry zone model to investigate neurotrophin mediated topographic targeting in regenerating axons. L. KELAMANGALATH*; X. TANG; K. BEZIK; G. M. SMITH. *Temple Univ. school of Med.*

POSTER

745. Motor System: Proprioceptive and Sensory Input

Theme D: Sensory and Motor Systems

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

8:00 RR23 **745.01** Responsiveness of muscle spindle afferents in rat dorsal ganglion during a passive joint movement *in vivo.* D. TAICHI*; K. HAMADA; S. MATSUBARA; J. IIYAMA; M. YOSHIMURA. *Kmamoto Hlth. Sci. Univ., Kumamoto Hlth. Sci. Univ.*

9:00 RR24 **745.02** Electrophysiological differences between fast and slow passive joint movement dorsal root ganglion neurons in the rat *in vivo.* K. HAMADA*; T. DEGUCHI; S. MATSUBARA; J. IIYAMA; M. YOSHIMURA. *Kumamoto Hlth. Sci. Univ., Hosp. of Saiseikai Misumi, Kumamoto Hlth. Sci. Univ.*

10:00 RR25 **745.03** Does ankle torque/ankle angle relationship facilitate the on-going modulation of upright standing balance? B. H. DALTON*; J. T. INGLIS; M. S. KOEHLE; H. F. M. VAN DER LOOS; E. A. CROFT; J. BLOUIN. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

11:00 RR26 **745.04** ● Organizing principles of neck muscle activation explored through electrical stimulation. J. B. FICE*; J. BLOUIN; G. P. SIEGMUND. *Univ. of British Columbia, MEA Forensic Engineers & Scientists.*

8:00 SS1 **745.05** Location-specific effects of transcutaneous lumbar spinal stimulation on the recruitment of proximal and distal leg muscles in healthy individuals. D. SAYENKO*; D. ATKINSON; C. DY; E. REJC; K. GURLEY; V. SMITH; C. FERREIRA; C. ANGELI; R. EDGERTON; Y. GERASIMENKO; S. HARKEMA. *Univ. of Louisville, Frazier Rehab Inst., California State Univ., UCLA, Pavlov Inst. of Physiol.*

9:00 SS2 **745.06** Excitatory post synaptic currents during a tendon tap compared to a regular muscle stretch in the decerebrate cat. M. R. HOLMES*; M. JOHNSON; W. RYMER; C. HECKMAN. *Univ. of Colorado, Northwestern Univ., Rehabil. Inst. of Chicago, Northwestern Univ.*

10:00 SS3 **745.07** Electromechanical delay following lengthening muscle actions in young and old. G. A. POWER*; I. CHOI; B. H. DALTON; A. A. VANDERVOORT; C. L. RICE. *Univ. of Calgary, The Univ. of Western Ontario, The Univ. of British Columbia.*

11:00 SS4 **745.08** Modulation of motoneurone excitability driven by alterations in fascicle length in the human gastrocnemius muscle. A. G. CRESSWELL*; B. LAUBER; G. L. LICHTWARK. *The Univ. of Queensland, Uni. Freiburg.*

8:00 SS5 **745.09** Recurrent inhibition and motoneuron firing behavior: rate, timing, adaptation. A. OBEIDAT; P. NARDELLI*; R. POWERS; T. COPE. *Wright State Univ., Univ. of Washington.*

9:00 SS6 **745.10** ▲ Changes in sensory and maximal force production in adult individuals with Type II Diabetes. N. OCHOA*; S. L. GORNIAK. *Univ. of Houston, Univ. of Houstcen.*

10:00 SS7 **745.11** Chronic ventral root recordings as a source for neuroprosthetic control. M. J. BAUMAN*; S. DEBNATH; R. A. GAUNT; D. J. WEBER. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

11:00 SS8 **745.12** The effects of incisor trimming on mastication in rats. J. LEE*; L. AVIVI-ARBER; A. HUNTER; G. LANDZBERG; B. J. SESSLE. *Fac. of Dentistry, Univ. of Toronto.*

8:00 SS9 **745.13** Relationship between the inhibition of the jaw-opening reflex and the autonomic responses during the superior laryngeal nerve stimulation and kcn infusion in rabbits. S. SAKAI*; K. TSUJI; J. MAGARA; T. TSUJIMURA; M. INOUE. *Niigata Univ.*

9:00 SS10 **745.14** Masseter muscle activity during awake state, non-REM sleep and REM sleep in mice. K. KATAYAMA; A. MOCHIZUKI; T. KATO; M. IKEDA; S. NAKAMURA*; K. NAKAYAMA; K. BABA; T. INOUE. *Dept. of Oral Physiology, Showa Univ. Sch. of Dent., Dept. of Prosthodontics, Showa Univ. Sch. of Dent., Dept. of Oral Anat. and Neurobiology, Osaka Univ. Grad. Sch. of Dent.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 SS11 **745.15** Modulation of motoneuron EPSP rise time through tendon taps of human biceps muscle. X. HU*; N. L. SURESH; M. CHARDON; W. Z. RYMER. *Rehabil. Inst. of Chicago.*

11:00 SS12 **745.16** Preliminary exploration of the dependence of the Ia EPSP with respect to the preload of the distal biceps tendon in stroke. M. K. CHARDON*; N. SURESH; W. Z. RYMER. *Rehabil. Inst. of Chicago, Rehabil. Inst. of Chicago.*

8:00 TT1 **745.17** Mechanisms of extra torque generation during neuromuscular electrical stimulation. M. JONER WIEST*; D. F. COLLINS. *Univ. of Alberta.*

9:00 TT2 **745.18** Action directions of muscle synergies in 3-dimensional space of lower limb. S. HAGIO*; M. KOUZAKI. *Grad. Sch. of Human and Envrn. Studies, Kyoto Univ., Res. Fellow of the Japan Society for the Promotion of Science, Japan.*

10:00 TT3 **745.19** Modulation of reciprocal facilitation in mouse spinal cord during postnatal development. P. M. SONNER*; D. R. LADLE. *Wright State Univ.*

11:00 TT4 **745.20** Walking gait EMG patterns in the hind limb of African lungfish. B. R. AIELLO*; H. M. KING; M. E. HALE. *Univ. of Chicago.*

8:00 TT5 **745.21** Alternative activation of neural circuits drive escape behaviors elicited by caudal stimulation in larval zebrafish. Y. LIU*; M. E. HALE. *Univ. of Chicago.*

9:00 TT6 **745.22** Micturition activates voltage-dependent plateau potentials in external urethral sphincter motoneurons. W. F. COLLINS*, III; A. MANNINO; S. ABDELHAKIM; R. M. ELSAWAH. *SUNY.*

10:00 TT7 **745.23** Sodium-mediated plateau potentials in lumbar motoneurons of neonatal rats. B. MOULOUD*; S. TAZERART; A. MOQRICH; L. VINAY; F. BROCARD. *CNRS - Aix Marseille Univ., Inst. de Biologie du Développement de Marseille-Luminy (IBDML).*

11:00 TT8 **745.24** Density of KCC2 on dendrites of motoneuron in the intact spinal cord: Is there enough to offset the increase in intracellular [Cl-] due to inhibitory synaptic activity? P. ROSE*; H. SHI; E. ZHAO; K. LIN; B. LAM; M. NEUBER-HESS; H. NICHOL. *Queens Univ.*

8:00 TT9 **745.25** Postnatal changes in alpha-1 noradrenergic receptor modulation of persistent inward currents in rat XII motoneurons. M. J. LEBLANCQ*; A. L. REVILL; C. T. DICKSON; G. D. FUNK. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

9:00 TT10 **745.26** P2Y receptor modulation of inspiratory motor output in neonatal rat *in vitro.* A. L. REVILL*; T. S. ALVARES; G. D. FUNK. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

10:00 TT11 **745.27** Effects of histamine on neurotransmission from the mesencephalic trigeminal nucleus to trigeminal motoneurons in rat. C. GEMBA; K. NAKAYAMA; S. NAKAMURA; A. MOCHIZUKI; M. INOUE; T. INOUE*. *Showa Univ. Sch. Dent., Showa Univ. Sch. Dent.*

POSTER

746. Motor Unit Plasticity: Electrophysiology

Theme D: Sensory and Motor Systems

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

8:00 TT12 **746.01** Motor unit synchronization revisited: Estimation of the strength of common symaptic input to populations of motor neurons. F. NEGRO*; J. DIDERIKSEN; U. YAVUZ; D. FARINA. *Univ. Med. Ctr. Göttingen, Georg-August Univ.*

9:00 UU1 **746.02** Coherence between motor unit spike trains increases during sustained fatiguing contractions of the tibialis anterior muscle. A. CASTRONOVO*; F. NEGRO; T. D'ALESSIO; D. FARINA. *Dept. of Neurorehabilitation Engineering, Univ. Med. Ctr. Götting, Univ. Roma TRE.*

10:00 UU2 **746.03** Effects of visual feedback on the H-reflex and EMG spectrum. C. M. LAINE*; S. U. YAVUZ; D. FARINA. *Univ. Med. Ctr. Goettingen, Univ. Med. Ctr., Univ. Med. Ctr.*

11:00 UU3 **746.04** Memory in spinal motoneurons: short term memory of multiple events due to persistent inward currents. M. D. JOHNSON*; C. K. THOMPSON; M. R. HOLMES; F. NEGRO; D. FARINA; C. HECKMAN. *Northwestern Univ. Med. Schl, Rehabil. Inst. of Chicago, Rehabil. Inst. of Chicago, Northwestern Univ. Feinberg Sch. of Med., UNIVERSITÄTSMEDIZIN GÖTTINGEN,GEORG-AUGUST-UNIVERSITÄT, Northwestern University, Feinberg Sch. of Med.*

8:00 UU4 **746.05** Ischemia-related changes in motor unit firing patterns in response to sensory inputs. A. S. HYNGSTROM*; M. D. JOHNSON; M. R. HOLMES; F. NEGRO; D. FARINA; C. J. HECKMAN. *Marquette Univ., Northwestern Univ., Rehabil. Inst. of Chicago, Georg-August-Universitat Gottingen.*

9:00 UU5 **746.06** Discharge characteristics and force development of rat triceps surae motor units. T. M. HAMM*; V. V. TURKIN; D. O'NEILL. *Barrow Neurolog. Inst.*

10:00 UU6 **746.07** ● The great potential(s) of anconeus motor units. D. E. STEVENS*; B. HARWOOD; G. A. POWER; T. J. DOHERTY; C. L. RICE. *The Univ. of Western Ontario, The Univ. of Arizona in Tuscan, Univ. of Calgary, The Univ. of Western Ontario.*

11:00 UU7 **746.08** Common modulation of bilateral medial gastrocnemius motor units during anteriorly-perturbed standing in people after stroke. C. L. POLLOCK; T. D. IVANOVA; M. A. HUNT; S. J. GARLAND*. *Univ. British Columbia, Univ. British Columbia.*

8:00 UU8 **746.09** Motor unit loss and remodeling of two limb muscles in human diabetic neuropathy: Length does matter. M. D. ALLEN*; K. KIMPINSKI; T. J. DOHERTY; C. L. RICE. *Univ. of Western Ontario, Univ. of Western Ontario.*

9:00 UU9 **746.10** Differences in motor unit activity and EMG coherence across functional tasks. J. M. JAKOBI*; K. M. D. CORNETT; N. A. NEUBAUER; B. HARWOOD. *Univ. of British Columbia Okanagan.*

10:00 UU10 **746.11** Incidence of short interspike intervals and double discharge of anconeus motor unit action potentials preceding submaximal and maximal velocity dynamic elbow extensions. B. HARWOOD*; C. L. RICE. *Univ. of Arizona, The Univ. of Western Ontario, The Univ. of Western Ontario.*

11:00 UU11 **746.12** Motor unit discharge behaviour during voluntary ramp-and-hold contractions with different rates of excitatory input. M. KAMO*; M. BELLETT; A. G. CRESSWELL. *Japan Women's Col. of Physical Educ., The Univ. of Queensland.*

8:00 UU12 **746.13** Relationship between force variability and mean force of an upper limb muscle in different motor tasks. R. A. MEZZARANE*; J. C. CARMO; F. H. MAGALHAES; L. A. ELIAS. *Univ. of Brasilia (unb), Univ. of Brasilia, Univ. of Sao Paulo.*

9:00 UU13 **746.14** Motor unit recruitment by size does not provide functional advantages for motor performance. J. L. DIDERIKSEN*; D. FARINA. *Med. Univ. Goettingen.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 UU14 **746.15** Paired motor unit estimates of persistent inward current: Effects of ramp rate and duration and reciprocal inhibition. J. M. KALMAR*; M. VANDENBERK. *Wilfrid Laurier Univ.*

11:00 UU15 **746.16** Quasi-trapezoidal pulses for selective laryngeal abduction in human intraoperative study. E. C. HAHN*; A. HADLEY; D. TYLER. *Case Western Reserve Univ.*

8:00 UU16 **746.17** Impedance and signal quality measurements for microelectrode arrays implanted chronically in feline spinal nerves. S. DEBNATH*; M. J. BAUMAN; T. W. SIMPSON; R. A. GAUNT; D. J. WEBER. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

9:00 UU17 **746.18** Noninvasive nerve conduction studies in the rabbit distal extremity: Test-retest and response to vincristine neurotoxicity. J. R. HOTSON*. *Stanford Univ. Sch. of Med.*

POSTER

747. Neuromuscular Junction in Development and Disease

Theme D: Sensory and Motor Systems

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

8:00 UU18 **747.01** ▲ Predicting muscle output from neural input: An assessment of the neuromuscular transform in the crustacean cardiac system. R. M. SYMONDS*; A. H. WILLIAMS; A. M. CALKINS; P. S. DICKINSON. *Bowdoin Col., Brandeis Univ.*

9:00 UU19 **747.02** Development of a functional system for high-content screening of neuromuscular junctions *in vitro.* A. SMITH*; C. J. LONG; K. PIROZZI; J. J. HICKMAN. *Nanoscience Technol. Ctr.*

10:00 UU20 **747.03** Altered function of spinal motor neurons in severe SMA mice. M. A. HARRINGTON*; H. ZHANG; C. PHILLIPS; A. W. HARRIS; M. E. R. BUTCHBACH. *Delaware State Univ., Univ. of Texas M.D. Anderson Cancer Ctr., Nemours Biomed. Research, Alfred I. duPont Hosp. for Children,.*

11:00 UU21 **747.04** R-spondin2 is crucial for neuromuscular junction formation. H. NAKASHIMA*; B. OHKAWARA; S. IMAGAMA; Z. ITO; N. ISHIGURO; K. OHNO. *Nagoya Univ. Sch. of Med., Nagoya Univ. Sch. of Med.*

8:00 UU22 **747.05** LRP4 is required to maintain adult neuromuscular junctions (NMJs). A. BARIK*; Y. LU; W. XIONG; L. MEI. *Med. Col. of Georgia, Georgia Regents Univ.*

9:00 UU23 **747.06** ● A critical period for neuromuscular junction re-establishment and functional motor recovery after peripheral nerve injury in mouse. S. J. LEE*; T. OMURA; A. LATREMOLIÈRE; C. J. WOOLF. *Boston Children's Hosp.*

10:00 UU24 **747.07** Visualizing neuromuscular damage: Swallow and voice deficits in moderate/severe whiplash. K. MENDOZA*; J. ELLIOTT; J. LOGEMANN. *Northwestern Univ.*

11:00 UU25 **747.08** Mutations in LRP4 in congenital myasthenia reveal position-specific regulations of agrin and Wnt signaling of LPR4. B. OHKAWARA*; M. CABRERA; T. NAKATA; X. SHEN; Y. ITO; A. G. ENGEL; K. OHNO. *Nagoya Univ. Grad. Sch. of Med., Mayo Clin., Nagoya Univ. Grad. Sch. of Med.*

8:00 UU26 **747.09** A spike-driven model of the muscle activation during physiological muscle movement: Implementation in the Neuron platform. H. KIM*; T. G. SANDERCOCK; C. J. HECKMAN. *Daegu Gyeongbuk Inst. of Sci. & Technol., Northwestern Univ.*

9:00 VV1 **747.10** ▲ *In vivo* characterization of kettin's contribution to neuromuscular transduction of larval *Drosophila melanogaster* bodywall muscle. L. D. DEADY; K. G. ORMEROD; A. J. MERCIER; J. L. KRANS*. *WNE, Brock Univ.*

10:00 VV2 **747.11** Synaptic transmission is dependent upon dynamic modulation of ubiquitin signaling. J. J. HALLENGREN*; P. CHEN; B. BHATTACHARYYA; R. MILLER; S. M. WILSON. *Univ. of Alabama At Birmingham, St. Jude Children's Res. Hosp., Northwestern Univ., Univ. of Alabama At Birmingham.*

11:00 VV3 **747.12** ▲ An analysis of muscle activation by kinesiological EMG of m. transversus abdominis/ m. obliquus internus and m. adductor longus during a side leap. K. B. NILSSON*; S. AKESSON; A. PALSSON. *Lund Univ.*

8:00 VV4 **747.13** Molecular cascade of synaptic formation specific to slow muscle fibers. J. PARK*; H. IKEDA; M. MOTT; H. WEN; M. LINHOFF; F. ONO. *NIH/NIAAA, Oregon Hlth. and Sci. Univ.*

9:00 VV5 **747.14** Understanding the neuromuscular mechanism of cancer-related fatigue - A preliminary study. D. ALLEXANDRE*; Z. JIANG; G. YUE. *Kessler Fndn. Res. Ctr.*

POSTER

748. Cerebellum: Human Studies

Theme D: Sensory and Motor Systems

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

8:00 VV6 **748.01** Sexual dimorphism in absolute cellular composition of human cerebellum, hippocampus and olfactory bulb. A. V. OLIVEIRA-PINTO*; L. M. DE OLIVEIRA; R. M. DOS SANTOS; R. A. COUTINHO; C. H. ANDRADE-MORAES; A. T. D. ALHO; G. A. B. DOS SANTOS; L. T. GRINBERG; R. E. P. LEITE; R. E. D. FERRETTI-REBUSTINI; C. A. PASQUALUCCI; R. LENT. *Inst. of Biomed. Sciences, Federal Univ. of Rio de Janeiro, Federal Univ. of Rio de Janeiro, Univ. of São Paulo Med. Sch., Inst. Albert Einstein of Educ. and Res., Univ. of California, Univ. of São Paulo Sch. of Nursing, Natl. Inst. of Translational Neuroscience, Ministry of Sci. and Technol.*

9:00 VV7 **748.02** A probabilistic atlas of cerebello-cerebral functional connectivity in humans. J. A. KIPPING*; P. BAZIN; A. SCHÄFER; A. VILLRINGER; D. S. MARGULIES. *Max Planck Inst. For Human Cognitive and Brain Sci., Max Planck Inst. For Human Cognitive and Brain Sci., Max Planck Inst. For Human Cognitive and Brain Sci.*

10:00 VV8 **748.03** Imaging the cerebellum at 7 T. M. A. BATSON*; N. PETRIDOU; D. W. J. KLOMP; S. F. W. NEGGERS; M. A. FRENS. *Erasmus MC & UMC Utrecht, Universitair Medisch Centrum Utrecht, Erasmus Medisch Centrum.*

11:00 VV9 **748.04** Force but not time control is impaired in patients with spinocerebellar ataxia during fast ankle goal-directed contractions. Y. CHEN*; M. KWON; Z. ZAIDI; A. ALFORD; A. SNYDER; S. H. SUBRAMONY; D. E. VAILLANCOURT; E. A. CHRISTOU. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

8:00 VV10 **748.05** Spinocerebellar ataxia patients exhibit altered activation of tibialis anterior motor units and impaired ankle force control. M. KWON*; Y. CHEN; A. SNYDER; A. A. ALFORD; D. W. SOLIS; S. S. GEEVARUGHESE; D. E. VAILLANCOURT; S. H. SUBRAMONY; E. A. CHRISTOU. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 VV11 **748.06** The supraspinal modulation before initiation of ballistic goal-directed movement in individuals with spinocerebellar ataxia. C. FANG*; Y. CHANG; B. LI. *Tzu Hui Inst. of Technol., Chang Gung Univ.*

10:00 VV12 **748.07** A joint compensatory and default network closely related to motor performance in Parkinson's disease. S. TAN*; S. L. GALLEY; A. LIU; E. TY; J. WANG; M. J. MCKEOWN, `. *Pacific Parkinson's Res. Centre, Univ. of British Columbia, Pacific Parkinson Res. Ctr. (PPRC), Univ. British Columbia, Univ. of British Columbia, Univ. British Columbia, Univ. British Columbia, Univ. of British Columbia.*

11:00 VV13 **748.08** Storage of a naturally acquired conditioned response is impaired in patients with cerebellar degeneration. A. GUSTAFSSON THIEME*; M. THÜRLING; J. GALUBA; R. G. BURCIU; S. GÖRICKE; A. BECK; V. AURICH; E. WONDZINSKI; M. SIEBLER; M. GERWIG; V. BRACHA; D. TIMMANN. *Univ. Clin. Essen, Univ. of Duisburg-Essen, Univ. Clin. Essen, Univ. of Duisburg-Essen, Univ. of Düsseldorf, MediClin Fachklinik Rhein/Ruhr, Iowa State Univ.*

8:00 VV14 **748.09** Differences in effects of cerebellar inhibition following motor learning in Subclinical neck pain patients. J. BAARBÉ; C. DEBISON LARABIE; H. HAAVIK; P. YIELDER*; B. MURPHY. *Univ. of Ontario Inst. of Technol., New Zealand Col. of Chiropractic.*

9:00 VV15 **748.10** Occlusion reveals deficit in using internal models in Children with Developmental Coordination Disorder in a Manual Pursuit Task. J. E. DUYSENS*; G. D. FERGUSON; B. SMITS-ENGELSMAN. *Dept of Kinesiology (faber), SMK, Motor Control Laboratory, KU-Leuven.*

10:00 VV16 **748.11** Human thalamus in three dimensional coordinate system with revised nomenclature of motor-related subdivisions. I. ILINSKY*; P. PAUL-GILLOTEAUX; H. KULTAS-ILINSKY; C. VERNEY. *Univ. Iowa Col. Med., INSERM, U676, Univ. Paris 7, Faculte de Medecine Denis Diderot, PremUP, Inst. Curie, CNRS, Inserm U676, Univ. Paris 7, Faculte de Medecine Denis Diderot, PremUP.*

POSTER

749. Posture and Gait: Higher Order Control, Multi-Task Integration, and Theory

Theme D: Sensory and Motor Systems

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

8:00 VV17 **749.01** Coronal plane treadmill stepping control strategies in individuals with transtibial amputation. J. RYLANDER*; J. WILKEN; J. CUSUMANO; J. DINGWELL. *The Univ. of Texas at Austin, Ctr. for the Intrepid, Brooke Army Med. Ctr., Penn State Univ.*

9:00 VV18 **749.02** Regulating stride-to-stride variability in human walking and running. N. K. BOHNSACK*; J. P. CUSUMANO; J. B. DINGWELL. *UT Austin, Pennsylvania State Univ.*

10:00 VV19 **749.03** Using perceptual cues to regulate walking from stride-to-stride. J. B. DINGWELL*; J. P. CUSUMANO. *Univ. of Texas At Austin, Pennsylvania State Univ.*

11:00 VV20 **749.04** Long-term retention of locomotor adaptation: Do you ever forget how to walk on a split-belt treadmill? E. V. VASUDEVAN*; R. V. GERMAN. *Moss Rehab Res. Inst.*

8:00 VV21 **749.05** Influence of gait speed on the expression of locomotor learning in different environments. R. J. HAMZEY*; E. M. KIRK; E. V. VASUDEVAN. *Moss Rehabil. Res. Inst.*

9:00 VV22 **749.06** Multijoint muscle torque coordination stabilizes upright posture during multitasking. E. S. PARK; H. REIMANN; G. SCHÖNER; J. P. SCHOLZ*. *Univ. of Delaware, Ruhr-Universität, Univ. Delaware.*

10:00 WW1 **749.07** Closing your eyes while standing leads to time-scale dependent increases in joint covariation - A process model explains observed structured changes in variance. H. REIMANN*; J. P. SCHOLZ; G. SCHÖNER. *Ruhr-Universität Bochum, Univ. of Delaware.*

11:00 WW2 **749.08** A multi-level analysis of the regularity of standing posture. K. JORDAN*; Z. WANG; N. OKITA; J. H. CHALLIS; K. M. NEWELL. *Callaghan Innovation, Penn State.*

8:00 WW3 **749.09** Influence of skill level on the intrinsic dynamics as a function of practice in a ski-simulator task. A. DUTT-MAZUMDER*; K. M. NEWELL. *Penn State Univ.*

9:00 WW4 **749.10** Inter- and intra-foot coordination when standing on an unstable surface. Z. WANG*; P. MOLENAAR; K. NEWELL. *The Pennsylvania State Univ., The Pennsylvania State Univ.*

10:00 WW5 **749.11** ● Effects of instructions and postural task difficulty on dual-task performances in young adults. A. REMAUD; S. BOYAS; Y. LAJOIE; M. -. BILODEAU*. *Bruyère Res. Inst., Univ. of Ottawa, Univ. of Ottawa.*

11:00 WW6 **749.12** ▲ Recovery of body balance from perturbation: Effect of light touch on muscular activation. A. R. MARTINELLI*; D. B. COELHO; F. H. MAGALHÃES; A. F. KOHN; L. A. TEIXEIRA. *Univ. of São Paulo.*

8:00 WW7 **749.13** Human cortical theta during quiet stance encodes postural stability. M. E. HERNANDEZ*; C. STEVENSON; J. SNIDER; H. POIZNER. *UCSD, UCSD, UCSD.*

9:00 WW8 **749.14** The effect of gradual vs. abrupt perturbations on retention of a locomotor adaptation. S. J. HUSSAIN*; S. M. MORTON. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Delaware.*

10:00 WW9 **749.15** Gait assessment using desired center of pressure: Experimental and simulation studies. K. MASANI*; T. YAMAGUCHI; T. YOSHIDA; H. ONODERA. *Toronto Rehab Inst., Univ. of Toronto, Tohoku Univ., Natl. Hosp. Organization CREST lab.*

11:00 WW10 **749.16** Electrocortical activity during human walking on flat and incline surfaces. J. C. BRADFORD; J. R. LUKOS; D. P. FERRIS*. *Univ. of Michigan, United States Army Res. Lab., Univ. of Michigan.*

8:00 WW11 **749.17** Sensorimotor enhancement of locomotion revealed by optical brain imaging. S. G. SANGANI*; A. LAMONTAGNE; J. FUNG. *McGill Univ.*

9:00 WW12 **749.18** The nociceptive withdrawal reflex phase-modulates the timing of the gait cycle. E. G. SPAICH*; O. K. ANDERSEN. *Aalborg University, Ctr. for Sensory-Motor Interaction.*

10:00 WW13 **749.19** Modulation of the cutaneous silent period in the upper-limb with whole-body instability. N. R. ECKERT*; J. MAO; Z. A. RILEY. *Indiana Univ., Indiana University-Purdue Univ.*

11:00 WW14 **749.20** Alteration of auditory mismatch negativity (MMN) in dual-task walking in healthy adults. T. KURAYAMA*; D. MATSUZAWA; Y. GOTO; R. MURAKAMI; Y. TANI; M. KUMAGAI; Y. OTAKA; E. SHIMIZU. *Grad. Sch. of Medicine, Chiba Univ., Tokyo Bay Rehabil. Hosp., Keio Univ. Sch. of Medicine., Chiba Univ. Grad. Sch. of Med.*

8:00 WW15 **749.21** Burst firing of thalamic reticular nucleus neurons during locomotion. V. MARLINSKI*; I. N. BELOOZEROVA. *Barrow Neurolog. Institute. Div. of Neurobio., Barrow Neurolog. Institute. Div. of Neurobio.*

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9:00 WW16 **749.22** Evaluation of the effect of deference in place of the obstacle on brain activity before walking through electroencephalography. N. FUJIWARA*; H. NAKANO; K. UETA; S. MORIOKA. *Grad. Sch. of Hlth. Science, Kio Univ., Rehastage Co;Ltd, Japan Society for the Promotion of Sci.*

10:00 WW17 **749.23** Optic flow speed and hip restriction generate distinct cortical changes in the motor area, supplementary motor area, and sensorimotor area. Y. YU*; M. MUKHERJEE. *Univ. of Nebraska at Omaha.*

11:00 WW18 **749.24** Prior experience in the face of sensorimotor uncertainty determines adaptation to altered visual input during walking. R. S. MAEDA*; S. M. O'CONNOR; J. M. DONELAN; D. S. MARIGOLD. *Simon Fraser Univ.*

8:00 WW19 **749.25** Effects of visual feedback distortion on gait adaptation. S. KIM*; D. MUGISHA. *California Baptist Univ., California Baptist Univ.*

9:00 WW20 **749.26** Weighting to visual information provided at the various floor oscillation timing while standing. M. IREI*; K. FUJIWARA. *Osaka Hlth. Sci. Univ., Grad. Sch. of Med. Science, Kanazawa Univ.*

10:00 WW21 **749.27** The aging brain shows less flexible reallocation of processing resources during dual-task walking: A mobile brain-body imaging (MOBI) study. B. R. MALCOLM*; J. S. BUTLER; J. J. FOXE; P. DE SANCTIS. *Albert Einstein Col. of Med., The Grad. Ctr. of the City Univ. of New York, Albert Einstein Col. of Med., The Nathan S. Kline Inst. for Psychiatric Res.*

11:00 WW22 **749.28** Dynamic balance control recovery from mild traumatic brain injury in adolescents and young adults. D. R. HOWELL*; L. R. OSTERNIG; A. D. CHRISTIE; L. CHOU. *Univ. of Oregon.*

8:00 XX1 **749.29** Perception of lower extremity loads in stroke survivors. V. W. CHU*; T. G. HORNBY; B. D. SCHMIT. *Rehabil. Inst. of Chicago, Univ. of Illinois at Chicago, Marquette Univ.*

9:00 XX2 **749.30** Locomotor primitives - perspectives in relation to musculoskeletal modeling. U. G. KERSTING*; A. S. OLIVEIRA; M. E. LUND; J. RASMUSSEN; D. FARINA. *Aalborg Univ., Aalborg Univ., Bernstein Ctr. for Computat. Neuroscience, Göttingen Univ.*

POSTER

750. Voluntary Motor Control: Cortical Planning II

Theme D: Sensory and Motor Systems

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

8:00 XX3 **750.01** Early release of motor responses by loud auditory stimuli are not restricted to muscles with reticulospinal connections. S. RIEK*; A. DE RUGY; J. TRESILIAN; W. MARINOVIC. *Ctr. for Sensorimotor Neurosci., The Univ. of Queensland, Univ. of Warwick, Univ. of Queensland.*

9:00 XX4 **750.02** Cortical neural correlates to trial-and-error learning dynamics. Y. YUAN*; H. MAO; M. ARNOLD; J. SI. *Arizona State Univ.*

10:00 XX5 **750.03** Changes in corticospinal transmission following 8 weeks of leg immobilization. C. LEUKEL*; W. TAUBE; J. RITTWEGER; A. GOLLHOFER; J. LUNDBYE-JENSEN. *Univ. of Freiburg, Univ. of Fribourg, German Aerospace Ctr. (DLR), Univ. of Copenhagen.*

11:00 XX6 **750.04** Neural representation of uncertainty during planning and decision in primate motor cortex. M. Y. WANG*; G. PELLIZZER. *Univ. of Illinois At Urbana-Champaign, Beckman Inst., Veterans Affairs Med. Ctr., Univ. of Minnesota.*

8:00 XX7 **750.05** Visual and motor responses of ventrolateral prefrontal neurons during grasping actions. L. SIMONE*; S. ROZZI; M. BIMBI; F. RODÀ; A. CARISSIMI; G. LUPPINO; L. FOGASSI. *Univ. Di Parma, IIT.*

9:00 XX8 **750.06** A connection-free, multimodal translational platform for neuromotor disease analysis and therapeutic development. D. A. BORTON*; M. YIN; I. VOLLENWEIDER; Y. LANG; L. QIN; P. DETEMPLE; A. NURMIKKO; E. BEZARD; G. COURTINE. *Ecole Polytechnique Federal De Lausanne, Brown Univ., Ecole Polytechnique Federal De Lausanne, Univ. Victor Segalen-Bordeaux 2, Motac Neurosci., Inst. für Mikrotechnik, Chinese Acad. of Med. Sci. & Peking Union Med. Col.*

10:00 XX9 **750.07** Dimensionality in the motor cortical substrate for reaching. E. TRAUTMANN*; P. GAO; J. FAN; J. KAO; S. STAVISKY; P. NUYUJUKIAN; B. YU; G. SANTHANAM; S. RYU; S. GANGULI; K. SHENOY. *Stanford Neurosciences, Stanford Univ., Carnegie Mellon Univ.*

11:00 XX10 **750.08** The effects of movement preparation, movement execution and attention on early somatosensory processing in frontal motor areas. M. J. BROWN*; W. R. STAINES. *Univ. of Waterloo.*

8:00 XX11 **750.09** Acute and longitudinal effects of concussion on excitability and inhibition of the motor cortex. A. L. YASEN; N. MILLER; L. MAYNARD; D. HOWELL; H. CALDERON; A. D. CHRISTIE*. *Univ. of Oregon.*

9:00 XX12 **750.10** Neuronal ensemble activity for motor control with different forces in rat caudal and rostral forelimb areas. A. SAIKI*; R. KIMURA; Y. FUJIWARA-TSUKAMOTO; Y. SAKAI; Y. ISOMURA. *Tamagawa Univ. Brain Sci. Inst., JST-CREST, Tamagawa Univ., Doshisha Univ.*

10:00 YY1 **750.11** Does combining a partial NMDA receptor agonist with motor training result in greater learning? K. M. CHERRY*; E. J. LENZE; C. E. LANG. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

11:00 YY2 **750.12** The dynamics of functional connectivity in motor and somatosensory cortices during prehension. A. S. RAJAN*; G. A. TABOT; S. J. BENSMAIA; N. G. HATSOPOULOS. *Univ. of Chicago, Univ. of Chicago.*

8:00 YY3 **750.13** Dynamics of primate premotor cortical recovery following optogenetic disruption of motor preparation. D. J. O'SHEA*; W. GOO; P. KALANITHI; I. DIESTER; I. OZDEN; J. WANG; A. V. NURMIKKO; K. DEISSEROTH; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Hosp. and Clinics, ESI, Max Planck, Brown Univ., Brown Univ., Stanford Univ.*

9:00 YY4 **750.14** Muscle synergies obtained from comprehensive mapping of the cortical forelimb representation using stimulus triggered averaging of EMG activity. S. L. AMUNDSEN*; G. M. VAN ACKER, III; C. W. LUCHIES; P. D. CHENEY. *Univ. of Kansas, Univ. of Kansas Med. Ctr.*

10:00 YY5 **750.15** The effects of loud auditory stimuli on corticospinal excitability during movement preparation. W. MARINOVIC*; J. TRESILIAN; A. DE RUGY; S. SIDHU; S. RIEK. *The Univ. of Queensland, Univ. of Warwick, The Univ. of Queensland, Univ. of Utah.*

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11:00 YY6 **750.16** Mu rhythm and precise timing of muscular inhibition during anticipatory postural control: A developmental effect. F. BARLAAM*; C. FORTIN; M. VAUGOYEAU; C. SCHMITZ; C. ASSAIANTE. *Lab. of Cognitive Neurosci. - CNRS & Aix-Marseille Univ. UMR7291, Lyon Neurosci. Res. Ctr. - Inserm U1028, CNRS UMR 5292, DYCOG team.*

8:00 YY7 **750.17** Ventral striatum regulates brain activity of motor related areas during the recovery after spinal cord injury. M. SAWADA*; K. KATO; H. ONOE; T. ISA; Y. NISHIMURA. *Natl. Inst. For Physiological Sci., Grad Sch. of Kyoto Univ., SOKENDAI, RIKEN, JST-PRESTO.*

9:00 YY8 **750.18** Involvement of primary motor cortex in error-based movement corrections. R. SCHWEEN*; J. LUNDBYE-JENSEN; W. TAUBE; B. LAUBER; M. KELLER; A. GOLLHOFER; C. LEUKEL. *Univ. of Freiburg, Univ. of Copenhagen, Univ. of Copenhagen, Univ. of Fribourg, Univ. of Queensland.*

10:00 YY9 **750.19** Structural and functional changes in sensorimotor attenuation with aging. N. WOLPE*; J. N. INGRAM; J. R. TAYLOR; D. M. WOLPERT; C. CAN; J. B. ROWE. *Univ. of Cambridge, Univ. of Cambridge, Med. Res. Council, Biotech. and Biol. Sci. Res. Council.*

11:00 YY10 **750.20** ● Target object, but not grip type, is represented in motor cortex during action observation. J. B. ZIMMERMANN*; C. E. VARGAS-IRWIN; M. J. BLACK; J. P. DONOGHUE. *Brown Univ., Max Planck Inst. for Intelligent Systems.*

8:00 YY11 **750.21** Neural and behavioral responses to last-minute goal changes in a reaching task. K. C. AMES*; S. I. RYU; K. V. SHENOY. *Stanford Univ., Stanford Univ., Palo Alto Med. Fndn., Stanford Univ., Stanford Univ.*

9:00 YY12 **750.22** Cortical control of electromyogram (EMG) in healthy preterm neonates measured by coherence. H. KANAZAWA*; M. KAWAI; T. MIMA; T. KINAI; K. IWANAGA; T. HEIKE. *Dept. of Pediatrics, Grad. Sch. of Medicine, Kyoto Univ., Res. Fellow of the Japan Society for the Promotion of Sci., Kyoto Univ., Morinomiya Univ. of Med. Sci.*

10:00 ZZ1 **750.23** ● Temporal evolution of task dependent signal in sensory-motor cortices. M. OMRANI*; A. J. PRUSZYNSKI; S. H. SCOTT. *Queens Univ., Univ. of Umea, Queen's Univ.*

11:00 ZZ2 **750.24** ▲ Corticospinal control from ventral premotor cortex in human. S. SANGARI*; L. GIBOIN; V. MARCHAND-PAUVERT. *ER6 UPMC.*

8:00 ZZ3 **750.25** Do TMS-evoked twitches shift towards a ballistic training direction in extrinsic or muscle-based coordinates? L. CHYE*; S. RIEK; A. DE RUGY; T. CARROLL. *The Univ. of Queensland.*

9:00 ZZ4 **750.26** Wave propagation in motor cortex during a reach to grasp movement. K. BROWN*; K. TAKAHASHI; M. BEST; N. G. HATSOPOULOS. *Univ. of Chicago.*

10:00 ZZ5 **750.27** Movement-related slow potentials of the sensorimotor cortex encode the rate of muscle activation. R. J. MCKINDLES*; B. D. SCHMIT. *Marquette Univ.*

11:00 ZZ6 **750.28** Firing properties of first order INs in the spinal cord of monkey performing wrist flexion-extension task with an instructed delay period. S. TOMATSU*; G. KIM; T. TAKEI; K. SEKI. *Natl. Inst. of Neuroscience, NCNP, Natl. Inst. for Physiological Sci., Japan Sci. and Technol. Agency JST.*

8:00 ZZ7 **750.29** Standing postural adjustments associated with rapid motor corrections in the upper limb. C. R. LOWREY*; J. Y. NASHED; S. H. SCOTT. *Queens Univ.*

POSTER

751. Oral Motor and Speech

Theme D: Sensory and Motor Systems

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

8:00 ZZ8 **751.01** Speech motor learning alters patterns of neural oscillations. R. SENGUPTA; A. S. TOTAPALLY; D. S. LEE; S. M. NASIR*. *Northwestern Univ.*

9:00 ZZ9-DP7 **751.02** Unveiling the motor map for vowels and plosive consonants. M. F. ASSANEO*; M. A. TREVISAN; G. B. MINDLIN. *Univ. of Buenos Aires.*

10:00 ZZ10 **751.03** Electrophysiological measures of auditory responses in stuttering versus nonstuttering children. L. MAX*; F. E. MUSIEK. *Univ. Washington, Haskins Labs., Univ. of Connecticut.*

11:00 ZZ11 **751.04** Functional categorization and contextual dependence of cortical representation of overt speech. E. M. MUGLER*; J. L. PATTON; M. GOLDRICK; M. W. SLUTZKY. *Univ. of Illinois at Chicago, Northwestern Univ., Northwestern Univ.*

8:00 ZZ12 **751.05** Low frequency long range coherence during speech sensory motor processing. G. B. COGAN*; T. THESEN; D. FRIEDMAN; W. K. DOYLE; O. DEVINSKY; B. PESARAN. *CNS - NYU, NYU Langone Med. Ctr., NYU Langone Med. Ctr., NYU Langone Med. Ctr.*

9:00 ZZ13 **751.06** Distinct neural systems and breathing repertoire for the production of speech and emotional vocalizations. Z. K. AGNEW*; C. MCGETTIGAN; L. WARD; O. JOSEPHS; S. K. SCOTT. *UCL Inst. of Cognitive Neurosci., Royal Holloway, UCL, UCL.*

10:00 ZZ14 **751.07** Speech motor learning drives changes in speech perception. D. R. LAMETTI; E. NEUFELD; A. ROCHET-CAPELLAN; D. M. SHILLER; D. J. OSTRY*. *Univ. Col. London, McGill Univ., CNRS Grenoble, Univ. de Montréal, McGill Univ., Haskins Labs.*

11:00 ZZ15 **751.08** Using focal perioperative cooling to localize speech-related brain regions. M. A. LONG*; K. A. KATLOWITZ; D. VALLENTIN; R. C. CLARY; A. W. JACKSON; D. C. HANSEN; M. A. HOWARD, III; J. D. W. GREENLEE. *NYU Sch. of Med., Univ. of Iowa.*

8:00 ZZ16 **751.09** Internal vs. external deviations from auditory targets in speech. C. A. NIZIOLEK*; S. S. NAGARAJAN; J. F. HOUDE. *Univ. of California San Francisco, Univ. of California, San Francisco.*

9:00 ZZ17 **751.10** Feasibility of decoding speech from the surface of sensor motor cortex, an ECoG phoneme study. Z. V. FREUDENBURG*; M. G. BLEICHNER; M. J. VANSTEENSEL; E. J. AARNOUTSE; N. F. RAMSEY. *UMC Utrecht-Rudolf Magnus Inst.*

10:00 ZZ18 **751.11** Speech adaptation under delayed auditory feedback environment affects speech perception in an articulator-specific manner. T. MOCHIDA*; H. GOMI. *NTT Communication Sci. Labs.*

11:00 ZZ19 **751.12** Elija: A computational model of an infant that learns to pronounce through caregiver interactions. I. S. HOWARD*; P. MESSUM. *Univ. of Plymouth, Pronunciation Sci. Ltd.*

8:00 ZZ20 **751.13** Decoding mouth movements using high-field fMRI. M. BLEICHNER*; E. SALARI; J. M. JANSMA; M. RAEMAEKERS; N. PETRIDOU; N. F. RAMSEY. *Univ. Med. Ctr. Utrecht, Dept. of Neurol. and Neurosurg., Univ. Med. Ctr. Utrecht, Image Sci. Inst.*

9:00 ZZ21 **751.14** A comparison of the connections of laryngeal motor cortex in humans and macaque monkeys. P. L. CROXSON*; K. SIMONYAN. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*

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10:00 ZZ22 **751.15** Single-trial control of vowel formants and coarticulation by human sensory-motor cortex. K. BOUCHARD*; K. JOHNSON; E. F. CHANG. *UCSF, UC Berkeley.*

11:00 ZZ23 **751.16** Perceptual learning shapes the targets of speech motor adaptation. D. SHILLER*; D. R. LAMETTI; D. J. OSTRY. *Univ. De Montreal, McGill Univ.*

POSTER

752. Kisspeptin and Other Factors Regulating LH and Ovulation

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

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

8:00 ZZ24 **752.01** Searching for interconnections between arcuate kisspeptin neurons in the male mouse. S. DE CROFT; U. BOEHM; A. E. HERBISON*. *Univ. of Otago, Univ. of Saarland Sch. of Med.*

9:00 ZZ25 **752.02** Synchronized intracellular Ca^{2+} oscillations in cultured kisspeptin/neurokinin B/dynorphin -GFP neurons obtained from the hypothalamic arcuate nucleus of transgenic mice. K. IKEGAMI*; H. ABE; T. HARUTA; S. MINABE; T. GOTO; M. SANBO; C. TAMURA; M. HIRABAYASHI; Y. UENOYAMA; K. MAEDA; H. TSUKAMURA. *Grad. Sch. of Bioagricultural Science, Nagoya Univ., Natl. Inst. for Physiological Sci., Grad. Sch. of Agr. and Life Sciences, The Univ. of Tokyo.*

10:00 ZZ26 **752.03** Region-specific enhancer for Kiss1 expression in the hypothalamic arcuate nucleus of female mice. T. GOTO*; J. TOMIKAWA; H. ABE; T. FUKANUMA; T. IMMAMURA; K. TAKASE; M. SANBO; K. TOMITA; M. HIRABAYASHI; H. TSUKAMURA; K. MAEDA; Y. UENOYAMA. *Nagoya Univ., Natl. Inst. for Physiological Sci., Kyushu Univ., The Univ. of Tokyo.*

11:00 AAA1 **752.04** Estrogen positive feedback mechanism governing luteinizing hormone surge is conserved in the male primate brain. Y. WATANABE*; Y. UENOYAMA; J. SUZUKI; K. TAKASE; Y. SUETOMI; S. OHKURA; N. INOUE; K. MAEDA; H. TSUKAMURA. *Nagoya Univ., Kyoto Univ., The Univ. of Tokyo.*

8:00 AAA2 **752.05** Diurnal regulation of GABAergic synaptic inputs to anteroventral-periventricular (AVPV) area kisspeptin neurons. R. A. DEFAZIO*; C. F. ELIAS; S. M. MOENTER. *Univ. of Michigan.*

9:00 AAA3 **752.06** Effects of kisspeptins on the GnRH3 neuronal system in zebrafish: From early embryonic development to adulthood. Y. ZHAO*; M. LIN; A. MOCK; M. YANG; N. WAYNE. *UCLA, Shanghai Univ.*

10:00 AAA4 **752.07** Kiss1 mRNA in the forebrain of aromatase knockout and aromatase over-expressing female and male mice. J. T. SMITH*; H. WANG; E. R. SIMPSON; G. P. RISBRIDGER; M. POUTANEN. *The Univ. of Western Australia, Monash Univ., Prince Henry's Inst. of Med. Res., Univ. of Turku.*

11:00 AAA5 **752.08** Prolactin regulation of kisspeptin neurons in the arcuate nucleus: A pathway for suppression of luteinizing hormone secretion. R. E. SZAWKA*; R. A. LOPES; J. CRAMPTON; N. S. S. AQUINO; R. M. MIRANDA; I. KOKAY; C. R. FRANCI; A. M. REIS; D. R. GRATTAN. *Univ. Federal De Minas Gerais (UFMG), Univ. of Otago, Univ. de São Paulo.*

8:00 AAA6 **752.09** An agonist of the neurokinin 3 receptor induces an inward current in kisspeptin/neurokinin B/dynorphin neurons from castrate male mice. K. A. RUKA*; S. M. MOENTER. *Univ. of Michigan.*

9:00 AAA7 **752.10** ▲ At diestrus-2 muscarinic receptor M1 and M2 of the left or right ovary participates in the spontaneous ovulation regulation. M. B. CRUZ*; S. HERNÁNDEZ; S. TOLEDO; B. ALVARADO; C. HERNÁNDEZ; A. FLORES; R. DOMÍNGUEZ. *Univ. Autonoma De México, UNAM, Univ. Autonoma De México.*

10:00 AAA8 **752.11** Progesterone receptors mediate ovarian steroids effects on gonadotrophin-releasing hormone/luteinizing hormone system through noradrenergic neurons in the locus coeruleus. C. M. LEITE*; M. I. M. MATA; B. KALIL; E. T. UCHOA; J. ANTUNES-RODRIGUES; L. L. K. ELIAS; J. A. ANSELMO-FRANCI. *Univ. of Sao Paulo, Univ. of Sao Paulo.*

11:00 AAA9 **752.12** Paths of activation for reflex vaginocervical stimulation of luteinizing hormone (LH) secretion in female rats. G. E. HOFFMAN*; T. GALAOR; F. K. SZABO; A. ADETOLA; C. BEST; K. SUBEDI; W. LE; T. USDIN; S. J. LEGAN. *Morgan State Univ., Univ. of Maryland, Morgan State Univ., NIH, Univ. of Kentucky.*

8:00 AAA10 **752.13** Microglia are pertially involved in the suppression by lipopolysaccharide of steroid-induced luteinizing hormone surge in ovariectomized rats. H. FUJIOKA*; T. FUNABASHI; T. AKEMA. *St. Marianna Univ. Sch. of Med.*

9:00 AAA11 **752.14** The dopamine is involved in the regulation of spontaneous ovulation and estrogens synthesis in the adult rat. B. VENEGAS MENESES*; N. ROSAS-MURRIETA; C. E. JUAREZ; F. PADILLA; J. MORAN; C. MORAN; A. HANDAL; R. DOMÍNGUEZ. *Benemerita Univ. Autónoma De Puebla, Sci. Inst., FES Zaragoza UNAM.*

10:00 AAA12 **752.15** Semaphorin7a signaling in periodical neuro-glial plasticity of the hypothalamic median eminence that underlies reproduction. P. GIACOBINI*; J. PARKASH; F. LANGLET; A. MESSINA; A. LOYENS; D. LEROY; S. GALLET; E. BALLAND; F. PRALONG; G. CAGNONI; L. TAMAGNONE; M. MAZZONE; R. PASTERKAMP; V. PREVOT. *Inserm U837, Univ. Hosp. and Fac. of Biol. and Med., Univ. of Torino - Dept. of Oncology, Vesalius Res. Center, VIB, Rudolf Magnus Inst. of Neuroscience, Univ. Med. Ctr. Utrecht.*

11:00 AAA13 **752.16** Noradrenaline modulates kisspeptin synthesis and release through alpha-1 adrenergic receptor in ovariectomized estradiol-primed rats. B. KALIL*; A. B. RIBEIRO; R. O. CAROLINO; C. M. LEITE; E. T. UCHOA; C. V. V. HELENA; J. A. RODRIGUES; L. L. K. ELIAS; J. A. ANSELMO-FRANCI. *Faculdade de Medicina de Ribeirão Preto (FMRP/USP), FORP-USP, FSU.*

POSTER

753. Neuroendocrine Anatomy and Physiology

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

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

8:00 AAA14-DP8 **753.01** Sex steroid receptor polymorphisms modulate gray matter volume in the human brain. T. NGUYEN*; P. J. SCHMIDT; J. S. KIPPENHAN; B. A. VERCHINSKI; M. SOTTILE; J. BLOCH; V. EKUTA; B. KOLACHANA; V. MATTAY; D. R. WEINBERGER; K. F. BERMAN. *Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth., Lieber Inst. of Brain Develop.*

9:00 AAA15 **753.02** Functional implications of Estrogen Receptor β posttranslational modifications in neurons. E. PINCETI*; N. N. MOTT; Y. R. RAO; T. R. PAK. *Loyola Univ. Chicago.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 AAA16 **753.03** SUMO1 expression in the hypothalamus of aged rats is regulated by 17β-estradiol. N. MOTT*; T. R. PAK. *Loyola Univ. Med. Ctr., Loyola Univ. Med. Ctr.*

11:00 AAA17 **753.04** The alternative splicing factor Nova1 is regulated by 17β-estradiol in the hypothalamus of aged female rats. C. L. SHULTS*; Y. S. RAO; T. R. PAK. *Loyola Univ. Chicago.*

8:00 AAA18 **753.05** Expression variations of chromogranin A and α1,2,4 GABAAR in discrete limbic and brainstem areas rescue cardiovascular alterations. E. AVOLIO; R. FACCIOLO; R. ALÒ; M. MELE; A. CANONACO; S. K. MAHATA; M. P. CANONACO*. *Univ. of Calabria, Univ. o Calabria, Hlth. Ctr. srl Biomed. and Nutritional Ctr., Univ. of California San Diego, Univ. Calabria.*

9:00 AAA19 **753.06** Steroidogenic acute regulatory protein expression & de novo estrogen biosynthesis in cerebrovascular endothelial cells of rats. A. K. PANDEY*; X. YIN; P. GRAMMAS; X. WANG. *TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER, Garrison Inst. on Aging Texas Tech. Univ. Hlth. Sci. Ctr.*

10:00 AAA20 **753.07** Pharmacological evidence that different ghrelin receptors activate autonomic centres in the medulla oblongata and spinal cord of the rat. S. KOSARI*; D. FERENS; L. RIVERA; R. PUSTOVIT; H. THOMAS; E. MONDOU; K. BAN; J. BROCK; J. FURNESS; B. CALLAGHAN. *Univ. of Melbourne, Monash Univ., Tranzyme Pharma.*

11:00 AAA21 **753.08** O-GlcNAc signaling in AgRP neurons regulates adipocyte browning and energy homeostasis. Z. LIU*; H. RUAN; M. O. DIETRICH; T. L. HORVATH; X. YANG. *Yale Univ. Sch. of Med.*

8:00 AAA22 **753.09** Somatostatin receptor sst_5 expressing neurons of the rat basal forebrain co-express the PDZ-motif containing sorting protein PIST. A. BHINDI*; H. JUN; H. KREIENKAMP; T. STROH. *Montreal Neurolog. Institute, McGill Univ., Univ. Hosp. Hamburg-Eppendorf.*

9:00 AAA23 **753.10** Localization of adipokinetic hormone (AKH) peptide, transcript, and its putative receptor in the sea hare, *Aplysia californica.* J. I. JOHNSON*; S. I. KAVANAUGH; P. TSAI. *Univ. of Colorado Boulder.*

10:00 AAA24 **753.11** Advanced pubertal timing in female rhesus macaques with neonatal amygdala lesions. S. B. STEPHENS*; J. RAPER; J. BACHEVALIER; K. WALLEN. *Emory Univ., Yerkes Natl. Primate Res. Ctr.*

11:00 AAA25 **753.12** Changes in SK3 channel gating may underlie afterhyperpolarization (AHP) enhancement during pregnancy in rat supraoptic nucleus (SON). L. WANG*; R. C. FOEHRING; G. CHANDAKA; W. E. ARMSTRONG. *Univ. of Tennessee Hlth. Sci. Ctr.*

8:00 AAA26 **753.13** ● The effects of the tricyclic antidepressant imipramine on body temperature and antidepressant-like behavior in rats: Association with c-Fos expression in the serotonergic neurons of the dorsal raphe nucleus. K. F. DADY*; A. QUACH; D. ZELENA; C. A. LOWRY. *Univ. of Colorado Boulder, Univ. of Colorado Boulder, Hungarian Acad. of Sci.*

9:00 BBB1 **753.14** Immunocytochemical localization of thyrotropin-releasing hormone (TRH)-immunoreactivity in the hypothalamus of neonatal chicks. S. KAWAKAMI*; A. FURUKAWA; T. BUNGO. *Hiroshima Univ. Grad. Sch. of Biosphere Sci.*

10:00 BBB2 **753.15** Subcellular distribution of somatostatin receptor subtype 1 in the arcuate nucleus of agonist injected rats. R. UMAR; T. STROH*. *Montreal Neurolog. Institute, McGill Univ.*

11:00 BBB3 **753.16** Neuroendocrine alterations produced by the environmental polychlorinated biphenyls toxins, impact differentially the hypothalamic PVN response of male and female rats. E. SANCHEZ JARAMILLO*; E. SANCHEZ-ISLAS; F. ROMERO; S. MURCIO-RAMÍREZ; G. GÓMEZ-GONZÁLEZ; V. JUÁREZ-GONZÁLEZ; P. GAYTAN; M. CURRAS-COLLAZO; P. I. JOSEPH-BRAVO; M. LEÓN-OLEA. *Inst. Nacional de Psiquiatria Ramon de La Fuente Muñiz, Inst. de Biotecnología - UNAM, Univ. of California, Inst. Nacional de Psiquiatria Ramon de La Fuente Muñiz, Inst. Nacional de Psiquiatria Ramon de La Fuente Muñiz.*

8:00 BBB4 **753.17** The arcuate nucleus participates in glucocorticod negative feedback. L. A. LEON*; D. HERRERA; M. C. BASUALDO; R. M. BUIJS. *Univ. Nacional Autónoma De México, Univ. Nacional Autónoma De México.*

9:00 BBB5 **753.18** ● Hyperimmune caprine serum - a multi-focal therapeutic strategy in early and late-stage Alzheimer's disease. S. HAQ*; J. OKSMAN; T. AHTONIEMI; M. CERRADA-GIMENEZ; K. LEHTIMAKI; J. WOLOSZYNEK; K. ETZEL; N. VARTIAINEN; D. MCINTOSH; C. MOORE; H. LOPEZ; M. HAQ. *Daval Intl. Ltd., Charles River Labs., Murigenics Inc., Daval Intl. Ltd., Portsmouth Hosp. NHS Trust, Maidstone and Tunbridge Hosp. NHS Trust.*

10:00 BBB6 **753.19** Epithelial Na+ channel (ENaC) expression in the supraoptic nucleus of the hypothalamus in the male rat in response to dietary NaCl intake. R. TERUYAMA*; N. MILLS; L. WILSON; M. HAQUE. *Louisiana State Univ.*

11:00 BBB7 **753.20** Role of BRL-50481 on TRH mRNA expression in PVN and nucleus accumbens and its association with anxiety and feeding behavior. M. VALDÉS*; E. ESTRADA; M. AMAYA; V. ALCÁNTARA; P. DE GORTARI. *Inst. Nacional De Psiquiatría Ramón De La Fuente Muñíz, Inst. Nacional de Psiquiatría Ramón de la Fuente Muñiz.*

8:00 BBB8 **753.21** Oxytocin receptor expression in the rodent central nervous system. M. MITRE*; S. NORDEN; R. C. FROEMKE; M. V. CHAO. *NYU Sch. of Med., NYU Sch. of Med., NYU Sch. of Med.*

POSTER

754. Aggression and Defensive Behavior

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

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

8:00 BBB9 **754.01** Aggression and anxiety during exposure predict behavioral responding during withdrawal from anabolic-androgenic steroid adolescent Syrian hamsters. L. A. RICCI*; T. R. MORRISON; R. H. MELLONI, Jr. *Northeastern Univ.*

9:00 BBB10 **754.02** Upstream D2 dopamine receptors modulate steroid-induced aggression. T. R. MORRISON*; L. RICCI; R. MELLONI, Jr. *Northeastern Univerisity.*

10:00 BBB11 **754.03** The electrophysiological profile of serotonin-sensitive hypothalamic neurons in adolescent steroid-treated hamsters (Preliminary data). R. W. SIKES*; T. R. MORRISON; R. H. MELLONI, Jr. *Northeastern Univ., Northeastern Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 BBB12 **754.04** Outcome of agonistic encounters is associated with alterations in the gonadotropin-inhibitory hormone (GnIH) neuronal system. K. J. JENNINGS*; D. J. PIEKARSKI; K. A. RUSSO; J. CHANG; H. WU; L. J. KRIEGSFELD. *Univ. of California, Berkeley.*

8:00 BBB13 **754.05** Acute fasting increases aggression in a songbird: seasonal changes and possible neuroendocrine mechanisms. H. B. FOKIDIS; C. MA; J. GRANADOS-SAMAYOA; N. H. PRIOR; M. D. TAVES; H. H. ADOMAT; E. S. GUNS; C. J. SALDANHA; K. K. SOMA*. *Univ. British Columbia, The Prostate Ctr. at Vancouver Gen. Hosp., American Univ.*

9:00 BBB14 **754.06** Oxytocin and male aggression: An intimate inverse relationship. F. CALCAGNOLI; S. F. DE BOER; M. ALTHAUS; J. M. KOOLHAAS; A. H. VEENEMA*; D. I. BEIDERBECK; I. D. NEUMANN. *Univ. of Groningen, Univ. Med. Ctr. Groningen, Boston Col., Univ. of Regensburg.*

10:00 BBB15 **754.07** A lack of serotonin 1B receptors during development results in aggressive and impulsive behavior. K. M. NAUTIYAL*; K. F. TANAKA; C. BLANCO; R. HEN; S. E. AHMARI. *Columbia Univ., Natl. Inst. for Physiological Sci., Columbia Univ. / New York State Psychiatric Inst.*

11:00 BBB16 **754.08** Effect of maternal and social isolation during postnatal pre-weaning period on the development of aggression and serotonin levels in prefrontal cortex, nucleus accumbens and, dorsal and medial raphe in the adult male rat. A. I. MELO*; A. P. HIDALGO-FLORES; F. CORONA; C. AGUILAR; M. FLORES-JIMÉNEZ; K. L. HOFFMAN; E. R. ESCARTIN-PÉREZ; B. FLORÁN-GARDUÑO; A. S. FLEMING; A. MARTÍNEZ. *CINVESTAV-Lab.Tlax.Univ.A.Tlax, Univ. Nacional Autónoma de México, CINVESTAV-IPN, Univ. of Toronto.*

8:00 BBB17 **754.09** Oxytocin reduces aggressive behavior in virgin female rats. T. R. DE JONG*; D. B. BEIDERBECK; I. D. NEUMANN. *Univ. of Regensburg.*

9:00 BBB18 **754.10** Reduced intermale aggression in progesterone receptor knock out (PRKO) male mice. D. LALITSASIVIMOL*; C. K. WAGNER. *Univ. At Albany.*

POSTER

755. Stress and Immunology

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

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

8:00 BBB19 **755.01** Exposure to an acute stressor modulates the NLRP3 inflammasome: A Potential mechanism for stress-induced sensitization of neuroinflammatory responses to a subsequent immune challenge. M. D. WEBER*; M. G. FRANK; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado.*

9:00 BBB20 **755.02** Glucocorticoids modulate the NLRP3 inflammasome in hippocampus and microglia *in vitro:* A mechanism of glucocorticoid-induced innate immune priming. M. G. FRANK*; S. A. HERSHMAN; M. D. WEBER; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado.*

10:00 BBB21 **755.03** Developmental differences in central cytokine responses and sickness behavior produced by LPS administration to adolescents and adults. D. LOVELOCK*; T. L. DOREMUS-FITZWATER; A. OKRAINETS; C. M. HUESTON; T. DEAK. *Binghamton Univ.*

11:00 BBB22 **755.04** Acute stress increases IL-1 protein expression within PVN microglia: A dual labeling immunofluorescence study. C. M. HUESTON*; J. M. HALL; L. M. SAVAGE; T. DEAK. *Binghamton Univ.*

8:00 BBB23 **755.05** Repeated social defeat causes memory impairments associated with increased cytokine expression and reduced neurogenesis in the hippocampus. D. B. MCKIM*; A. J. TARR; E. S. WOHLEB; J. F. SHERIDAN; J. P. GODBOUT. *The Ohio State Univ.*

9:00 BBB24 **755.06** Acute social defeat promoted anxiogenic macrophage recruitment in the brain of stress-sensitized mice. E. S. WOHLEB*; D. T. SHEA; D. B. MCKIM; A. J. TARR; J. F. SHERIDAN; J. P. GODBOUT. *The Ohio State Univ.*

10:00 BBB25 **755.07** Knock-down of interleukin-1 receptor type-1 (IL-1R1) on endothelial cells attenuated stress-induced neuroinflammation and anxiety-like behavior. J. F. SHERIDAN*; E. S. WOHLEB; J. PATTERSON; V. L. SHARMA; N. QUAN; J. P. GODBOUT. *The Ohio State Univ. Col. of Dent.*

11:00 BBB26 **755.08** Manic panic, risky business, and the source of the brain's fire: Brain region-specific impact of neuroinflammation on behaviors suggests novel mechanisms involved in neuropsychiatric disease. A. R. GERBER*; A. V. ROLAND; T. L. BALE. *Univ. of Pennsylvania.*

8:00 CCC1 **755.09** Colonic bacterial translocation is involved in the neuroinflammation detected in a depression-like model through activation of MAPK pathways. J. R. CASO*; I. GARATE; D. MARTIN-HERNANDEZ; S. R. MAUS; J. L. M. MADRIGAL; B. GARCIA-BUENO; L. ALOU; M. L. GOMEZ-LUS; J. C. LEZA. *Complutense Univ. of Madrid, CIBERSAM, Inst. de Investigacion Hosp. 12 de Octubre.*

9:00 CCC2 **755.10** Chronic stress alters LPS-induced microglial recruitment to prefrontal cortex. B. L. KOPP*; B. A. PACKARD; J. P. HERMAN. *Univ. of Cincinnati, Reading Campus, Univ. of Cincinnati, Reading Campus.*

10:00 CCC3 **755.11** Plasma brain-derived neurotropic factor (BDNF), cytokines, and BDNF promoter methylation as markers of stress reaction in mental and physical environments. G. SUZUKI*; M. NIBUYA; S. TOKUNO; Y. TAKAHASHI; K. MITANI; M. KAWASAKI; Y. TODA; T. TAKAHASHI; Y. TAKADA; H. INOUE; H. MATSUO; T. ISHIDA; T. MAKI; T. YAMAMOTO; T. YAMAMOTO; K. SHIMIZU; T. MARUYAMA; A. YOSHINO; G. TSUMATORI; S. TACHIBANA; S. NOMURA. *Military Med. Res. Unit, National Defense Med. Col., Natl. Def. Med. Col., Japan Self-Defense Force Central Hosp., the Med. Dept., Natl. Def. Med. Col., Natl. Def. Med. Col., Natl. Def. Med. Inst., Japan Self-Defense Force Central Hosp., Natl. Def. Med. Inst.*

11:00 CCC4 **755.12** The anti-inflammatory glucocorticoid, corticosterone, markedly augments systemic inflammatory responses to the nerve agent DFP in a mouse model of Gulf War Illness. K. A. KELLY; D. B. MILLER; S. M. LASLEY; M. A. FLETCHER; Z. BARNES; J. P. O'CALLAGHAN*. *Centers For Dis. Control and Prevention, Univ. of Illinois, Col. of Med., NOVA Southeastern Univ.*

8:00 CCC5 **755.13** Mechanisms of stress-enhanced fear learning, an animal model of post-traumatic stress disorder. M. E. JONES; C. L. LEBONVILLE; D. T. LYSLE*. *Univ. North Carolina.*

9:00 CCC6 **755.14** Increased cytokine levels in a rat model of PTSD and chronic pain. Y. ZHANG; C. D. SIMPSON-DURAND; R. M. GALLUCCI; K. M. STANDIFER*. *Univ. of Oklahoma HSC Col. of Pharm., Univ. Oklahoma Hlth. Sci. Ctr.*

10:00 CCC7 **755.15** Behavioral and immunological alterations following repeated exposure to a paired fighting social stress paradigm. A. J. TARR*; D. T. SHEA; E. S. WOHLEB; D. B. MCKIM; J. P. GODBOUT; J. F. SHERIDAN. *The Ohio State Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

756. Estrogen and Sex Differences

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

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

8:00 CCC8 **756.01** Timing and duration of estradiol treatment in a rat menopause model: Hypothalamic control of energy balance. B. PHAM; W. YIN; A. N. GARCIA; J. LIANG; N. DANG; H. M. TESFAMARIAM; B. A. KERMATH; A. WOLFE; A. C. GORE*. *Col. of Natural Science, UT Austin, Col. of Pharmacy, UT Austin, Psychology Department, UT Austin, Inst. for Neuroscience, UT Austin, Johns Hopkins Univ. of Med., Univ. of Texas at Austin.*

9:00 CCC9 **756.02** Estradiol-dependent actions of GALP in female rats: GALP-estradiol interactions at target sites of GALP neurons. G. S. FRALEY*. *Hope Col.*

10:00 CCC10 **756.03** Estrogen receptor alpha numbers in the ventromedial hypothalamus of estradiol-treated ovariectomized rats on a restricted feeding schedule. R. J. NAUKAM; M. L. ASKEW; J. A. SHELSTAD; K. S. CURTIS*. *Oklahoma State Univ. Ctr. For Hlth. Sci.*

11:00 CCC11 **756.04** The effects of estradiol and diet on energy homeostasis and hypothalamic cell proliferation in the adult female mouse. E. P. BLESS*; T. P. REDDY; K. D. ACHARYA; M. J. TETEL. *Wellesley Col.*

8:00 CCC12 **756.05** Effects of tickling on hormonal responses to restraint stress and conditioned fear in socially isolated rats. M. HORI; K. YAMADA*; J. OHNISHI; K. MURAKAMI; Y. ICHITANI. *Fndn. for Advancement of Intl. Sci., Univ. Tsukuba, Dept. of Food and Nutr. Tokyo Kasei Univ.*

9:00 DDD1 **756.06** ● Estrogen replacement therapy and weight loss in mice with surgical menopause. R. FONTANA; S. DELLA TORRE; V. BENEDUSI; A. MAGGI*. *Univ. Milan, Italian Inst. of Technol.*

10:00 DDD2 **756.07** Risk factors associated with increased sensitivity of the vomiting reflex in musk shrews: Females, motion sickness, and genetics. C. C. HORN*; K. MEYERS. *Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Cancer Inst., Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh.*

11:00 DDD3 **756.08** Timing and duration of estradiol treatment in a rat menopause model: Activity and diurnal rhythms. W. YIN*; A. N. GARCIA; N. DANG; X. WANG; H. M. TESFAMARIAM; J. LIANG; B. PHAM; A. CARROLL; A. C. GORE. *Col. of Pharmacy, UT Austin, Psychology Department, UT Austin, Col. of Natural Science, UT Austin, Inst. for Neurosci.*

8:00 DDD4 **756.09** ▲ High resolution multimodal imaging of emetic neural pathways: A combined cFos immunohistochemistry and 2-DG autoradiography study in musk shrews. S. J. DIENEL*; C. BOHAN; L. FARR; D. ROSENBERG; K. MEYERS; L. RINAMAN; F. J. JENKINS; D. P. HOLSCHNEIDER; C. C. HORN. *Univ. of Pittsburgh, Univ. of Pittsburgh Cancer Inst., Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh Cancer Inst., Univ. of Pittsburgh Sch. of Med., USC, Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Sch. of Med.*

9:00 DDD5 **756.10** Fear-cue inhibited feeding in male and female rats: Fos-induction within the central nucleus of the amygdala. C. J. REPPUCCI*; G. D. PETROVICH. *Boston Col.*

10:00 DDD6 **756.11** Menstrual-cycle dependent fluctuations in ovarian hormones affect emotional memory. J. BAYER*; H. SCHULTZ; M. GAMER; T. SOMMER. *Univ. Med. Ctr. Hamburg Eppendorf.*

POSTER

757. Feeding Hormones I

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

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

8:00 DDD7 **757.01** A conserved role for the VEGFR2 pathway in the regulation of food intake. A. E. VETETO*. *Univ. of Georgia.*

9:00 DDD8 **757.02** ▲ Melanin-concentrating hormone (MCH) neurons specific gene expression control reveals physiological role of MCH neurons *in vivo.* A. INUI; T. TSUNEMATSU; S. TABUCHI; A. SAKURAMOTO; K. F. TANAKA; A. YAMANAKA*. *Res. Inst. of Envrn. Medicine, Nagoya Univ., Res. Inst. of Envrn. Medicune, Nagoya Univ., Keio Univ.*

10:00 DDD9 **757.03** Effect of femproporex in body weight control of young mice. L. FERNANDES*; S. R. KAMEDA; L. M. SILVA; V. D'ALMEIDA. *UNIFESP.*

11:00 DDD10 **757.04** Compensatory feeding after reversing dehydration-anorexia: Is it analogous to glucoprivic or food deprivation-induced feeding? S. L. VARGAS*; A. G. WATTS. *USC.*

8:00 DDD11 **757.05** ▲ The cannabinoid CB1 antagonist AM 6527 reduces responding for food in a manner consistent with both satiation and attenuated reward value in rats. E. E. THOMPSON*; J. E. JAGIELO-MILLER; V. K. VEMURI; A. MAKRIYANNIS; P. J. MCLAUGHLIN. *Edinboro Univ. of Pennsylvania, Northeastern Univ.*

9:00 DDD12 **757.06** Daily sleep delay potentiates ingestion of cafeteria diet and modifies the orexigenic and alfa-msh systems. R. I. OSNAYA*; E. N. ESPITIA; M. VELASCO; C. ESCOBAR*. *UNAM.*

10:00 EEE1 **757.07** Novel non-metabolic mechanism of action underlying 2-mercaptoacetate (MA)-induced feeding. S. RITTER*; A. LI; Q. WANG; S. SIMASKO. *Washington State Univ.*

11:00 EEE2 **757.08** Novel GOAT inhibitor, LP479, reduces body weight & consumption of high fat diet in C57BL/6J male mice. Z. R. PATTERSON*; M. K. WELLMAN; A. B. ABIZAID. *Carleton Univ.*

8:00 EEE3 **757.09** The role of ghrelin in reinstatement of food seeking. V. ST-ONGE*; A. ABIZAID. *Carleton Univ.*

9:00 EEE4 **757.10** Sulfation of cholecystokinin is not necessary for reduction of meal size and prolongation of the intermeal interval by the peptide. M. WASHINGTON*; A. AGLAN; A. SAYEGH; J. REEVE JR. *Tuskegee Univ., Sch. of Med. Wayne State Univ., David Geffen UCLA Sch. of Med.*

POSTER

758. Feeding Hormones II

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

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

8:00 EEE5 **758.01** Effects of intense physical training and food restriction on the action of leptin mediated by melanin-concentrating hormone in the reproductive axis in female rats. R. J. SILVA; J. M. SILVA; L. V. SITA; J. C. BITTENCOURT*. *Inst. Biomed. Sci.*

9:00 EEE6 **758.02** Convergent changes in gene expression in the brains of myostatin and insulin-like growth factor 1 genetically-modified mice. S. DE LACALLE*; S. MURATA; U. MUÑOZ MORON; I. CASTILLA DE CORTAZAR. *Heritage Col. of Osteo. Med., Loyola Univ., CEU-San Pablo Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 EEE7 **758.03** A potential role for ventromedial hypothalamic interleukin-6 in amylin-induced enhancement of leptin signaling. A. A. DUNN-MEYNELL*; C. LE FOLL; M. JOHNSON; C. BOYLE; T. LUTZ; B. LEVIN. *VA Med. Ctr., NJ Med. Sch., Univ. of Zurich.*

11:00 EEE8 **758.04** Hyperglycemia and hyperinsulinemia increase BDNF mRNA expression in the VMH of female rats. A. L. NEGRON*; M. BEYMER; G. YU; M. ACOSTA-MARTÍNEZ. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

8:00 EEE9 **758.05** Hypothalamic cholinergic neurons contribute to the regulation of feeding behavior. J. JEONG*; D. LEE; Y. JO. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

9:00 EEE10 **758.06** Possible synergistic interaction between leptin and cholecystokinin receptors in satiety-controlling neurons. M. SHAHID*; K. TAKEUCHI; A. KATAOKA; M. IKEDA. *Univ. of Toyama.*

10:00 EEE11 **758.07** Leptin regulates GABAergic tone onto POMC neurons in a glucose-dependent manner. D. LEE*; J. JEONG; S. CHUN; Y. JO. *Albert Einstein Col. of Med., St. Jude Children's Res. Hosp.*

11:00 EEE12 **758.08** Galanin-like peptide (GALP) ameliorates hepatic lipid metabolism via the sympathetic nervous system. S. HIRAKO; H. KAGEYAMA*; F. TAKENOYA; E. OTA; N. WADA; S. SHIODA. *Showa university, Kiryu Univ., Hoshi university.*

8:00 EEE13 **758.09** ● Insulin-independent glucose transport in neurons by TCAP-1. Y. CHEN; L. DE LANNOY; M. XU; T. NG; R. DE ALMEIDA; D. BARSYTE-LOVEJOY; C. CASATTI; L. SONG; D. CHAND; D. A. LOVEJOY*. *Univ. of Toronto, Sao Paulo State Univ., Univ. of Toronto.*

9:00 EEE14 **758.10** Systemic leptin modulates the expression of E-cadherin and β-catenin in the ovary of dietary-induced obese infertile rats. E. OTUKONYONG*; S. OLUFUNKE; S. CAMPBELL; T. NATHANIEL. *East Tennessee State Univ., East Tennessee State Univ., East Tennessee State Univ., Univ. of South Carolina.*

10:00 EEE15 **758.11** Lmo4 is a metabolic responsive inhibitor of ptp1b that controls hypothalamic leptin action. N. R. PANDEY*; X. ZHOU; Z. QIN; T. ZAMAN; M. GOMEZ-SMITH; H. ANISMAN; J. BRUNEL; A. F. R. STEWART; H. CHEN. *Ottawa Hosp. Res. Institute, Neurosci., Ottawa Hosp. Res. Inst., Ottawa Hosp. Res. Institute, Univ. of Ottawa,, Carleton Univ., Aix-Marseille Univ., Univ. of Ottawa Heart Inst.*

11:00 EEE16 **758.12** The fructose intake during pregnancy promotes insulin resistance in the offspring. R. J. SILVA*; T. M. M. FUJJI; M. YAMADA; J. M. SILVA; M. M. ROGERO; J. C. BITTENCOURT. *Univ. of Sao Paulo, Univ. of Sao Paulo.*

8:00 EEE17 **758.13** Glutamatergic inputs from preoptic leptin receptor-expressing neurons stimulate thermoregulatory leptin receptor-expressing neurons in the dorsomedial hypothalamus. S. YU*; Y. JIANG; K. REZAI-ZADEH; A. ZSOMBOK; A. V. DERBENEV; H. MÜNZBERG. *Pennington Biomed. Res. Ctr., Tulane Univ.*

9:00 EEE18 **758.14** ▲ Effects of bupropion and naltrexone on the discriminative stimulus effects produced by 22 hours food deprivation. M. A. VANDEN AVOND*; C. A. TODDES; B. GOMER; B. BERTI; K. J. OLSON; A. T. SCHULTZ; A. R. JOHNSON; D. C. JEWETT. *Univ. Wisconsin-Eau Claire, Univ. Wisconsin-Eau Claire.*

10:00 EEE19 **758.15** Mechanisms underlying the pleiotropic actions of leptin in hypothalamic neurons. E. J. WAGNER*; C. MEZA; V. M. RIVAS. *Western Univ. of Hlth. Sci.*

11:00 EEE20 **758.16** Leptin receptor blockade in VTA modulates leptin-mediated STAT3 phosphorylation in the hypothalamus. P. J. SCARPACE; M. K. MATHENY; K. Y. E. STREHLER; N. TUMER*. *Univ. Florida, Univ. Florida, VA.*

POSTER

759. Feeding Hormones III

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

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

8:00 EEE21 **759.01** Systemic and central administration of valproic acid increases food intake in wild type and Wfs1-deficient mice. M. PUNAPART*; U. SOOMETS; E. VASAR; A. TERASMAA. *Univ. of Tartu, Univ. of Tartu.*

9:00 EEE22 **759.02** ▲ Effectiveness of four reinforcement programs to train stimulus control from interoceptive cues of food deprivation in rats. A. AGOITIA-POLO*; A. SANCHEZ-FUENTES; P. A. LUJAN-ZURITA; D. N. VELAZQUEZ-MARTINEZ. *Univ. Nacional Autonoma De Mexico.*

10:00 EEE23 **759.03** Inflammation-induced taste aversion and anorexia: The role of prostaglandins and MC4-receptors. A. NILSSON*; M. KRISTERSSON; M. WESTERDAHL; A. BLOMQVIST; D. ENGBLOM. *Linkoping Univ., Linköping Univ.*

11:00 EEE24 **759.04** Decreased white matter microstructural integrity in obese adults. J. V. ANTENOR-DORSEY*; S. A. EISENSTEIN; D. M. GREDYSA; J. R. RUTLIN; H. M. LUGAR; J. M. KOLLER; E. BIHUN; S. A. RANCK; A. ARBELAEZ; J. S. SHIMONY; T. HERSHEY. *Washington Univ., Washington Univ., Washington Univ.*

8:00 EEE25 **759.05** ▲ Differential attention of men and women to images of different categories of food. D. VELAZQUEZ-LOPEZ*; A. TOSCANO-ZAPIEN; M. HERNANDEZ; D. VELAZQUEZ-MARTINEZ. *Univ. Nacional Autónoma De México., Univ. Nacional Autonoma de México.*

9:00 EEE26 **759.06** ● Regulation of the endocannabinoid receptor CB1 level and synaptic plasticity in prefrontal cortex of food restricted rats. M. C. MOSTALLINO*; P. P. SECCI; V. M. MELIS; J. DI LUCENTE; G. TALANI; G. BIGGIO. *Natl. Res. Council, CNR, Univ. of Cagliari, Dept. of Life and Envrn. Sci.*

10:00 FFF1 **759.07** Changes in maze behavior and in the hippocampal electrical activity in "prediabetic" rats. T. SÁNCHEZ PÉREZ-PEÑA; D. PÉREZ-TORRES; P. PEREA-VALLE; M. VELÁZQUEZ-PANIAGUA; B. PRIETO-GOMEZ*. *Univ. Nacional Autonoma Mexico, Univ. Nacional Autonoma Mexico.*

11:00 FFF2 **759.08** The role of cannabinoids in the androgenic regulation of energy homeostasis. A. I. BORGQUIST*; D. NGO; C. MEZA; E. WAGNER. *Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci.*

8:00 FFF3 **759.09** ▲ Psychologycal evaluation of attitudes to food and pattern of food intake of young men and women. A. TOSCANO ZAPIEN*; M. HERNANDEZ; D. VELAZQUEZ-MARTINEZ. *Univ. Nacional Autónoma De México.*

9:00 FFF4 **759.10** Gene expression profiling of single amylin-activated neuron in the rat area postrema. C. LIBERINI*; C. N. BOYLE; T. A. LUTZ. *Univ. of Zurich.*

10:00 FFF5 **759.11** Fructose and the rat's sweet tooth. A. E. SCHLAPPAL; E. S. CAMPBELL; S. M. HUDGINS; T. W. CASTONGUAY*. *Univ. Maryland.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 FFF6 **759.12** Danshen Extract regulates energy metabolism by activating the AMPK-SIRT1-PGC-1α in Brown Adipose Tissue. Y. CHO*; C. KU; H. LEE; E. LEE. *Yonsei Univ., Severance Hosp. Integrative Res. Inst. for Cerebral & Cardiovasc. Diseases, Severance Hosp., Div. of Endocrinology, Dept. of Intrnl. Medicine, Yonsei Univ. Col. of Med.*

POSTER

760. Human Visual Perception and Imagery

Theme F: Cognition and Behavior

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

8:00 FFF7 **760.01** Seeing scenes: Complex topographic visual hallucinations evoked by cortical stimulation of the parahippocampal place area. P. MEGEVAND*; D. M. GROPPE; M. S. GOLDFINGER; I. DAVIDESCO; A. D. MEHTA. *Hofstra North Shore LIJ Sch. of Med. and Feinstein Inst. For Med. R, Princeton Univ.*

9:00 FFF8 **760.02** Persistent hemispheric differences in the perceptual selection of spatial frequencies. E. PIAZZA*; M. A. SILVER. *Univ. of California, Berkeley.*

10:00 FFF9 **760.03** Mental transformation of body parts in illusory visuotactile stimulation. T. SUDO*; T. HERAI; K. MOGI. *Keio Univ., Tokyo Inst. of technology, Sony Computer Sci. Laboratories, Inc.*

11:00 FFF10 **760.04** Motion parallax responses in scene and motion processing regions. A. SCHINDLER*; A. BARTELS. *Ctr. For Integrative Neuroscience, Univ. of Tuebingen.*

8:00 FFF11 **760.05** Humans possess density biases as a function of object size. M. PETERS*; L. SHAMS. *UCLA.*

9:00 FFF12 **760.06** The neural substrates of flexible perception. T. ISHIZU*. *Univ. Col. London, Japan Society for the Promotion of Sci.*

10:00 FFF13 **760.07** ● Capacity limit in simultaneous motion presentation; can gestalt psychology beat bilateral advantage? P. KÖRTVELYESSY*. *Univ. of Magdeburg, Dept. of Neurol., Hertie Inst. for clinical brain research.*

11:00 FFF14 **760.08** Neural basis of the perception of the optical illusions: an fMRI study. K. TABEI*; M. SATOH; H. KIDA; M. KIZAKI; H. SAKUMA; H. SAKUMA; H. TOMIMOTO. *Mie Univ., Mie university, Mie university, Mie university.*

8:00 FFF15 **760.09** The temporo-parietal junction contributes to global Gestalt perception - evidence from studies in chess experts. J. RENNIG*; M. BILALIć; E. HUBERLE; H. KARNATH; M. HIMMELBACH. *Div. of Neuropsychology, Ctr. of Neurology, Univ. of Tübingen, Dept. of Neuroradiology, Univ. of Tübingen, Neurol. and Neurorehabilitation Center, Luzerner Kantonsspital, Dept. of Psychology, Univ. of South Carolina.*

9:00 FFF16 **760.10** Neural processes and pseudo perceptual reversal: ERP and time-frequency analysis. Y. YOKOTA*; T. MINAMI; Y. NARUSE; S. NAKAUCHI. *NICT, TUT.*

10:00 FFF17 **760.11** The own body size effect on visual perception. B. VAN DER HOORT*; H. H. EHRSSON. *Karolinska Institutet.*

11:00 FFF18 **760.12** Evidence of top-down mediated ground suppression in extrastriate cortex. L. CACCIAMANI*; P. E. SCALF; M. A. PETERSON. *Univ. of Arizona, Univ. of Arizona.*

8:00 FFF19 **760.13** Scene motion responses in head- and eye-centered reference frames in PPA and TOS. D. KORKMAZ HACIALIHAFIZ*; A. BARTELS. *Ctr. For Integrative Neuroscience, Univ. of Tuebingen.*

9:00 FFF20 **760.14** Invisible contours generate real illusory motion. E. L. ALTSCHULER*; A. E. HUANG; H. J. KIM; A. J. HON; M. C. MCCORMICK; S. RONCATO. *New Jersey Med. Sch., New Jersey Med. Sch., Universit egli Studi di Padova.*

10:00 FFF21 **760.15** ▲ Visual processing of faces during inattentional blindness. J. P. SHAFTO*; M. PITTS. *Reed Col.*

11:00 FFF22 **760.16** Decoding mental images of remembered scenes using a model of early visual processing. T. NASELARIS*; C. OLMAN; D. E. STANSBURY; J. L. GALLANT; K. UGURBIL. *Med. Univ. of South Carolina, Univ. of Minnesota, Univ. of California, Berkeley, Univ. of California, Berkeley, Univ. of Minnesota.*

8:00 FFF23 **760.17** Long-range phase synchronization accounts for perceptual transitions but not for sustained visual representation. C. DEVIA MANRIQUEZ*; P. E. MALDONADO. *ICBM, Univ. of Chile, Biomed. Neurosci. Inst., CENEM.*

9:00 FFF24 **760.18** Dorsal and ventral streams in cortex: Ambient vs. focal processing. R. YOUNG*; B. SHETH. *Univ. of Houston Student, Univ. of Houston.*

10:00 FFF25 **760.19** Size estimation and attractiveness for self and other's body. F. PAVANI*; S. CANNELLA; A. FOLEGATTI; M. ZAMPINI. *Univ. of Trento.*

11:00 FFF26 **760.20** An fMRI study comparing perirhinal cortex, temporal pole, and hippocampus activation during complex object discrimination in younger adults. J. CARDOZA*; K. H. KAWA; W. T. ARNOLD; J. WALLENTIN-FLORES; M. D. BARENSE; L. RYAN. *Univ. of Arizona, Univ. of Toronto.*

8:00 GGG1 **760.21** Metacognitive judgments and eye movement patterns characterize object recognition in an impoverished context. T. ISHIKAWA*; M. TOSHIMA; V. GARKAVIJS; N. KANDO; K. MOGI. *Natl. Inst. of Informatics, Tokyo Inst. of Technol., Sony Computer Sci. Laboratories, Inc., The Grad. Univ. for Advanced Studies.*

9:00 GGG2 **760.22** Functional connectivity patterns predict face selectivity. L. GARRIDO; A. HOLMES; M. HOLLINSHEAD; K. NAKAYAMA*. *Harvard Univ.*

10:00 GGG3 **760.23** Clarity, fluency, and goodness-of-fit in visual perception and preference. J. SADR*. *Univ. of Lethbridge.*

11:00 GGG4 **760.24** Bringing the real world into the fMRI scanner: Real objects amplify the neural correlates of valuation compared to photos. J. C. SNOW*; A. RANGEL; J. C. CULHAM. *The Univ. of Western Ontario, Caltech.*

8:00 GGG5 **760.25** Thalamo-cortical alpha synchrony during human visual perception. T. STAUDIGL*; S. HANSLMAYR; J. VOGES; H. HINRICHS; F. C. SCHMITT; H. HEINZE; A. RICHARDSON-KLAVEHN; T. ZAEHLE. *Univ. of Konstanz, Otto-von-Guericke Univ.*

9:00 GGG6-DP9 **760.26** ▲ Studying visual perception of mexican prehispanic painting. L. JIMENEZ-DABDOUB*; R. CRUZ-GARDUÑO; I. CAMPOS RODRÍGUEZ; E. LÓPEZ VALERIO; M. GARCÍA-AGUILERA; B. MÉNDEZ-AMBROSIO; M. GARCÍA AGUILERA; F. F. DE-MIGUEL. *Inst. De Fisiología Celular, UNAM, Museo de Tlatelolco.*

10:00 GGG7 **760.27** A Ribbon Metric for solving the V1/V2/V3 EEG inverse problem. S. KLEIN*; T. CARNEY; D. BRESSLER; J. DING. *UC Berkeley.*

11:00 GGG8 **760.28** ● Inter-subject correlation of fMRI activity reveals comprehension of TV programs. Y. SAWAHATA*; K. KOMINE; N. HIRUMA; K. AIZAWA. *NHK (Japan Broadcasting Corporation), The Univ. of Tokyo.*

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

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POSTER

761. Medial Temporal Lobe: Memory Functions - Neuropsychology

Theme F: Cognition and Behavior

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

8:00 GGG9 **761.01** Age-related decreases in mnemonic activity in the medial temporal lobe. V. K. BOUCQUEY*; S. M. STARK; M. A. YASSA; C. E. L. STARK. *Univ. of California, Irvine, Ctr. for the Neurobio. of Learning and Memory, Johns Hopkins Univ.*

9:00 GGG10 **761.02** Impaired behavioral temporal pattern separation in older adults. J. M. ROBERTS*; M. J. LY; M. A. YASSA. *Johns Hopkins Univ.*

10:00 GGG11 **761.03** Integrity of limbic tracts contributes to episodic memory performance across the lifespan. I. J. BENNETT*; D. J. HUFFMAN; C. E. L. STARK. *Univ. of California, Irvine, Univ. of California, Irvine.*

11:00 GGG12 **761.04** ▲ Post-study caffeine administration enhances behavioral pattern separation in humans. D. BOROTA; E. MURRAY; J. WATABE; M. LY; G. KECELI; J. TOSCANO; M. A. YASSA*. *Johns Hopkins Univ., Johns Hopkins Univ.*

8:00 GGG13 **761.05** Multivariate pattern analysis of category representation in the human medial temporal lobe. D. J. HUFFMAN*; C. E. L. STARK. *Univ. of California, Irvine, Ctr. for the Neurobio. of Learning and Memory.*

9:00 GGG14 **761.06** Distraction improves memory precision over short delays in young and older adults. L. YEE*; A. MAAß; E. DÜZEL. *Inst. of Cognitive Neurol. and Dementia Res., German Ctr. for Neurodegenerative Dis. (DZNE), UCL Inst. for Cognitive Neurosci.*

10:00 GGG15 **761.07** A division of labor in the medial temporal lobe: Pattern separation of object identity vs. spatial location. Z. REAGH*; M. A. YASSA. *Johns Hopkins Univ.*

11:00 GGG16 **761.08** Spared spatial mental imagery in patients with hippocampal lesions. S. KIM*; G. BORST; W. L. THOMPSON; R. O. HOPKINS; S. M. KOSSLYN; L. R. SQUIRE. *Veterans Affairs San Diego Healthcare Syst., UCSD, Univ. Paris Descartes, Harvard Univ., Brigham Young Univ., Intermountain Med. Ctr., Minerva Univ., UCSD, UCSD.*

8:00 GGG17 **761.09** Lesion etiology determines memory performance following hippocampal damage. C. FINKE; N. E. ESFAHANI; M. BRAUN; F. OSTENDORF; E. DÜZEL; H. R. HEEKEREN; D. HASPER; C. STORM; C. J. PLONER*. *Charité, DZNE, UCL, Free Univ. Berlin.*

9:00 GGG18 **761.10** High-resolution fMRI reveals amygdala and hippocampal dentate/CA3 dynamics during emotional pattern separation. S. L. LEAL*; S. K. TIGHE; C. K. JONES; M. A. YASSA. *Johns Hopkins Univ., Johns Hopkins Sch. of Med., Russell H. Morgan Dept. of Radiology and Radiological Sci., Kennedy Krieger Inst.*

10:00 GGG19 **761.11** Intact face recognition memory after hippocampal lesions. C. N. SMITH*; R. O. HOPKINS; L. R. SQUIRE. *UCSD, Veteran Affairs San Diego Healthcare Syst., Brigham Young Univ., Intermountain Med. Ctr., UCSD.*

11:00 GGG20 **761.12** ▲ Behavioral pattern separation deficits in athletes with mild traumatic brain injury. S. S. JI*; M. LY; E. MURRAY; M. A. YASSA. *Johns Hopkins Univ.*

8:00 GGG21 **761.13** Efficiency and reliability of a behavioral pattern separation task for human hippocampal function. C. P. WU*; C. E. L. STARK. *Univ. of California, Irvine.*

9:00 GGG22 **761.14** Impaired medial perirhinal cortex functioning twelve years preceding diagnosis of Alzheimer's disease. D. I. HIRNI*; S. L. KIVISAARI; A. U. MONSCH; J. REINHARDT; S. ULMER; C. STIPPICH; K. I. TAYLOR. *Memory Clinic, Univ. Ctr. for Med. of Aging Basel (UAB), Felix-Platter Hosp., Univ. of Basel, Ctr. for Speech, Language and the Brain, Dept. of Exptl. Psychology, Dept. of Radiology, Div. of Diagnos. and Interventional Neuroradiology Univ. of Basel Hosp., Inst. of Neuroradiology, Univ. Hosp. Schleswig-Holstein, Med. Radiological Inst. (MRI), 4Department of Radiology, Div. of Diagnos. and Interventional Neuroradiology Univ. of Basel Hosp.*

10:00 GGG23 **761.15** Neurovascular hippocampal plasticity after aerobic exercise in old age. A. MAAß*; S. DÜZEL; M. GÖRKE; A. BECKE; U. SOBIERAY; M. LÖVDEN; U. LINDENBERGER; L. BÄCKMAN; R. BRAUN-DULLAEUS; D. AHRENS; H. HEINZE; N. MÜLLER; E. DÜZEL. *Otto-von-Guericke Univ. Magdeburg, German Ctr. for Neurodegenerative Dis., Max Planck Inst. for Human Develop., Max Planck Inst. for Human Develop., Karolinska Inst., Otto-von-Guericke Univ., Otto-von-Guericke-University Magdeburg, Leibniz Inst. for Neurobio.*

11:00 GGG24 **761.16** The Baycrest Mask Fit Study: Dissociating retrieval processes within recognition memory for a scripted naturalistic event. M. ARMSON*; H. ABDI; B. LEVINE. *Baycrest Hosp., The Univ. of Texas at Dallas.*

8:00 GGG25 **761.17** Neural correlates of conceptual priming in amnestic mild cognitive impairment. S. NEGASH*; D. KLIOT; L. MANCUSO; S. E. ARNOLD; D. A. WOLK. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

9:00 GGG26 **761.18** Thalamic and mammillary body damage in developmental amnesia. A. M. DZIECIOL*; K. S. SALEEM; R. C. SAUNDERS; J. BACHEVALIER; M. MISHKIN; F. VARGHA-KHADEM. *UCL Inst. of Child Hlth., Natl. Inst. of Hlth., Emory Univ.*

10:00 GGG27 **761.19** Use of the historical present in the narratives of patients with hippocampal amnesia. J. C. KURCZEK*; M. DUFF. *Univ. of Iowa, Univ. of Iowa.*

POSTER

762. Human Cognition: Attention

Theme F: Cognition and Behavior

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

8:00 GGG28 **762.01** Real time motion feedback reduces motion-induced artifact in functional MRI. S. CARPENTER*; B. ROONEY; C. STEVENS; J. XU; J. T. NIGG; D. FAIR. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

9:00 GGG29 **762.02** An alerting function of the anterior insular cortex. S. HAN*; R. MAROIS. *Vanderbilt Univ.*

10:00 GGG30 **762.03** Relating fMRI signals to impaired attention during absence seizures. R. KIM*; J. N. GUO; S. JHUN; H. MISTRY; W. R. XIAO; A. KUNDISHORA; G. CASTELLUCCI; S. BRAUN; J. RODRIQUEZ-FERNANDEZ; X. BAI; M. NEGISHI; C. BAILEY; M. J. CROWLEY; R. T. CONSTABLE; L. C. MAYES; H. BLUMENFELD. *Yale Univ.*

11:00 GGG31 **762.04** Developing a task to investigate conscious report across sensory modalities. W. R. XIAO*; W. C. CHEN; F. L. HELL; R. E. WATSKY; P. D. GUILLOD; N. TSAI; L. S. MARTIN; M. W. YOUNGBLOOD; R. M. ARONBERG; C. A. BAILEY; M. J. CROWLEY; R. N. VAN DEN HONERT; A. D. ENGELL; J. L. GERRARD; D. D. SPENCER; L. C. MAYES; G. MCCARTHY; H. BLUMENFELD. *Yale Univ., Yale Univ., Yale Univ., Yale Univ., Yale Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

8:00 GGG32 **762.05** Task performance is related to EEG signals during childhood absence seizures. J. N. GUO*; R. KIM; S. JHUN; H. MISTRY; W. R. XIAO; A. KUNDISHORA; G. CASTELLUCCI; S. BRAUN; J. RODRIGUEZ-FERNANDEZ; X. BAI; M. NEGISHI; C. BAILEY; M. J. CROWLEY; R. T. CONSTABLE; L. C. MAYES; H. BLUMENFELD. *Yale Univ.*

9:00 GGG33 **762.06** Cholinergic control of attention and resistance to distractors: Evidence from Parkinson's disease patients with reduced cortical cholinergic innervation. C. LUSTIG*; K. KIM; T. WU; N. SYED; M. MüLLER; M. SARTER; N. BOHNEN. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Neurol. Service and GRECC, VAAAHS.*

10:00 GGG34 **762.07** Abnormally prolonged event-related brain response to visual distractors in children with autism spectrum conditions and in their unaffected siblings. M. K. BELMONTE; M. ZINNI*; M. WESTERFIELD. *The Groden Ctr., Nottingham Trent Univ., UCSD, UCSD*.

11:00 GGG35 **762.08** A randomized controlled trial investigating the effects of the New Zealand Green Lipped Mussel (Perna canaliculus (PCSO-524®), on the behaviour, cognition, genetics, functional imaging and electrophysiology of children and adolescents (aged 6-14 years) experiencing clinical and sub-clinical levels of hyperactivity and inattention. J. D. KEAN; L. DOWNEY*; C. STOUGH. *Swinburne Univ., Swinburne Univ.*

8:00 GGG36 **762.09** Evidence of functional activation differences in attention networks between ADHD with and without a reading disability. B. MOHL*; D. D. GORADIA; R. WHITE; D. KHATIB; U. RAJAN; J. E. CASEY; V. A. DIWADKAR; J. A. STANLEY. *Wayne State Univ., Univ. of Windsor.*

9:00 GGG37 **762.10** The impact of attentional problems on anxiety levels in adolescents on the fragile X spectrum. J. BURRIS*; S. KIM; S. M. RIVERA. *Univ. of California, Davis, Univ. of California, Davis.*

10:00 GGG38 **762.11** Leveraging pleiotropy with bipolar and associated disorders to improve discovery of genetic associations in ADHD. A. J. SCHORK*; W. K. THOMPSON; V. ZUBER; F. BETTELLA; S. V. FARAONE; T. L. JERNIGAN; O. A. ANDREASSEN; A. M. DALE. *UC San Diego, UC San Diego, Univ. of Oslo, SUNY Upstate Med. Univ.*

11:00 GGG39 **762.12** The impact of sex on white matter integrity in adolescents with attention-deficit/hyperactivity disorder. J. B. KING*; D. YURGELUN-TODD; J. DIMUSIO; A. STOECKEL; M. LOPEZ-LARSON. *Univ. of Utah, Univ. of Utah, VISN 19 MIRECC.*

8:00 GGG40 **762.13** ▲ The use exergaming for children with attention deficit and hyperactivity disorder. F. B. CARDOSO*; A. MIGUEL; I. LIMA SILVA; E. DIAS JUNIOR; L. FRAGEL-MADEIRA; A. SHOLL-FRANCO. *UFRJ, Univ. Federal do Rio de Janeiro, Univ. Federal Fluminense.*

9:00 GGG41 **762.14** Differential visual spatial attention in neurodevelopmental disorders: An event-related brain potential study comparing autism, Williams syndrome and typical development. M. ZINNI; M. WESTERFIELD; A. BALLANTYNE; D. TRAUNER; U. BELLUGI; J. TOWNSEND*. *UCSD, UCSD, The Salk Inst.*

10:00 GGG42 **762.15** ● Spatial cognitive function of the right insula: A study with stroke survivors. K. S. PODDAR; P. CHEN*. *Kessler Fndn., Kessler Fndn. Res. Ctr., Univ. of Medine and Dent. of New Jersey.*

POSTER

763. Mechanisms of Attention

Theme F: Cognition and Behavior

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

8:00 GGG43 **763.01** Neural correlates of "flow". K. YUN*; S. DOH; E. CARRUS; S. SHIMOJO. *Caltech, Miyagi Univ.*

9:00 GGG44 **763.02** Impact of sustained attention on difference between visual and auditory stimuli. A. KIMURA*; A. FUKUSHIMA; M. TANAKA; M. TANAKA; T. WAKAMURA; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ., Kyoto Univ.*

10:00 GGG45 **763.03** Differential hemispheric asymmetries in posterior parietal cortex during long-term memory guided attention and visually guided attention. M. L. ROSEN*; C. E. STERN; J. D. BIRELEY; S. W. MICHALKA; K. J. DEVANEY; L. KONG; D. C. SOMERS. *Boston Univ., Boston Univ., Boston Univ., Boston Univ.*

11:00 GGG46 **763.04** Rapid guidance of visual search by object categories. R. WU*; R. NAKO; M. EIMER. *Brain and Cognitive Sci., Birkbeck, Univ. of London.*

8:00 GGG47 **763.05** Advice for the casual athlete's mind: Brain activity associated with nonexpert golfers' best putts. M. W. MILLER*; F. DYKE; M. M. GODWIN; P. GOEL; J. REHM; J. C. RIETSCHEL. *Auburn Univ., Veterans' Hlth. Admin.*

9:00 GGG48 **763.06** Selective auditory attention modulates peripheral cochlear responses through suppression of unattended signals. S. SRINIVASAN*; C. SPANKOVICH; A. KEIL; C. CERWONKA; K. STRATIS; A. F. OSBORNE; D. W. SMITH. *Univ. Florida, Univ. Florida, Univ. Florida, Univ. Florida, Univ. Florida.*

10:00 HHH1 **763.07** High-density EEG study of cue-evoked preparatory activity in a cued Stroop task. C. WANG*; M. DING; B. M. KLUGER. *Univ. of Florida, Univ. of Colorado.*

11:00 HHH2 **763.08** Measuring the attentional field in healthy and pathological condition. L. PISELLA*; A. Z. KHAN; R. SALEMME; Y. ROSSETTI. *CRNL.*

8:00 HHH3 **763.09** The neural basis of temporal individuation and its capacity limits in the human brain. C. NAUGHTIN*; B. J. TAMBER-ROSENAU; P. E. DUX. *Sch. of Psychology, The Univ. of Queensland, Dept. of Psychology, Vanderbilt Univ.*

9:00 HHH4 **763.10** Brain structures modulating alpha oscillations in anticipatory visual attention: A simultaneous fMRI-EEG study. Y. LIU*; J. BENGSON; H. HUANG; G. R. MANGUN; M. DING. *Univ. of Florida, Ctr. for Mind and Brain, Univ. of California, Davis.*

10:00 HHH5 **763.11** Implicit vs. explicit suppression of irrelevant spatial locations. R. E. GWINN; A. B. LEBER*. *The Ohio State Univ.*

11:00 HHH6 **763.12** Acute effects of nicotine on neural activity related to attentional load. C. M. THIEL*; T. P. K. BRECKEL. *Univ. of Oldenburg.*

8:00 HHH7 **763.13** Serial allocation of visual attention in extrastriate cortex during simultaneous monitoring of multiple locations: A time-resolved fMRI study. P. E. SCALF*; E. ST. JOHN-SAALTINK; M. BARTH, PhD; H. LAU; F. DE LANGE. *Univ. of Arizona, Donders Inst., Columbia Univ.*

9:00 HHH8 **763.14** Sensorimotor (delta-beta) coupled oscillations underlie temporal prediction accuracy. L. H. ARNAL*; K. DOELLING; D. POEPPEL. *New York Univ., New York Univ.*

10:00 HHH9 **763.15** Attention-dependent binding of target items to a hollow shape underlies multiple object tracking performance. C. MERKEL*; C. M. STOPPEL; J. HOPF; H. HEINZE; S. HILLYARD; M. A. SCHOENFELD. *Otto-von-Guericke Univ., Leibniz-Institut for Neurobio., UCSD.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 HHH10 **763.16** Response selection complexity affects quantity and quality of cortical activation patterns. W. E. HUDDLESTON*; K. M. KUNOWSKI. *Univ. Wisconsin - Milwaukee.*

8:00 HHH11 **763.17** Effect on brain function in inhibitory control during go/no-go tasks caused by changes in difficulty. I. SUGITA*; A. FUKUSHIMA; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ.*

9:00 HHH12 **763.18** Task-related changes in functional properties of the human brain network. T. KIDA*; E. TANAKA; R. KAKIGI. *Waseda Inst. for Advanced Study, Waseda Univ., Natl. Inst. for Physiological Sci.*

10:00 HHH13 **763.19** Lateralization in alpha-band neural synchronization predicts the locus and spatial distribution of attention. A. IKKAI-WOODBURY*; S. DANDEKAR; C. E. CURTIS. *Johns Hopkins Univ., New York Univ., New York Univ.*

11:00 HHH14 **763.20** Neural correlates of age-related changes in fluctuations of attention. D. A. ZIEGLER*; M. T. RUBENS; J. JANOWICH; T. WARBRICK; T. P. ZANTO; A. GAZZALEY. *UCSF, UCSF, Univ. of Reading, UCSF, Res. Ctr. Juelich.*

POSTER

764. Inhibitory Control II

Theme F: Cognition and Behavior

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

8:00 HHH15 **764.01** Neural underpinnings of cognitive control in methamphetamine dependent individuals. K. M. HARLE*; P. SHENOY; A. J. YU; J. L. STEWART; M. WITTMANN; S. F. TAPERT; M. P. PAULUS. *UCSD, UCSD, Inst. for Frontier Areas of Psychology and Mental Hlth.*

9:00 HHH16 **764.02** ● Differential functional abnormalities associated with stopping and shifting in Obsessive Compulsive Disorder. S. MOREIN-ZAMIR*; V. VOON; C. DODDS; A. SULE; J. VAN NIEKERK; B. J. SAHAKIAN; T. W. ROBBINS. *Univ. of Cambridge, Behavioural and Clin. Neurosci. Inst., GlaxoSmithKline Pharmaceuticals, South Essex Partnership Trust, Univ. of Cambridge.*

10:00 HHH17 **764.03** Frontal-hippocampal connectivity differentiates successful and unsuccessful inhibition of intrusive memory. T. W. SCHMITZ*; B. J. LEVY; M. C. ANDERSON. *Med. Res. Council, Univ. of San Francisco.*

11:00 HHH18 **764.04** Medial prefrontal cortex and prolonged reaction time: The role of anticipatory and stimulus-elicited conflict. S. HU*; S. ZHANG; C. R. LI. *Yale Univ.*

8:00 HHH19 **764.05** The will to persevere induced by electrical stimulation of the human anterior cingulate cortex. J. PARVIZI*; V. RANGARAJAN; N. DESAI; W. SHIRER; M. GREICIUS. *Stanford Univ., Stanford Human Intracranial Cognitive Electrophysiology Program (SHICEP), Stanford Human Intracranial Cognitive Electrophysiology Program (SHICEP).*

9:00 HHH20 **764.06** Serotonergic modulation of global brain dynamics: Changes in global dynamics after Psilocybin. P. J. HELLYER*; R. LEECH; G. SCOTT; D. J. SHARP; M. SHANAHAN; D. ERRITZOE; D. J. NUTT; R. CARHART-HARRIS. *Imperial Col. London, Imperial Col. London, Imperial Col. London.*

10:00 HHH21 **764.07** When invisible is better than visible: Unconscious associative learning of control demands. A. A. FAROOQUI*; T. MANLY. *MRC-Cognition & Brain Sci. Unit.*

11:00 HHH22 **764.08** Midfrontal conflict-related theta power reflects endogenous neural oscillations. M. X. COHEN*; T. DONNER. *Univ. Amsterdam.*

8:00 HHH23 **764.09** The rise and fall of corticomotor excitability during inhibition and selective reinitiation of prepared actions. H. J. MACDONALD*; J. P. COXON; C. M. STINEAR; W. D. BYBLOW. *The Univ. of Auckland, Ctr. for Brain Res.*

9:00 HHH24 **764.10** Ruminative subtypes, perseverative thinking, and impulsivity. J. A. VALDERRAMA*; R. MIRANDA. *Hunter Col.*

10:00 HHH25 **764.11** The role of right prefrontal cortex in response inhibition: Interfering with action restraint and action cancellation using transcranial magnetic stimulation (TMS). F. DAMBACHER*; A. T. SACK; J. LOBBESTAEL; A. ARNTZ; S. BRUGMAN; T. SCHUHMANN. *Maastricht Univ., Maastricht Brain Imaging Ctr., Maastricht Univ.*

11:00 HHH26 **764.12** Spontaneous pre-stimulus fluctuations in the activity of right fronto-parietal areas influence inhibitory control performance. C. F. CHAVAN*; A. L. MANUEL; M. MOUTHON; L. SPIERER. *Lab. For Cognitive and Neurolog. Sciences, Univ. of Fribourg, Lab. of Cognitive Neurorehabilitation, Med. school, Univ. of Geneva.*

8:00 HHH27 **764.13** Chronometric electrical stimulation of right inferior frontal gyrus enhances motor braking. C. R. CONNER; J. R. WESSEL; A. R. ARON; N. TANDON*. *Univ. Texas Med. Sch., UCSD.*

9:00 HHH28 **764.14** Task representation and control in human frontoparietal and visual cortex. Y. EREZ*; J. DUNCAN. *MRC Cognition and Brain Sci. Unit.*

10:00 HHH29 **764.15** Context-specific dynamic causal interactions within the frontal-cingulate-parietal network during cognitive control. W. CAI*; T. CHEN; S. RYALI; V. MENON. *Stanford Univ. Sch. of Med.*

11:00 HHH30 **764.16** Impulsivity and fronto-parietal activity contribute to choking under pressure due to monetary incentives. T. LEE*; S. GRAFTON. *UC Santa Barbara.*

8:00 HHH31 **764.17** Unexpected events evoke global motor suppression. J. R. WESSEL*; A. R. ARON. *UC San Diego.*

9:00 HHH32 **764.18** A supramodal inhibition process supports the inhibition of motor action and memory retrieval. A. C. SANCHES FERREIRA*; T. W. SCHMITZ; M. ANDERSON. *Univ. of Granada, MRC-CBSU.*

10:00 HHH33 **764.19** The error-related negativity is greater for subtractive corrections than additive corrections: The error related negativity is greater for commission than omission errors: Evidence for a role for dorsal anterior cingulate cortex in error inhibition. E. Y. HOCHMAN*; A. R. VAIDYA; L. K. FELLOWS. *Montreal Neurolog. Institute/Neuropsychology Unit.*

11:00 HHH34 **764.20** Is response time an accurate index of response conflict? A novel test of the conflict monitoring model of cognitive control. D. H. WEISSMAN*; J. CARP. *Univ. Michigan.*

8:00 HHH35 **764.21** Anticipating conflict: Neural correlates of estimated probability of the stop signals - P(Stop) - in a stop signal task. J. S. IDE*; S. HU; P. SHENOY; A. J. YU; C. R. LI. *Univ. Federal De Sao Paulo (UNIFESP), Yale Univ., UCSD.*

9:00 HHH36 **764.22** Male finger ratio reveals susceptibility to impulsivity modulation by erotic images. Y. CHANG*; J. YU; P. TSENG; O. J. TZENG; D. L. HUNG; N. G. MUGGLETON; C. JUAN. *Inst. of Cognitive Neuroscience, NCU.*

10:00 HHH37 **764.23** Premenstrual dysphoric disorder is associated with enhanced conflict processing in the brain. Y. CHEN; J. HSIEH; T. SU; H. CHAO; C. TU*; C. LI; P. LIN; H. HUANG; C. LEE; D. M. NIDDAM. *Inst. of Brain Sci., Integ Brain Resch Lab., Ctr. for Neuropsychiatric Res., Dept. of Psychiatry, Dept. of Obstetrics and Gynecology, Dept. Educ. and Res., Brain Res. Ctr.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 HHH38 **764.24** Behavioral disinhibition affects spatial learning in a mouse model of the cerebellar degeneration. J. TUMA*; J. CENDELIN; F. VOZEH. *Fac. of Med. In Pilsen, Charles Univ., Fac. of Med. In Pilsen, Charles Univ.*

POSTER

765. Individual Differences: Cognition

Theme F: Cognition and Behavior

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

8:00 HHH39 **765.01** Model-based functional brain connectivity. O. MIRANDA DOMINGUEZ*; B. MILLS; P. CARY; C. KROENKE; K. GRANT; D. FAIR. *OHSU.*

9:00 HHH40 **765.02** Representation of cognitive functions in human prefrontal cortex - an MRI-based lesion-symptom mapping study. E. ROGGENHOFER*; S. POPPITZ; M. USSAT; A. VILLRINGER; B. PLEGER. *Max Planck Inst. For Human Cognitive and Brain Sci., Univ. Clin. Leipzig.*

10:00 HHH41 **765.03** Are intrinsic connectivity networks stable individual differences? Twin and retest samples at rest and across tasks. A. W. MACDONALD*, III; C. MOODIE; A. POPPE; K. WISNER. *Univ. Minnesota, Univ. Minnesota.*

11:00 HHH42 **765.04** Resting-state MRI in adolescents: Relation of functional connectivity to cognitive abilities and educational outcomes. J. LEONARD*; A. S. FINN; A. P. MACKEY; J. SALVATORE; C. GOETZ; J. D. GABRIELI; S. WHITFIELD-GABRIELI. *MIT Brain and Cognitive Sci.*

8:00 HHH43 **765.05** Structural plasticity of the frontal and parietal regions induced by abacus training in children: A combined VBM and DTI study. F. CHEN*; Y. LI; Y. HU. *Physics Department, Zhejiang Univ.*

9:00 HHH44 **765.06** Intellectual changes and structural network development during adolescence. M. M. G. KOENIS; R. M. BROUWER; M. P. VAN DEN HEUVEL; R. C. W. MANDL; I. L. C. VAN SOELEN; R. S. KAHN; D. I. BOOMSMA; H. E. HULSHOFF POL*. *Rudolf Magnus Inst. of Neuroscience, Univ. Med. Ctr., VU Univ. Amsterdam.*

10:00 HHH45 **765.07** It matters when you start: The age of onset of music training predicts brain anatomy. Y. WANG*; X. LEI; B. ZHU; Q. LIU; Q. DONG. *State Key Lab. of Cognitive Neurosci. and Learning, McGovern Inst. for Brain Research, Massachusetts Inst. of Technol.*

11:00 HHH46 **765.08** Relating verbal fluency to developing structure in the brain. M. R. GONZALEZ; K. S. MADSEN; S. L. ARCHIBALD; A. SKIMMINGE; A. M. DALE; W. F. C. BAARÉ; T. L. JERNIGAN*. *UCSD, Copenhagen Univ. Hosp., Ctr. for Integrated Mol. Brain Imaging, UCSD, UCSD, UCSD, UCSD.*

8:00 III1 **765.09** Predicting individual differences in the impact of multisensory, single-trial exposure upon subsequent object recognition. A. THELEN*; M. M. MURRAY. *Ctr. Hospedalier Universitaire Vaudois.*

9:00 III2 **765.10** Laterality in visuospatial attention. I. GALAN-LOPEZ; Y. DEL RÍO-PORTILLA*. *UNAM.*

10:00 III3 **765.11** ▲ Genetic effects of DRD4 VNTR on brain cortical thickness and resting-state functional connectivity strength and regional homogeneity in healthy young Chinese adults. X. LEI*; M. XIA; C. CHEN; C. CHEN; Y. WANG; J. LI; R. MOYZIS; G. XUE; Y. HE; Q. DONG. *Beijing Normal Univ., The Chinese Acad. of Sci., Univ. of California, Irvine, Univ. of California, Irvine.*

11:00 III4 **765.12** Automatic decomposition of structural MR images in 484 healthy subjects across the lifespan identifies a transmodal network related to Alzheimer's disease and early-onset schizophrenia. G. DOUAUD*; A. GROVES; L. WESTLYE; A. M. FJELL; C. K. TAMNES; A. ENGVIG; K. B. WALHOVD; A. JAMES; A. GASS; A. U. MONSCH; P. M. MATTHEWS; S. SMITH; H. JOHANSEN-BERG. *FMRIB, Univ. Oxford, KG Jebsen Ctr. for Psychosis Research, Oslo Univ. Hosp., Ctr. for the Study of Human Cognition, Dept. of Psychology, Univ. of Oslo, Dept. of Psychiatry, Univ. of Oxford, Dept. of Neurology, Univ. Hosp. Mannheim, Memory Clinic, Univ. Ctr. for Med. of Aging, Felix Platter-Hospital, Div. of Brain Sci. Dept. of Med. Imperial Col.*

8:00 III5 **765.13** Higher media multitasking activity is associated with decreased gray matter density and functional connectivity in cognitive control brain regions. K. LOH*; R. KANAI. *Duke-Nus Grad. Med. Sch., Univ. of Sussex.*

9:00 III6 **765.14** Improved intersubject alignment using maps of cortical folding, myelin, and resting state networks. M. F. GLASSER*; E. C. ROBINSON; T. S. COALSON; S. M. SMITH; M. JENKINSON; D. C. VAN ESSEN. *Washington Univ. Sch. of Med., Univ. of Oxford.*

10:00 III7 **765.15** Interregional comparison of commonality and individuality in anatomical connectivity across subjects. H. KURASHIGE*; Y. ISOGAYA; K. AMEMIYA; Y. MORIGUCHI; T. HANAKAWA; Y. OTAKA; R. OSU. *Advanced Telecommunications Res. Inst. Intl., Natl. Ctr. of Neurol. and Psychiatry, Keio Univ.*

11:00 III8 **765.16** General cognitive ability and cortical gray matter in dorsolateral prefrontal cortex: Positive association with the relative surface area and negative association with relative thickness. E. VUOKSIMAA*; M. S. PANIZZON; C. CHEN; M. FIECAS; L. T. EYLER; C. FENNEMA-NOTESTINE; D. J. HAGLER JR.; C. E. FRANZ; M. J. LYONS; A. M. DALE; W. S. KREMEN. *Univ. of Helsinki, Univ. of California San Diego, VA San Diego Healthcare Syst., Univ. of California San Diego, Boston Univ., Univ. of California San Diego, VA San Diego Healtcare Syst.*

8:00 III9 **765.17** Neural complexity predicts cognition across different resting state networks. I. M. MCDONOUGH*. *Ctr. For Vital Longevity.*

9:00 III10 **765.18** The brain's functional architecture reflects differences in the content, modality, and organization of self-generated thought. D. J. LURIE; K. J. GORGOLEWSKI; Z. SHEHZAD; C. CRADDOCK; M. P. MILHAM*; D. S. MARGULIES; J. SMALLWOOD. *Child Mind Inst., Max Planck Inst. for Human Cognitive and Brain Sci., Yale Univ., Child Mind Inst., Nathan Kline Inst. for Psychiatric Res., Univ. of York.*

10:00 III11 **765.19** Structural variability in a large-scale cortical network that relates to individual differences in language performance. M. F. BONNER*; J. E. PEELLE; M. GROSSMAN. *Univ. of Pennsylvania, Washington Univ. in St. Louis.*

11:00 III12 **765.20** Individual differences of cognitive ability differentiates neural and behavioral strategy during concurrent working memory and oculomotor task. G. KWON*; S. KIM; S. PAIK; H. SONG; Y. LEE; E. LEE; B. KIM; M. SUH. *Samsung Advanced Inst. For Hlth. Sci. & Technol., Samsung Advanced Inst. For Hlth. Sci. & Technol., Korea Univ. Col. of Hlth. Sci., Korea Res. Inst. of Standards and Sci., Sungkyunkwan Univ., Sungkyunkwan Univ.*

8:00 III13 **765.21** Variations in working memory capacity: Suppression of distractors or enhancement of the targets? R. GULBINAITE*; A. JOHNSON; R. DE JONG; H. VAN RIJN. *Univ. of Groningen.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 III14 **765.22** Individual differences and expertise in chess and Go players. F. D. BROCCARD*; G. CAUWENBERGHS; T. S. BEL-BAHAR. *UCSD, Univ. of California San Diego (UCSD), Duke Univ. Med. Center, Duke Clinics.*

10:00 III15 **765.23** Individual differences in the ability to modulate mu rhythms and performance IQ. M. N. ANWAR*; M. S. NAVID; M. JAVAID; K. KITAJO. *RIKEN, Natl. Univ. of Sci. and Technol., Advanced Brain Signal Processing, BSI-RIKEN.*

11:00 III16 **765.24** Subtleties of task-switching: Neuroimaging at an individual level. K. M. BURKE*; J. S. BUTLER; L. A. ROSS; J. J. FOXE. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Adelphi Univ.*

8:00 III17 **765.25** Consistent distortions in haptic perception of force direction. F. E. VAN BEEK*; W. M. BERGMANN TIEST; F. L. GABRIELSE; B. W. J. LAGERBERG; A. M. L. KAPPERS. *VU Univ. Amsterdam.*

9:00 III18 **765.26** Are we making it up? Phenomenological experience and individual differences in the integration of visual and kinesthetic information related to hand movement. L. DUMONT*; I. BROER; J. GHAZIRI; M. BEAUREGARD; H. THEORET. *Univ. De Montréal.*

10:00 III19 **765.27** ▲ Sex differences in targeting accuracy can be eliminated by reducing conscious analysis of ball movement within an egocentric, but not allocentric perspective. C. N. WARREN; M. T. LOUDEN; J. M. CABRAL; J. C. DE LA TORRE; R. F. MCGIVERN*. *San Diego State Univ., SDSU.*

11:00 III20 **765.28** Older adults who inaccurately appraise their cognitive abilities display greater prefrontal response during an inhibition task. S. I. DEV*; R. C. MOORE; V. C. WANG; L. T. EYLER. *UCSD.*

8:00 III21 **765.29** Gender difference in the lateralization of White Matter Microstructure is related to reading performance. H.; M. ZHANG; G. XUE; C. CHEN; Q. DONG. *Beijing Normal Univ., Univ. of California.*

POSTER

766. Executive Function: Learning and Memory

Theme F: Cognition and Behavior

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

8:00 III22 **766.01** Investigation of early biomarkers for impending memory failure following consecutive and intermittent bouts of maternal separation. E. T. STONEHAM*; S. SAMIPOUR; N. LIEHR; D. MCHAIL; C. LEE; T. C. DUMAS. *Krasnow Institute, George Mason Univ.*

9:00 III23 **766.02** Aging versus housing: A repeated measures multivariate analysis of variance (RM-MANOVA) design using Radial Maze test. S. SALAS*; M. ROJAS, 2013; A. MORA; J. FORNAGUERA. *Univ. of Costa Rica.*

10:00 III24 **766.03** Behavioral and neurochemical differences dependent on age and housing conditions using Wistar rats. A. M. GALLEGOS*; A. SABORIO; J. FORNAGUERA. *Univ. of Costa Rica, Univ. of Costa Rica.*

11:00 III25 **766.04** The effects of prenatal alcohol exposure on corticostriatal circuits and executive control. J. L. BRIGMAN*; R. SIGDEL; M. SAHA. *Univ. of New Mexico.*

8:00 III26 **766.05** Protective effects of some flavonoids against memory dysfunction in rats. T. KODA*; H. IMAI. *Tokyo Healthcare Uni.*

9:00 III27 **766.06** Excitotoxic lesions of the pedunculopontine tegmental nucleus impair probabilistic reversal learning. P. M. BAKER*; A. SYED; M. E. RAGOZZINO. *Univ. of Illinois at Chicago.*

10:00 III28 **766.07** ● Guanfacine is an effective countermeasure for hypobaric hypoxia induced cognitive decline. H. KAUSER*; S. SAHU; S. KUMAR; U. PANJWANI. *Defence Inst. of Physilogy and Allied Sciences, Defence Res. and Develop.*

11:00 III29 **766.08** Enriched environments ameliorate the negative effects of a high fat diet in rat learning and memory. I. C. SUMAYA*; J. H. CALDERON; P. ACOSTA; J. SALVADOR; T. HUNTER; K. DELGADILLO. *California State Univ., Bakersfield.*

8:00 III30 **766.09** The neural substrates and development of learned inhibition. H. C. MEYER*; D. J. BUCCI. *Dartmouth Col.*

9:00 III31 **766.10** Sex differences in short and long-term behavioral deficits following exposure to methamphetamine and morphine during adolescence. I. M. WHITE*; K. HAURIS; W. WHITE. *Morehead State Univ.*

10:00 III32 **766.11** The effects of voluntary exercise or methylphenidate on developing male Wistar rats. M. EDDY*; K. STANSFIELD; J. GREEN. *Univ. of Vermont.*

11:00 III33 **766.12** Presenilin-1 down-regulation in neural progenitor cells impairs learning and memory. J. A. BONDS*; Y. KUTTNER-HIRSHLER; M. PIZZI; O. LAZAROV. *Univ. of Illinois, Chicago.*

8:00 III34 **766.13** Possible nitric oxide modulation in protective effect of rutin against cognitive deficits and apoptotic neurodegeneration in experimental head trauma. P. RINWA*; H. DHAR; A. KUMAR. *Panjab Univ.*

9:00 III35 **766.14** Mice with selective elimination of striatal cholinergic tone have impaired cued-directed memory and reversal learning. M. S. GUZMAN LENIS*; D. F. GONÇALVES; J. JACOBSEN; J. LOPES-BORGES; A. ARREDONDO; B. KOLISNYK; M. G. CARON; B. WINTERS; M. A. M. PRADO; V. F. PRADO. *Robarts Res. Inst., Duke Univ. Med. Ctr., Univ. of Southern Santa Catarina, Western Univ., Univ. of Guelph.*

10:00 III36 **766.15** ▲ Cognitive effects of proton irradiation at differing energy levels. N. A. HEROUX*; K. L. CARRIHILL-KNOLL; B. M. RABIN; B. SHUKITT-HALE. *Univ. of Maryland, Baltimore County (UMBC), Human Nutr. Res. Ctr. on Aging, USDA-ARS.*

POSTER

767. Animal Cognition and Behavior: Timing and Temporal Processing I

Theme F: Cognition and Behavior

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

8:00 III37 **767.01** ▲ Nicotinic regulation in a hyperdopaminergic state. A. OSTOS VALVERDE*; O. HURTADO-LAGUERENN; O. ZAMORA-AREVALO; O. GALICIA-CASTILLO; D. B. PAZ-TREJO; H. SANCHEZ-CASTILLO. *Univ. Nacional Autonoma De Mexico, Facultad de Psicologia Edificio B01, Univ. Iberoamerican.*

9:00 III38 **767.02** Ventral tegmental dopamine signaling and simple reaction time performance in rodents. S. ALBERICO*; K. L. PARKER; A. D. MILLER; N. S. NARAYANAN. *Univ. of Iowa.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 III39 **767.03** Dissociating timing and sensory-specific learning processes following reward devaluation in the peak procedure. H. NASSER*; A. DESOUZA; R. DERMAN; K. ELAYOUBY; A. R. DELAMATER. *City Univ. of New York, City Univ. of New York, City Univ. of New York.*

11:00 III40 **767.04** Dynamic representation of serial order and interval duration in a rhythmic tapping task. D. A. CROWE*; H. MERCHANT. *Augsburg Col., Univ. Nacional Autónoma de México.*

8:00 III41 **767.05** Multiple roles of the dorsomedial striatum in the inference of probabilistic models of reward timing. Y. LI*; J. T. DUDMAN. *Janelia Farm Res. Campus, HHMI.*

9:00 III42 **767.06** Variable delay-to-signal: A fast paradigm for assessment of decision and response impulsivity in rodents. H. LEITE-ALMEIDA; A. MELO; J. M. PEGO*; P. MORGADO; S. BERNARDO; N. SOUSA; A. ALMEIDA; J. J. CERQUEIRA. *ICVS/3B's PT Government Associate Lab., Life and Hlth. Sci. Res. Inst. (ICVS) - Sch. of Hlth. Sci.*

10:00 III43 **767.07** Mice perform action sequences that predict choice during temporal discrimination. S. SOARES; B. V. ATALLAH; T. S. GOUVÊA; T. MONTEIRO; J. J. PATON*. *Champalimaud Neurosci. Programme.*

11:00 III44 **767.08** Calcium-dependent potassium currents shape temporal selectivity for communication signals in mormyrid electric fish. T. KOHASHI*; B. A. CARLSON. *Washington Univ., Grad. Sch. of Science, Nagoya Univ.*

8:00 III45 **767.09** ▲ Method for analyzing individual-trial nose-poke timing behavior. B. M. GUERCIO*; B. WHITE; O. H. HE; M. BUHUSI; C. V. BUHUSI. *Utah State Univ., Utah State Univ., Case Western Reserve Univ.*

9:00 III46 **767.10** The effect of conditioned fear on interval timing in rats. T. KAMADA; T. HATA*. *Doshisha Univ.*

10:00 JJJ1 **767.11** ▲ Nicotine and methylphenidate effect on timing using a temporal bisection task. I. GONZALEZ RIVERA*; G. FRANCO OLIVARES; D. PAZ-TREJO; O. ZAMORA ARÉVALO; O. GALICIA CASTILLO; H. SÁNCHEZ-CASTILLO. *Univ. Nacional Autonoma De Mexico, Univ. Nacional Autónoma de México.*

11:00 JJJ2 **767.12** Scalar timing displayed behaviorally could arise from scaling of the temporal properties of a heterogeneous population of plastic neurons. H. Z. SHOUVAL*; M. A. HUERTAS; M. G. HUSSAIN SHULER; C. LIU. *Univ. Tex Medl Schl Houston, Johns Hopkins Univ.*

8:00 JJJ3 **767.13** Reward timing arise as a consequence of RDE-plasticity and sparse excitatory/inhibitory connectivity. M. A. HUERTAS*; M. G. H. SHULER; H. Z. SHOUVAL. *UT Houston Med. Sch., The Johns Hopkins Univ.*

9:00 JJJ4 **767.14** Independent phase coding in place cells generates travelling waves and realistic theta sequences. A. CHADWICK*; M. F. NOLAN; M. C. W. VAN ROSSUM. *Univ. of Edinburgh, Univ. of Edinburgh, Univ. of Edinburgh, Univ. of Edinburgh.*

10:00 JJJ5 **767.15** Medial Prefrontal Cortex impairs the precision but not the accuracy of timed responses. M. B. REYES*; C. V. BUHUSI. *Univ. Federal Do ABC, Utah State Univ.*

POSTER

768. Cognition, Learning, and Memory: Behavioral Processes

Theme F: Cognition and Behavior

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

8:00 JJJ6 **768.01** Value transfer by association in rhesus monkeys: Here, gone, and back again. K. JUNG*; J. D. KRALIK. *Dartmouth Col.*

9:00 JJJ7 **768.02** Development of episodic memory in juvenile rats. R. F. LANGSTON*; S. LYON. *Div. of Neuroscience, Med. Res. Inst.*

10:00 JJJ8 **768.03** Characterizing place and response navigation across repeated training sessions on a dual-solution task. R. S. GARDNER*; D. F. SUAREZ; N. K. ROBINSON-BURTON; C. J. RUDNICKY; G. A. ASCOLI; T. C. DUMAS. *George Mason Univ., George Mason Univ.*

11:00 JJJ9 **768.04** Memory for visual images: Comparison between humans and monkeys. C. A. ERICKSON*; M. L. JUTRAS; A. R. ZAVILLA; B. E. TAYLOR; J. K. WILLIAMSON-JONES; E. A. BUFFALO. *Metropolitan State Univ. of Denver, Emory Univ., Emory Univ. Sch. of Med.*

8:00 JJJ10 **768.05** Pigeons are unable to use a mirror as a tool. E. UNVER*; O. GUNTURKUN. *Ruhr Univ. Bochum / Inst. of Cognitive Neurosci.*

9:00 JJJ11 **768.06** ● Developmental imprinting of female preference for male song and its' multimodal information processing in mice. A. ASABA*; S. OKABE; M. NAGASAWA; M. KATO; N. KOSHIDA; T. OSAKADA; T. MATSUO; K. KOBAYAKAWA; R. KOBAYAKAWA; K. MOGI; T. KIKUSUI. *Azabu Uiversity, Kato Acoustics Consulting Office, Tokyo Univ. of Agr. and Technol., The Univ. of Tokyo, Osaka Biosci. Inst.*

10:00 JJJ12 **768.07** Advances in trace eyeblink conditioning in mice. J. J. SIEGEL*; W. TAYLOR; J. ASH; R. GRAY; B. ZEMELMAN; D. JOHNSTON; N. DEMBROW; B. KALMBACH; R. A. CHITWOOD. *Univ. of Texas at Austin.*

11:00 JJJ13 **768.08** Chimpanzees, like monkeys, appear to lack long-term auditory memory. E. SIEBERT; L. PARR; M. MISHKIN*; R. C. SAUNDERS. *Emory Univ., NIMH.*

8:00 JJJ14 **768.09** Understanding memory loss: Development of a retrieval-induced forgetting paradigm in rodents to model adaptive forgetting in the mammalian brain. P. BEKINSCHTEIN*; N. V. WEISSTAUB; M. RENNER; N. EDELZSTEIN; M. C. ANDERSON. *Univ. de Buenos Aires, MRC Cognition and Brain Sci. Unit.*

9:00 JJJ15 **768.10** ▲ Behavioral tagging of extinction learning. F. BENETTI*; J. D. C. MYSKIW; I. IZQUIERDO. *Pontifical Catholic Univ.*

10:00 JJJ16 **768.11** ▲ The influence of target number on performance in the traveling salesman problem. R. SHAHEEN*; S. JASA; A. MALLEY; E. RANEY; V. PARK. *Univ. of San Diego.*

11:00 JJJ17 **768.12** ▲ Determining mechanisms that influence performance on the traveling salesman problem. C. BELLIZZI*; K. GOLDSTEINHOLM. *Univ. of San Diego.*

8:00 JJJ18 **768.13** Spontaneous group synchronization: From simple movements to the respiratory and cardiac rhythms. N. F. BERNARDI*; E. CODRONS; M. VANDONI; L. BERNARDI. *McGill Univ., Univ. of Milano-Bicocca, Univ. of Pavia, Univ. of Pavia, Univ. of Helsinki.*

9:00 JJJ19 **768.14** On-line monitoring of biogenic amines with improved time resolution. L. M. VAN HEERWAARDEN*; N. J. REINHOUD; H. BROUWER; M. EYSBERG. *Antec.*

POSTER

769. Entorhinal Cortex Systems Physiology and Function

Theme F: Cognition and Behavior

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

8:00 JJJ20 **769.01** Speed modulation of medial entorhinal cortical neurons during medial septal inactivation. J. R. HINMAN*; M. P. BRANDON; G. W. CHAPMAN, IV; M. E. HASSELMO. *Boston Univ., UCSD.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 JJJ21 **769.02** Fitting statistical models to grid cell firing patterns and testing for changes in grid cell firing via likelihood methods. R. DITULLIO*; J. R. CLIMER; M. HASSELMO; U. EDEN. *Boston Univ., Boston Univ., Boston Univ.*

10:00 JJJ22 **769.03** Speed modulation of theta frequency and theta-gamma coupling diminished following systemic scopolamine administration in rats. E. L. NEWMAN*; S. N. GILLET; J. R. CLIMER; M. E. HASSELMO. *Ctr. For Memory and Brain, UCSD.*

11:00 JJJ23 **769.04** Theta cycle skipping relationships in the medial entorhinal cortex are robust. G. W. CHAPMAN*, IV; N. W. SCHULTHEISS; M. P. BRANDON; M. E. HASSELMO. *Boston Univ., UCSD.*

8:00 JJJ24 **769.05** Oscillatory coupling between hippocampus and lateral entorhinal cortex predicts associative memory performance. K. M. IGARASHI*; L. LU; L. L. COLGIN; M. MOSER; E. I. MOSER. *Kavli Inst. for Systems Neuroscience, NTNU, Ctr. for Learning and Memory, The Univ. of Texas at Austin.*

9:00 JJJ25 **769.06** Dorsoventral gradients in entorhinal-hippocampal inhibitory networks. C. MIAO*; E. I. MOSER; M. MOSER. *Norwegian Univ. of Sci. and Technol.*

10:00 JJJ26 **769.07** Impaired hippocampal rate remapping following lesions in the lateral entorhinal cortex. L. LU*; J. K. LEUTGEB; A. TSAO; E. J. HENRIKSEN; S. LEUTGEB; C. A. BARNES; M. P. WITTER; M. MOSER; E. I. MOSER. *Kavli Inst. For Systems Neurosci. and Ctr. For Neural Computation, NTNU, Neurobio. Section and Ctr. for Neural Circuits and Behavior, Div. of Biol. Sciences, Univ. California San Diego, Evelyn F.McKnight Brain Institute, Div. of Neural Systems Memory and Aging, Univ. of Arizona.*

11:00 JJJ27 **769.08** Functional dissociation of grid modules in a nested environment. H. STENSOLA*; T. STENSOLA; E. I. MOSER; M. MOSER. *Kavli Inst. for Systems Neurosci.*

8:00 JJJ28 **769.09** Modulation of hippocampal and entorhinal theta frequency by running speed and acceleration. E. KROPFF CAUSA*; J. E. CARMICHAEL; R. BÁLDI; M. MOSER; E. I. MOSER. *Leloir Inst. - IIBBA - CONICET, Kavli Inst. for Systems Neurosci., Univ. of Waterloo, Univ. of Szeged.*

9:00 JJJ29 **769.10** Topographical organization of head direction signals in medial entorhinal cortex. L. M. GIOCOMO*; T. BONNEVIE; T. STENSOLA; T. VAN CAUTER; E. I. MOSER; M. MOSER. *Stanford Univ., NTNU.*

10:00 JJJ30 **769.11** Trajectory-dependent firing in hippocampal place cells reflects nucleus reuniens-mediated input from the medial prefrontal cortex. H. T. ITO*; S. ZHANG; M. P. WITTER; E. I. MOSER; M. MOSER. *NTNU.*

11:00 JJJ31 **769.12** Independent place-cell maps for 10 environments with overlapping properties. C. ALME*; C. MIAO; K. JEZEK; A. TREVES; E. MOSER; M. MOSER. *Kavli Inst. Sys Neurosci, CNC, SISSA - Cognitive Neurosci.*

8:00 JJJ32 **769.13** Functional dissection of principal cell populations in layers II and III of medial entorhinal cortex. J. YE*; S. ZHANG; I. CERNIAUSKAS; R. SØRLIE WÅGAN; M. MOSER; E. I. MOSER. *Kavli Inst. For Systems Neuroscience, Ctr. For the Biol. of Memory, NTNU.*

9:00 JJJ33 **769.14** ● Grid cells of animals raised in spherical environments. I. U. KRUGE*; T. WERNLE; E. I. MOSER; M. MOSER. *NTNU, Kavli Inst. For Systems Neurosci.*

10:00 JJJ34 **769.15** Environmental constraints on grid cell orientation. T. STENSOLA*; H. STENSOLA; M. MOSER; E. I. MOSER. *Kavli Inst. For Systems Neurosci.*

11:00 JJJ35 **769.16** Representation of odor in the lateral entorhinal cortex. A. TSAO*; G. B. KELLER; P. ZMARZ; M. MOSER; M. HÜBENER; E. I. MOSER; T. BONHOEFFER. *NTNU, Max Planck Inst. of Neurobio.*

8:00 JJJ36 **769.17** Neural activity by medial prefrontal cell ensembles during context guided object associations. A. FAROVIK*; R. PLACE; B. PORTER; H. EICHENBAUM. *Boston Univ.*

9:00 JJJ37 **769.18** Multidimensional coding in the hippocampal circuit. S. A. MCKENZIE*; L. M. RANGEL; A. FRANK; J. S. ROSEN; V. SMEGLIN; H. EICHENBAUM. *Boston Univ.*

10:00 JJJ38 **769.19** Grid cells are time cells. B. J. KRAUS*; M. P. BRANDON; R. J. ROBINSON, II; M. A. CONNERNEY; M. E. HASSELMO; H. EICHENBAUM. *Boston Univ., UC San Diego.*

11:00 JJJ39 **769.20** Evidence of object and context related neuronal activity in medial and lateral entorhinal cortices in a context-guided object-association task. C. S. KEENE*; J. H. BLADON; R. W. KOMOROWSKI; H. EICHENBAUM. *Boston Univ., MIT.*

8:00 JJJ40 **769.21** Persistent increases in beta frequency oscillatory activity in the dentate gyrus of the hippocampus during object-context association intervals. L. M. RANGEL*; J. S. ROSEN; K. V. CHAWLA; B. J. FERRERI; H. EICHENBAUM. *Boston Univ.*

9:00 JJJ41 **769.22** Encoding of saccade direction in the primate entorhinal cortex. N. J. KILLIAN*; S. M. POTTER; E. A. BUFFALO. *Georgia Inst. of Technol., Yerkes Natl. Primate Res. Ctr., Emory Univ.*

10:00 JJJ42 **769.23** Allocentric representation in primate entorhinal neurons. M. L. R. MEISTER; N. J. KILLIAN; E. A. BUFFALO*. *Yerkes Natl. Primate Res. Ctr., Georgia Inst. of Technol. and Emory Univ., Emory Univ. Sch. Med.*

11:00 JJJ43 **769.24** Noise correlations of grid cells and the coding of space in medial entorhinal cortex. A. MATHIS; M. B. STEMMLER*; A. HERZ. *Ludwig-Maximilians-Universität Munich.*

8:00 JJJ44 **769.25** Structural determinants of spatial representations in layer 2 of medial entorhinal cortex. Q. TANG*; A. BURGALOSSI; S. RAY; R. NAUMANN; M. BRECHT. *Bernstein Ctr. for Computat. Neurosci.*

9:00 JJJ45 **769.26** Functional and anatomical investigation of neuronal subpopulations in the LEC. F. C. LEITNER; S. MELZER; A. CAPUTI; E. C. FUCHS*; P. H. SEEBURG; H. MONYER. *Med. Fac. of Heidelberg Univ. and DKFZ, Max Planck Inst. for Med. Res.*

10:00 JJJ46 **769.27** Relation between spatial and temporal synchronization in MEC grid-cells. G. TOCKER; D. DERDIKMAN*. *Bar-Ilan Univ., Technion - Israel Inst. of Technol.*

POSTER

770. Hippocampal Function and Aging

Theme F: Cognition and Behavior

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

8:00 JJJ47 **770.01** Recruitment of local inhibitory interneurons by adult-born dentate granule cells. L. J. DREW*; M. A. KHEIRBEK; H. E. SCHARFMAN; R. HEN. *Columbia Univ., The Nathan Kline Inst. for Psychiatric Res.*

9:00 JJJ48 **770.02** Functional dissection of the role of adult hippocampal neurogenesis in pattern separation. M. A. KHEIRBEK*; L. J. DREW; E. M. BALOUGH; R. HEN. *Columbia Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 JJJ49 **770.03** *In vivo* optogenetic identification of newborn granule cells in the dentate gyrus. K. M. CHRISTIAN*; D. GOODSMITH; G. MING; H. SONG; J. J. KNIERIM. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

11:00 JJJ50 **770.04** Trial outcome and associative learning signals in monkey entorhinal and perirhinal cortex. S. KU*; E. L. HARGREAVES; R. MA; M. YANIKE; W. A. SUZUKI. *New York Univ., Robert Wood Johnson Med. Sch., Caltech.*

8:00 JJJ51 **770.05** Synaptic organization of memory traces within the hippocampal circuit. E. J. WALLACE*; A. PAVLOWSKY; J. ALARCON; A. A. FENTON. *SUNY Downstate, New York Univ., SUNY Downstate, SUNY Downstate.*

9:00 JJJ52 **770.06** Cortical theta wave associated with visual long-term memory in the monkey medial temporal lobe. K. ADACHI*; K. KAWASAKI; H. SAWAHATA; T. MATSUO; T. SUZUKI; H. TANIGAWA; A. IIJIMA; I. HASEGAWA; K. NAKAHARA. *Niigata Univ., Niigata Univ., Toyohashi Univ. of Technol., The Univ. of Tokyo, NICT, Kouchi Univ. of Technol.*

10:00 JJJ53 **770.07** Iron deficiency impairs prepulse inhibition of the startle reflex in mouse and rat models. J. C. GEWIRTZ*; M. T. PISANSKY; R. J. WICKHAM; J. SU; S. FRETHAM; L. YUAN; M. SUN; M. K. GEORGIEFF. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, GlaxoSmithKline Res. & Develop., Univ. of Minnesota.*

11:00 JJJ54 **770.08** Enhanced stability and impaired separation of hippocampal place representation caused by reduced Mg block of NMDAR in the dentate gyrus. Y. HAYASHI*; Y. NABESHIMA; Y. NABESHIMA; K. FUNABIKI. *Osaka Biosci. Inst., Kyoto Univ., Osaka Biosci. Inst.*

8:00 JJJ55 **770.09** Neocortical and perirhinal activity preceding dentate spikes. D. B. HEADLEY*; D. PARE. *Rutgers, The State Univ. of New Jersey.*

9:00 JJJ56 **770.10** ● Hippocampal CA1 network dynamics during locomotion in virtual reality. M. SATO*; K. MIZUTA; M. KAWANO; T. TAKEKAWA; T. ISLAM; H. YAMAKAWA; Y. YAMAGUCHI; T. FUKAI; M. OHKURA; J. NAKAI; Y. HAYASHI. *RIKEN Brain Sci. Inst., PRESTO, Japan Sci. and Technol. Agency, Kogakuin Univ., Saitama Univ. Brain Sci. Inst.*

10:00 JJJ57 **770.11** Interleukin-1 beta mediates the hippocampal cognitive decline that occurs after 60%-fat diet consumption, which can be prevented with IL-1RA or dietary reversal. J. L. SOBESKY*; R. BARRIENTOS; L. WATKINS; S. MAIER. *Univ. Colorado, Boulder.*

11:00 JJJ58 **770.12** ● Life-long assessment of attentional capacities in rats with developmentally suppressed forebrain trkA receptors. B. YEGLA*; C. J. POLLOCK; D. L. TURNER; V. PARIKH. *Temple Univ., Univ. of Michigan.*

8:00 JJJ59 **770.13** Hippocampus-dependent context-specific extinction learning, as well as object recognition and object location memory are impaired in aged rats. V. WIESCHOLLECK*; M. ANDRÉ; D. MANAHAN-VAUGHAN. *Ruhr Univ. Bochum.*

9:00 JJJ60 **770.14** Repeated testing and maturation, but not sexual experience, affects the acoustic features of ultrasonic vocalizations in young male Long Evans rats. J. R. PETERSON*; B. G. COOPER. *Texas Christian Univ.*

10:00 JJJ61 **770.15** ▲ Age-related changes in the behavior of diversity outbred mice. C. J. ACKLIN*; L. C. ANDERSON; E. J. CHESLER. *Col. of the Atlantic, The Jackson Lab.*

11:00 JJJ62 **770.16** Cognitive deficits associated with aging differ from those seen in hemiparkinsonian macaques tested on the same tasks. F. YUE; H. WAN; R. WEEKS; R. GRONDIN; P. CHAN; Z. ZHANG*. *WinconTheracells Biotechnologies Co., LTD, Xuanwu Hosp. of Capital Med. Univ., Univ. of Kentucky.*

8:00 JJJ63 **770.17** Changes in postsynaptic strength of principal cells of the hippocampus associated with successful aging. T. T. TRAN*; M. GALLAGHER; A. KIRKWOOD. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

POSTER

771. Neural Mechanisms of Appetitive Behavior

Theme F: Cognition and Behavior

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

8:00 JJJ64 **771.01** Chronic intermittent toluene inhalation during adolescence alters reinforcement learning & causes long-term glutamatergic dysfunction. J. R. DUNCAN*; A. L. W. DICK; M. AXELSSON; S. GIBBS; A. J. LAWRENCE. *Florey Inst. Of Neurosci. and Mental Health, The Univ. Of Melbourne, Univ. of Melbourne, Univ. of Melbourne.*

9:00 JJJ65 **771.02** The dopamine D2 receptor partial agonist, Aripiprazole, rescues cue extinction deficits in adolescent rats. J. H. KIM*; A. J. LAWRENCE. *Florey Neurosci. Inst., Univ. of Melbourne.*

10:00 JJJ66 **771.03** Cocaine self-administration during adolescence results in attenuated drug-primed but exaggerated cue-induced reinstatement compared to adulthood. I. ZBUKVIC*; S. LUIKINGA; C. PERRY; A. LAWRENCE; J. KIM. *The Florey Inst. of Neurosci. and Mental Hlth.*

11:00 JJJ67 **771.04** mGlu5 receptors in extinction of cocaine seeking. C. J. PERRY*; J. H. KIM; S. J. LUIKINGA; I. ZBUKVIC; R. M. BROWN; A. J. LAWRENCE. *Florey Neurosciences Inst., Univ. of Melbourne.*

8:00 JJJ68 **771.05** Nucleus accumbens C-Fos expression is correlated with conditioned place preference to cocaine, morphine and high fat/sugar food consumption. J. A. SCHROEDER*; J. C. HONOHAN; R. H. MARKSON; L. CAMERON; K. S. BANTIS; G. C. LOPEZ. *Connecticut Coll.*

9:00 JJJ69 **771.06** Inactivation of the nucleus accumbens core or medial shell attenuates reinstatement of sugar-seeking behavior following sugar priming or exposure to food-associated cues. P. LIN*; W. E. PRATT. *Wake Forest Univ.*

10:00 JJJ70 **771.07** Basolateral amygdala and nucleus accumbens shell are necessary for cue-elicited alcohol seeking. Z. MILLAN*; P. JANAK. *Univ. of California San Francisco.*

11:00 KKK1 **771.08** The role of infralimbic prefrontal cortex circuitry in cue reactivity and alcohol-seeking behaviors. C. R. KEISTLER; J. M. BARKER; J. TAYLOR*. *Yale Univ. Sch. Med., Med. Univ. of South Carolina.*

8:00 KKK2 **771.09** VTA neuronal activity during learning in a spatial appetitive choice task. S. N. GOMPERTS*; Z. CHEN; M. A. WILSON. *Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., MIT.*

9:00 KKK3 **771.10** Neuronal activity and role of lateral habenula in appetitive conditioning. B. CHOI*; D. KIM; J. HAN. *Konkuk Univ.*

10:00 KKK4 **771.11** The role of LHb in reversal learning and punishment. P. JEAN-RICHARD DIT BRESSEL*; G. P. MCNALLY. *UNSW, UNSW.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 KKK5 **771.12** Upreguration of neuronal excitability in the nucleus tractus solitarius during L-histidine induced suppression of food intake without nausea. Y. OKUSHA*; Y. HIRAI; M. FUNAHASHI. *Oral Phisiology.*

8:00 KKK6 **771.13** Methylphenidate enhances goal-directed behavior in adult, but not adolescent, adhd rat models. J. Y. NATSHEH*; R. DIMATTEO; M. W. SHIFLETT. *Rutgers, The State Univ. of New Jersey, Al-Quds Univ., Rutgers, The State Univ. of New Jersey.*

9:00 KKK7 **771.14** Sex differences in context-dependent renewal of appetitive conditioned responses. L. C. ANDERSON*; D. J. POWELL; G. D. PETROVICH. *Boston Col.*

10:00 KKK8 **771.15** Neural substrates of Pavlovian appetitive conditioning: Forebrain circuitry. S. COLE*; D. J. POWELL; G. D. PETROVICH. *Boston Col.*

11:00 KKK9 **771.16** Recruitment of basolateral amygdala-medial prefrontal cortex pathways during pavlovian appetitive conditioning. S. E. KEEFER*; G. D. PETROVICH. *Boston Col.*

8:00 KKK10 **771.17** A temporal-difference dopamine-dependent spiking network account of instrumental contingency degradation. M. J. CROSSLEY; F. ASHBY*. *UC Berkeley, Univ. California.*

9:00 KKK11 **771.18** Ventral tegmental area neurons encode information about multi-action sequences and contingency. J. WOOD*; N. W. SIMON; B. MOGHADDAM. *Univ. of Pittsburgh.*

10:00 KKK12 **771.19** Memory maintenance and precision of amphetamine-induced behavioral sensitization are related with hippocampal PKMζ expression. D. S. ENGELKE*; R. FILEV; D. KARCHER; J. G. SANTOS-JUNIOR; L. E. MELLO. *UNIFESP, Sch. of Med. Sci. of Santa Casa of Sao Paulo.*

11:00 KKK13 **771.20** Dopamine transients in motor cortex during Pavlovian conditioning track learning but not movement. V. JOSEPH*; A. MULLER; P. SLESINGER; D. KLEINFELD. *UCSD, Mt. Sinai Sch. of Med.*

8:00 KKK14 **771.21** Post-weaning environmental enrichment restores attraction to conspecific odors in maternally separated CD-1 mice. C. D. MELTON; M. MOUILLE; Y. MCDOWELL; J. LEE; C. CORNWELL*. *Syracuse Univ.*

9:00 KKK15 **771.22** Chronic yohimbine stress potentiates subsequent reinstatement of palatable food seeking induced by acute yohimbine: Role of dopamine D_1-like receptors. K. T. BALL*; T. COPUS; N. CORRIGAN. *Bloomsburg Univ, Pennsylvania.*

10:00 KKK16 **771.23** An operant rodent task for measuring anxiety-based modulation of a goal-directed behavior. J. PARK*; J. WOOD; Y. KIM; N. W. SIMON; B. MOGHADDAM. *Univ. of Pittsburgh.*

11:00 KKK17 **771.24** Theta oscillations in rat prefrontal cortex are modulated by actions and outcomes. N. W. SIMON*; J. WOOD; B. MOGHADDAM. *Univ. of Pittsburgh.*

8:00 KKK18 **771.25** Palatability responses and feeding behaviors in pro-enkephalin knockout mice. I. A. MENDEZ*; S. B. OSTLUND; N. T. MAIDMENT; N. P. MURPHY. *UCLA, UCLA.*

9:00 KKK19 **771.26** Effects of orbitofrontal cortex lesions on autoshaped lever pressing and reversal learning. S. E. CHANG*. *Johns Hopkins Univ.*

10:00 KKK20 **771.27** Plasticity within the prelimbic cortex is necessary for the consolidation of recently acquired goal-directed actions. G. HART*; B. W. BALLEINE. *Brain & Mind Res. Inst.*

POSTER

772. Memory Consolidation: Neural and Behavioral Mechanisms

Theme F: Cognition and Behavior

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

8:00 KKK21 **772.01** ▲ Learning, memory and social interactions in crayfish. N. JIMÉNEZ-MORALES; K. MENDOZA-ÁNGELES; A. R. ESPINOZA; G. ROLDÁN; J. HERNANDEZ-FALCON*. *UNAM, UNAM, Univ. Natl. Autonoma Mexico.*

9:00 KKK22 **772.02** System consolidation of spatial memories in mice: Effects of enriched environment. S. CINTOLI*; J. BONACCORSI; R. MASTROGIACOMO; S. BALDANZI; C. BRASCHI; T. PIZZORUSSO; M. CENNI; N. BERARDI. *Inst. of Neurosci. - CNR, Univ. of Pisa, Scuola Normale Superiore, NEUROFARBA, Dept. of Neuroscience, Psychology, Drug Research, Child Health, Univ. of Florence.*

10:00 KKK23 **772.03** Enriched environment improves social memory strength and persistence in adult mice. A. P. CAIXETA*; B. M. MONTEIRO; G. S. PEREIRA. *Nucleo De Neurociencias.*

11:00 KKK24 **772.04** Optogenetic control of subiculum during consolidation of cocaine associated cue memories. B. CADLE*; D. COOPER. *Univ. of Colorado At Boulder.*

8:00 KKK25 **772.05** Behavioral and molecular evidence that the rodent perirhinal cortex and dorsal hippocampus are essential in object recognition memory. S. J. COHEN*; A. H. MUNCHOW; R. W. STACKMAN, Jr. *Florida Atlantic Univ., Florida Atlantic Univ.*

9:00 KKK26 **772.06** Pharmacogenetic disruption of hippocampal function. C. VARELA*; S. WEISS; R. MEYER; M. HALASSA; J. BIEDENKAPP; K. GOOSENS; M. A. WILSON; D. A. BENDOR. *MIT.*

10:00 KKK27 **772.07** Canonical Wnt signaling is necessary for object recognition memory consolidation. K. M. FRICK*; S. L. SCHRAM; J. J. TUSCHER; A. M. FORTRESS. *Univ. of Wisconsin-Milwaukee.*

11:00 KKK28 **772.08** Is the object recognition task suitable for evaluating spatial memory in rodents ? A. L. TAKATSU-COLEMAN*; C. S. GOULARD; M. J. TEIXEIRA; G. F. XAVIER. *Sch. of Medicine, Univ. of Sao Paulo, Univ. of Sao Paulo.*

8:00 KKK29 **772.09** Consolidation of motor memory in the primary motor cortex by dopamine. Q. LI*, JR; D. C. W. CHAN; Y. KE; W. H. YUNG. *The Chinese Univ. of Hong Kong.*

9:00 KKK30 **772.10** Post-training hippocampal NMDA receptor blockade suppresses “forgetting” in the Morris water maze spatial memory task. K. SHINOHARA*; T. HATA. *Doshisha Univ.*

10:00 KKK31 **772.11** Specific long-term memory impairment after surgery-induced inflammation. A. R. FIDALGO*. *Richmond Univ. London.*

11:00 KKK32 **772.12** Post-training infusion of ZIP impairs recent, but not remote, spatial memory in rats. J. B. HALES*; C. HERNANDEZ; R. E. CLARK. *UCSD, VAMCSD.*

8:00 KKK33 **772.13** Consolidation of motor memory in the primary motor cortex by dopamine. Q. LI*; C. W. CHAN; Y. KE; W. H. YUNG. *The Chinese Univ. of Hong Kong.*

9:00 KKK34 **772.14** Memory spectrum in mice lacking and overexpressing Nogo receptor 1. T. E. KARLSSON*; A. JOSEPHSON; L. OLSON. *Karolinska Institutet.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 KKK35 **772.15** ▲ Acute restraint-stress increased contextual conditioned emotional response: Involvement of oxidative factors. A. FEDOCE*; S. F. LISBOA; C. R. TIRAPELLI; N. C. SOUZA PINTO; L. B. M. RESSTEL. *Univ. of São Paulo- Sch. of Med. of Ribeirão Preto, FMRP, Univ. of São Paulo, Inst. of Chem. Univ. of São Paulo, FMRP.*

11:00 KKK36 **772.16** Comparison of a novel object vs. novel odor recognition task for measuring short-term recognition memory in C57BL/6J mice. M. FLORES MONTOYA*; B. VALENCIA; C. SOBIN. *Univ. of Texas, El Paso, Univ. of Texas at El Paso, Univ. of Texas at El Paso, The Rockefeller Univ.*

8:00 KKK37 **772.17** ▲ The effects of selective rapid eye movement sleep deprivation on hippocampal-dependent spatial reversal learning and unlearning. V. A. PALLAZOLA*; B. T. SOWELL; L. M. URPA; G. R. POE. *Univ. of Michgain Hlth. Syst., Univ. of Michgain Hlth. Syst., Univ. of Michigan Hlth. Syst.*

9:00 KKK38 **772.18** Dorsal habenula accumulates confidence of fighting experiences that is essential for winning a fight. M. CHOU*; H. OKAMOTO. *RIKEN, BSI.*

10:00 KKK39 **772.19** Patterns of neural and behavioral change during subsequent novel aggression. J. P. SMITH*; J. K. ACHUA; L. B. CALLAHAN; P. J. RONAN; T. R. SUMMERS; C. H. SUMMERS. *Univ. of South Dakota, Univ. of South Dakota Sanford Sch. of Med., Veterans Affairs Res. Service, Avera Res. Inst.*

POSTER

773. Animal Cognition: Learning and Memory - Aging II

Theme F: Cognition and Behavior

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

8:00 KKK40 **773.01** ● The prenylated chalconoid Xanthohumol is able to improve spatial reference memory in aged mice. D. R. ZAMZOW*; L. L. LEGETTE; J. F. STEVENS; K. R. MAGNUSSON. *Oregon State Univ., Oregon State Univ., Oregon State Univ.*

9:00 KKK41 **773.02** Environmental enrichment restores age-related memory decline and bdnf associated histone methylation levels in the hippocampus. S. J. MORSE; R. L. DAVIS; F. D. LUBIN*. *Univ. of Alabama at Birmingham, Univ. Alabama Birmingham.*

10:00 KKK42 **773.03** Acute administration of levetiracteam and valproic acid reduces hippocampal hyperactivity and improves place cell function in aged rats. R. ROBITSEK; M. H. RATNER; T. M. STEWART; M. GALLAGHER; H. EICHENBAUM; D. H. FARB*. *Boston Univ. Sch. Med., Boston Univ. Sch. Med., Boston Univ. Sch. Med., The Johns Hopkins Univ., Boston Univ., Boston Univ. Sch. Med.*

11:00 KKK43 **773.04** Molecular defects in the choroid plexus and hippocampus of animals with persistent neurocognitive deficits after exposure to space radiation. A. J. WYROBEK*; X. LOWE; S. BHATNAGAR; P. RADEMAKER; T. NORTHEN; E. WITKOWSKA; T. STRAUME; A. SNIJDERS. *Lawrence Berkeley Natl. Lab., Kaiser Permanente Med. Ctr., Univ. of California, NASA Ames.*

8:00 KKK44 **773.05** GluA1 immunofluorescence in the prefrontal cortex positively correlates with non-human primate performance on two behavioral tasks. Y. GROSSMAN*; D. DUMITRIU; S. I. BERGER; J. HAO; S. KASPEREK; W. G. JANSSEN; J. H. MORRISON. *Icahn Sch. of Med. At Mount Sinai, Dept. of Neuroscience, Icahn Sch. of Med. At Mount Sinai, Trauma Center, Third Hosp. of Hebei Med. Univ.*

9:00 KKK45 **773.06** Effects of spatial training and dopaminergic stimulation, on long term memory consolidation in middle aged animals. M. D. CASTRO*; J. ESCAJADILLO; F. BERMUDEZ-RATTONI. *Inst. de Fisiologia Celular, UNAM.*

10:00 KKK46 **773.07** ● Effects of chronic ampakine treatment in middle-aged rats living in an enriched environment. D. T. PHAM; C. D. COX; J. C. LAUTERBORN; C. M. GALL*; G. LYNCH; L. C. PALMER. *Univ. of California, Univ. of California.*

11:00 KKK47 **773.08** Effects of parity on anxiety and memory. S. BELGRAVE*; J. KIM; M. FRANKFURT; V. LUINE. *Hunter Col., Hofstra-North Shore LIJ Sch. of Med., Hunter Col.*

8:00 KKK48 **773.09** Influence of aging on acute psychosocial stress response in male F344 rats. H. M. BUECHEL; J. POPOVIC; K. ANDERSON; O. THIBAULT; E. M. BLALOCK*. *Univ. Kentucky Coll Med.*

9:00 KKK49 **773.10** Liposome-encapsulated melatonin exerts cognitive enhancing effect in the klotho mutant mice via activation of Nrf2/PI3K signaling pathway. H. KIM*; T. L. NGUYEN; E. SHIN; Y. NAM; J. BACH; J. JEONG; J. LEE. *Kangwon Natl. Univ., Chung-Ang Univ., Chung-Ang Univ.*

10:00 KKK50 **773.11** Enhanced expression of estrogen receptor alpha with gene therapy extends the therapeutic window. L. A. BEAN*; A. RANI; A. KUMAR; T. C. FOSTER. *Univ. of Florida.*

11:00 KKK51 **773.12** Effects of an anti-inflammatory drug, ibuprofen, on NMDA receptors and memory during aging. K. R. MAGNUSSON*; A. MARQUEZ-LOZA; V. ELIAS. *Oregon State Univ.*

POSTER

774. Neural Mechanisms for Social Communication

Theme F: Cognition and Behavior

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

8:00 KKK52 **774.01** Maternal status impacts the neural processing of infant vocalisations: An fMRI comparison of women with and without young infants. C. PARSONS*; K. YOUNG; E. JEGINDØ; A. STEIN; M. KRINGELBACH. *Univ. of Oxford, Aarhus Univ.*

9:00 KKK53 **774.02** Ready for action: A role for the human midbrain in responding to infant vocalisations. K. YOUNG*; C. PARSONS; M. JOENSSON; E. BRATTICO; J. HYAM; A. STEIN; A. GREEN; T. AZIZ; M. KRINGELBACH. *Univ. of Oxford, Aarhus Univ., Univ. of Helsinki, Univ. of Jyvaskyla.*

10:00 KKK54 **774.03** The effects of parental status on perception of emotion in infant faces. E. E. JEGINDØ*; C. PARSONS; K. YOUNG; A. STEIN; M. KRINGELBACH. *Aarhus Univ., Univ. of Oxford.*

11:00 KKK55 **774.04** Role of the parietal lobe in the processing of social/emotional visual stimuli. R. L. LLOYD*; K. M. SULLIVAN. *Univ. Minnesota, Univ. Minnesota.*

8:00 KKK56 **774.05** Healing power of a flower: viewing a floral image assists stress coping by regulating front-limbic activations. H. MOCHIZUKI*; S. MOCHIZUKI. *Natl. Agr. & Food Res. Organ, Natl. Inst. of Advanced Industrial Sci. and Technol. (AIST), Fac. of Human Sciences, Univ. of Tsukuba.*

9:00 KKK57 **774.06** Bodies, voices, and emotional prediction in the human brain. S. JESSEN*; S. A. KOTZ. *Max Planck Inst. For Human Cognitive and Brain Sci., Univ. of Manchester.*

10:00 KKK58 **774.07** Neuronal responses to faces in the anterior cingulate cortex of monkeys. N. KONOIKE*; K. NAKAMURA. *Primate Res. Institute, Kyoto Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 KKK59 **774.08** Cortical midline network in personal traits and context-dependent communicative interaction: PET study with common marmosets. C. YOKOYAMA*; A. KAWASAKI; T. HAYASHI; H. ONOE. *RIKEN Ctr. For Life Sci. Technologies (CLST), RIKEN Ctr. For Life Sci. Technologies (CLST).*

8:00 KKK60 **774.09** Neural correlates of love based on Triangular Theory of Love. Y. YAMAMOTO*; M. SUGIURA; Y. KOTOZAKI; R. NOUCHI; K. TAKAHASHI; S. HANAWA; R. KAWASHIMA. *Tohoku Univercity.*

9:00 KKK61 **774.10** Social networking and brain hemisphere asymmetry: Effects on alpha power from induced jealousy using Facebook. S. SINGH*; H. FLICK; J. KOCH. *Univ. of Wisconsin Oshkosh.*

10:00 KKK62 **774.11** Social support in the elderly is associated with structural and functional differences in brain systems associated with emotional reward. S. M. SHERMAN*; Y. P. CHENG; K. L. FINGERMAN; D. M. SCHNYER. *Univ. of Texas At Austin.*

11:00 KKK63 **774.12** Effects of collaborative context on outcome evaluation in group members. K. KIMURA*; J. KATAYAMA. *Kwansei Gakuin Univ.*

8:00 KKK64 **774.13** In touch with your emotions: Oxytocin and touch change social judgments while others' facial expressions can alter touch experience. D. ELLINGSEN*; J. WESSBERG; O. CHELNOKOVA; H. OLAUSSON; B. LAENG; S. LEKNES. *Univ. of Gothenburg, Inst. For Neurosci. and Physiol., Univ. of Oslo, Dept. of Psychology.*

9:00 KKK65 **774.14** Ageing effects on behavioural and neural responses to nonverbal emotion vocalizations. C. F. LIMA*; N. LAVAN; Z. AGNEW; S. EVANS; P. SHANMUGALINGAM; C. MCGETTIGAN; S. SCOTT. *UCL Inst. of Cognitive Neurosci., Royal Holloway Univ. of London.*

10:00 KKK66 **774.15** Brain and behavioral effects of the FDA graphic cigarette warning labels. A. WANG*; D. ROMER; D. D. LANGLEBEN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

11:00 KKK67 **774.16** How does oxytocin affect gaze to the eyes? S. LEKNES*; M. LARSSON; B. LAENG; L. WESTBERG. *Univ. Oslo, Gothenburg Univ.*

8:00 KKK68 **774.17** Establishment of a new evaluation method for social cognition in common marmosets -Joint visual attention task-. T. HASHIMOTO; T. NAKAKO; T. MURAI; K. MATSUMOTO; M. KOTANI; M. IKEJIRI; M. MANABE; Y. OGI; T. ISHIYAMA*; M. TAIJI; K. IKEDA. *Dainippon Sumitomo Pharma Co., Ltd., Dainippon Sumitomo Pharma Co., Ltd., Dainippon Sumitomo Pharma, Co., Ltd.*

9:00 KKK69 **774.18** Neural correlates of multimodal emotional perception: An fMRI study with music and facial expressions. T. ISHII*; T. ASO; K. ONO; H. FUKUYAMA. *Human Brain Res. Center, Kyoto Univ. Grad. Sch. of Med.*

10:00 KKK70 **774.19** The complex interplay of face, gaze, and affective context: Evidence from steady-state visual evoked potentials (ssVEPs). M. J. WIESER*; P. PAULI; A. KEIL. *Univ. Würzburg, Univ. Florida.*

11:00 LLL1 **774.20** Sensory contribution to vocal emotion deficit after subthalamic nucleus DBS in Parkinson's disease. J. PÉRON*; S. CEKIC; C. HAEGELEN; P. SAULEAU; D. DRAPIER; M. VÉRIN; D. GRANDJEAN. *Swiss Ctr. For Affective Sci., EA 4712 Behavior and Basal Ganglia.*

8:00 LLL2 **774.21** When smooth thoughts lead to smooth moves: Cognitive fluency facilitates approach movement and behavior. E. W. CARR*; P. WINKIELMAN; M. ROTTEVEEL. *UC San Diego, Univ. van Amsterdam.*

9:00 LLL3 **774.22** Oxytocin modulates fmri responses to facial expression in macaques. N. LIU*; F. HADJ-BOUZIANE; K. B. JONES; J. N. TURCHI; B. B. AVERBECK; L. G. UNGERLEIDER. *Natl. Inst. of Mental Health, Natl. Inst. of Hlth., Natl. Inst. of Mental Health, Natl. Inst. of Hlth., Natl. Inst. of Mental Health, Natl. Inst. of Hlth.*

POSTER

775. Dopamine I

Theme F: Cognition and Behavior

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

8:00 LLL4 **775.01** Are all palatabilities created equal? Comparison of saccharin, fructose, sucrose and fat solution intakes following dopamine D1 and opioid receptor antagonists in two inbred mouse strains. T. T. KRAFT*; D. HUANG; E. NATANOVA; Y. YAKUBOV; M. LOLIER; A. PEREZ; K. TOUZANI; A. SCLAFANI; R. J. BODNAR. *Queens College, CUNY, Brooklyn College, CUNY.*

9:00 LLL5 **775.02** C-fos induction in the dorsal striatum following oral intake of sugars and fats in rats. J. DELA CRUZ*; T. COKE; T. KARAGIORGIS; C. SAMPSON; I. YENKO; K. KEST; D. ICAZA-CUKALI; R. RANALDI; K. TOUZANI; A. SCLAFANI; R. J. BODNAR. *Queens College, CUNY, Maastricht Univ. Med. Ctr., Brooklyn College, CUNY.*

10:00 LLL6 **775.03** Precise extended amygdala and hypothalamic circuit modules govern feeding processes. J. H. JENNINGS*; G. RIZZI; A. M. STAMATAKIS; R. L. UNG; G. D. STUBER. *UNC At Chapel Hill.*

11:00 LLL7 **775.04** Optical suppression of phasic dopamine spikes evoked by presynaptic release modulators. J. E. MCCUTCHEON*; J. J. CONE; C. G. SINON; I. B. WITTEN; K. DEISSEROTH; G. D. STUBER; M. F. ROITMAN. *Univ. of Illinois at Chicago, Princeton Univ., Stanford Univ., Univ. of North Carolina.*

8:00 LLL8 **775.05** Ventral and dorsal striatal dopamine in alcohol reinforcement in rats. M. SPOELDER*; H. M. B. LESSCHER; L. J. M. J. VANDERSCHUREN. *Utrecht Univ., Rudolf Magnus Inst. of Neurosci.*

9:00 LLL9 **775.06** VTA dopaminergic neurons release GABA in the lateral habenula to promote reward. A. M. STAMATAKIS*; R. L. UNG; G. A. BLAIR; R. J. WEINBERG; R. L. NEVE; F. BOYCE; J. MATTIS; C. RAMAKRISHNAN; K. DEISSEROTH; G. D. STUBER. *UNC Chapel Hill, MIT, Massachusetts Gen. Hosp., Stanford Univ.*

10:00 LLL10 **775.07** Role of NMDA receptor antagonism in the amygdala and medial prefrontal cortex in the acquisition and expression of fructose-conditioned flavor preferences in rats. F. M. ROTELLA*; A. BADALIA; S. M. DUENAS; M. HOSSAIN; I. YENKO; K. OLSSON; T. DINDYAL; V. VIG; S. NARINESINGH; N. KHALIFA; K. TOUZANI; A. SCLAFANI; R. J. BODNAR. *Queens College, CUNY, Brooklyn College, CUNY.*

11:00 LLL11 **775.08** The role of brain-derived neurotrophic factor in the ventral tegmental area on opiate motivation. G. MAAL-BARED*; R. TING-A-KEE; H. VARGAS-PEREZ; D. VAN DER KOOY. *Univ. of Toronto.*

8:00 LLL12 **775.09** Motivational deficits and altered cortico-striatal communication in a rat model of Huntington's disease. R. CACHOPE*; I. GILDISH; K. TSUTSUI; A. FITOUSSI; J. F. CHEER. *Univ. of Maryland.*

9:00 LLL13 **775.10** Low dose ghrelin potentiates psychostimulant-induced ethanol intake. A. I. FIMMEL; S. L. HEICHMAN; M. J. ANGELES; L. C. S. CEPKO; J. A. SELVA; S. A. GOLDBERG; P. J. CURRIE*. *Dept. Psychology, Reed Col.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 LLL14 **775.11** Dopamine controls the neural dynamics of memory signals and retrieval accuracy. T. APITZ*; N. BUNZECK. *Univ. Med. Ctr. Hamburg-Eppendorf.*

11:00 LLL15 **775.12** Dopamine neurons evolve to signal future rewards expected across blocks of multiple choices when monkeys are overtrained. K. ENOMOTO*; N. MATSUMOTO; M. KIMURA. *Brain Sci. Res. Center, Tamagawa Univ., Pref Univ. of Kumamoto.*

8:00 LLL16 **775.13** Temporal relationship between cues and rewards modulates mesolimbic dopamine release and behavior. M. J. WANAT*; H. TONG; P. E. M. PHILLIPS. *Univ. of Washington.*

9:00 LLL17 **775.14** Macronutrients change the expression of genes encoding dopamine and serotonin receptors in the hypothalamus in rats. M. F. GONZALEZ*; M. BUENDIA; M. SKIRZEWSKI; I. PEREZ; D. PAREDES; P. RADA; L. HERNANDEZ. *Lab. de Fisiología de la Conducta, Univ. De Los Andes, Lieber Inst. of Neurodevelopment, Johns Hopkins Univ.*

10:00 LLL18 **775.15** Trait impulsivity predicts responding for a conditioned reinforcer and amphetamine-induced DA release in the nucleus accumbens. F. D. ZEEB*; P. J. FLETCHER. *CAMH.*

POSTER

776. Dopamine II

Theme F: Cognition and Behavior

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

8:00 LLL19 **776.01** The enhancement of the reward prediction error signal in the midbrain dopamine neuron by the cost paid for the reward. S. TANAKA*; J. P. O'DOHERTY; M. SAKAGAMI. *Tamagawa Univ. Brain Sci. Inst., Caltech.*

9:00 LLL20 **776.02** Phasic dopamine release in the striatum during spatial discrimination and reversal learning. M. KLANKER*; T. SANDBERG; M. FEENSTRA; D. DENYS. *Netherlands Inst. For Neurosci., Academic Med. Ctr.*

10:00 LLL21 **776.03** Short-term potentiation and short-term depression of dopamine release enhance the signal-to-noise ratio of dopamine neurotransmission in the dorsal and ventral striatum. C. DA CUNHA*; E. MCKIMM; C. MCCRAW; C. D. BLAHA. *Univ. Federal do Parana, Univ. of Memphis, Univ. of Memphis.*

11:00 LLL22 **776.04** Investigation of the behavioural pharmacology of dopamine D2/D3 agonist pramipexole. P. N. MCCORMICK*; P. J. FLETCHER; V. S. WILSON; G. J. REMINGTON. *Ctr. For Addiction and Mental Hlth.*

8:00 LLL23 **776.05** Observation of reward delivery to a conspecific promotes dopamine release in ventral striatum. V. KASHTELYAN*; N. T. LICHTENBERG; M. L. CHEN; J. F. CHEER; M. R. ROESCH. *Univ. of Maryland, Univ. of Maryland Sch. of Med.*

9:00 LLL24 **776.06** Parametric analysis of approach responding rewarded by optogenetic excitation of midbrain dopamine neurons. S. IKEMOTO*; A. J. KESNER; A. ILANGO. *NIDA, NIH.*

10:00 LLL25 **776.07** On the role of basal-forebrain MFB efferents in self-stimulation of the rat medial forebrain bundle. I. TRUJILLO-PISANTY*; A. MARTEL; K. CONOVER; A. ARVANITOGIANNIS; P. SHIZGAL. *Concordia Univ., Concordia Univ.*

11:00 LLL26 **776.08** Social isolation stress markedly reduces the response of cortical dopaminergic neurons to pleasurable stimuli. L. DAZZI*; V. LALLAI; M. SERRA; G. BIGGIO. *Univ. of Cagliari.*

8:00 LLL27 **776.09** Abuse liability assessment and preclinical indicators of N-substituted benztropine (BZT) analogs as medications for stimulant abuse. T. HIRANITA*; P. L. SOTO; G. TANDA; A. H. NEWMAN; J. L. KATZ. *NIDA/NIH, Johns Hopkins Univ. Sch. of Med., NIDA/NIH.*

9:00 LLL28 **776.10** Dissociation of reward experience and reward value following extended opiate withdrawal. V. Y. GREENFIELD; S. B. OSTLUND; N. T. MAIDMENT; K. M. WASSUM*. *UCLA, UCLA.*

10:00 LLL29 **776.11** Non-serotonin neurons in the dorsal raphe nucleus mediate reward via excitation of ventral tegmental area dopamine neurons. R. A. MCDEVITT*; S. L. CHUNG; A. BONCI. *NIH/NIDA.*

POSTER

777. Dopamine III

Theme F: Cognition and Behavior

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

8:00 LLL30 **777.01** Dissociating the roles of phasic and tonic dopamine in adaptive decision-making. A. HAMID*; R. SCHMIDT; J. PETTIBONE; B. J. ARAGONA; J. D. BERKE. *Univ. of Michigan, Univ. of Michigan.*

9:00 LLL31 **777.02** Cannabinoid-induced disruptions in timing ability are accompanied by an increase in patterned dopamine release in fixed-interval tasks. S. L. WU*; E. B. OLESON; R. CACHOPE; K. TSUTSUI; J. F. CHEER. *Univ. of Maryland, Baltimore, Univ. of Maryland, Baltimore.*

10:00 LLL32 **777.03** Bidirectional modulation of food intake by activation of medial prefrontal cortical pyramidal neurons. D. M. WARTHEN; R. P. GAYKEMA; P. S. LAMBETH; M. M. SCOTT*. *Univ. of Virginia, UIniversity of Virginia.*

11:00 LLL33 **777.04** ● The infralimbic cortex controls both promotion and suppression of reward seeking via distinct neuronal ensembles. N. SUTO*; B. T. HOPE; G. CAUVI; T. KERR; G. GONZALEZ-CUEVAS; M. MAYFORD; F. WEISS. *The Scripps Res. Inst., NIDA/NIH/IRP.*

8:00 LLL34 **777.05** Dynamic changes of VTA GABA neuron activity during learning and extinction. S. HAESLER*; K. MUTLU; N. UCHIDA. *Neuroelectronics Res. Flanders, Harvard Univ.*

9:00 LLL35 **777.06** Food quality and cognition: Effects of a purified, refined diet on performance on a progressive ratio schedule in rats. A. P. BLAISDELL*; Y. M. L. LAU; E. TELMINOVA; B. FAN; H. LIM; C. FAST; D. GARLICK. *UCLA.*

10:00 LLL36 **777.07** Biphasic, age-dependent alterations in dopamine release in a rat model of Huntington's disease. I. GILDISH*; R. CACHOPE; J. F. CHEER. *Univ. of Maryland.*

11:00 LLL37 **777.08** Operant self-stimulation of dopamine neurons in the substantia nigra. T. SUKHARNIKOVA*; M. A. ROSSI; V. Y. HAYRAPETYAN; L. YANG; H. H. YIN. *Duke Univ.*

8:00 LLL38 **777.09** D2-receptor stimulation enhances distractibility dependent on rewards. S. G. MANOHAR*; M. HUSAIN. *Dept. of Exptl. Psychology.*

9:00 LLL39 **777.10** The influence of serotonin and dopamine on motivation in a Pavlovian-to-instrumental transfer task. M. N. HEBART*; J. GLÄSCHER. *Dept. of Systems Neurosci.*

10:00 LLL40 **777.11** Neural pathway-specific regulation of synaptic transmission by glucagon-like peptide-1in mesolimbic nervous system. X. WANG*; J. XIA; Z. PANG. *Dept. of Neurosci. and Cell Biol. & Child Hlth. Inst. of New Jers, Child Hlth. Inst. of New Jersey, Child Hlth. Inst. of New Jersey, Robert Wood Johnson Med. Sch.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 LLL41 **777.12** Mesolimbic dopamine and updating the relative costs and benefits of future reward. M. BOUDONNAT*; E. LIN; M. WITTMANN; A. HUBER; M. E. WALTON. *Univ. of Oxford, Sch. of Psychology, Univ. of Cardiff, Univ. of Oxford, Univ. of Oxford.*

8:00 LLL42 **777.13** Yin and yang: How expected reward and punishment modulate behavior and its corresponding neural signals. R. N. GENTRY*; V. KASHTELYAN; N. T. LICHTENBERG; N. SAYED; B. LEE; M. R. ROESCH. *Univ. of Maryland, Col. Park, Univ. of Maryland, Col. Park.*

POSTER

778. Dopamine Receptors

Theme F: Cognition and Behavior

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

8:00 LLL43 **778.01** Do midbrain dopamine neurons encode the magnitude of negative reward prediction errors? R. AZEVEDO*; T. GOUVEA; F. TECUAPETLA; J. PATON. *Champalimaud Ctr. for the Unknown.*

9:00 LLL44 **778.02** The role of D1 and D2 receptors in mediating reinforcement learning. L. E. GRATTAN*; P. W. GLIMCHER. *New York Univ., New York Univ.*

10:00 LLL45 **778.03** Lipoprotein lipase regulation of feeding behaviors within the mesolimbic system. J. G. MALDONADO-AVILES*; V. PRABHU; E. JEFFERY; R. J. DILEONE. *Yale Univ.*

11:00 LLL46 **778.04** Dopamine both directly reinforces actions and instantiates neutral cues with reinforcing value. B. T. SAUNDERS*; P. H. JANAK. *Univ. of California-San Francisco.*

8:00 LLL47 **778.05** Non-dopaminergic and dopaminergic neurons of the ventral tegmental area in the adult male rat and mouse are chemically and spatially diverse. E. M. WALKER*; B. DE HARO; A. M. KHAN. *Univ. of Texas El Paso.*

9:00 LLL48 **778.06** Dopaminergic modulation of value-based decision making and subjective wellbeing. N. SKANDALI*; R. B. RUTLEDGE; P. DAYAN; R. J. DOLAN. *Univ. Col. London.*

10:00 LLL49 **778.07** BDNF in the ventral tegmental area causes the switch from a nondependent D1-mediated nicotine aversion to a nicotine-dependent D2-mediated nicotine preference. T. E. GRIEDER*; H. VARGAS-PEREZ; G. MAAL-BARED; R. TING-A-KEE; D. VAN DER KOOY. *Univ. Toronto, Univ. Toronto.*

11:00 LLL50 **778.08** Acute inhibition of dopamine neuron activity reveals behavioral requirements for dopamine signaling in motivation and learning. S. C. FISCHBACH*; R. M. REESE; P. H. JANAK. *Gallo Center, Dept. Of Neurology, UCSF.*

POSTER

779. Natural Rewards and Behavior

Theme F: Cognition and Behavior

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

8:00 LLL51 **779.01** Automating ultrasonic vocalization analyses: The waaves program. J. M. RENO*, JR; B. MARKER; L. CORMACK; T. SCHALLERT; C. DUVAUCHELLE. *Univ. of Texas At Austin, Univ. of Texas at Austin, Univ. of Texas at Austin, Univ. of Texas at Austin, Univ. of Texas at Austin.*

9:00 LLL52 **779.02** Why doesn't the Fischer 344 rat play like other rats? S. M. SIVIY*; G. AKOPIAN; J. P. WALSH. *Gettysburg Col., USC.*

10:00 LLL53 **779.03** Process of forming novel behavior by visual reinforcement without awareness: Instrumental conditioning in blindsight monkeys. R. KATO*; N. TAKAKUWA; A. ZEGHBIB; P. REDGRAVE; T. ISA. *Natl. Inst. For Physiological Sci., The Grad. Univ. for Advanced Studies 'SOKENDAI', Dept Psychol, Univ. of Sheffield.*

11:00 LLL54 **779.04** Electrical microstimulation of the ventral tegmental area reinforces cue selection in monkeys. J. T. ARSENAULT*; S. RIMA; P. C. KLINK; H. STEMMANN; W. VANDUFFEL. *K.U. Leuven, Athinoula A. Martinos Ctr. for Biomed. Imaging, Netherlands Inst. for Neurosci., Harvard Med. Sch.*

8:00 LLL55 **779.05** Individual serotonin receptor subtypes in the ventral tegmental area differentially affect palatability-induced feeding and locomotor behavior in the rat. W. E. PRATT*; A. E. CAIN; T. R. HOPKINS; E. A. KELLY; P. LIN; K. A. CLISSOLD. *Wake Forest Univ.*

9:00 LLL56 **779.06** Sleep deprivation increases 50 kHz ultrasonic vocalizations emitted during play behavior in rats. J. I. WOODEN; R. KIELTYKA; J. PIDO; B. MONTEMAYOR; C. P. WARD*. *Univ. Houston Clear Lake.*

10:00 LLL57 **779.07** Open-field turning behavior elicited by pharmacogenetic activation or inhibition of rmtg gaba neurons in gad2-cre mice. D. I. WASSERMAN*; J. TAN; J. KIM; J. S. YEOMANS. *UNIVERSITY OF TORONTO.*

11:00 LLL58 **779.08** Optogenetic stimulation of the supramammillary nucleus is rewarding. A. KESNER*; A. ILANGO; S. IKEMOTO. *Natl. Inst. of Drug Abuse.*

8:00 LLL59 **779.09** Classical conditioning reinforced by visual stimuli in blindsight monkeys. N. TAKAKUWA*; R. KATO; P. REDGRAVE; T. ISA. *NIPS, The Grad. Univ. for Advanced Studies [SOKENDAI], Univ. of Sheffield.*

9:00 LLL60 **779.10** ▲ Psychological response on anticancer drug. S. YONEDA*; S. HATTORI; H. NAKAMURA; S. WATANABE; T. KOYAMA; S. MURAKAMI; I. MIYAZAKI; M. ASAMUMA; Y. KITAMURA; T. SENDO. *Okayama Univ. Dep. of Clin. Hosp., Dept. Brain Sci. Okayama Univ.,.*

10:00 LLL61 **779.11** Effects of acute and chronic ketamine administration on intracranial self-stimulation (ICSS) in rats. T. M. HILLHOUSE*; S. S. NEGUS. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

11:00 LLL62 **779.12** ▲ Social learning in Zebra Finches: Learning a conditioning task by example. M. CARNEY*; J. ELIE; Y. MINTON; F. THEUNISSEN. *UC Berkeley, Helen Wills Neurosci. Inst.*

POSTER

780. Reward Theory

Theme F: Cognition and Behavior

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

8:00 LLL63 **780.01** Reward enhances imagination of future events through a striatal-hippocampal-prefrontal network. L. BULGANIN*; D. HASSABIS; B. C. WITTMANN. *Justus Liebig Univ. Giessen, Univ. Col. London.*

9:00 LLL64 **780.02** Intrinsically motivated exploratory decisions directed by learning and competence progress. A. BARANES*; J. GOTTLIEB. *Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr.*

10:00 LLL65 **780.03** High fat diet affects dopamine reward system and behavior: Adolescent versus adult exposure. J. CARLIN*; T. M. REYES. *Univ. of Pennsylvania.*

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

▲ Indicates a high school or undergraduate student presenter.

11:00 MMM1 **780.04** A novel mixed anti- and visually guided saccade task to assess incentive effects on inhibitory control. D. M. LYDON; A. CHILD; J. BEAHM; C. GEIER*. *Pennsylvania State Univ.*

8:00 MMM2 **780.05** Strain differences in measures of behavioral-regulation. J. B. RICHARDS*; D. R. LLOYD; P. J. MEYER; A. A. PALMER. *Res. Inst. On Addictions, Univ. of Buffalo, Univ. of Chicago.*

9:00 MMM3 **780.06** External error-feedback improves task control when individuals make negative but not positive trait-associations. S. L. BENGTSSON*; J. YI; A. APPELGREN. *Dept Clin. Neurosci.*

10:00 MMM4 **780.07** Isolating the role of glutamatergic signaling in the attribution of incentive salience. J. BECKMANN*; J. CHOW; F. POMERLEAU; M. BARDO; G. GERHARDT. *Univ. of Kentucky, Univ. of Kentucky.*

11:00 MMM5 **780.08** Reduced parahippocampal response associated with reward anticipation in risk-taking adolescents. S. J. DEWITT; J. DUNLOP; F. FILBEY*. *Univ. of Texas At Dallas.*

8:00 MMM6 **780.09** Reconciling neural representations of value and salience in the human parietal and orbitofrontal cortex. T. KAHNT*; S. Q. PARK; J. HAYNES; P. N. TOBLER. *Dept. of Economics, UZH, Charite - Universitätsmedizin Berlin.*

9:00 MMM7 **780.10** Optogenetic study of the drive-reward paradox. R. A. WISE*; V. ZAMORA OLIVENCIA; F. BENALIOUAD. *NIDA IRP, NIDA IRP.*

10:00 MMM8 **780.11** Effort-based decision making and avolition in schizophrenia. G. FERVAHA*; A. GRAFF-GUERRERO; K. K. ZAKZANIS; G. FOUSSIAS; O. AGID; G. REMINGTON. *Ctr. for Addiction and Mental Hlth., Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*

11:00 MMM9 **780.12** Intracranial self-stimulation patterns following perinatal lead exposure in rats. J. A. RODRIGUEZ*; P. CLIFFORD; S. HUGHES; G. BRATTON; P. J. WELLMAN. *Texas A&M Univ.*

8:00 MMM10 **780.13** ● Vertical Sleeve Gastrectomy improves the metabolic phenotype of Clock mutant mice. D. M. ARBLE*; D. A. SANDOVAL; S. C. WOODS; R. J. SEELEY. *Univ. of Cincinnati.*

9:00 MMM11 **780.14** Collecting reward to defend homeostasis: A homeostatic reinforcement learning theory. M. KERAMATI*; B. S. GUTKIN. *Ecole Normale Superieure, Group for Neural Theory, INSERM U960, Dept. des Etudes Cognitives, Ecole Normale Superieure.*

10:00 MMM12 **780.15** Action impulsivity is associated with the tendency to attribute incentive salience to reward cues in heterogeneous N/NIH rats. C. P. KING; J. B. RICHARDS; A. A. PALMER; L. C. SOLBERG WOODS; P. MEYER*. *Univ. at Buffalo, Res. Inst. on Addictions, Univ. of Chicago, Med. Col. of Wisconsin.*

POSTER

781. Rodent Models of Negative Affective States

Theme F: Cognition and Behavior

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

8:00 MMM13 **781.01** Negative emotional states in GluN2D subunit knockout mice. H. YAMAMOTO*; E. KAMEGAYA; Y. HAGINO; Y. TAKAMATSU; T. YAMAMOTO; M. MISHINA; K. IKEDA. *Tokyo Metropolitan Inst. of Med. Sci., Yokohama City Univ., Ritsumeikan Univ.*

9:00 MMM14 **781.02** Ducks float, but are they depressed? Buoyancy as a confounding factor in the mouse forced swim (Porsolt) test. L. CHEN; I. FERANDO; I. MODY; G. C. FAAS*. *UCLA, UCLA, UCLA, UCLA Neurol.*

10:00 MMM15 **781.03** Contingency training enhances resilience against symptoms of depression: Intersections of endocrine, emotional, cognitive and neuroplasticy measures. K. G. LAMBERT*; M. HYER; A. HAZELGROVE; A. RZUCIDLO; T. BERGERON; T. LANDIS; M. BARDI. *Randolph Macon Col.*

11:00 MMM16 **781.04** Phosphodiesterase 1B knockout mice are resistant to the induction of depression. J. R. HUFGARD*; M. R. SKELTON; M. T. WILLIAMS; C. V. VORHEES. *Univ. of Cincinnati Med. Ctr., Cincinnati Childrens Hosp.*

8:00 MMM17 **781.05** MiR-34 modulates the stress response through a Prefrontal/Amygdalar system. M. DI SEGNI; D. ANDOLINA; S. PUGLISI-ALLEGRA; A. VENTURA; C. P. CONCEPCION; R. VENTURA*. *Univerity la Sapienza Rome, Univ. of L'Aquila, Cancer Biol. and Genet. Program, Mem. Sloan-Kettering Cancer Ctr.*

9:00 MMM18 **781.06** Chronic social defeat in adolescent male mice induces depression-like behaviors and alters the levels of the transcription factor Max in the hippocampus. S. CHIAVEGATTO*; C. E. AMARAL; L. ALVES-DOS-SANTOS; R. B. S. SOARES; A. S. ALVES; L. R. G. BRITTO; L. S. RESENDE. *Biomed. Sci. Inst. - Univ. of Sao Paulo, Natl. Inst. for Developmental Psychiatry (INCT-CNPQ), Biomed. Sci. Inst. - Univ. of Sao Paulo.*

10:00 MMM19 **781.07** Melanocortin-5 receptor control of depressive behavior in mice. J. L. SHANNONHOUSE*; B. CLOSSEN; A. TODOROVIC; A. V. MAYOROV; D. YORK; V. HRUBY; C. HASKELL-LUEVANO; C. MORGAN. *Texas A&M Univ., Texas A&M Univ., Univ. of Minnesota, Univ. of Arizona, Weill Cornell Med. Col., Univ. of Arizona, Univ. of Minnesota, Texas A&M Univ.*

11:00 MMM20 **781.08** Delta opioid receptor contribution in emotional and locomotor responses: a conditional gene knockout approach. P. CHU SIN CHUNG; H. L. KEYWORTH; A. BAILEY; K. BEFORT; D. FILLIOL; A. MATIFAS; I. KITCHEN; B. L. KIEFFER*. *IGBMC - CERBM, Inst. of Biosci. and Med.*

8:00 MMM21 **781.09** Effects of multiple isoflurane exposures on cognitive and behavioral outcomes. R. LONG*; E. PRAGER; R. KENEALLY; J. OZL; H. BERGSTROM; M. BRAGA. *Uniformed Services Univ. of the Hlth. Sci.*

9:00 MMM22 **781.10** Spontaneous 22-28 kHz ultrasonic vocalizations in alcohol-naive P and HAD-1 rats reveal vulnerability to excessive alcohol intake. C. L. DUVAUCHELLE*; J. RENO; N. THAKORE; J. KRIEGER; E. KUSEY; J. YANG; S. T. AHAMED; K. DEGRACIA; M. ROTKO; O. DURRANI; J. PHAM; R. CASSIDY; I. SHEIKH; A. MAGRO; T. SCHALLERT; R. GONZALES. *Univ. of Texas, Univ. of Texas, Univ. of Texas, Univ. of Texas.*

10:00 MMM23 **781.11** Role of the dorsal medial habenula in the regulation of hedonic state. Y. A. HSU*; S. D. WANG; G. MORTON; H. O. DE LA IGLESIA; E. E. TURNER. *Seattle Children's Res. Inst., Univ. of Washington.*

POSTER

782. Motor Pattern Generation: Vertebrate Models II

Theme F: Cognition and Behavior

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

8:00 MMM24 **782.01** Targeted electrophysiological recordings of single cortical neurons underlying a skilled motor behavior. S. BENEZRA*; D. OKOBI; R. CLARY; M. LONG. *NYU Sch. of Medicine, Dept. of Physiol. and Neurosci.*

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

▲ Indicates a high school or undergraduate student presenter.

9:00 MMM25 **782.02** Cortical modules contribute to stereotyped vocalizations in a tropical rodent. D. E. OKOBI*, JR; S. M. PHELPS; M. A. LONG. *NYU Sch. of Med., Univ. of Texas, NYU Sch. of Med.*

10:00 MMM26 **782.03** Inhibitory coupling in a cortical premotor pattern-generating network. G. KOSCHE*; M. A. LONG. *NYU Sch. of Med.*

11:00 MMM27 **782.04** Premotor inputs dominate intracellular dynamics during the performance of a learned skill. D. VALLENTIN*; M. A. LONG. *NYU Sch. of Medicine, Dept. of Physiol. and Neurosci.*

8:00 MMM28 **782.05** Incising behavior during mild-moderate masticatory muscle pain in mice. C. G. WIDMER*; J. MORRIS-WIMAN. *Univ. of Florida, West Virginia Sch. of Osteo. Med.*

9:00 MMM29 **782.06** Behavioral assessment of incising in mice. J. MORRIS-WIMAN*; C. G. WIDMER. *West Virginia Sch. of Osteo. Med., Univ. of Florida.*

10:00 MMM30 **782.07** Whole cell recordings in lower cervical spinal cord - analysis of circuitry structure in low-level motor control of distal forelimb. P. GEBOREK*; A. SPANNE; F. BENGTSSON; H. JORNTELL. *Lund Univ., Lund Univ.*

11:00 MMM31 **782.08** ▲ Extended CPG for scratching. R. GUZULAITIS; A. ALABURDA; J. HOUNSGAARD*. *Vilnius Univ., Panum Inst.*

8:00 MMM32 **782.09** Regional distribution of functionally defined components of the mammalian locomotor CPG. A. GRIENER; S. GOSGNACH*. *Univ. of Alberta.*

9:00 MMM33 **782.10** ● Functional interactions between the respiratory center, the upper spinal cord, and the trigeminal system. I. YAZAWA*; S. TACHIKAWA; A. MOCHIZUKI; T. INOUE; K. NAKAYAMA. *Showa Univ. Sch. of Dent., Showa Univ. Sch. of Dent.*

10:00 MMM34 **782.11** Circuit organization of excitatory premotor neurons provides an anatomical basis for coordinating left-right alternation during locomotion. L. GARCIA-CAMPMANY*; A. DALET; J. ZHANG; M. GOULDING. *The Salk Inst. For Biol. Studies.*

11:00 MMM35 **782.12** Studying the cellular basis of axial motor activity in the neonatal rat spinal cord. L. BELIEZ; G. BARRIERE; S. BERTRAND; D. MORIN*; J. CAZALETS. *INCIA CNRS Univ. of Bordeaux, Univ. of Bordeaux.*

8:00 MMM36 **782.13** Genetic reorganizations of spinal cord circuits leading to gait transition from walking to hopping: Insights from computational modeling. I. A. RYBAK*; N. A. SHEVTSOVA; O. KIEHN. *Drexel Univ. Col. of Med., Karolinska Inst.*

9:00 MMM37 **782.14** Interneuronal activity underlying cutaneous reflex modulation in the air-stepping spinal feline. D. P. KOWALSKI*; M. A. LEMAY. *Drexel Univ. Coll. of Med., Drexel Univ.*

10:00 MMM38 **782.15** Rat locomotor spinal circuits *in vitro* are activated by electrical stimulation with noisy waveforms sampled from human gait. G. TACCOLA*; F. DOSE; R. MENOSSO. *SISSA - IMFR, ASS4 Medio Friuli, IMFR.*

11:00 MMM39 **782.16** Behavior and properties of ramp neurons in frog spinal cord during reflex and patterned behaviors - Switching and initiating motor primitive bursts. S. F. GISZTER*; C. B. HART. *Drexel Univ. Col. of Med., Lockheed Martin Corp.*

8:00 MMM40 **782.17** Excitatory and inhibitory inputs to lumbar spino-reticulo-cerebellar neurones. I. H. HAMMAR*; Z. HUMA; P. KRUTKI; M. BąCZYK; D. MAXWELL. *Inst. Neurosci & Physiol, Inst. of Neurosci. and Psychology Col. of Medicine, Vet. and Life Sci. Univ. of Glasgow, Scotland, Univ. Sch. of Physical Educ., Inst. of Neurosci. and Physiology, Sahlgrenska Academy, Göteborg Univ., Inst. of Neurosci. and Psychology Col. of Medicine, Vet. and Life Sci. Univ. of Glasgow.*

9:00 MMM41 **782.18** Rhythmic neuronal activity in the newborn mouse spinal cord mediated through gap junctions. M. FALGAIROLLE*; D. BLIVIS; M. J. O'DONOVAN. *NIH.*

10:00 MMM42 **782.19** Locomotor pattern degrades in absence of proprioceptive feedback: A genetic, physiological, and behavioral analysis. T. AKAY*; W. G. TOURTELLOTTE; S. ARBER; T. M. JESSELL. *Columbia Univ. Med. Ctr., Northwestern Univ., Univ. of Basel, Biozentrum, Howard Hughes Med. Institute, Columbia Univesity.*

11:00 MMM43 **782.20** Central regulation of spinal reflex responses to body bending mediated by intraspinal stretch receptor neurons in lamprey. L. HSU; P. V. ZELENIN; G. N. ORLOVSKY*; T. G. DELIAGINA. *Karolinska Inst.*

8:00 MMM44 **782.21** Functional organization of motor neurons during fictive locomotor behavior revealed by large-scale optical imaging. T. A. MACHADO*; L. PANINSKI; T. M. JESSELL. *Columbia Univ., Columbia Univ., Columbia Univ.*

9:00 MMM45 **782.22** On the organization and location of the generator for the slow respiratory rhythm in lampreys. K. MISSAGHI*; F. AUCLAIR; R. DUBUC. *Univ. Montreal, Univ. du Quebec a Montreal.*

10:00 MMM46 **782.23** GABAergic gating of direct and indirect olfacto-motor pathways. G. DAGHFOUS*; J. LETOURNEAU; J. MILLETTE; F. AUCLAIR; B. ZIELINSKI; R. DUBUC. *Univ. Montreal, Groupe de Recherche en Activite Physique Adaptee, Dept. of Kinesiology, Univ. du Quebec a Montreal, Dept. of Biol. Sciences, Univ. of Windsor.*

11:00 NNN1 **782.24** Conservation of the descending projections from forebrain dopamine neurons to a brainstem region controlling locomotion in vertebrates. Possible implications for Parkinson's disease. D. RYCZKO*; C. DUBE; M. H. ALPERT; J. J. CONE; F. AUCLAIR; M. ROITMAN; S. ALFORD; R. DUBUC. *Univ. Montreal, Lab. of Integrative Neuroscience, Univ. of Illinois at Chicago, Groupe de Recherche en Activite Physique Adaptee, Dept. of Kinesiology, Univ. du Quebec a Montreal.*

8:00 NNN2 **782.25** On time-invariance of population motifs of spikes in motor networks. M. VESTERGAARD*; R. W. BERG. *Uni of Copenhagen, Univ. of Copenhagen.*

9:00 NNN3 **782.26** Common source synaptic input to motoneurons during motor pattern generation. M. RADOSEVIC*; R. W. BERG. *Univ. of Copenhagen, Univ. of Copenhagen.*

10:00 NNN4 **782.27** Sinusoidal electrical waves recorded on the ventral surface of the turtle spinal cord during scratching. C. A. CUELLAR*; R. DELGADO-LEZAMA; E. MANJARREZ. *CINVESTAV, Inst. de Fisiologia BUAP.*

11:00 NNN5 **782.28** ● Towards a larval zebrafish spinal cord wiring diagram. F. SVARA*; J. BOLLMANN; W. DENK. *Max Planck Inst. For Med. Res.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

783. New Methods for Electrophysiology: Multi-Electrode Arrays

Theme G: Novel Methods and Technology Development

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

8:00 NNN6 **783.01** Carbon fiber array insertion assisted by controlled application and removal of polyethylene glycol. P. R. PATEL*; H. ZHANG; T. D. Y. KOZAI; N. A. KOTOV; D. R. KIPKE; C. A. CHESTEK. *Univ. of Michigan, Univ. of Michigan, Univ. of Pittsburgh.*

9:00 NNN7 **783.02** Simultaneous electrical stimulation and recording of retinal ganglion cells using novel CMOS-based high density micro electrode arrays comprising 4225 recording and 1024 capacitive stimulation electrodes. G. ZECK*; M. EICKENSCHEIDT; N. DODEL; R. THEWES. *NMI At the Univ. Tuebingen, Fac. of Electrical Engin. & Computer Sci.*

10:00 NNN8 **783.03** High surface area platinum electrodes for chronic neural stimulation. V. TOLOSA*; K. SHAH; A. TOOKER; S. FELIX; S. PANNU. *LAWRENCE LIVERMORE NATIONAL LAB.*

11:00 NNN9 **783.04** Dual-sided polyimide microelectrode arrays for neural recording and stimulation. S. H. FELIX*; A. C. TOOKER; V. M. TOLOSA; H. J. SHETH; K. G. SHAH; T. L. DELIMA; S. S. PANNU. *Lawrence Livermore Natl. Lab.*

8:00 NNN10 **783.05** Chronic recordings of neuronal activity using flexible microelectrode arrays to reduce micromotion-induced tissue damage. K. SHAH*; D. B. MCCREERY; V. TOLOSA; A. TOOKER; S. FELIX; S. PANNU. *Lawrence Livermore Natl. Lab., Huntington Med. Res. Inst.*

9:00 NNN11 **783.06** Multi-electrode array recording of the crab stomatogastric ganglion. J. S. STEYN*; C. A. HARRIS; G. KEMENES; P. ANDRAS. *Newcastle Univ., Circuit Dynamics and Connectivity Unit, NINDS, NIH, Sussex Univ.*

10:00 NNN12 **783.07** Design of multi-electrode array for homogeneous samplings of differently orientation tuned unit population in cat visual cortex. Y. MARUYAMA*; H. ITO. *Kyoto Sangyo Univ.*

11:00 NNN13 **783.08** Axonal isolation channels on a high density microelectrode array. M. LEWANDOWSKA*; D. BAKKUM; A. HIERLEMANN. *ETH Zürich.*

8:00 NNN14 **783.09** Comparison between electrophysiological activity of 2D and 3D cultured hippocampal networks coupled to micro-electrode arrays. M. FREGA*; M. TEDESCO; P. MASSOBRIO; M. PESCE; S. MARTINOIA. *Univ. of Genova, Fondazione Inst. Italiano di Tecnologia.*

9:00 NNN15 **783.10** 3-D neuronal cultures coupled to 3-D multi-electrode arrays: A new biohybrid investigational platform for network neurophysiology. S. MARTINOIA*; M. TEDESCO; M. FREGA; P. MASSOBRIO; A. WILIAMSON; A. SCHOBER. *Univ. Genova, Ilmenau Univ. of Technol.*

10:00 NNN16 **783.11** Blind localization of single neurons in acute brain slices for subcellular-resolution analysis through a combination of a high-density microelectrode array and patch clamp. M. J. OBIEN*; A. HIERLEMANN; U. FREY. *RIKEN Quantitative Biol. Ctr., ETH Zurich.*

11:00 NNN17 **783.12** An electrocorticographic electrode array for simultaneous recording from medial, lateral, and intrasulcal surface of the cortex in the macaque monkey. N. FUJII*; M. FUKUSHIMA; R. C. SAUNDERS; M. MULLARKEY; M. MISHKIN. *RIKEN, NIMH/NIH.*

8:00 NNN18 **783.13** Observing activity in cortical microcircuits using transparent micro-electrocorticography (uECoG) arrays. B. PEPIN*; P. LEDOCHOWITSCH; N. GAUDREAULT; M. MAHARBIZ; T. BLANCHE. *Univ. of California, Berkeley.*

9:00 NNN19 **783.14** 85 db dynamic range 1.2 mw 156 ks/s biopotential recording ic for high-density ecog flexible active electrode array. S. HA*; J. PARK; Y. M. CHI; J. VIVENTI; J. ROGERS; G. CAUWENBERGHS. *UC San Diego, UC San Diego, Cognionics, Inc., Polytechnic Inst. of New York Univ., Univ. of Illinois at Urbana-Champaign.*

10:00 NNN20 **783.15** Preclinical assessment of a fully implantable electrocorticographic recording device for human brain computer interface applications. C. MESTAIS*; G. CHARVET; T. COSTECALDE; M. FOERSTER; D. RATEL; N. TORRES-MARTINEZ; F. SAUTER; A. BENABID. *CEA-LETI-CLINATEC.*

11:00 NNN21 **783.16** A system for correlating wireless event tracking with neural data from a fully-implanted, wireless, neural recording device: Demonstration in a freely moving swine model. N. S. AGHA*; J. KOMAR; M. YIN; D. A. BORTON; A. V. NURMIKKO. *Brown Univ., École Polytechnique Fédérale de Lausanne.*

8:00 NNN22 **783.17** Commercial wireless portable multichannel neural recording device with a digital transmitter. M. H. CHOI*; L. NAAMAN; S. DAVIDOVICH; M. DE SHON. *Jinga-Hi, Inc.*

9:00 NNN23 **783.18** Optimization of cortical silicon probe implantation. N. GAUDREAULT*; W. J. JONHSTON; T. J. BLANCHE. *Univ. of California Berkeley, The Allen Inst. for Brain Sci.*

10:00 NNN24 **783.19** Next generation optoflex polytrodes. M. CHAMANZAR*; M. M. MAHARBIZ; T. J. BLANCHE. *Univ. of California Berkeley, The Allen Inst. for Brain Sci.*

11:00 NNN25 **783.20** ● A novel system for providing multiple connections to a mouse. X. YANG; M. R. ZIELINSKI; L. GERASHCHENKO; S. A. KARPOVA; D. GERASHCHENKO*. *Harvard Med. Sch. At VA Med. Ctr., Peking Univ. Hlth. Sci. Ctr., Neurotargeting Systems Inc.*

8:00 NNN26 **783.21** ● A wireless ultra-low power high-density implantable ecog. P. LEDOCHOWITSCH*; R. MULLER; W. LI; H. LE; S. GAMBINI; A. KORALEK; J. M. CARMENA; M. M. MAHARBIZ; J. RABAEY. *Univ. of California, Berkeley, Cortera Neurotechnologies, Inc., Univ. of Melbourne.*

9:00 NNN27 **783.22** Large scale electrophysiology in the hippocampus during reward learning. W. C. SMITH*; K. I. BAKHURIN; V. MAC; M. PRATAP; T. S. OTIS; P. GOLSHANI; S. MASMANIDIS. *UCLA, UCLA, UCLA.*

10:00 NNN28 **783.23** ● A polymer neural probe with tunable flexibility. F. EJSERHOLM*; J. SCHOUENBORG; L. WALLMAN; M. BENGTSSON. *Univ. of Lund, Lund Univ., Lund Univ.*

11:00 NNN29 **783.24** ● Chronic neural recording with a 455-electrode, plug-&-play, CMOS-active neural probe. S. MUSA*; M. WELKENHUYSEN; C. M. LOPEZ; A. ANDREI; D. PRODANOV; F. KLOOSTERMAN. *Imec, NERF.*

8:00 NNN30 **783.25** Mapping retinotopic organization in monkey cortex by independent component analysis on electrocortical signals. Z. C. CHAO*; K. TAKAURA; N. FUJII. *RIKEN Brain Sci. Inst. - Wako.*

9:00 NNN31 **783.26** Retinotopic organization of the monkey visual cortex studied with electrcorticogram (ECoG) recording. K. TAKAURA*; N. TSUCHIYA; N. FUJII. *RIKEN Brain Sci. Inst. - Wako, Monash Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

10:00 NNN32 **783.27** Puggle; a miniature, real-time data acquisition system for electrophysiology that's cheaper than your smartphone. J. P. NEWMAN*; Y. A. PATEL; S. M. POTTER; R. J. BUTERA. *Georgia Inst. of Technol., Georgia Inst. of Technol.*

11:00 NNN33 **783.28** A low-cost open-source system for combining high channel count electrophysiology with closed-loop optogenetic feedback. J. VOIGTS*; J. H. SIEGLE; C. KEMERE; C. I. MOORE; M. A. WILSON. *MIT, Rice Univ., Brown Univ.*

8:00 NNN34 **783.29** Surface-based mixed effects multilayer analysis of grouped human electro-corticography. C. M. KADIPASAOGLU*; V. G. BABOYAN; C. R. CONNER; N. TANDON. *Univ. of Texas Med. Sch. At Houston.*

POSTER

784. New Methods for Stimulating Neurons

Theme G: Novel Methods and Technology Development

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

8:00 NNN35 **784.01** Stimulation of multiple adjacent points of the human brain using a novel robotized TMS system. T. KIMURA*; I. HIDAKA; H. KADOTA; M. HIRASHIMA; D. NOZAKI. *The Univ. of Tokyo, Kochi Univ. of Technol.*

9:00 NNN36 **784.02** Modulation of the TMS evoked EEG potentials with long intracortical inhibition at the 250 msec interval. S. K. KESSLER*; M. WIENER; C. GORMAN; R. H. HAMILTON. *Children's Hosp. of Philadelphia, George Mason Univ., Perelman Sch. of Med. at the Univ. of Pennsylvania.*

10:00 NNN37 **784.03** Responses of excitatory and inhibitory neurons to TMS and supposed sham-TMS in alert monkeys. E. M. GRIGSBY*; M. J. KOVAL; H. M. RAO; J. K. MUELLER; V. PREVOSTO; R. T. RAGHAVAN; Z. DENG; A. PETERCHEV; T. EGNER; M. L. PLATT; W. M. GRILL; M. A. SOMMER. *Duke Univ., Duke Univ., Duke Univ., Columbia Univ., Duke Univ., Duke Univ., Duke Univ.*

11:00 NNN38 **784.04** Immediate early gene expressions following rTMS with different time intervals and stimulation frequencies in rats. B. OH*; T. HAN; H. G. SEO; J. Y. KIM; J. LEIGH. *Seoul Natl. Univ. Hosp., Natl. Rehabilitaiton Ctr.*

8:00 NNN39 **784.05** Taking TMS mapping off the grid: A novel approach using unpatterned mapping. M. YAROSSI*; G. AMES; E. TUNIK. *UMDNJ, UMDNJ, NJIT, UMDNJ.*

9:00 NNN40 **784.06** Electromyographic motor-evoked potentials elicited by transcranial magnetic stimulation with rapidly moving permanent magnets mounted on a multisite stimulator cap. S. A. HELEKAR*; B. S. JOHN; B. C. JOHN; Z. KAJANI; D. M. ROSENFIELD; H. U. VOSS. *The Methodist Hosp. Res. Inst., Weill-Cornell Med. Col., Weill-Cornell Med. Col.*

10:00 NNN41 **784.07** ● Neurophysiological responses to short duration transcranial direct current stimulation of human prefrontal cortex. M. LOFTI; W. LEGON; A. BARBOUR; A. WILLIAMS; W. TYLER*. *Virginia Tech. Carilion Sch. of Med., Virginia Tech. Carilion Res. Inst.*

11:00 NNN42 **784.08** Assessment of human brain oscillations during frequency-dependent transcranial alternating current stimulation (tACS). S. R. SOEKADAR*; M. WITKOWSKI; E. GARCIA COSSIO; N. BIRBAUMER; L. G. COHEN; S. E. ROBINSON. *Univ. of Tuebingen, NINDS, NIMH.*

8:00 NNN43 **784.09** Transcranial magnetic stimulation has both excitatory and inhibitory effects on the activity of frontal eye field neurons. M. KOVAL*; E. M. GRIGSBY; H. M. RAO; J. K. MUELLER; V. PREVOSTO; R. T. RAGHAVAN; Z. DENG; A. V. PETERCHEV; T. EGNER; M. L. PLATT; W. M. GRILL; M. A. SOMMER. *Duke Univ., Duke Univ., Duke Univ., Columbia Univ., Duke Univ., Duke Univ., Duke Univ.*

9:00 NNN44 **784.10** Modulation of motor cortical excitability by theta burst cortical electrical stimulation in rats. T. HSIEH*; C. PENG; Y. HUANG; A. ROTENBERG; J. CHEN; J. WANG; Y. CHIANG. *Taipei Med. Univ., Taipei Med. Univ., Chang Gung Mem. Hosp., Boston Children's Hosp. and Harvard Med. Sch., Natl. Cheng Kung Univ., Taipei Med. Univ., Taipei Med. Univ. Hosp.*

10:00 NNN45 **784.11** Evaluation of the epileptogenic zone based on computer assisted network analysis of electrical stimulations during intracranial stereo-EEG recordings. V. GNATKOVSKY*; D. BOIDO; C. PASTORI; D. KAPETIS; B. GALBARDI; I. SARTORI; S. FRANCIONE; M. DE CURTIS. *IRCCS Inst. Neurologico C. Besta, Ospedale Niguarda Cà Granda.*

11:00 NNN46 **784.12** Wirelessly controlled neural stimulation system for a large-scale animal experiment. T. KANG; S. LEE; J. LEE; H. KIM; Y. LEE; S. HWANG; S. KIM; H. LEE; S. JUN*. *Ewha Womans Univ., Dept. of Electrical Engin. and Computer Science, Col. of Engin., Dept. of Neurology, Sch. of Medicine, Ewha Womans Univ., Dept. of Brain & Cognitive Sciences, Ewha Womans Univ.*

8:00 NNN47 **784.13** Intracellular verification of extracellular multi-channel recording and stimulation: Sensitivity, confinement and Spike sorting. A. WILLUMSEN*; M. VESTERGAARD; R. W. BERG. *Univ. of Copenhagen.*

9:00 NNN48 **784.14** Nanoelectropulses: A novel modality for evoking neurosecretion. G. L. CRAVISO*; C. FISHER; I. CHATTERJEE; P. T. VERNIER. *Univ. of Nevada Sch. of Med., Col. of Engineering, Univ. of Nevada Reno, Frank Reidy Res. Ctr. for Bioelectrics, Old Dominion Univ.*

10:00 NNN49 **784.15** Selective control of neural activity using high frequency alternating currents. Y. PATEL*; R. J. BUTERA. *Georgia Inst. of Technol., Georgia Inst. of Technol., Georgia Inst. of Technol.*

11:00 NNN50 **784.16** Ultrasound neuromodulation in rat hippocampal neuronal cultures. S. HWANG*; H. HAN; Y. LEE; T. KANG; T. KIM; S. JUN. *Ewha Womans Univ., Kyung Hee Univ., Ewha Womans Univ.*

8:00 NNN51 **784.17** ● Deep tissue light delivery via optrode arrays for optogenetics and infrared neural stimulation. M. DIWEKAR*; T. V. F. ABAYA; P. TATHIREDDY; L. RIETH; F. SOLZBACHER; S. BLAIR; G. A. CLARK. *Univ. of Utah, Univ. of Utah.*

9:00 NNN52 **784.18** Localized chemical stimulation and mapping of neuronal cultures combining FluidFM with MEA. M. J. AEBERSOLD*; H. DERMUTZ; J. F. SAENZ COGOLLO; L. DEMKÓ; T. ZAMBELLI; J. VÖRÖS. *Lab. of Biosensors and Bioelectronics, Inst. For Biomed. Eng., ETH Zurich.*

10:00 NNN53 **784.19** ● Near-threshold infrared stimulation of Xenopus sciatic nerve activates fast Aα fibers. D. M. PAGE*; M. D. KELLER; G. A. CLARK. *Univ. of Utah, Lockheed Martin Aculight.*

11:00 NNN54 **784.20** Ultrasound neuromodulation in rat motor cortex. D. W. GULICK*; J. A. KLEIM; B. C. TOWE. *Arizona State Univ.*

Wed. AM

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

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SYMPOSIUM *San Diego Convention Center*

785. How Do Immune Cells Shape the Brain in Health, Disease and Aging? — CME

Wed. 1:30 PM - 4:00 PM — 6A
Chair: M. SCHWARTZ
Co-Chair: S. RIVEST

Functional integrity and plasticity of the brain depend on immune cells. This symposium will cover the various barriers regulating immune cell entry and their distinct functions, the location and the role displayed by circulating immune cells in supporting brain plasticity in both the young and elderly in acute and chronic neuropathology, and how immune cells enter the CNS without breaching the blood-brain barrier.

1:30 **785.01** Introduction.

1:35 **785.02** The brain's epithelial border orchestrates trafficking of healing leukocytes to the CNS: Implications to neurodegenerative diseases and aging. M. SCHWARTZ. *The Weizmann Inst. of Science, Israel.*

2:10 **785.03** Beneficial roles of brain resident and peripheral immune cells in neurodevelopmental disorders. J. KIPNIS. *Univ. of Virginia.*

2:45 **785.04** Neuroprotective properties of the innate immune cells. S. RIVEST. *Universitaire de Québec.*

3:20 **785.05** CNS intrinsic factors involved in immune cell recruitment. A. PRAT. *Univ. de Montréal.*

3:55 **785.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

786. The Human Connectome in Health and Disease — CME

Wed. 1:30 PM - 4:00 PM — 6B
Chair: A. ZALESKY
Co-Chair: M. VAN DEN HEUVEL

The connectome has emerged as a buzzword in neuroscience that now encompasses any network description of whole brain connectivity. Connectomics is a technically challenging, rapidly advancing field, which means it's often perceived as inaccessible. This symposium will update the neuroscience community on recent advances in mapping the human connectome using MR imaging and EEG/MEG techniques, with an emphasis on demonstrating how these advances can be used to understand brain connectivity in health and disease.

1:30 **786.01** Introduction.

1:35 **786.02** Network communities, modules and hubs in the human brain. M. VAN DEN HEUVEL. *University Medical Center, Utrecht.*

2:10 **786.03** Brain graphs: Models of the connectome in health and disorder. E. BULLMORE. *Cambridge Univ.*

2:45 **786.04** Understanding disrupted brain connectivity in schizophrenia with network science. D. BASSETT. *Univ. of California Santa Barbara.*

3:20 **786.05** Application of connectomics and network science to characterize brain connectivity in ADHD and autism spectrum disorders. D. FAIR. *Oregon Hlth. Sci. Univ.*

3:55 **786.06** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

787. Rat Genetics: Focus on Reward-Related Behaviour — CME

Wed. 1:30 PM - 4:00 PM — 6F
Chair: J. HOMBERG
Co-Chair: B. ELLENBROEK

Whereas the rat was the animal model of preference in the era of behavioural pharmacology, the use of the mouse expanded with the development of tools to manipulate the mouse genome. Although the genetic toolbox is still more advanced for mice than rats, the rat genetic toolbox is catching up. This minisymposium addresses the newest technologies to manipulate the rat genome in the framework of reward-related behaviour, which is particularly well developed in rats.

1:30 **787.01** Introduction.

1:35 **787.02** Efficient genome engineering in rodents using zinc finger nucleases. X. CUI. *SAGE Labs.*

1:55 **787.03** Serotonin transporter gene variation determines vulnerability to compulsive cocaine self-administration. M. VERHEIJ. *Radboud Univ. Nijmegen Med. Centre, Donders Inst. for Brain, Cognition and Behaviour.*

2:15 **787.04** A genetic reduction in dopamine D1 receptor functioning leads to plasticity deficits in rats. B. ELLENBROEK. *Victoria Univ. of Wellington.*

2:35 **787.05** Cre-recombinase driver lines: tools, techniques, and optogenetic application to dopamine-mediated reinforcement. I. WITTEN. *Princeton Univ.*

2:55 **787.06** ● Genetic knockout or pharmacological blockade of the rat NOP receptor potentiates the rewarding effect of morphine. K. RUTTEN. *Grunenthal GmbH.*

3:15 **787.07** Viral-mediated modulation of the brain-specific neural zinc finger transcription factor 2b impairs ethanol reward in rats. A. BAHI. *United Arab Emirates Univ.*

3:35 **787.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

788. Neuroscience of Self-Control — CME

Wed. 1:30 PM - 4:00 PM — 6E
Chair: B. HAYDEN
Co-Chair: J. KABLE

Self-control refers to our ability to resist temptations in order to choose a course of action that leads to better long-term results. Failures of self-control underlie disorders including addiction and obsessive-compulsive disorder. Using novel paradigms to isolate specific cognitive processes and identify precise phenotypes, neuroscientists have begun to tease apart the neural mechanisms underlying self-control. This workshop highlights diverse approaches to studying this phenomenon.

1:30 **788.01** Introduction.

1:35 **788.02** Using the rat gambling task to understand the neurobiological basis of decision-making. F. D. ZEEB. *CAMH.*

1:55 **788.03** The role of evaluative neural mechanisms in decisions to sustain delay of gratification. J. KABLE. *Univ. of Pennsylvania.*

2:15 **788.04** Neural basis of persistence. B. HAYDEN. *Univ. of Rochester.*

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2:35 **788.05** Genetic modulation of intertemporal choice. C. HARTLEY. *Weill Cornell Med. Col.*

2:55 **788.06** Neural signatures of individual differences in self-control. T. HARE. *Univ. of Zurich.*

3:15 **788.07** Resisting and restricting temptations: Neural mechanisms of willpower and precommitment. M. CROCKETT. *Univ. Col. London.*

3:35 **788.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

789. Teaching Signals: Understanding the Neural Systems That Trigger Learning and Change Behavior — CME

Wed. 1:30 PM - 4:00 PM — 28A

Chair: J. P. JOHANSEN

Co-Chair: J. L. RAYMOND

Salient experiences such as those that are aversive, pleasurable, novel, or surprising are powerful triggers for learned, adaptive changes in behavior. These experiences activate neural "teaching signal" circuits that engage plasticity in brain regions involved in learning and memory. This minisymposium will focus on recent advances in the study of teaching signals for aversive, reward, motor, and perceptual learning from a variety of model systems.

1:30 **789.01** Introduction.

1:35 **789.02** Teaching signals for amygdala plasticity mediating fear learning. J. JOHANSEN. *RIKEN.*

1:55 **789.03** Cerebellar error signals for oculomotor learning. J. RAYMOND. *Stanford Univ. Sch. of Med.*

2:15 **789.04** Distinct representations of cognitive and motivational signals in midbrain dopamine neurons . M. MATSUMOTO. *Univ. of Tsukuba.*

2:35 **789.05** Neuromodulatory regulation of instructive signals for cerebellar motor learning. M. CAREY. *Champalimaud Neurosci. Programme.*

2:55 **789.06** Long-term cortical plasticity improves sensory perception. R. C. FROEMKE. *NYU Med.*

3:15 **789.07** Dopaminergic learning signals in Drosophilia. S. WADDELL. *Univ. of Oxford.*

3:35 **789.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

790. Imaging Neuronal Populations in Behaving Rodents: Paradigms for Studying Neural Circuits of Behavior in the Mammalian Cortex — CME

Wed. 1:30 PM - 4:00 PM — 29D

Chair: J. L. CHEN

Co-Chair: T. KECK

Understanding the neural correlates of behavior in the mammalian cortex requires activity measurements in awake, behaving animals. This minisymposium will highlight novel methods for combining *in vivo* imaging technology to measure calcium activity in neuronal populations in head-fixed and freely moving rodents. Recent work will be presented using such techniques in primary sensory, hippocampal, and higher association cortical areas to study sensorimotor integration, decision-making, plasticity, learning, and memory.

1:30 **790.01** Introduction.

1:35 **790.02** From dendrites to behavior: Circuit mechanisms of active sensation in the neocortex. N. XU. *Howard Hughes Med. Inst.*

1:55 **790.03** Task-dependent transmission of activity in somatosensory cortex. J. L. CHEN. *Univ. of Zurich.*

2:15 **790.04** Cellular imaging across multiple cortical layers and brain areas in head-fixed mice during locomotion. M. L. ANDERMANN. *Harvard Univ.*

2:35 **790.05** Homeostatic plasticity in the mouse visual cortex. T. KECK. *MRC Ctr. for Developmental Neurobiology, King's Col. London.*

2:55 **790.06** What are they looking at? Imaging activity in the freely moving rodent from the eye to the cortex. J. N. KERR. *Max Planck Inst. For Biol. Cybernetics.*

3:15 **790.07** ● Tracking a memory trace: Time-lapse imaging of Ca^{2+} dynamics in memory circuits of freely behaving rodents. Y. ZIV. *Stanford Univ.*

3:35 **790.08** Closing Remarks.

NANOSYMPOSIUM

791. Transplantation and Regeneration

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center,* 25A

1:00 **791.01** Wnt-responsive radial glia repair the zebrafish spinal cord following transection. R. DORSKY*; L. K. BRIONA. *Univ. Utah.*

1:15 **791.02** Integrin activation increases RPE adhesion and migration on Bruch's membrane components and overcomes tenascin-C- and CSPG-mediated failure of adhesion and migration in the rat. J. P. HELLER*; J. C. F. KWOK; A. FAISSNER; K. R. G. MARTIN; J. W. FAWCETT. *John Van Geest Ctr. For Brain Repair, Ruhr-University.*

1:30 **791.03** Promotion of axonal regeneration by pharmacological inhibition of microtubule acetylation. S. LIN*; Y. LIU; G. M. SMITH. *Temple Univ. Sch. of Med., Temple Univ. Sch. of Med.*

1:45 **791.04** An asymmetrical alternating current electrical field can induce migration of neural stem cell. L. PAN*; J. SHANG; B. SONG. *Ctr. For Paralysis Res. Purdue Univ., Col. of Biomed. and Life Sciences, Cardiff Univ.*

2:00 **791.05** The intracellular pathway to RGMa inhibition. P. BANERJEE*; N. G. TASSEW; P. P. MONNIER. *Toronto Western Res. Inst.*

2:15 **791.06** Identification of factors critical for planarian nervous system regeneration. R. ROBERTS-GALBRAITH*; N. P. JAMES; P. A. NEWMARK. *Univ. of Illinois, Urbana-Champaign, Univ. of Illinois, Urbana-Champaign and Howard Hughes Med. Inst.*

2:30 **791.07** Increased TNFR1 expression and signaling correlates with enhanced myelin debris clearance in injured peripheral nerve of mice with reduced BACE1 activity. L. LIU*; J. BORZAN; M. FARAH. *The Johns Hopkins Univ. Sch. of Med.*

2:45 **791.08** A systems-level analysis of the peripheral nerve intrinsic axonal growth program. V. CHANDRAN*; G. COPPOLA; T. OMURA; H. NAWABI; R. VERSANO; M. COSTIGAN; E. HUEBNER; A. YEKKIRALA; I. MICHAELEVSKI; A. BLESCH; J. DAVIS-TURAK; F. GAO; P. LANGFELDER; S. HORVATH; H. ZHIGANG; M. FAINZILBER; M. TUSZYNSKI; C. WOOLF; D. GESCHWIND. *UCLA, UCLA, Boston Children's Hosp. and Harvard Med. Sch., UCLA, Tel-Aviv Univ., UCSD, Weizmann Inst. of Sci.*

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NANOSYMPOSIUM

792. Neurodegenerative Diseases (AD, PD, MS, Stroke, Epilepsy)

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, 32B

1:00 **792.01** Testosterone treatment increases regional gray matter in men with multiple sclerosis. F. KURTH; E. LUDERS; N. L. SICOTTE; C. GASER; B. S. GIESSER; R. S. SWERDLOFF; M. J. MONTAG; R. R. VOSKUHL; A. W. TOGA; A. MACKENZIE-GRAHAM*. *UCLA, UCLA, Cedars-Sinai Med. Ctr., Univ. of Jena, Harbor-UCLA Med. Ctr.*

1:15 **792.02** ● Preclinical antidepressant activity of lavender oil (Silexan) - role of neurotrophic effects via CREB phosphorylation. K. LEUNER*; G. SILLANI; L. YE; M. NÖLDNER; W. E. MÜLLER. *FAU Erlangen Nuremberg, Inst. of Pharmacol., Dr. Wilmar Schwabe, Goethe Univ.*

1:30 **792.03** ● BG-12 (Dimethyl Fumarate) pharmacodynamic responses have distinct temporal and dose-dependent profiles and are Nrf2-dependent. M. S. BRENNAN*; H. PATEL; S. RYAN; M. LUKASHEV; P. BISTA; S. GLASS; K. J. RHODES; R. H. SCANNEVIN. *Biogen Idec and Boston Univ., Biogen Idec.*

1:45 **792.04** ● ADX48621 (dipraglurant) demonstrates dose-dependent mGlu5 receptor occupancy in a non-human primate PET study which correlates with pharmacological activity in a PD-LID model. S. M. POLI*; H. HADDOUK; G. DIXON; E. BÉZARD; A. TAVARES; D. ALAGILLE; O. BARRET; G. TAMAGNAN. *Addex Therapeut., Addex Therapeut., Addex Therapeut., Motac Neurosci. Ltd, Univ. of Bordeaux, Mol. NeuroImaging.*

2:00 **792.05** Developing Usp14 inhibitors as disease-modifying therapeutics for protein aggregation diseases. A. SAHA; A. BHALLA; J. MALHOTRA; A. HURTADO-LORENZO; A. VILLELLA; J. SOPER; E. NOKES; M. A. HAFIZ; M. FOLEY; M. CULLEN; E. ROSKELLEY; D. HURTADO; K. LONGO; K. GIULIANO; D. GARZA; B. TAIT; M. HAEBERLEIN; D. LO; R. KING; D. FINLEY; P. H. REINHART*. *Proteostasis Therapeut., Duke Univ., Harvard Med. Sch.*

2:15 **792.06** Evaluation of n-phenyl homopiperazine analogs as dopamine D3 receptor selective ligands. R. R. LUEDTKE*, Ph.D.; A. LI; Y. MISHRA; M. MALIK; Q. WANG; S. LI; M. TAYLOR; D. E. REICHERT; R. H. MACH. *Univ. North Texas Hlth. Sci. Cter, Washington Univ. Sch. of Med., Univ. of North Texas HSC.*

2:30 **792.07** ● Pharmacological blockade or genetic deletion of orexin 1 receptor blunts NMDA receptor antagonist induced glutamate release in mouse cortex. L. ALUISIO; I. FRASER; T. BERDYYEVA; C. DUGOVIC; B. SHIREMAN; J. SHOBLOCK; N. CARRUTHERS; T. LOVENBERG; P. BONAVENTURE*. *Janssen Res. & Development, L.L.C.*

2:45 **792.08** ● Evaluation of mGluR2 positive allosteric modulator JNJ-42153605 in an animal model of glutamatergic dysfunction using [18F]-FDG microPET. T. M. WYCKHUYS*; L. WYFFELS; X. LANGLOIS; M. SCHMIDT; S. STROOBANTS; S. STAELENS. *Univ. of Antwerp, Janssen Pharmaceutica NV.*

3:00 **792.09** ● Orexin 2 receptor antagonism is sufficient to induce sleep: Identification of a novel series of orexin receptor antagonists with a distinct effect on sleep architecture. D. HOYER*; C. E. GEE; G. M. MANG; M. FENDT; L. H. JACOBSON; D. ABRAMOWSKI; S. IMMOBERSTEG; E. SCHUEPBACH; H. BUERKI; T. DUERST; D. BEHNKE; S. COTESTA; G. LAUE; S. OFNER; J. WAGNER; S. HINTERMANN; C. BETSCHART. *Univ. of Melbourne, Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of Lausanne, Otto-von-Guericke University, Magdeburg, The Florey Inst. of Neurosci. and Mental Hlth., Novartis Inst. for BioMedical Res.*

NANOSYMPOSIUM

793. Functional Mechanisms of Attention I

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center,* 2

1:00 **793.01** Mechanisms and functions of inter-area alpha synchronization with attention: A combined MEG and computational modeling study. S. R. JONES*; M. SACCHET; R. LAPLANTE; C. MOORE; C. KERR. *Brown Univ., Brown Univ., Stanford Univ., Mass Gen. Hosp., Brown Univ.*

1:15 **793.02** Preparatory suppression of posterior alpha oscillations by frontal modulators revealed with combined EEG and event-related optical signal (EROS). K. E. MATHEWSON*; D. M. BECK; T. RO; E. L. MACLIN; K. A. LOW; M. FABIANI; G. GRATTON. *Beckman Institute, Univ. of Illinois, Dept. of Psychology, Univ. of Illinois, Dept. of Psychology, The City Col. of the City Univ. of New York.*

1:30 **793.03** Lateralized alpha oscillations indicate the rapid reactivation of episodic visual memories. G. T. WALDHAUSER*; V. BRAUN; S. HANSLMAYR. *Univ. of Konstanz.*

1:45 **793.04** Greater alpha and beta power in mouse si predicts decreased performance on a vibrissa motion detection task. D. L. PRITCHETT*; J. SIEGLE; C. I. MOORE. *Brown Univ., MIT.*

2:00 **793.05** Attention-modulated alpha-band oscillations protect against memory encoding of irrelevant visual and auditory stimuli. L. PAYNE*; C. DUBE; R. SEKULER. *Brandeis Univ.*

2:15 **793.06** Neural mechanisms of selective attention: An electrocorticographic study. Y. KIM*; J. TSAI; J. G. OJEMANN; P. VERGHESE. *Smith-Kettlewell Eye Res. Inst., Univ. of Washington, Univ. of Washington.*

2:30 **793.07** Pre-trial alpha band dynamics affect saccadic reaction times as a function of temporal expectancy. D. A. PARKER*; J. P. HAMM; J. E. MCDOWELL; B. A. CLEMENTZ. *Univ. of Georgia, Univ. of Georgia, Univ. of Georgia, Univ. of Georgia.*

2:45 **793.08** Prestimulus oscillatory alpha phase gates cortical information flow and predicts perception - evidence from simultaneous EEG-fMRI. S. HANSLMAYR*; G. VOLBERG; M. WIMBER; S. S. DALAL; M. W. GREENLEE. *Univ. of Konstanz, Univ. of Regensburg, MRC Cognition and Brain Sci. Unit, Univ. of Konstanz.*

3:00 **793.09** Performance decreases with benzodiazepines is predicted by decreased alpha power and increased gamma power during working memory retention. D. LOZANO-SOLDEVILLA*; R. SCHEERINGA; R. COOLS; O. JENSEN. *Donders Ctr. For Cognitive Neuroimaging, Dept. of Psychiatry, Radboud Univ. Nijmegen Med. Ctr.*

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3:15 **793.10** Top-down controlled alpha activity phasically disrupts gamma activity: Evidences from cross-frequency coupling analysis on magnetoencephalographic data. M. BONNEFOND*; O. JENSEN. *Donders Inst. For Brain, Cognition and Behaviour; Radboud Univ.*

3:30 **793.11** Pre-target alpha power predicts errors in a multisensory task when attention is focused, but not when attention is divided. B. GIESBRECHT*; J. C. ELLIOTT; D. H. WEISSMAN. *Univ. of California, Univ. of Michigan.*

3:45 **793.12** Closed-loop training of sustained attention with real-time fMRI neurofeedback. M. T. DEBETTENCOURT*; J. D. COHEN; R. F. LEE; K. A. NORMAN; N. B. TURK-BROWNE. *Princeton Univ.*

4:00 **793.13** Covert spatial attention results in bilateral visual field representations in right, but not left, visuotopic parietal cortex in humans. M. A. SILVER*; S. L. SHEREMATA. *Univ. of California.*

POSTER

794. Glial Differentiation

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center,* Halls B-H

1:00 A1 **794.01** Transgenic over-expression of sox17 promotes oligodendrocyte development and attenuates demyelination. X. MING*. *Children Natl. Med. Ctr.*

2:00 A2 **794.02** Sox17 promotes Gli2 expression and oligodendroglial lineage cell survival in the postnatal white matter. L. CHEW*; M. CATRON; X. MING; E. HONG; V. GALLO. *Children's Res. Inst.*

3:00 A3 **794.03** Polysialic acid in NCAM- or SynCAM 1-positive NG2 glia during mouse brain development and remyelination. S. WERNEBURG*; M. MÜHLENHOFF; T. SKRIPULETZ; M. STANGEL; H. HILDEBRANDT. *Hannover Med. Sch., Hannover Med. Sch.*

4:00 A4 **794.04** Simple methodological implementations for improving the consistency and myelinating capability of schwann cell-neuron cultures. P. V. MONJE*; K. BACALLAO; J. SOTO. *Univ. of Miami Miller Sch. of Med., Univ. of California, Berkeley.*

1:00 A5 **794.05** The role of TCF7L2 in oligodendrocyte differentiation and remyelination. C. ZHAO*; W. LIU; Y. DENG; F. LU; Q. LU. *Univ. of Texas, Southwestern Med. Ctr. At Dallas, Univ. of Texas, Southwestern Med. Ctr. At Dallas, Sichun Univ.*

2:00 A6 **794.06** Ascl1 regulates the number and distribution of astrocytes and oligodendrocytes in the mouse spinal cord. T. VUE*; E. J. KIM; J. E. JOHNSON. *UT Southwestern Med. Ctr., Salk Inst.*

3:00 A7 **794.07** Localization sequences in myelin basic protein mRNA. W. S. TALBOT*; A. M. MEIRELES. *Stanford Univ.*

4:00 A8 **794.08** Antiretroviral compounds differentially alter oligodendrocyte maturation. B. K. JENSEN*; H. MONNERIE; M. MANNELL; K. L. JORDAN-SCIUTTO; J. B. GRINSPAN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

1:00 A9 **794.09** Dgcr8-ablated Schwann cells display defective myelination. H. LIN*; R. AWATRAMANI. *Northwestern Univ.*

2:00 A10 **794.10** Oligodendrocyte transcription factor 1 (Olig1) acetylation by histone acetyltransferases regulates its nuclear-cytoplasmic localization. J. DAI*; K. BERCURY; W. JIN; W. MACKLIN. *Univ. of Colorado Denver, Shanghai Jiao Tong Univ.*

3:00 A11 **794.11** Comparative investigation of the distribution of β-dystroglycan immunopositive globules in the circumventricular organs in rat and chicken. I. ADORJAN*; M. KALMAN. *Semmelweis Univ.*

4:00 A12 **794.12** A critical role of miR219 in oligodendrocyte development and myelination. H. WANG*; M. JIANG; Q. LU. *UT Southwestern Med. Ctr.*

1:00 A13 **794.13** CD44 required for normal sorting, myelination, ensheathment and regeneration of small peripheral axons. J. MCFERRIN; S. E. MILLER; L. S. SHERMAN; B. L. PATTON*. *Oregon Hlth. Sci. Univ., Stanford Univ., Oregon Hlth. Sci. Univ., Oregon Hlth. Sci. Univ.*

2:00 A14 **794.14** Brain-region specific developmental alterations in mouse prenatally and postnatally exposed to bisphenol A (BPA). M. CHAI*; J. BERRY; T. SANOSAKA; K. TANEMURA; K. IGARASHI; K. NAKASHIMA. *Kyushu Univ., Nara Inst. of Sci. and Technol., Bogor Agr. Univ., Tohoku Univ., Natl. Inst. of Hlth. Sci.*

3:00 A15 **794.15** Identification of a consensus molecular signature of astrocytes in the adult human brain. K. W. KELLEY*; H. TSAI; C. RAJU; D. ROWITCH; M. OLDHAM. *Univ. of California San Francisco, Univ. of California San Francisco, Howard Hughes Med. Inst.*

4:00 A16 **794.16** Transcriptional control of oligodendrocyte differentiation by Mash1 and Olig2. A. CLAVAIROLY*; C. M. PARRAS. *Inst. Du Cerveau Et De La Moelle Épiniere.*

1:00 A17 **794.17** Induction of myelinating oligodendrocytes from human neural progenitors by a single transcription factor. J. WANG*; S. U. POL; A. KELLER; C. WANG; M. A. O'BARA; F. J. SIM. *SUNY BUFFALO.*

2:00 A18 **794.18** Matrix metalloproteinases regulate dystroglycan-laminin interactions in developing oligodendroglia. C. V. LEITON*; A. ARANMOLATE; H. COLOGNATO. *Stony Brook Univ.*

3:00 A19 **794.19** Early life stress and glucocorticoids induce a shift from neuronal to oligodendrocytic cell fate. K. TARAVOSH-LAHN*; J. R. HAMILTON; D. FRANCIS; D. KAUFER. *Univ. of California, Berkeley, Univ. of California, Berkeley.*

4:00 A20 **794.20** The subplate zone: differential gliosis in preterm and very preterm cases of periventricular white matter injury. C. VERNEY*; I. POGLEDIC; C. , FALLET-BIANCO; P. GRESSENS. *Inserm, U676, Univ. Paris Diderot, PremUP, Inserm U676, Dept. of Fetal Pathology, Inserm U676, Univ. Denis Diderot, PremUP,.*

1:00 A21 **794.21** ● Expandable olig2-positive human neural stem cells can be a better alternative to oligodendrocyte progenitor cells. T. KIDO*. *Stem Cell Med. LLC.*

2:00 A22 **794.22** The dynamics of oligodendrocyte differentiation after polydendrocyte division. R. A. HILL*; K. D. PATEL; J. GRUTZENDLER; A. NISHIYAMA. *Yale Univ. Sch. of Med., Univ. of Connecticut.*

3:00 A23 **794.23** α2-Adrenergic receptors are expressed on chicken Müller glia cells and stimulate the MAPkinase pathway in-vivo and in-vitro. M. HARUN-OR-RASHID*; N. LINDQVIST; F. HALLBÖÖK. *Uppsala Univ.*

4:00 A24 **794.24** Conditional ablation or raptor or rictor in oligodendrocytes results in differential dysmyelination in the CNS. K. K. BERCURY*; J. DAI. *Univ. of Colorado, Univ. of Colorado.*

1:00 A25 **794.25** Shh signaling promotes the development of oligodendrocytes in the human fetal telencephalon. J. ORTEGA*; N. RADONJIC; N. ZECEVIC. *Univ. of Connecticut Hlth. Ctr.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 A26 **794.26** Regional density of glial cells in the rat corpus callosum. D. REYES-HARO*; E. MORA-LOYOLA; B. SORIA-ORTIZ; J. GARCÍA-COLUNGA. *Inst. De Neurobiologia|910003400|0.*

3:00 B1 **794.27** Regulation of oligdendrocyte differentiation by long noncoding rnas. D. HE*; M. JIANG; H. WANG; R. LU. *UTSW.*

4:00 B2 **794.28** Cell signaling and lipid metabolism in enriched oligodendrocyte cultures. H. M. GUARDIOLA-DIAZ*; R. SCHNEIDER; C. MCGUIRE; M. MCQUISTON. *Trinity Coll, Pfizer Global R&D.*

1:00 B3 **794.29** ▲ Ether-phospholipid functions on Schwann cell differentiation and myelination. T. FERREIRA DA SILVA; J. EIRA; A. LOPES; A. MALHEIRO; V. SOUSA; M. M. SOUSA; P. BRITES*. *Inst. de Biologia Mol. e Celular - Lab. Nerve Regeneration.*

POSTER

795. Dendritic Growth and Branching II

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B4 **795.01** A method for the three-dimensional reconstruction and quantification of dendrites and synaptic inputs in Neurobiotin™-filled glycine- and $GABA_A$ receptor clustering deficient neurons post functional assessment. M. J. FOGARTY*; L. A. HAMMOND; R. KANJHAN; M. C. BELLINGHAM; P. G. NOAKES*. *Univ. of Queensland, Queensland Brain Inst.*

2:00 B5 **795.02** Analytical methods for evaluating targeting performances in stochastic models of neuronal arborization. E. SU; J. XIA; J. ZHANG; A. VIRANI; G. SANIN; M. OSAN; E. TITAN; T. SHINBROT; R. OSAN*. *Rutgers Univ., Georgia State Univ., Acad. of Economic Studies.*

3:00 B6 **795.03** Morphological development and expression of synaptic proteins of human iPSC-derived neurons. Y. OHARA; H. YAMAZAKI; K. SATO; T. SHIRAO; Y. SEKINO*. *Dept. of Neurobio. and Behavior, Gunma Univ. Grad. Sch. of Med., Natl. Inst. of Hlth. Sciences, Div. of Pharmacol.*

4:00 B7 **795.04** NOS1AP alters dendrite development and cytoskeleton dynamics in human iPSC-derived neurons and can be modulated by NMDAR agonists. K. HERNANDEZ*; N. R. DUDZINSKI; V. LUO; J. C. MOORE; K. PARADISO; M. SHELDON; J. A. TISCHFIELD; R. P. HART; L. M. BRZUSTOWICZ; B. L. FIRESTEIN. *Rutgers Univ., Rutgers Univ., Rutgers Univ., Rutgers Univ.*

1:00 B8 **795.05** Regulation of neural activity is critical for the control of neural migration and dendrite formation of cortical layer 2/3 neurons *in vivo.* Y. BANDO*; K. IRIE; Y. KUSHIDA; T. SHIMOMURA; Y. FUJIYOSHI; T. HIRANO; Y. TAGAWA. *Dept. of Biophysics, Grad. Sch. of Science, Kyoto Univ., Nagoya Univ.*

2:00 B9 **795.06** Axin regulates dendrite and spine development in hippocampal neurons. Y. CHEN*; E. FEI; W. FANG; W. FU; A. FU; N. IP. *The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., HKUST Shenzhen Res. Inst.*

3:00 B10 **795.07** 5-HT 2A/2C receptor agonist influences morphology and motility of dendritic growth cones in rat cerebral cortical neurons *in vitro.* A. OHTANI; T. SHIGA*. *Univ. of Tsukuba.*

4:00 B11 **795.08** ▲ Characterization of early Purkinje neuron processes in the mouse cerebellum. L. M. ROBERTSON; A. R. DEMCHAK; A. D. KINNON; M. E. MORRISON*. *Lycoming Col.*

1:00 B12 **795.09** The effect of interactions with nano-topographical cues on neuronal morphology and network formation. K. BARANES*; E. ZION; N. ZILONY; A. SHARONI; O. SHEFI. *Bar Ilan Univ., Bar Ilan Univ., Bar Ilan Univ.*

2:00 B13 **795.10** Seizure-related gene 6 raises free cytosolic calcium in cortical and hippocampal neurons. N. C. ZAHN; K. M. MUNRO; T. MUSTAFA; N. L. CARRODUS; S. TAN; J. GUNNERSEN; J. M. POWER*. *Univ. of New South Wales, The Univ. of Melbourne, Florey Inst. of Neurosci. and Mental Hlth.*

3:00 B14 **795.11** ▲ Neocortical neuronal morphology in the infant giraffe (Giraffa camelopardalis tippelskirchi) and infant African elephant (Loxodonta africana). L. LEE; N. JOHNSON; L. WALLER; M. RAGHANTI; A. LEWANDOWSKI; J. J. KOTTWITZ; J. F. ROBERTS; P. R. MANGER; P. R. HOF; C. C. SHERWOOD; B. G. JACOBS*. *The Colorado Col., Kent State Univ., Cleveland Metroparks Zoo, Col. of Vet. Med., Smithsonian Natl. Zoological Park, Univ. of Witwatersrand, Mount Sinai, George Washington Univ.*

4:00 B15 **795.12** Long-lasting changes in DNA methylation from short-term hypoxia in hippocampal neuronal cells. F. ELKHOURY*; I. HARTLEY; X. GU; O. POULSEN; D. ZHOU; G. HADDAD. *UCSD.*

1:00 B16 **795.13** The role of 3, 5-dimethylaniline induced oxidative damage in dendrite patterning in developing neurons. Y. HUANG; J. JENG; M. CHAO; C. TSENG*. *Tao-Yuan Gen. Hosp., Chung Yuan Christian Univ., Chung Yuan Christian Univ.*

2:00 B17 **795.14** Molecular mechanism of circuit formation in the rodent somatosensory barrel cortex. T. SHIMOGORI*. *RIKEN.*

POSTER

796. Regeneration: CNS II

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B18 **796.01** GDNF expressing schwann cells (GDNF-SC) preferentially promoted descending pathway regeneration after spinal cord injury in rats. B. K. CHEN*; J. S. HAKIM; S. ZHANG; A. M. SCHMEICHEL; J. J. NESBITT; A. M. KNIGHT; R. J. SPINNER; M. J. YASZEMSKI; A. J. WINDEBANK. *Mayo Clin. Col. of Med., Mayo Clin. Col. of Med., Mayo Clin. Col. of Med.*

2:00 B19 **796.02** Target-specific regeneration of mammalian retinal ganglion cell axons. J. A. LIM*; K. ZUKOR; Z. HE; P. L. NGUYEN; A. D. HUBERMAN. *UC San Diego, Harvard Med. Sch., UC San Diego, UC San Diego.*

3:00 B20 **796.03** The role of heat shock protein and electrical activity in promoting nerve regeneration in mouse retina. L. L. CHAN*; Y. WANG; N. P. B. AU; C. H. E. MA. *City Univ. of Hong Kong.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 B21 **796.04** Combined suppression of caspase-2 and -6 protects retinal ganglion cells from apoptosis and promotes axon regeneration through CNTF-mediated JAK/STAT signalling pathway. V. VIGNESWARA*; N. AKPAN; M. BERRY; A. LOGAN; C. TROY; Z. AHMED. *Univ. of Birmingham, Columbia Univ.*

1:00 B22 **796.05** Beta-glucans promote long-distance CNS axon regeneration. K. T. BALDWIN*; K. S. CARBAJAL; B. M. SEGAL; R. J. GIGER. *Univ. of Michigan, Univ. of Michigan.*

2:00 B23 **796.06** Set-β regulates axon growth and regeneration. E. F. TRAKHTENBERG*; Y. WANG; M. I. MORKIN; S. FERNANDEZ; G. M. MLACKER; K. GUPTA; J. SHECHTER; X. LIU; S. YANG; K. H. PATEL; J. L. GOLDBERG. *Univ. of Miami, Bascom Palmer Eye Inst., Univ. of Miami Miller Sch. of Med.*

3:00 B24 **796.07** Simulated microgravity enhances neural cells proliferation. A. M. ESPINOSA MONTEROS*; P. PAEZ; I. WANNER; A. TANIGUCHI; V. SPREUER; J. DE VELLIS. *UCLA, UCLA, UCLA, UCLA, UCLA.*

4:00 B25 **796.08** Differential responses of spinal cord injury on sub-acute lesion cavity development and angiogenic/wound healing proteins in mice and rats. S. KUNDI*; R. BICKNELL; Z. AHMED. *Birmingham Univ.*

1:00 B26 **796.09** The effect of a pre-conditioning spinal cord lesion on the response of adult zebrafish brainstem cells to inhibitory chondroitin sulfate proteoglycans (CSPGs) *in vitro.* J. A. PLUNKETT*; F. SHABAZZ; I. CHACON; K. VAJN; A. TAPANES-CASTILLO; M. OUDEGA. *St Thomas Univ., Univ. of Pittsburgh Sch. of Med.*

2:00 B27 **796.10** Tissue repair and functional plasticity after targeted ablation of cortical neurons during the early postnatal period. V. PETRENKO; Y. VAN DE LOOIJ; J. MIHHAILOVA; C. QUAIRIAUX; C. M. MICHEL*; P. HUPPI; J. Z. KISS. *Univ. Geneva.*

3:00 B28 **796.11** ▲ Adenoviral transfection of the rat F98 glioblastoma cell line for development of a neuronal differentiation modeling. R. CULVER*; R. WELCHKO; T. HULSE; G. SHALL; S. PARKER; W. HUO; D. DUES; X. LEVEQUE; M. LU; J. ROSSIGNOL; G. DUNBAR. *Field Neurosciences Inst. Lab. For Restorative Neurol. Neurosci., Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Field Neurosciences Inst.*

4:00 B29 **796.12** Pigment epithelium-derived factor is retinal ganglion cell neuroprotective and axogenic after optic nerve crush injury. Z. AHMED*; V. VIGNESWARA; M. BERRY; A. LOGAN. *Univ. of Birmingham.*

1:00 B30 **796.13** Ciliary neurotrophic factor (CNTF) increases the speed and number of regenerating axons after optic nerve injury. G. S. VEGA MELÉNDEZ*; J. M. BLAGBURN; R. E. BLANCO. *Inst. of Neurobio., Univ. of Puerto Rico, Sch. of Med.*

2:00 B31 **796.14** Combination of skin precursor (SKP) derived Schwann cell transplantations and PTEN deletion in corticospinal neurons to promote regeneration following spinal cord injury. B. J. HILTON*; R. KUMAR; P. ASSINCK; D. LU; J. BIERNASKIE; W. TETZLAFF. *Univ. of British Columbia, Univ. of Calgary, Univ. of British Columbia, Univ. of British Columbia.*

3:00 B32 **796.15** Soluble adenylyl cyclase activity promotes retinal ganglion cell survival and axon growth. J. L. GOLDBERG*; M. MORKIN; J. LI; R. CORREDOR; Z. COZACOV; E. TRAKHTENBERG; D. PITA-THOMAS; M. S. KAPILOFF. *UC San Diego, Univ. of Miami.*

4:00 B33 **796.16 Withdrawn.**

1:00 B34 **796.17** Inhibition of SKI-1 leads to axonal regeneration following optic nerve injury. N. G. TASSEW*; A. SABANZAHDEH; P. BANERJEE; P. MONNIER. *Toronto Western Res. Inst.*

POSTER

797. Evolution of Developmental Mechanisms

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C1 **797.01** Common genetic influences on fiber integrity and regional brain volumes discovered by genetic correlation of MRI and DTI. N. JAHANSHAD*; D. HIBAR; A. TOGA; K. MCMAHON; G. DE ZUBICARAY; N. MARTIN; M. WRIGHT; P. THOMPSON. *UCLA, Univ. of Queensland, Univ. of Queensland, Queensland Inst. of Med. Res., UCLA.*

2:00 C2 **797.02** ● Diversity of the two forms of DNA methylation in the brain. F. C. ZHOU*; Y. CHEN; N. P. DAMAYANTI; J. IRUDAYARAJ. *Indiana Univ. Sch. Med., Purdue Univ.*

3:00 C3 **797.03** Comparative developmental profiles of SUMOylation pathway proteins in rat cerebrum and cerebellum. F. JOSA PRADO*; K. WILKINSON; J. M. HENLEY. *Univ. of Bristol.*

4:00 C4 **797.04** Simian-specific increases in DUF1220 domain copy number linked to expansion in human and primate brain size. M. O'BLENESS*; J. DAVIS; V. SEARLES; N. ANDERSON; B. HOPKINS; J. M. SIKELA. *UC Denver AMC, Georgia State Univ.*

1:00 C5 **797.05** Discontinuous addition of cortical cells during embryonic and postnatal rat development. S. E. DOS SANTOS*; S. C. NOCTOR; S. HERCULANO-HOUZEL. *Federal Univ. of Rio De Janeiro, Univ. of California, Davis.*

2:00 C6 **797.06** ▲ Echolocating Microchiroptera have a smaller cerebral cortex, not a larger cerebellum. K. NEVES*; F. CUNHA; P. MANGER; S. HERCULANO-HOUZEL. *Univ. Federal Do Rio De Janeiro, Univ. Federal do Rio de Janeiro, Univ. of the Witwatersrand.*

3:00 C7 **797.07** Continuous growth in the octopus is tightly correlated with more cells in the ganglionic network but not in the brain. S. HERCULANO-HOUZEL*; S. DOS SANTOS; A. GRIMALDI; G. FIORITO. *UFRJ, Stazione Zoologica Anton Dohrn.*

4:00 C8 **797.08** ▲ The elephant brain in numbers. K. A. DE SOUZA*; K. NEVES; D. MESSEDER; I. PIO; L. MATTOS; P. MANGER; S. HERCULANO-HOUZEL. *Univ. Federal Do Rio De Janeiro, Univ. Federal do Rio de Janeiro, Univ. Federal do Rio de Janeiro, Univ. of the Witwatersrand, Johannesburg.*

1:00 C9 **797.09** On digitized paleoneurology. H. J. JERISON*. *UCLA.*

2:00 C10 **797.10** ▲ Evolution of SoxE Gene in Metazoans. Y. HAN*; H. RA; E. ANDRADE; M. DE BELLARD*. *CSUN.*

3:00 C11 **797.11** Human-specific mirna regulation of foxo1: Implications of mirna binding site evolution. H. S. MCLOUGHLIN*; J. WAN; Y. XING; B. L. DAVIDSON. *Univ. of Iowa, Univ. of Iowa, UCLA, Univ. of Iowa.*

4:00 C12 **797.12** Developing an open source model for studying embodied cognition and its relationship to spatial neural networks. A. K. LEE*; A. LAM; E. L. OHAYON. *Green Neurosci. Lab, Neurolinx Res. Inst., Univ. of Toronto Epilepsy Res. Group, Salk Inst. for Biol. Studies.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 C13 **797.13** Generation and initial characterization of transgenic mice lacking the DUF1220 protein domain. J. KEENEY*; M. O'BLENESS; N. ANDERSON; W. CHICK; J. SIKELA. *Univ. of Colorado Anshutz Med. Campus.*

2:00 C14 **797.14** Heterochronic shifts in neural development comparing birds to mammals. C. J. CHARVET*; N. H. KIMURA; B. L. FINLAY. *Cornell Univ.*

POSTER

798. Serotonin Receptors

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C15 **798.01** ● GFP-Gαs diffusion, as indicated by fluorescence recovery after photobleaching, is an accurate predictor of antidepressant augmented Gαs-Adenylyl Cyclase coupling. A. H. CZYSZ*; M. M. RASENICK. *Univ. of Illinois at Chicago.*

2:00 C16 **798.02** ● Antidepressant properties of PUFAs: Comparable effects of polyunsaturated fatty acids and SSRIs in the translocation of Gαs out of lipid rafts. A. H. CZYSZ; S. KOUTSIKOURIS; A. DESAI; H. KIM; M. M. RASENICK*. *Univ. Illinois Coll Med., NIH - NIAAA.*

3:00 C17 **798.03** Chronic fluoxetine treatment in adulthood alters postsynaptic serotonin (5-HT) responses in cerebral cortex. K. E. PERIT*; N. M. GOODFELLOW; E. K. LAMBE. *Univ. of Toronto, Univ. of Toronto.*

4:00 C18 **798.04** ▲ Allergic sensitization increases the contractile response of guinea pig aorta to 5-HT. role of 5-HT_{2A} receptors. C. R. DE LA CRUZ NEGRETE*; P. SEGURA-MEDINA; J. ARREOLA RAMÍREZ; G. CÓRDOBA RODRÍGUEZ; M. VARGAS; P. CAMPOS-BEDOLLA. *Inst. Mexicano Del Seguro Social, Inst. Nacional de Enfermedades Respiratorias, Inst. Mexicano del Seguro Social.*

1:00 C19 **798.05** Activation of serotonin-2a receptors induces rhythmic oscillatory bursting in layer 5 pyramidal neurons of the mouse medial prefrontal cortex. M. SPINDLE*; M. P. THOMAS. *Univ. of Northern Colorado.*

2:00 C20 **798.06** Serotonergic modulation on resting membrane potential of lateral amygdala neuron. R. YAMAMOTO*; T. SUGAI; N. KATO. *Kanazawa Med. Univ.*

3:00 C21 **798.07** Roles of FKBP51 in the glucocorticoid receptor-regulated expressions of 5-HT_{1A} Receptor and BDNF in cortical neurons. C. WANG*; T. OU YANG; C. LIN; M. HUANG; Y. LEE. *Yang-Ming Univ., Brain Res. Center, Natl. Yang-Ming Univ., Grad. Inst. of Med. Sciences, Sch. of Medicine, Taipei Med. Univ., Kang-Ning Junior Col. of Med. Care and Mgmt., Taipei City Psychiatric Center, Taipei City Hosp., Sch. of Medicine, Taipei Med. Univ.*

4:00 C22 **798.08** Long-term enhancement of the prefrontal cortex 5-HT_{1A} receptor function following disruptions to the serotonin transporter (5-HTT). D. SARGIN*; N. M. GOODFELLOW; E. K. LAMBE. *Univ. of Toronto, Univ. of Toronto.*

1:00 C23 **798.09** 5-HT1A receptors act presynaptically to inhibit neurotransmission when transfected into autaptic hippocampal neurons. N. MURATAEVA*; K. MACKIE; A. STRAIKER. *Indiana Univ.*

2:00 C24 **798.10** Presynaptic inhibition of neurotransmitter release in mammalian hippocampal synapses. E. C. CHURCH*; E. HAMID; S. ALFORD. *Univ. of Illionois At Chicago, Univ. of Illionois At Chicago.*

3:00 C25 **798.11** Differences in corticosteroid receptors and immediate early genes expression in 5-HT1A overexpressing mice produce blunted response to stress. F. PILAR-CUELLAR*; R. VIDAL; R. LINGE; B. ROMERO; L. LERA; R. HABERZETTL; H. FINK; B. BERT; J. BROSDA; E. CASTRO; E. VALDIZAN; A. PAZOS; A. DIAZ. *CIBERSAM, Inst. De Salud Carlos III, Inst. de Biomedicina y Biotecnología (IBBTEC); Facultad de Medicina, Univ. de Cantabria-CSIC-SODERCAN, Dept. de Fisiología y Farmacología, Univ. de Cantabria, Inst. für Pharmakologie und Toxikologie, Fachbereich Veterinärmedizin Freie Univ.*

4:00 C26 **798.12** 5-HT modulates synaptic transmission in vestibular nucleus of rats. L. HAN*; K. S. LAI; H. C. LAI; S. Y. CHAN. *The Univ. of Hong Kong, Res. Ctr. of Heart, Brain, Hormone and Healthy Aging, LKS Fac. of Medicine, The Univ. of Hong Kong, Sassoon Road.*

1:00 C27 **798.13** Regulation of primary cilia morphology in striatum by 5-HT6 receptor signaling. M. BRODSKY*; A. L. KOSTRINSKY-THOMAS; J. M. SULLIVAN; J. F. NEUMAIER. *Univ. of Washington.*

2:00 C28 **798.14** Transcriptional regulation of the human serotonin type 4(5-ht4) receptor gene: identification and characterization of novel promoter and enhancer elements. Y. NAWA; M. OOTAKI; R. KUWABARA; T. HIROI; R. TAKAHASHI; H. MATSUI*. *Inst. of Radioisotope Res., St. Marianna Univ. Grad Sch. Med., Dept. Biochem. Fac. Pharmaceut. Sci., Toho Univ., Dept Mol Behav Neurosci, St. Marianna Univ. Grad Sch. Med.*

3:00 C29 **798.15** Menthol inhibition of human serotonin type 3 receptors expressed in xenopus oocytes. K. S. YANG*; D. LORKE; A. ASHOOR; S. M. NURULAIN; C. F. HOWARTH; N. KABBANI; M. OZ. *Chapman Univ., Florida Intl. Univ., UAE university, UAE university, George Mason Univ.*

POSTER

799. Opioid Receptors

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C30-DP1 **799.01** Compartmentalized opioid receptor signaling in nociceptors. D. P. POOLE*; M. CANALS; N. A. VELDHUIS; N. W. BUNNETT; M. L. HALLS. *Monash Inst. of Pharmaceut. Sci.*

2:00 C31 **799.02** Localization of delta opioid receptors and corticotropin-releasing factor in the central nucleus of the amygdala. J. RICHARDS*; B. A. S. REYES; E. M. UNTERWALD; E. J. VAN BOCKSTAELE. *Thomas Jefferson Univ., Temple Univ. Sch. of Med.*

3:00 C32 **799.03** Electrographic and behavioral phenotypes of delta-opioid receptor agonists. M. R. PIETRAS*; R. CACCESE; T. J. HUDZIK; M. EISMAN; R. A. BIALECKI; C. FONCK. *AstraZeneca PLC, AbbVie.*

4:00 C33 **799.04** Prolonged morphine treatment alters delta opioid receptor post-internalisation trafficking. E. ONG*; C. CAHILL. *Queen's Univ., Univ. of California Irvine.*

1:00 C34 **799.05** Examining the structural determinants for delta opioid receptor mediated basal recruitment of β-arrestin2 to mu opioid receptors. D. BAPTISTA-HON*; K. GALLAGHER; F. KING; T. G. HALES. *Inst. of Academic Anaesthesia.*

2:00 D1 **799.06** Surface plasmon resonance as a tool to assess functional selectivity at the mu opioid receptor. P. BOURASSA*; M. GRANDBOIS; L. GENDRON. *Univ. de Sherbrooke, Univ. de Sherbrooke.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 D2 **799.07** An addiction-associated intronic SNP modulates mu opioid receptor alternative splicing via hnRNPH. J. XU; Z. LU; M. XU; L. PAN; Y. DENG; X. XIE; Y. L. HURD; G. W. PASTERNAK; L. CARTEGNI; W. ZHOU; Y. PAN*. *Mem Sloan Kettering Cancer Ctr., Sch. of Medicine, Ningbo Univ., Mount Sinai Sch. of Med.*

4:00 D3 **799.08** Mu-opioid and GABAB receptor mediated inhibition of GABA release onto POMC neurons occurs through a mechanism that is Ca^{2+}-independent and resistant to desensitization. R. L. PENNOCK*; S. T. HENTGES. *Colorado State Univ.*

1:00 D4 **799.09** Quantification of kappa opioid receptor ligand potency and efficacy using the FLIPR Membrane Potential Assay. Y. ZHAO*; J. ALDRICH; T. MURRAY. *Creighton Univ., Univ. of Kansas, Creighton Univ.*

2:00 D5 **799.10** Utilizing functionally selective ligands to determine the physiological role of β-arrestin signaling in κ-opioid receptor activation. K. WHITE*; E. VARDY; D. URBAN; M. FARRELL; H. ZHU; B. L. ROTH. *Univ. of North Carolina, UNC.*

3:00 D6 **799.11** Analysis of functional selectivity at the nociceptin/orphanin fq opioid receptor. S. CHANG*; N. ZHANG; W. PLANER; S. SPANGLER; I. CARROLL; M. R. BRUCHAS. *Washington Univ. In St. Louis, Res. Triangle Inst. Intl., Washington Univ. In St. Louis.*

POSTER

800. Synaptic Transmission: Synaptic Integration II

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 D7 **800.01** Dendritic filtration of presynaptic cell assemblies. C. KOBAYASHI*; N. MATSUKI; Y. IKEGAYA. *The Univ. of Tokyo.*

2:00 D8 **800.02** Antidepressants protect against DNA damage induced by neurotoxin and glucocorticoids in neuroblastoma cells. Y. WANG*; M. ZHU. *Dept. of Biomed. Sciences, Col. of Medicine, East Tennessee State Un, East Tennessee State Univ.*

3:00 D9 **800.03** Chronic social defeat regulated the expression of glucocorticoid receptors in rat brains. M. ZHU*; J. ZHANG. *East Tennessee State Universit, East Tennessee State Univ.*

4:00 D10 **800.04** Broadly-tuned parvalbumin-expressing interneurons control the gain of olfactory bulb output. H. K. KATO*; S. N. GILLET; A. PETERS; J. S. ISAACSON; T. KOMIYAMA. *UCSD Sch. of Med.*

1:00 D11 **800.05** Parvalbumin-expressing interneurons are highly interconnected with mitral cells in the mouse olfactory bulb. S. N. GILLET*; H. K. KATO; T. KOMIYAMA; J. S. ISAACSON. *UC San Diego.*

2:00 D12 **800.06** Functional selectivity of spikelets in cat primary visual cortex. B. SCHOLL*; N. J. PRIEBE. *The Univ. of Texas At Austin.*

3:00 D13 **800.07** Deepwater Horizon Oil SpillTarmats: Is it a potential environmental neurotoxin for the future? D. BHATTACHARYA*; M. ZHENG; M. AHUJA; J. HAYWORTH; P. CLEMENT; M. DHANASEKARAN. *Auburn Univ.*

4:00 D14 **800.08** Distance-dependent synaptic scaling visualized through quantal imaging of synaptic calcium responses in hippocampal neurons. A. WALKER*; A. S. LOWE; J. BURRONE. *King's Col. London.*

1:00 D15 **800.09** Postsynaptic pannexin-1 regulates the frequency of glutamatergic transmission. J. BIALECKI*; J. I. NAGY; R. J. THOMPSON. *Hotchkiss Brain Inst., Univ. of Calgary, Univ. of Manitoba.*

2:00 D16 **800.10** Gap junction channels formed of neuronal connexin36 have a pore lining magnesium-sensitive domain. N. PALACIOS-PRADO*; S. CHAPUIS; F. F. BUKAUSKAS. *Albert Einstein Col. of Med.*

3:00 D17 **800.11** Dendritic computation in stellate cells of the medial entorhinal cortex. G. TOLEIKYTE*; C. SCHMIDT-HIEBER; T. BRANCO; M. HAUSSER. *UCL, MRC Lab. of Mol. Biol.*

4:00 D18 **800.12** ● Spatio-temporal interaction of inputs in hippocampal granule cells. H. HAYAKAWA; T. KAMIJO; Y. YAMAZAKI*; S. FUJII; T. AIHARA. *Tamagawa Univ., Yamagata Univ. Sch. of Med.*

1:00 D19 **800.13** Differential inhibition of layer V pyramidal neuron subtypes in the prefrontal cortex. A. LEE*; V. S. SOHAL. *UCSF.*

2:00 D20 **800.14** Subtypes of layer V pyramidal neurons in prefrontal cortex receive different forms of long-range excitation. S. GEE*; A. LEE; V. SOHAL. *UCSF.*

3:00 D21 **800.15** Temporal dynamics of Ca 2+ transients evoked by action potentials in neuronal dendrites measured by fast 3D two-photon imaging. G. NYITRAI*; G. SZALAY; M. MADARÁSZ; M. VERESS; P. MAÁK; R. NAGY; G. KATONA; B. RÓZSA. *Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Budapest Univ. of Technol. and Econ. Dept. of Atomic Physics, Fac. of Informational Technology, Pázmany Peter Catholic Univ.*

4:00 D22 **800.16** An electrically-coupled network of glutamatergic and GABAergic neurons. P. F. APOSTOLIDES; L. O. TRUSSELL*. *Oregon Hlth. & Sci. Univ., Oregon Hlth. Sci. Univ.*

1:00 D23 **800.17** Developmental regulation of synaptic calcium signaling in CA1 pyramidal neurons. K. F. LEE*; J. THIVIERGE; J. BEIQUE. *Univ. of Ottawa, Univ. of Ottawa.*

2:00 D24 **800.18** Nonlinarity of dendritic spines to applied glutamate by combined 2-photon voltage imaging and glutamate uncaging. C. D. ACKER*; E. HOYOS; L. LOEW. *UConn Hlth. Ctr.*

POSTER

801. LTP: Postsynaptic Mechanisms

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 D25 **801.01** Pathway-specific potentiation of synaptic inputs onto L5 pyramidal neurons in somatosensory cortex. J. PILLI*; S. KUMAR. *FLORIDA STATE UNIVERSITY.*

2:00 D26 **801.02** Characterization of enhanced LTP observed in the dentate gyrus of 1d2d-PSD-95 KI mice. H. NAGURA*; K. KOBAYASHI; H. SUZUKI; T. DOI; Y. FUJIYOSHI. *CeSPI, Nagoya Univ., Pharmacol., Nippon Med. Sch., Biophys., Kyoto Univ.*

3:00 D27 **801.03** Apparent receptor kinetics analyses of excitatory postsynaptic potentials during LTP in spinal cord motoneurons *in vitro.* H. LUO; W. QIN; Y. ZHANG; M. WANG*. *Wannan Med. Col.*

4:00 D28 **801.04** cAMP dynamics in dendritic spines during synaptic plasticity. T. LUYBEN*; M. KHAN; K. OKAMOTO. *Samuel Lunenfeld Res. Inst., The Univ. of Toronto.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 D29 **801.05** Differential inputs onto selectively activated nucleus accumbens neurons following context-specific sensitization. L. R. WHITAKER*; P. E. CARNEIRO DE OLIVEIRA; B. T. HOPE. *Natl. Inst. On Drug Abuse, UNESP Campus de Araraquara.*

2:00 D30 **801.06** Etomidate modulation of LTP in hippocampal CA1 region evaluated by CSD. F. C. RODGERS*; R. A. PEARCE. *Univ. Wisconsin, Univ. Wisconsin.*

3:00 D31 **801.07** UBE3A-mediated regulation of SK2 channel degradation and endocytosis contributes to synaptic plasticity. J. SUN*; G. ZHU; S. STANDLEY; A. JI; R. TUNUGUNTLA; Y. WANG; Z. WANG; S. MORENO; R. ADHIKARI; M. BAUDRY; X. BI. *Western Univ. of Hlth. Sci.*

4:00 D32 **801.08** Blood-brain barrier breakdown in the hippocampus leads to early neural network dysfunction in the peri-ischemic brain. K. LIPPMANN*; L. KAMINTSKY; S. LUBLINSKY; O. PRAGER; J. NICHTWEIß; U. HEINEMANN; A. FRIEDMAN. *Charité Univ. Med., Ben-Gurion Univ. of the Negev.*

1:00 D33 **801.09** Gating of hippocampal output by beta-adrenergic receptor activation. S. GROSSER; K. E. GILLING; J. HOLLNAGEL; S. VICINI*; J. BEHR. *Charite, Charite, Georgetown Univ. Med. Ctr.*

2:00 D34 **801.10** Cathepsin K is required for the maintenance of long-term potentiation in the hippocampus. K. S. HANS*; T. E. BROWN. *Univ. of Wyoming.*

3:00 D35 **801.11** Soluble ICAM-5, a product of activity dependent proteolysis, increases mEPSC frequency and dendritic expression of GluA1. K. CONANT*; I. LONSKAYA; J. PARTRIDGE; R. LALCHANDANI; A. CHUNG; T. LEE; S. VICINI; H. HOE; S. LIM. *Georgetown Univ., Georgetown Univ.*

4:00 D36 **801.12** Activity-driven membrane delivery of AMPA receptors requires KCC2 expression but not function. Q. CHEVY; I. MOUTKINE; E. EUGENE; J. PONCER*. *INSERM, Inst. du Fer a Moulin, Pierre & Marie Curie Univ.*

1:00 D37 **801.13** A synaptotagmin enriched in the post-synaptic membrane is involved in receptor recycling. A. AWASTHI*; S. AHMED; Y. SHINODA; H. MARTENS; B. COOPER; F. GÖTTFERT; S. W. HELL; C. DEAN. *European Neurosci. Inst., Tokyo Univ. of Sci., Synaptic Systems, Max-Planck-Institute for Exptl. Med., Max-Planck-Institute for Biophysical Chem.*

2:00 D38 **801.14** The role of extrasynaptic NMDARs in LTP induction. S. LI*; Q. YANG; D. LIU. *Bio-X Institutes, Shanghai Jiao Tong Univ.*

3:00 D39 **801.15** Increasing SK channel activity reverses ischemia-induced impairment of LTP. J. E. ORFILA*; K. SHIMIZU; N. QUILLINAN; A. K. GARSKE; J. MAYLIE; R. J. TRAYSTMAN; J. P. ADELMAN; P. S. HERSON. *Univ. of Colorado, Anschutz Med. Campus, Oregon Hlth. Sci. Univ., Vollum Institute, Oregon Hlth. Sci.*

4:00 D40 **801.16** Clathrin-mediated endocytosis of AMPA receptors contributes to impairments in long term potentiation in aged rat hippocampus. Z. CHEN*; F. S. CAYABYAB. *Dept. of Physiology, Univ. of Saskatchewan, Dept. of Physiology, Univ. of Saskatchewan.*

1:00 D41 **801.17** A simple, ''well-mixed'' model of dendritic spines explains increased activation of CaMKII under addition of EGTA. M. MATOLCSI*; N. GIORDANO. *Purdue Univ.*

2:00 D42 **801.18** Downstream effectors of mGluR1-mediated plasticity at the mossy fiber-CA3 synapse of the hippocampus. A. G. ENG*; S. K. BHANGOO; G. T. SWANSON. *Northwestern Univ.*

3:00 E1 **801.19** Role of cholesterol in synaptic function and plasticity. A. BRACHET*; S. NORWOOD; C. DOTTI; J. ESTEBAN. *Ctr. De Biologia Mol. Severo Ochoa.*

4:00 E2 **801.20** Altered long-term synaptic plasticity response in response to acute stress in a mouse model of Fragile X syndrome. M. GHILAN*; P. BROCARDO; B. HRYCIW; A. NOONAN; J. GIL-MOHAPEL; B. CHRISTIE. *Univ. of Victoria.*

1:00 E3 **801.21** Calcium-permeable AMPARs in local circuits of mouse visual cortex. J. OYRER; T. LALANNE; A. J. CHUNG; P. J. SJÖSTRÖM; M. FARRANT*. *UCL, The Res. Inst. of the McGill Univ. Hlth. Ctr.*

2:00 E4 **801.22** ▲ Influence of chronic optogenetic stimulation *in vivo* on hebbian synaptic plasticity. T. C. MOULIN*; O. B. AMARAL; R. N. LEAO. *Inst. de Bioquímica Médica, Univ. Federal Do Rio De Janeiro, Brain Institute, Federal Univ. of Rio Grande do Norte.*

3:00 E5 **801.23** Modulation of PIP3 levels at dendritic spines during synaptic plasticity. M. BENOIST; K. L. ARENDT; S. JURADO; Y. UMEZAWA; J. A. ESTEBAN*. *Ctr. De Biologia Mol. Severo Ochoa, Stanford Univ. Sch. of Med., Stanford Univ. Sch. of Med., Sch. of Science, The Univ. of Tokyo, and Japan Sci. and Technol. Agency.*

4:00 E6 **801.24** Semaphorin3A mediates learning-induced AMPA receptors trafficking at hippocampal synapses. A. TAKAHASHI*; N. YAMASHITA; S. JITSUKI; Y. GOSHIMA; T. TAKAHASHI. *Yokohama City Univ., Yokohama City Univ.*

1:00 E7 **801.25** Nogo receptor signaling restricts experience-driven synaptic AMPA receptor trafficking in adult brain. S. JITSUKI*; W. NAKAJIMA; T. TAKAHASHI. *Yokohama City Univ. Grad. Sch. of Med.*

2:00 E8 **801.26** Neonatal chronic stress alters actin dynamics and experience-driven synaptic plasticity via ADF/cofilin inactivation in the rat barrel cortex. H. TADA*; K. SUYAMA; T. TAKAHASHI. *Yokohama City Univ.*

3:00 E9 **801.27** Mechanisms of β2AR- and NMDAR-dependent cAMP dynamics in hippocampal CA1 pyramidal neurons. A. CHAY*; I. ZAMPARO; A. KOSCHINSKI; M. ZACCOLO; K. T. BLACKWELL. *Krasnow Inst., Venetian Inst. of Mol. Med., Oxford Univ.*

4:00 E10 **801.28** Mechanisms controlling PKA activation in different L-LTP induction paradigms. J. JEDRZEJEWSKA-SZMEK*; K. T. BLACKWELL. *The Krasnow Inst. For Advanced Study.*

1:00 E11 **801.29** Presynaptic GluN2D receptors detect glutamate spillover and regulate GABA release. C. DUBOIS*; L. SUN; P. M. LACHAMP; M. MISHINA; S. LIU. *LSUHSC, Pennstate university, LSUHSC, PennState Univ., Ritsumeikan Univ.*

2:00 E12 **801.30** ● Increased locomotor activity leads to a calcineurin-dependent Pyk2 nuclear accumulation in dorsolateral striatum neurons. R. COURA; L. MARION-POLL; E. MONTALBAN; S. LONGUEVILLE; Y. TERAO; D. HERVE; J. GIRAULT*. *Inserm UPMC Inst. du Fer a Moulin, Inserm UPMC.*

3:00 E13 **801.31** Pin 1 regulate excitatory synapses via PSD-95 N-terminus isomerization. J. Y. DELGADO*; D. CHOQUET. *UMR 5297 Cnrs-Université De Bordeaux-2.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

802. Synaptic Plasticity: Other

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E14 **802.01** An associative memory as bifurcation shaped through iterative learning. T. KURIKAWA*. *RIKEN, Brain Sci. Inst.*

2:00 E15 **802.02** Endocannabinoid biosynthesizing enzyme expression in hippocampal stratum oriens neurons. L. N. FRIEND*; R. C. WILLIAMSON; C. B. MERRILL; J. G. EDWARDS. *Brigham Young Univ.*

3:00 E16 **802.03** Tmp2 - an activity-regulated er protein interacting with arc/arg3.1. J. GUTZMANN*; L. BINKLE; I. HERMANS-BORGMEYER; G. HERMEY; D. KUHL. *Ctr. For Mol. Neurobio. Hamburg (ZMNH).*

4:00 E17 **802.04** Expression of phosphorylated LIM kinase in dorsolateral prefrontal cortex predicts delayed response performance in aged rhesus monkeys. F. YUK; R. PURI; W. G. JANSSEN; J. H. MORRISON*. *Mount Sinai Sch. of Med.*

1:00 E18 **802.05** Dynamic regulation of signaling lipids in hippocampal neurons and impact on synaptic function. A. J. MCCARTNEY*; Y. ZHANG; L. S. WEISMAN; M. A. SUTTON. *Univ. of Michigan, Ann Arbor, Univ. of Michigan, Ann Arbor, Univ. of Michigan, Ann Arbor.*

2:00 E19 **802.06** Ionizing radiation impairs hippocampal functions in APP/PSEN1 transgenic mice. E. RUDOBECK; A. SZÜCS; S. MEHROTRA; R. VLKOLINSKY*. *Loma Linda Univ., UCSD.*

3:00 E20 **802.07** The function of HDAC6 and CYLD in synaptic transmission. I. KRISTAPONYTE; R. LAZARENKO; X. SUN; Q. ZHANG*. *Vanderbilt Univ., Vanderbilt Univ., Nankai Univ.*

4:00 E21 **802.08** Synaptic pGluN2B subunit expression in dorsolateral prefrontal cortex is correlated with cognitive performance in aged female rhesus monkeys. R. PURI; F. YUK; W. G. JANSSEN*; J. H. MORRISON. *Icahn Sch. of Med. at Mount Sinai.*

1:00 E22 **802.09** Depolarization sets the sign of ach effects on inhibition. S. DOMINGUEZ; D. FERNANDEZ DE SEVILLA; W. BUNO*. *Inst. Cajal, Facultad de Medicina, Inst. Cajal.*

2:00 E23 **802.10** Neurogranin regulates calmodulin dynamics within dendritic spines. A. N. PETERSEN*; N. Z. GERGES. *Med. Col. of Wisconsin.*

3:00 E24 **802.11** Plasma membrane localization of ApPDE4 isoforms via different membrane targeting mechanism. K. KIM; Y. JUN; J. LEE; B. KAANG; D. JANG*. *Kyungpook Natl. Univ., Kyungpook Natl. Univ., Hannam Univ., Seoul Natl. Univ.*

4:00 E25 **802.12** Early adolescent MK-801 exposure disrupts hippocampal-amygdala interactions in the adult PFC: Reversal by indiplon. D. R. THOMASES*; D. K. CASS; K. Y. TSENG. *Rosalind Franklin Univ. of Med. and Sci.*

1:00 E26 **802.13** Lactate is a signaling molecule for the regulation of plasticity-related genes expression. I. ALLAMAN*; J. YANG; P. JOURDAIN; E. RUCHTI; G. GRENNINGLOH; J. PETIT; P. J. MAGISTRETTI. *EPFL/Brain Mind Inst., Ctr. de Neurosciences Psychiatriques.*

2:00 E27 **802.14** The effect of noise trauma on Arc and GAD expression in a rat model of tinnitus. M. R. KAPOLOWICZ*; E. H. KARDOSI; F. K. ALAHMADY; J. I. SEDILLO; L. T. THOMPSON. *The Univ. of Texas at Dallas.*

3:00 E28 **802.15** Effects of sleep disruption on motor learning paradigms and translation signal transduction in mice. A. W. VARGA; M. KANG; P. V. RAMESH; E. KLANN*. *New York Univ., NYU Sleep Disorders Ctr.*

POSTER

803. Animal Disease: Cellular Models

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E29 **803.01** Methyl palmitate modulation of neurogenic vasodilation in cerebral and peripheral arteries. T. J. LEE*; H. CHANG; Y. LEE; C. LIU; M. CHEN. *Southern Illinois Univ. Med. Sch., Buddhist Tzu Chi Gen Hosp., Buddhist Tzu Chi Gen Hosp., Tzu Chi Univ.*

2:00 E30 **803.02** Exemplar study using multiple carbon fiber electrochemical probes during water and sucrose reward: A new high throughput system with multiple electrical, optical, and fluid connections. D. J. WOODWARD*; J. CHANG; A. AZAROV. *Neurosci. Res. Inst. of North Carolina, Neurosci. Res. Inst. of North Carolina.*

3:00 E31 **803.03** SAP97 blocks ER retention signals through its SH3 domain. S. H. STANDLEY*. *Western Univ. of Hlth. Sci.*

4:00 E32 **803.04** Developing an assay for learning and memory in larval zebrafish. M. HAESEMEYER*; J. M. B. LI; D. N. ROBSON; A. F. SCHIER; F. ENGERT. *Harvard Univ.*

1:00 E33 **803.05** Interleukin-1β inhibits synaptic GABAA receptors via phosphoinositide 3-kinase in hippocampal neurons. D. WANG*; B. A. ORSER. *Univ. of Toronto, Univ. of Toronto, Sunnybrook Hlth. Sci. Ctr.*

2:00 E34 **803.06** A novel glutamate-GABA neuronal subpopulation within the ventral tegmental area projects to the lateral habenula. D. H. ROOT*; S. ZHANG; C. A. MEJIAS-APONTE; M. MORALES. *Natl. Inst. On Drug Abuse.*

3:00 E35 **803.07** ● Transfected NT2-N cells express channelrhodopsin-2 after grafting into organotypic hippocampal slices. L. CUI; M. KOZHEMYAKIN; B. L. BEHRLE; B. HE; M. C. FEJLEH, .; Z. HE; M. G. PAULE; L. GREENFIELD*. *Univ. of Arkansas for Med. Sci., Natl. Ctr. for Toxicology Res.*

4:00 E36 **803.08** Low control over palatable food intake in rats is associated with habitual behavior and relapse vulnerability: Individual differences. H. DE JONG*; K. E. MEIJBOOM; L. J. M. J. VANDERSCHUREN; R. A. H. ADAN. *UMC Utrecht, Rudolf Magnus Inst.*

1:00 E37 **803.09** ▲ Effect of toluene exposure on antinociception induced by metamizol in the rat formalin test. S. CHÁVEZ-ESTRADA; A. ZUÑIGA-ROMERO; L. I. MEDINA-MENDOZA; D. GODÍNEZ-HERNÁNDEZ; L. F. ORTEGA-VARELA; M. Y. GAUTHEREAU*. *UMSNH, UMSNH, UMSNH, UMSNH.*

2:00 E38 **803.10** Wfs1-deficient animals have increased sensitivity to antidepressants and decreased serotonin transporter expression in the pons. S. SÜTT*; S. RAUD; R. REIMETS; M. LOOMETS; T. VISNAPUU; E. VASAR. *Univ. of Tartu.*

3:00 E39 **803.11** A genomic anatomic approach to identify novel markers for potentially distinct neuronal cell types within the lateral habenular complex of the adult mouse. F. WAGNER; R. W. VEH*. *Universitaetsklinikum Charite.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 E40 **803.12** ● Effect of tipepidine on c-fos like protein expression in various regions of the brain in ACTH-treated rats being resistant to treatment with antidepressants. R. KAWAHARA*; F. SOEDA; K. TAKAHAMA. *Dept. Env. Mol. Health. Sci. Grad. Sch. Pharm. Sci., Kumamoto Univ., Kumamoto Hlth. Sci. Univ.*

1:00 E41 **803.13** Evidence for functional co-expression of TRPV3 with TRPV1 in primary vagal afferent neurons. S. WU*; J. E. M. LINDBERG; A. J. FENWICK; J. H. PETERS. *Washington State Univ.*

2:00 E42 **803.14** A new model of guanidinoacetate methyltransferase deficiency by adeno-associated virus 2-transduced knock down in developing reaggregated organotypic brain cell cultures. L. HANNA-EL-DAHER; E. BÉARD; H. HENRY; L. TENENBAUM; O. BRAISSANT*. *Univ. Hosp Lausanne (CHUV), Univ. Hosp Lausanne (CHUV), Univ. Hosp Lausanne (CHUV).*

3:00 E43 **803.15** Ventral tegmental area VGluT2-expressing neurons inhibit lateral habenula neurons. C. MEJIAS-APONTE*; D. H. ROOT; M. AYORINDE; M. MORALES. *NIDA-IRP, NIH, Natl. Inst. on Drug Abuse, Natl. Inst. on Drug Abuse, Natl. Inst. on Drug Abuse.*

4:00 E44 **803.16** A non-selective ion channel within the C-subunit structure of the F1FO ATP synthase is the mitochondrial permeability transition pore. K. N. ALAVIAN*; E. LAZROVE; S. SACCHETTI; H. PARK; H. LI; M. GRAHAM; P. NABILI; G. BEUTNER; G. A. PORTER; E. A. JONAS. *Yale Univ., Univ. of Rochester.*

1:00 E45 **803.17** Individual differences in hippocampal bdnf and inhibitory control of social defeat stress as a predictor for escalated cocaine self-administration. C. O. BOYSON*; A. R. BURKE; K. A. MICZEK. *Tufts Univ.*

2:00 E46 **803.18** ● ▲ Longevity of a learned behavior in groups of zebrafish. J. RISINGER*; K. M. KHAN; C. R. HEYDUK; A. L. SPINDLER; K. M. SCHEFFLER; L. J. HUBBARD; C. HARLEY; E. DOYLE; A. M. PETZOLD; R. L. DUNBAR. *Univ. of Minnesota Rochester.*

3:00 E47 **803.19** ● High and Low Rearing Subgroups of rats selected in the Open Field differ in the isoforms of Na,k-ATPase in the hippocampus. R. ALVES*; A. VASCONCELOS; M. A. C. VENDITTI; C. SCAVONE. *Univ. of Sao Paulo, Federal Univ. of Sao Paulo, Univ. of Sao Paulo.*

4:00 E48 **803.20** The rise of GABA terminals and alpha4betadelta GABAARs in the hippocampus confer resilience to activity-based anorexia, possibly through the rise of allopregnanolone. C. J. AOKI*; G. WABLE; T. CHOWDHURY; N. A. SABALIAUSKAS; A. J. LIU; K. TATEYAMA; N. C. BARBARICH-MARSTELLER. *New York Univ., Hlth. Sci. Communications, Col. of Physicians and Surgeons of Columbia Univ., New York State Psychiatric Inst.*

POSTER

804. Synaptic Biology Related to Alzheimer's Disease I

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E49 **804.01** Synaptic protein changes in the posterior cingulate in the progression of Alzheimer's disease. S. W. SCHEFF*; M. A. ANSARI; M. D. IKONOMOVIC; E. J. MUFSON. *Univ. Kentucky, Univ. of Pittsburgh, Rush Univ. Med. Ctr.*

2:00 E50 **804.02** ● Target validation for Alzheimer's disease - High-content imaging approach to study the role of PPM1E in neurodegeneration. H. FUKUI; K. KOTTIG; N. CARTY; A. VON DER LIPPE; V. MACK; C. GABRYSIAK; N. BERSON; M. HEUBL; R. NETZER*; H. VON DER KAMMER. *EVOTEC AG.*

3:00 E51 **804.03** Disruption of slow wave propagation in a mouse model of Alzheimer's disease. M. A. BUSCHE*; H. ADELSBERGER; I. NELKEN; H. FÖRSTL; A. KONNERTH. *Inst. of Neuroscience, Tech. Univ. Munich, Dept. of Psychiatry and Psychotherapy, Tech. Univ. Munich, Dept. of Neurobiology, Inst. of Life Sciences, The Hebrew Univ. of Jerusalem.*

4:00 E52 **804.04** Inhibition of EphA4 signaling reverses the Abeta-induced synaptic deficits in the hippocampus. A. FU*; K. HUNG; H. HUANG; S. GU; Y. SHEN; E. CHENG; F. IP; X. HUANG; W. FU; N. IP. *The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., HKUST Shenzhen Res. Inst., The Hong Kong Univ. of Sci. and Technol.*

1:00 E53 **804.05** Thrombospondin-1 prevents Aβ-mediated synaptic pathology in Alzheimer's disease. S. SON*; K. KIM; J. BYUN; D. KIM; I. MOOK-JUNG. *Seoul Natl. Univ. of Med.*

2:00 E54 **804.06** The role of EphA4/c-Abl pathway in synaptic structuration and synaptotoxicity. L. VARGAS ROJAS*; N. LEAL; F. G. SERRANO; L. D. ESTRADA; N. C. INESTROSA; B. VAN ZUNDERT; A. R. ALVAREZ. *Pontificia Univ. Catolica de Chile, Pontificia Univ. Catolica de Chile, Univ. Andres Bello.*

3:00 F1 **804.07** Effect of microtubule-modulating drugs on neuronal morphology and dendritic spines in an *Ex vivi* model of mouse hippocampus. L. PENAZZI; N. GOLOVYASHKINA; B. NIEWIDOK; C. BALLATORE; A. B. SMITH, III; L. BAKOTA; R. BRANDT*. *Univ. of Osnabrueck, Univ. of Pennsylvania.*

4:00 F2 **804.08** Long-term *in vivo* imaging of presynaptic pathology in transgenic Alzheimer mice. F. PETERS*; M. DOROSTKAR; E. HERZOG; N. BROSE; J. HERMS. *DZNE, Max Planck Inst.*

1:00 F3 **804.09** ● Arc protein accumulation in a tauopathy transgenic mouse model. D. M. BARTEN*; L. B. DECARR; G. W. CADELINA; L. YANG; S. SANKARANARAYANAN; M. K. AHLIJANIAN; A. CACACE. *Bristol-Myers Squibb.*

2:00 F4 **804.10** Effects of GluA expression levels on short and long-term memory performance of 3xTg-AD mice. P. CANTANELLI*; S. SPERDUTI; A. GRANZOTTO; L. STUPPIA; S. L. SENSI. *Ctr. of Excellence On Aging (ce.s.i.), Ctr. of Excellence On Aging (ce.s.i.), "G. d'Annunzio" Univ., Univ. of California.*

3:00 F5 **804.11** Comparing synaptic changes in different mouse models of dementia. Z. JOEL*; T. A. BENWAY; S. HO; O. T. JAMES; C. M. PEGASIOU; S. M. T. NASSER; F. M. O'FARRELL; J. C. RICHARDSON; D. M. CUMMINGS; F. A. EDWARDS. *Univ. Col. London, GlaxoSmithKline.*

4:00 F6 **804.12** Plasmalogens inhibit neuronal cell death and enhance hippocampal dependent memory formation in adult mice. M. HOSSAIN*; M. IFUKU; K. MIAKE; H. FUCHUU; T. KATAFUCHI. *Kyushu Univ., Ctr. Res. Institute, Marudai Food Co. Limited.*

1:00 F7 **804.13** The role of zinc signaling in Alzheimer's disease. C. V. ABRAMOVITCH-DAHAN*; A. I. BUSH; M. HERSHFINKEL. *Ben-Gurion Univ. of the Negev, Florey Inst. of Neurosci. and Mental Health, Univ. of Melbourne.*

2:00 F8 **804.14** Proteomic analysis of synaptic proteome in Alzheimer's disease. Y. R. CHANG*; N. ETHERIDGE; A. NOUWENS; P. DODD. *Univ. of Queensland.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 F9 **804.15** Effect of amyloid-beta oligomers on synaptic GluA1-containing AMPA receptors. Role of calcium and A-kinase anchoring protein 79/150. A. J. MINANO-MOLINA*; W. CHEN; C. A. SAURA; J. RODRIGUEZ-ALVAREZ. *Inst. de Neurociencies. Univ. Autonoma de Barcelona, Ctr. de Investigacion Biomedica en Red sobre Enfermedades Neurodegenerativas (CIBERNED).*

4:00 F10 **804.16** D2 domain of α1-takusan affords synaptic protection against Aβ oligomers. S. TU*; A. KHAN; D. BAKER; F. LIAO; H. XU; S. A. LIPTON; N. NAKANISHI. *Sanford|Burnham Med. Res. Inst.*

POSTER

805. Synaptic Biology Related to Alzheimer's Disease II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F11 **805.01** Early deficits in synaptic, cellular, and network-level hippocampal CA1 function in presymptomatic Alzheimer's disease mice. S. CHAKROBORTY*; E. S. HILL; W. N. FROST; G. E. STUTZMANN. *Rosalind Franklin Univ.*

2:00 F12 **805.02** Dysregulation of dendritic mRNA translation modulators in postmortem Alzheimer's brain. S. S. TIWARI; C. TROAKES; W. NOBLE; T. HORTOBÁGYI; K. P. GIESE*. *King's Col. London, Univ. of Debrecen.*

3:00 F13 **805.03** Amyloid beta oligomers impair plasticity-related calcium events and proteasome trafficking in dendritic spines. T. RUSH*; A. BUISSON; M. FRANDEMICHE; N. VAN DEN BERG; K. BUELHOFF; S. DE SERANNO; F. LANTE. *INSERM U836.*

4:00 F14 **805.04** β-Amyloid- and proinflammatory cytokine-induced cofilin-actin rod formation requires prion-dependent activation of NADPH oxidase. K. WALSH; T. B. KUHN*; L. S. MINAMIDE; A. E. SHAW; J. CICHON; W. GAN; J. MI; S. J. KANE; B. W. BERNSTEIN; J. D. LAMBETH; D. R. BROWN; B. PULFORD; M. ZABEL; J. R. BAMBURG. *Colorado State Univ., Univ. Alaska Fairbanks, New York Univ. Sch. of Med., Emory Univ. Sch. of Med., Univ. of Bath, Colorado State Univ.*

1:00 F15 **805.05** Downregulation of Ankyrin repeat-rich membrane spanning/Kinase D-interacting substrate 220kDa (ARMS/Kidins220) protein correlates with cognitive decline and neuropathology in the frontal cortex of Alzheimer's disease (AD) subjects compared to age-matched controls. S. D. GINSBERG*; F. JEANNETEAU; S. H. WU; R. FOL; I. ELAROVA; S. H. LEE; E. PETKOVA; M. V. CHAO. *Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., Inst. de Genomique Fonctionnelle, Nathan Kline Inst., Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

2:00 F16 **805.06** Shared and distinct features of beta-amyloid peptides. M. GIUFFRIDA; F. CARACI; F. TOMASELLO; G. PAPPALARDO; E. RIZZARELLI; F. NICOLETTI; A. G. COPANI*. *CNR IBB, Univ. of Catania, Univ. of Catania, Univ. of Rome "La Sapienza", Univ. of Catania.*

3:00 F17 **805.07** ● Aβ induces synaptic damage via extrasynaptic NMDARs: Prevention by NitroMemantine, a new Memantine analogue. M. V. TALANTOVA*; S. SANZ-BLASCO; P. XIA; X. ZHANG; M. W. AKHTAR; S. OKAMOTO; T. NAKAMURA, A. PRATT, E. HOLLAND; G. DZIEWCZAPOLSKI; S. TU; E. MOLOKANOVA, G. CAO, Y.-J. KANG; S. R. MCKERCHER, T. F.-NEWMEYER; A. HIRES; H. SASON, H. WOLOSKER; D. G. STOUFFER; M. W. BUCZYNSKI; S. MICHAEL; E. T. POWERS, J. SOLOMON; J. W. KELLY; A. J. ROBERTS; G. TONG; J. PARKER, R. AMBASUDHAN; D. ZHANG; N. NAKANISHI; H. V. CHEN; L. H. PARSONS; E. MASLIAH; Y. WANG; S. F. HEINEMANN; J. C. PIÑA-CRESPO; S. A. LIPTON. *Sanford Burnham Inst. For Med. Res., Salk Inst., Janelia Farm Res. Campus, Technion-Israel Inst. Technol., The Scripps Res. Inst., Dept. Neurosciences, Univ. California San Diego, The Scripps Res. Ins, Skaggs Inst., The Scripps Res. Inst., The Scripps Res. Inst., La Jolla, California, Inst. New Drug Res. Jinan Univ. Coll. Pharmac, Panorama Res. Inc.*

4:00 F18 **805.08** Mechanisms of rapid suppression of Kv1.1 channel activity by amyloid beta peptide. K. SUMMERS*; M. F. ISLAM; P. B. SCHWARTZ; B. HALLAHAN; J. FARLEY. *Indiana Univ.*

1:00 F19 **805.09** Age-related alterations in VSNL1 co-expression networks in frontal cortex. R. A. SWEET*; C. LIN; L. CHANG; G. C. TSENG; C. M. KIRKWOOD; E. SIBILLE. *Univ. Pittsburgh, Univ. Pittsburgh.*

2:00 F20 **805.10** A mouse model with distinct features of the Alzheimer disease with psychosis phenotype. P. S. MURRAY*; C. M. KIRKWOOD; A. V. VATSAVAYI; S. L. ERICKSON; P. PENZES; R. A. SWEET. *Univ. of Pittsburgh Sch. of Med., MIRECC, VAPHS, Northwestern Univ. Feinberg Sch. of Med., Northwestern Univ. Feinberg Sch. of Med., Univ. of Pittsburgh Sch. of Med.*

3:00 F21 **805.11** VILIP-1 protein in Alzheimer disease with psychosis postmortem brain tissue. C. M. KIRKWOOD*; M. L. MACDONALD; P. S. MURRAY; T. A. SCHEMPF; J. K. KOFLER; O. L. LOPEZ; R. A. SWEET. *Univ. of Pittsburgh, Univ. of Pittsburgh, MIRECC, Univ. of Pittsburgh, Univ. of Pittsburgh.*

4:00 F22 **805.12** Markers of synaptic plasticity and neurodegeneration in VILIP-1 heterozygous mice. A. V. VATSAVAYI*; S. L. ERICKSON; J. M. KRIVINKO; R. A. SWEET. *Univ. of Pittsburgh, VAPHS, Univ. of Pittsburgh, Univ. of Pittsburgh.*

1:00 F23 **805.13** Reduced levels of the actin regulatory proteins PAK3 and Arp2 in dendritic spines of Alzheimer's disease and Down Syndrome parietal cortex. J. C. LAUTERBORN*; C. D. COX; A. H. BABAYAN; C. M. GALL. *Univ. of California at Irvine.*

2:00 F24 **805.14** Downregulation of pre- and postsynaptic genes within CA1 pyramidal neurons in mild cognitive impairment. S. E. COUNTS*; M. J. ALLDRED; S. CHE; S. D. GINSBERG; E. J. MUFSON. *Rush Univ. Med. Ctr., Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

3:00 F25 **805.15** ▲ Streptozotocin-induced insulin resitance mediated by Akt S-nytrosilation impairs neuritogenesis in a neuroblastoma cell line. C. MAZUCANTI*; C. SCAVONE. *Univ. of Sao Paulo.*

4:00 F26 **805.16** Dysregulated RhoA signaling by Aβ oligomers in Alzheimer's disease. R. LEFORT*; C. PETITPRÉ. *Columbia Univ., Univ. Lille 1.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

806. Parkinson's Disease: Mechanisms of Degeneration and Treatment

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F27 **806.01** ● NPT001 reduces alpha-synuclein deposits, increases tyrosine hydroxylase and improves motor performance in aged alpha-synuclein overexpressing mice. K. S. GANNON*; J. M. LEVENSON; C. INGLIS; E. ROCKENSTEIN; E. MASLIAH. *NeuroPhage Pharmaceuticals, UCSD.*

2:00 F28 **806.02** Dopamine release after globus pallidus internus stimulation and intraoperative improvement in Parkinson's disease. R. C. MARTINEZ*; C. HAMANI; M. CARVALHO; A. R. OLIVEIRA; E. ALHO; M. GHILARDI; J. NAVARRO; H. HEISEN; M. L. BRANDAO; M. J. TEIXEIRA; J. P. OTOCH; E. T. FONOFF. *Univ. De Sao Paulo, 3Department of Neurology, Div. of Functional Neurosurgery; Inst. of Psychiatry, Univ. of São Paulo Sch. of Medicine,, Univ. of Sao Paulo FFCLRP, Dept. of Neurology, Div. of Functional Neurosurgery; Inst. of Psychiatry, Univ. of São Paulo Sch. of Med., Dept. of Neurology, Div. of Functional Neurosurgery; Inst. of Psychiatry, Univ. of São Paulo Sch. of Med., Julius-Maximilians Univ. Würzburg Labor für Morphologische Hirnforschung (Laboratory for Morphological Brain Research)., Univ. of Sao Paulo.*

3:00 F29 **806.03** Microglial Prostaglandin E2 signaling regulates inflammation and neuronal damage in models of Parkinson's disease. S. S. PRADHAN*; Q. WANG; N. KO; A. MANNING-BOG; J. JOHANSSON; A. GARDUNO; T. LOUIE; K. ANDREASSON. *Stanford Univ., Stanford Univ., SRI Intl.*

4:00 F30 **806.04** Neuroprotection by sirt2 inhibitors in a mouse model of Parkinson's disease. X. CHEN*; F. ZUO; M. MAGUIRE; L. QUINTI; R. LOGAN; M. A. SCHWARZSCHILD; A. G. KAZANTSEV. *Mssachusetts Gen. Hospital, Harvard Med. Sch., Massachusetts Gen. Hospital, Harvard Med. Sch., Massachusetts Gen. Hospital, Harvard Med. Sch.*

1:00 F31 **806.05** Senescence marker protein 30 deficient mice are more susceptible to Parkinson's pathology and exhibit impaired astrocyte activation. Y. LEE; H. PARK; E. LEE; H. KIM; T. SON; A. ISHIGAMI; M. P. MATTSON; J. LEE*. *Pusan Natl. Univ., Tokyo Metropolitan Inst. of Gerontology (TMIG), Natl. Inst. on Aging Intramural Res. Program.*

2:00 F32 **806.06** Aberrant ganglioside expression in a mouse model of Parkinson's disease: Association with substantia nigra cell death and rescue by exogenous administration of GM1. S. N. WHITEHEAD*; S. CAUGHLIN; D. W. ANDERSON; J. S. SCHNEIDER. *Western Univ., Thomas Jefferson University,.*

3:00 F33 **806.07** Enzymatic degradation of brain complex gangliosides increases endogenous GM1 expression and protects against dopamine cell loss in Parkinson's disease models. S. K. KIDD*; J. CAI; L. IACOVITTI; J. S. SCHNEIDER. *Thomas Jefferson Univ., Thomas Jefferson Univ.*

4:00 F34 **806.08** GM1 ganglioside as a disease modifying agent for Parkinson's disease: Support from neuroimaging findings. J. S. SCHNEIDER*; S. SENDEK; H. KUWABARA; D. WONG; B. LEIBY. *Thomas Jefferson Univ., Johns Hopkins Univ., Thomas Jefferson Univ.*

1:00 F35 **806.09** Decreased GM1 ganglioside expression and altered ganglioside biosynthetic pathways in the brain of Parkinson's disease patients. W. METTIL*; S. K. KIDD; D. W. ANDERSON; J. S. SCHNEIDER. *Thomas Jefferson Univ.*

2:00 F36 **806.10** Prolyl oligopeptidase (PREP) inhibition increases the formation of autophagosomes and enhances the clearance of alpha-synuclein. M. H. SAVOLAINEN; C. RICHIE; B. HARVEY; K. A. MAGUIRE-ZEISS; T. T. MYÖHÄNEN*. *Univ. of Helsinki, Natl. Inst. of Drug Abuse, Georgetown Univ. Med. Ctr.*

3:00 F37 **806.11** Applying a protein complementation strategy to drug discovery for synucleinopathies. S. MOUSSAUD; S. MALANY; A. MEHTA; L. H. SMITH; P. J. MCLEAN*. *Mayo Clin. Florida, Sanford-Burnham Med. Res. Inst.*

4:00 F38 **806.12** Phenylbutyrate stops the progression of Parkinson's disease by increasing expression of the DJ-1 gene, thereby enhancing clearance of misfolded proteins from dopamine neurons. J. E. CUMMISKEY*; W. ZHOU; J. BENSON; B. FITZWALTER; M. A. LEEHEY; T. A. MCKINSEY; R. C. MURPHY; C. R. FREED. *Univ. of Colorado Sch. of Med., Univ. of Colorado Sch. of Med., Univ. of Colorado Sch. of Med.*

1:00 F39 **806.13** Influence of age on the performance and effects of human neural stem cell transplantation in experimental Parkinson's disease. M. P. PEREIRA*; B. GARCIA; B. MORENO; S. GARCIA-LOPEZ; M. RAMOS; A. MARTINEZ-SERRANO. *Ctr. De Biologia Mol. Severo Ochoa, Ctr. de Tecnologia Biomedica.*

2:00 F40 **806.14** ● Closed-loop control of dopamine release in a rodent model of deep brain stimulation. J. LUJAN*; E. K. ROSS; J. T. HACHMANN; P. J. GRAHN; A. J. BIEBER; S. CHANG; K. E. BENNET; K. H. LEE. *Mayo Clin., Mayo Clin., Mayo Clin.*

3:00 F41 **806.15** Anatomical connectivity of deep brain stimulation (DBS) contacts and clinical outcome in movement disorders. L. M. ALBA-FERRARA*; D. SMITH; P. MARSH; F. VALE; T. ZESIEWICZ; T. MALAPIRA; S. BOUIX; M. SHENTON; G. DE ERAUSQUIN. *Univ. of South Florida, Surgical Planning Laboratory, Harvard Med. Sch., Psychiatry Neuroimaging Laboratory, Harvard Med. Sch.*

4:00 F42 **806.16** Simultaneously monitoring the effects of levodopa treatment on dopamine and H2O2 dynamics *in vivo* with fast-scan cyclic voltammetry. L. QI*; L. A. SOMBERS. *North Carolina State Univ.*

1:00 F43 **806.17** Microtubules are early altered in mice injected with 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine and treatment with the microtubule stabilizer epothilone D is neuroprotective. G. CAPPELLETTI*; D. CARTELLI; F. CASAGRANDE; C. BUSCETI; D. BUCCI; G. MOLINARO; A. TRAFICANTE; D. PASSARELLA; E. GIAVINI; G. PEZZOLI; G. BATTAGLIA. *Univ. Degli Studi Di Milano, IRCCS Neuromed, Istituti Clinici di Perfezionamento.*

2:00 F44 **806.18** ● G2019s lrrk2 induces mitochondrial dysfunction and potentiates associated pathophysiology through activation of jnk in a similar manner to neurotoxins. P. LOGRASSO*; S. HOWARD; J. CHAMBERS. *Scripps Res. Inst., Florida Intl. Univ.*

3:00 F45 **806.19** Microglia in acute brain slices from MPTP-treated mice have an impaired response to tissue damage. S. GYONEVA*; L. SHAPIRO; C. LAZO; G. W. MILLER; S. F. TRAYNELIS. *Emory Univ.*

4:00 F46 **806.20** ● Novel high affinity multifunctional D2/D3 agonist D-512 with potent neuroprotection property: Mechanistic evaluation of multifunctional properties. C. S. VOSHAVAR*; M. SHAH; L. XU; A. K. DUTTA. *Wayne State Univ.*

1:00 G1 **806.21** Siah-2 / synphilin-1 supported degradation of α-synuclein. K. I. LOEW*; A. SCHMID; P. AEBISCHER; B. L. SCHNEIDER. *Ecole Polytechnique Federale De Lausanne.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 G2 **806.22** ● Selective silencing of alpha-synuclein in aminergic neurons *in vivo* by intranasal delivery of targeted small interfering RNA or antisense oligonucleotides: Relevance to Parkinson's disease. A. RECASENS; M. GALOFRÉ; I. CARBALLO-CARBAJAL; J. BOVÉ; C. PERIER; A. FERRÉS-COY; M. C. CARMONA; M. I. SANTOS; S. BAENA; M. R. CHICA; A. MONTEFELTRO; R. REVILLA; A. BORTOLOZZI; M. VILA*. *Vall d'Hebron Res. Inst., IIBB (CSIC)-IDIBAPS-CIBERSAM, n-Life Therapeutics, S.L, CIBERNED, Autonomous Univ. of Barcelona (UAB), Catalan Inst. for Res. and Advanced Studies (ICREA).*

3:00 G3 **806.23** TFEB-induced lysosomal biogenesis reverses A53T mutant α-synuclein induced toxicity. M. BOURDENX*; A. BALLABIO; E. BEZARD; M. VILA; B. DEHAY. *Inst. of Neurodegenerative Dis., Telethon Inst. of Genet. and Med., Inst. de Recerca Hosp. Universitari Vall d'Hebron.*

4:00 G4 **806.24** Effect of exercise on motor control and oscillatory activity in the basal ganglia in the parkinsonian non-human primate. J. WANG*; A. MURALIDHARAN; H. M. HUDSON; L. A. JOHNSON; J. ZHANG; K. B. BAKER; J. L. VITEK. *Univ. of Minnesota.*

1:00 G5 **806.25** Are there Biomarkers for Parkinson's disease Phenotypes? A. MURALIDHARAN*; S. NEBECK; K. B. BAKER; J. L. VITEK. *Univ. of Minnesota, Univ. of Minnesota.*

2:00 G6 **806.26** Modulation of local field potentials during reaching with increasing parkinsonian severity. A. T. CONNOLLY*; A. MURALIDHARAN; C. M. HENDRIX; F. AGNESI; K. B. BAKER; M. D. JOHNSON; J. L. VITEK. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

3:00 G7 **806.27** Behavioral and neuronal characterization of visual deficits in the systemic 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine nonhuman primate model of Parkinson's disease. C. M. HENDRIX*; K. B. BAKER; M. D. JOHNSON; J. L. VITEK. *Univ. of Minnesota, Univ. of Minnesota.*

POSTER

807. Parkinson's Disease: Mechanisms of Cell Death and Dysfunction

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G8 **807.01** FABP3 expression aggravates neuronal α-synuclein accumulation in Parkinson's model mice. N. SHIODA*; Y. OWADA; K. FUKUNAGA. *Tohoku Univ., Yamaguchi Univ. Grad. Sch. Med.*

2:00 G9 **807.02** Glutathione-s-transferase m2-2 protects glioblastoma cells against aminochrome toxicity by preventing autophagy-lysosomal dysfunction and mitochondrial damage. S. HUENCHUGUALA*. *Fac. of Medicine, Univ. of Chile.*

3:00 G10 **807.03** Mutant (G2019S) LRRK2 induces mitochondrial fragmentation in substantia nigra dopaminergic neurons in a transgenic mouse model of Parkinson's disease. C. CHEN*; H. WANG. *Chang Gung Univ.*

4:00 G11 **807.04** Parkinsonizing toxin 1-methyl-4-phenylpyridinium enhances temporal summation of excitatory post-synaptic potentials in midbrain dopamine neurons by inhibiting Ih. R. NARDUCCI; A. MASI; E. LANDUCCI; F. MORONI; G. MANNAIONI*. *Univ. of Florence.*

1:00 G12 **807.05** The mitochondrial chaperone TRAP1 protects mitochondrial integrity by interacting with the serine protease HtrA2. J. C. FITZGERALD*; C. MIELKE; B. MAURER; L. M. MARTINS; A. VOIGT; R. KRUEGER. *Hertie Inst. For Clin. Brain Res., MRC Toxicology Unit, Univ. Centre, RWTH Aachen.*

2:00 G13 **807.06** Copper-dependent genotoxicity of α-Synuclein via its peroxidation. E. GUERRERO HAUGHTON; P. M. HEGDE; M. SANKAR; J. KOSAGISHARAF*; M. L. HEGDE. *INDICASAT-AIP, Univ. of Texas Med. Br. (UTMB), CFTRI, INDICASAT-AIP, Univ. of Texas Med. Br. (UTMB).*

3:00 G14 **807.07** The neuroprotective effect of melatonin on methamphetamine-induced autophagy associated with apoptosis linked to cell death pathways. C. NOPPARAT*; P. GOVITRAPONG. *Mahidol Univ.*

4:00 G15 **807.08** ATP6V0C regulates alpha synuclein metabolism and autophagy-lysosome pathway function. J. J. SHACKA*; L. R. MANGIERI; B. J. MADER; T. E. TSE; H. M. FLIPPO. *Univ. Alabama-Birmingham, Birmingham VA Med. Ctr.*

1:00 G16 **807.09** Autophagic and alpha-synuclein pathology in alpha-galactosidase A-deficient mouse brain and kidney. M. P. NELSON*; T. E. TSE; D. O'QUINN; E. JAIMES; D. G. WARNOCK; J. J. SHACKA. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Birmingham VA Med. Ctr.*

2:00 G17 **807.10** Sodium-Calcium exchanger 3 (ncx3) - A new mechanism of ziram-induced calcium dysregulation and toxicity, relevance to PD. J. JIN; J. A. LAO; M. KATSURA; A. CAPUTO; F. E. SCHWEIZER; S. SOKOLOW*. *UCLA Sch. of Nursing, David Geffen Sch. of Med. at UCLA, UCLA Brain Res. Inst.*

3:00 G18 **807.11** ● A defect in the mitochondrial enzyme phosphatidylserine decarboxylase triggers stress in the endoplasmic reticulum and the formation of alpha-synuclein (α-syn) inclusions: Insights from a yeast model of Parkinson's disease. S. N. WITT*; S. WANG. *LSU Hlth. Sci. Ctr. / Biochem.*

4:00 G19 **807.12** Glyceraldehyde-3-phosphate dehydrogenase aggregates enhance alpha-synuclein amyloidogenesis and augment dopamine-induced neurotoxicity both *in vitro* and *in vivo.* M. ITAKURA*; H. NAKAJIMA; T. KUBO; A. FUKUHARA; M. KUWAMURA; Y. AZUMA; T. INUI; T. TAKEUCHI. *Osaka Prefecture Univ., Osaka Prefecture Univ., Osaka Prefecture Univ.*

1:00 G20 **807.13** PARIS mediates mitochondrial functional decline downstream of parkin loss. D. A. STEVENS*; J. SHIN; A. BOWER; L. A. SCARFFE; S. A. ANDRABI; V. L. DAWSON; T. M. DAWSON. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn., Johns Hopkins Univ. Sch. of Med., Sungkyunkwan Univ. Sch. of Medicine, Samsung Biomed. Res. Inst., Johns Hopkins Univ. Sch. of Med.*

2:00 G21 **807.14** Aminochrome induces neurodegeneration of dopaminergic neurons containing neuromelanin in Parkinson´s disease. J. E. SEGURA-AGUILAR*; P. MUÑOZ; S. HUENCHUGUALA; C. CUEVAS; M. VILLA; S. CASTILLO; C. MELENDEZ; A. HERRERA; U. AHUMADA; G. GARRIDO; I. PARIS. *Fac Med. Univ. Chile, Santo Tomas Univ.*

3:00 G22 **807.15** Microsomal prostaglandin E synthase-1 contributes to dopaminergic neuronal death induced by 6-hydroxydopamine in primary mesencephalic neurons. Y. IKEDA-MATSUO*; T. MIZOGUCHI; Y. NAITO; S. UEMATSU; S. AKIRA; M. TANABE; Y. SASAKI. *Lab. of Pharmacol., Sch. of Pharmaceu. Sci., Kitasato Univ., Lab. of Host Defense, Immunol. Frontier Res. Center, Osaka Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 G23 **807.16** MicroRNA-7 protects cells against 1-methyl-4-phenylpyridinium (MPP+)-induced cell death through repression of p65. Y. CHAE; D. CHOI; M. R. JAIN; H. LI; M. M. MOURADIAN; E. JUNN*. *UMDNJ-Robert Wood Johnson Med. Sch., UMDNJ-New Jersey Med. Sch.*

1:00 G24 **807.17** Dynamic equilibria underlie the aggregation of neurotoxic particles. T. M. JEITNER*; M. KALOGIANNIS; M. STECKER; E. J. DELIKATNY; G. MORAN; L. RAGOLIA. *Winthrop Univ. Hosp., Univ. of Pennsylvania, Univ. of Wisconsin Milwaukee.*

2:00 G25 **807.18** S-Nitrosylation of parkin as a novel regulator of p53-mediated neuronal cell death in sporadic Parkinson's disease. C. R. SUNICO*; T. NAKAMURA; S. F. CHAN; E. ROCKENSTEIN; M. MANTE; A. ADAME; T. FANG-NEWMEYER; E. MASLIAH; N. NAKANISHI; S. A. LIPTON. *Sanford-Burnham Med. Res. Inst., Univ. of California at San Diego, Sanford-Burnham Med. Res. Inst.*

3:00 G26 **807.19** ● Itered 14-3-3 phosphorylation in Parkinson's disease. T. A. YACOUBIAN*; J. SHACKA; S. SLONE. *Univ. Alabama Birmingham, Univ. of Alabama at Birmingham.*

4:00 G27 **807.20** Histone hyperacetylation regulates neuronal apoptosis through upregulation of STAT1 in mesencephalic dopaminergic neuronal cells. N. SINGH; V. LAWANA; V. ANANTHARAM; A. KANTHASAMY; A. KANTHASAMY*. *Iowa State Univ.*

1:00 G28 **807.21** AAV-mediated human alpha-synuclein overexpression in the rat forebrain: A tool to validate alpha-synuclein as a biomarker. N. LANDECK*; K. BUCK; D. KIRIK. *Brain Repair And Imaging In Neural Systems (BRAINS) Unit, Lund Univ.*

2:00 G29 **807.22** Neurotoxicity of the dithiocarbamate fungicide ziram is mediated via zebrafish synuclein □1 in zebrafish: Implications for Parkinson's disease. A. LULLA*; L. BARNHILL; A. G. FITZMAURICE; M. STAHL; S. LI; J. BRONSTEIN. *Univ. Of California Los Angeles.*

3:00 G30 **807.23** Aberrant heat shock protein response is accompanied by oxidative injury in aged DJ-1 deficient mice. V. P. CHOU; A. V. RAMAN; D. A. DI MONTE; A. B. MANNING-BOG*. *SRI Intl., Univ. of Hawai'i, German Ctr. for Neurodegenerative Dis., SRI Intl.*

4:00 G31 **807.24** Studies on epigenetic alterations induced by aminochrome. P. MUÑOZ*; K. CORTEZ; M. VILLA; G. GARRIDO; M. DELGADO; M. TAPIA; A. BRICEÑO; S. HUENCHUGUALA; C. CUEVAS; U. AHUMADA; C. MELENDEZ; S. CASTILLO; A. HERRERA; J. SEGURA-AGUILAR; I. PARIS. *Univ. of Chile, Univ. Santo Tomas.*

1:00 G32 **807.25** Autophagy modulates aSyn release and microenvironmental response. A. POEHLER; W. XIANG; H. MEXINER; O. MARQUES; E. ROCKENSTEIN; T. F. OUTEIRO; E. MASLIAH; J. WINKLER; J. KLUCKEN*. *Univ. Hosp. Erlangen, Friedrich-Alexander Univ. Erlangen-Nuremberg, Univ. Medizin Göttingen, Univ. of California San Diego.*

2:00 G33 **807.26** Lewy body fractions from patients with Parkinson's disease initiate α-synuclein-dependent neurodegeneration in mice and non-human primates. B. DEHAY*; A. RECASENS; J. BOVÉ; I. CARBALLO-CARBAJAL; S. DOVERO; A. PÉREZ; P. FERNAGUT; J. BLESA; E. DOUDNIKOFF; A. PARENT; C. PERIER; I. FARINAS; J. OBESO; E. BEZARD; M. VILA. *Inst. of Neurodegenerative Dis., Neurodegenerative Dis. Res. Group, Dept. of Cell Biol., Basal Ganglia and Movement Disorders Unit.*

3:00 G34 **807.27** Neuroinflammatory role of tumor necrosis factor-like weak inhibitor of apoptosis (TWEAK) in Parkinson's disease models. S. KANURI; R. GORDON; M. NEAL; H. JIN; V. ANANTHARAM*; A. KANTHASAMY; A. KANTHASAMY. *Iowa State Univesity, Iowa State Univ.*

4:00 G35 **807.28** Trib3 is a negative regulator of the Akt and NF-kappaB pathways in Parkinson's disease models. P. AIME*; N. ZAREEN; L. A. GREENE. *Columbia Univ.*

1:00 G36 **807.29** Reducing synuclein accumulation improves neuronal survival and plasticity after spinal cord injury. S. M. FOGERSON*; A. J. VAN BRUMMEN; D. J. BUSCH; J. R. MORGAN. *Marine Biol. Lab., Marine Biol. Lab., The Univ. of Texas at Austin.*

POSTER

808. Neurologic Disorders

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G37 **808.01** Stress hormone corticosterone enhances CSD susceptibility in familial hemiplegic migraine type 1 Cacna1a R192Q knock-in mice. R. SHYTI*; K. EIKERMANN-HAERTER; O. C. MEIJER; S. H. VAN HEININGEN; M. D. FERRARI; C. AYATA; M. JOËLS; A. M. J. M. VAN DEN MAAGDENBERG; E. A. TOLNER. *Leiden Univ. Med. Ctr., Massachusetts Gen. Hospital, Harvard Med. Sch., Leiden Univ. Med. Ctr., Leiden Univ. Med. Ctr., Massachusetts Gen. Hospital, Harvard Med. Sch., Univ. Med. Ctr. Utrecht, Leiden Univ. Med. Ctr.*

2:00 G38 **808.02** Low frequency oscillations in the cerebral cortex of the tottering mouse. S. W. CRAMER*; G. CHEN; L. S. POPA; T. J. EBNER. *Univ. of Minnesota.*

3:00 G39 **808.03** Investigating changes in network excitability in the visual cortex of transgenic migraine mice. R. R. KLEVER*; T. HOUBEN; M. J. L. PERENBOOM; G. M. TERWINDT; M. D. FERRARI; A. M. J. M. VAN DEN MAAGDENBERG; E. A. TOLNER. *LUMC, LUMC.*

4:00 G40 **808.04** Mouse syntaxin 1b, but not syntaxin 1a, is essential for the postnatal development. Y. WU*; M. ARANCILLO; C. ROSENMUND. *NeuroCure Cluster of Excellence, Charité Universitätsmedizin Berlin.*

1:00 G41 **808.05** ▲ Timp-1 modulation of cell death in undifferentiated neuroblastoma cells. A. M. NICAISE; K. M. JOHNSON; S. J. CROCKER; W. H. CHURCH*. *Trinity Col., Univ. of Connecticut Hlth. Ctr., Trinity Col.*

2:00 G42 **808.06** Searching for abnormalities in AHDS - iPS cell derived oligodendrocytes. G. D. VATINE*; S. SVENDSEN; L. ORNELAS; A. SAHABIAN; C. N. SVENDSEN. *Cedars-Sinai Med. Ctr.*

3:00 G43 **808.07** Phlebotomy-induced anemia alters metabolism and gene expression in the neonatal mouse hippocampus. D. WALLIN*; T. ZAMORA; I. TKAC; K. ENNIS; K. THIBERT; A. STEIN; R. RAO; M. GEORGIEFF. *Univ. of Minnesota.*

4:00 G44 **808.08** Age-dependent decrease in oxygen utilization and NADH oxidation during synaptic stimulus trains in rat hippocampal slice. F. GALEFFI*; P. K. SHETTY; D. A. TURNER. *Duke Univ. Med. Ctr., DVAMC.*

1:00 G45 **808.09** Chronic episodic metabolic stress in oligodendrocytes leads to epithalamic and cingulate cortex pathology associated with cognitive deficits in mice. D. RADECKI*; A. GOW. *Wayne State Univ., Wayne State Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 G46 **808.10** A novel model of axonal degeneration stemming from chronic episodic metabolic stress in oligodendrocytes. A. GOW*; D. Z. RADECKI. *Wayne State Univ. Sch. Med.*

3:00 G47 **808.11** ▲ Axon degeneration do shows apoptotic signatures. Y. XU; B. P. VOHRA*. *Univ. of Central Arknasas, Univ. of Central Arkansas.*

4:00 G48 **808.12** Restoration of visual function to blind mice with chemical photoswitches. I. TOCHITSKY*; A. POLOSUKHINA; A. FRIEDMAN; R. VAN GELDER; D. TRAUNER; D. KAUFER; R. KRAMER. *UC Berkeley, UC Berkeley, UC Berkeley, Univ. of Washington, Univ. of Munich.*

1:00 G49 **808.13** Etiologic dynamics of optineurin E50K mutant in iPSC from open angle glaucoma patient. Y. MINEGISHI*; T. IWATA. *Natl. Hosp. Organization Tokyo Med. Ctr.*

2:00 G50 **808.14** Nuclear-encoded electron transport chain transcripts localize to mitochondria in retinal ganglion cell axons in an activity-dependent manner before and after injury. S. S. OZDEMIR; M. STEKETEE*. *Univ. of Pittsburgh.*

3:00 G51 **808.15** Automated motor function phenotyping in mice via home cage voluntary wheel running: Cross-lab validation and comparison with rotarod. L. GARBUGINO; I. HEISE; G. P. TOCCHINI-VALENTINI; S. MANDILLO*; P. M. NOLAN. *CNR - Inst. Cell Biol. and Neurobiology-EMMA, MRC.*

4:00 G52 **808.16** *In vivo* measurement of neurotoxic changes in manganese-exposed smelters and welders. Z. LONG*; Y. JIANG; X. LI; J. XU; L. LONG; W. ZHENG; J. B. MURDOCH; U. DYDAK. *Purdue Univ., Indiana Univ. Sch. of Med., Guangxi Med. Univ., The First Affiliated Hosp. of Guangxi Med. Univ., Toshiba Med. Res. Inst. USA.*

1:00 G53 **808.17** ▲ Sentence comprehension and semantic comprehension in patients with semantic variant primary progressive aphasia (svppa). R. B. WILLIAMS*; K. RASCOVSKY; C. MCMILLAN; M. GROSSMAN. *Univ. of Pennsylvania.*

2:00 G54 **808.18** ● Protective effect of Brazilian propolis and its major component Aretpillin C on endoplasmic reticulm stress induced Neuro2a cell death. S. ISHIAI*; W. TAHARA; R. YAMAMOTO; K. NAGAI. *Univ. Yamanashi, Nihon natural foods Co., Ltd.*

3:00 G55 **808.19** Phytanic acid enhances histone deacetylase activity and vulnerability to endoplasmic reticulum stress in Neuro2a cells. K. NAGAI*. *Univ. Yamanashi.*

POSTER

809. Brain Imaging and Tissue Markers in Autism

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G56 **809.01** Differential responses of mismatch field in autistic spectrum disorder with auditory hypersensitivity: a MEG study. J. MATSUZAKI*; K. KAGITANI-SHIMONO; H. SUGATA; M. HIRATA; I. HIRATA; R. HANAIE; F. NAGATANI; M. TACHIBANA; K. TOMINAGA; I. MOHRI; M. TANIIKE. *United Grad. Sch. of Child Development, Osaka Univ., Dept. of Neurosurgery, Osaka Univ. Grad. Sch. of Med., Dept. of Pediatrics, Osaka Univ. Grad. scool of medicine.*

2:00 G57-DP3**809.02** Reduced functional connectivity within 'social brain' in ASD. J. H. BALSTERS*; D. MANTINI; N. WENDEROTH. *ETH Zurich.*

3:00 G58 **809.03** Glutamate and gamma-aminobutyric acid mrs in autism spectrum disorder. M. K. BRIX*; L. ERSLAND; K. HUGDAHL; E. GRÜNER; M. POSSERUD; A. HAMMAR; A. R. CRAVEN; R. NOESKE; H. WALKER; M. K. BEYER. *Haukeland Univ. Hosp., Haukeland Univ. Hosp., Haukeland Univ. Hospital, Bergen, Univ. of Bergen, Haukeland Univ. Hosp., Haukeland Univ. Hosp., GE Healthcare, Univ. of Oslo, Oslo Univ. Hosp.*

4:00 G59 **809.04** Longitudinal microstructure of the internal capsule and corona radiata in autism. J. A. NIELSEN*; B. G. TRAVERS; D. P. M. TROMP; N. ADLURU; C. ENNIS; N. LANGE; A. L. FROEHLICH; M. B. D. PRIGGE; P. T. FLETCHER; B. A. ZIELINSKI; J. S. ANDERSON; E. D. BIGLER; J. E. LAINHART; A. L. ALEXANDER. *Univ. of Utah, Univ. of Wisconsin, Harvard Univ., Brigham Young Univ.*

1:00 G60 **809.05** A functional connectivity pattern analysis applied to a MEG/SSVEF data. H. ORA*; K. KANSAKU. *Res. Inst. of Natl. Rehabil. Ctr., Tokyo Inst. Technol., Chiba Univ.*

2:00 H1 **809.06** Correlation of Social reward network and social learning process in Autism Spectrum Disorder : A preliminary functional MRI study. U. CHOI*; H. YOON; K. JHUNG; S. KIM; S. LEE; S. PARK; Y. SUNG; J. JEONG; S. IN; K. CHEON. *Neurosci. Res. Institute, Gachon Univ. of Med. and Sci., Dept. of Psychiatry, Konyang Univ. Col. of Med., Dept. of Child and Adolescent Psychiatry and Inst. of Behavioral Sci. in Medicine, Yonsei Univ. Col. of Med., Kansei Fukushi Res. Institute, Tohoku Fukushi Univ.*

3:00 H2 **809.07** Decoding sequence of actions using fMRI. D. LEE*; S. NAM; H. LIM; S. PARK; D. KIM. *Korea Advanced Inst. of Sci. and Technol., Korea Advanced Inst. of Sci. and Technol.*

4:00 H3 **809.08** Extracellular matrix abnormalities in autistic postmortem brain tissue from the subventricular zone of the lateral ventricles. M. J. CORLEY*; B. L. PEARSON; D. C. BLANCHARD; R. J. BLANCHARD. *Univ. of Hawaii, Univ. of North Carolina.*

1:00 H4 **809.09** Abnormal connectivity in amygdala subregions in ASD: A resting state fMRI study. N. M. KLEINHANS*; G. PAULEY; E. NEUHAUS; N. MARTIN. *Univ. Washington, Univ. Washington.*

2:00 H5 **809.10** The glo1 ala111 allele confers autism vulnerability: Family-based genetic association and functional correlates in post-mortem brains. A. M. PERSICO*; F. LOMBARDI; V. NAPOLIONI; R. SACCO; L. ALTIERI; C. BRAVACCIO; F. ROUSSEAU. *Univ. Campus Bio-Medico, IRCCS Fondazione Santa Lucia, Mafalda Luce Ctr. for Pervasive Developmental Disorders, Univ. "Federico II", IntegraGen SA.*

3:00 H6 **809.11** Temporal dynamics of resting state functional connectivity in autism: A sliding window fcMRI study. M. E. MULVEY*; C. L. KEOWN; J. O. MAXIMO; C. P. CHEN; R. MÜLLER. *San Diego State Univ., Brain Develop. Imaging Lab.*

4:00 H7 **809.12** Transcranial ultrasound ('TUS') - an optimal non-invasive brain-machine interface via microtubules? S. R. HAMEROFF*; J. L. SANGUINETI; C. DUFFIELD; U. RAMAN; Q. D. AMOS; J. J. B. ALLEN. *Univ. Arizona Med. Ctr., Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

1:00 H8 **809.13** Brain Segemntation in the ASD sample. S. HUEMER*; F. KRUGGEL; V. MANN. *UC Irvine, UC Irvine.*

2:00 H9 **809.14** It's not just faces: atypical neural activation to novel objects in autism. G. PICCI*; M. BEHRMANN; N. MINSHEW; S. SCHERF. *Penn State Univ., Carnegie Mellon Univ., Univ. of Pittsburgh.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 H10 **809.15** Abnormalities along major white matter tracts in young children with autism spectrum disorder. R. T. JOHNSON*; C. WU NORDAHL; J. D. YEATMAN; B. A. WANDELL; S. R. ROGERS; D. G. AMARAL. *Univ. of California Davis Med. Ctr., Stanford Univ.*

4:00 H11 **809.16** ● Activation of vagus projections in humans via electrical stimulation of the external ear: fMRI time course analysis. E. FRANGOS*; K. ALLEN; N. WISE; J. ELLRICH; W. BIRBANO; B. R. KOMISARUK. *Rutgers, The State Univ. of New Jersey, Cerbomed GmbH, Aalborg Univ.*

1:00 H12 **809.17** Impaired functional connectivity in networks underlying balance in Autism Spectrum Disorder. A. ABBOTT*; C. L. KEOWN; A. NAIR; G. KOOR; S. KIRTLAND; D. GOBLE; R. MÜLLER. *San Diego State Univ., Brain Develop. Imaging Lab., UCSD, Biomechanics Lab.*

2:00 H13 **809.18** Impaired feature integration in autism spectrum disorders across visual hemifields. I. PEIKER*; N. DAVID; T. SCHNEIDER; D. SCHÖTTLE; A. K. ENGEL. *Univ. Med. Ctr. Hamburg-Eppendorf (UKE), Univ. Med. Ctr. Hamburg-Eppendorf (UKE).*

3:00 H14 **809.19** Altered chloride homeostasis and GABAA -receptor subunit expression in temporal lobe from non-syndromic autism patients. A. SALAH*; P. DILSIZ; C. S. REISS; O. DEVINSKY; D. M. TALOS. *New York Univ. Sch. Med., Neurosci. Inst., NYU Med. Ctr., NYU, New York Univ.*

4:00 H15 **809.20** Alterations of the meninges and of the extracellular matrix in the brain from early development to adulthood in btbr mice, animal model of autism. A. TAMURA-SATO*; N. GINAPE-MERCIER; R. ZOU; C. BANEL; Y. CHO-KWON; M. CHYBA; F. MERCIER. *Univ. of Hawai'I At Manoa.*

1:00 H16 **809.21** Modulation of corticospinal excitability across the lifespan in individuals with autism spectrum disorders. L. M. OBERMAN*; A. PASCUAL-LEONE; A. ROTENBERG. *Beth Israel Deaconess Med. Ctr., Children's Hospital, Boston.*

2:00 H17 **809.22** Correlations between white matter structure and neuronal processing latency using diffusion tensor imaging and mismatch fields. J. JENKINS III*; M. LANZA; K. F. HEIKEN; J. I. BERMAN; T. P. L. ROBERTS. *CHOP.*

3:00 H18 **809.23** Cobalamin species in human neuronal cells and cerebral cortex: Implications for aging, autism and schizophrenia. Y. LI*; N. HODGSON; R. DETH. *Northeastern Univ.*

4:00 H19 **809.24** Autistic traits are negatively correlated with cortical surface area in typically developing male adolescents and young adults. B. ORIONZI*; I. W. EISENBERG; A. MARTIN; G. L. WALLACE. *Lab. of Brain and Cognition.*

1:00 H20 **809.25** Reduced density and global efficiency of functional connectivity in autism spectrum disorders. C. L. KEOWN*; J. O. MAXİMO; M. E. MULVEY; C. P. CHEN; R. MÜLLER. *Computat. Sci. Program, Brain Develop. Imaging Lab.*

2:00 H21 **809.26** Oxidative stress induces mitochondrial dysfunction in a subset of autism lymphoblastoid cell lines. S. ROSE*; R. E. FRYE; J. SLATTERY; R. A. WYNNE; M. TIPPETT; S. MELNYK; S. J. JAMES. *Arkansas Children's Hosp. Res. Insitute.*

3:00 H22 **809.27** Repetitive behavior severity in autism predicts cortical and subcortical correlation strength. I. W. EISENBERG*; B. A. ORIONZI; L. KENWORTHY; A. MARTIN; G. L. WALLACE. *Lab. of Brain and Cognition, Children's Natl. Med. Ctr.*

POSTER

810. Fragile X Syndrome

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 H23 **810.01** Characterizing perceptual learning and plasticity in a mouse model of Fragile X Syndrome. M. ARNETT*; A. MCGEE. *USC, Saban Res. Institute, Children's Hosp. Los Angeles.*

2:00 H24 **810.02** ● Molecular mechanisms underlying the phenotype corrections of Fragile X in mice achieved with chronic pharmacological mGlu5 inhibition addressed by large-scale transcriptional profiling. S. H. SCHARF*; A. MICHALON; T. NGUYEN; J. MOLNOS; S. E. LAZIC; I. WELLS; M. EBELING; G. DURÁN PACHECO; G. DUCHATEAU-NGUYEN; L. OZMEN; G. VARGAS; J. G. WETTSTEIN; G. JAESCHKE; L. LINDEMANN. *F. Hoffmann-La Roche AG, Neurimmune Holding AG, F. Hoffmann- La Roche AG, F. Hoffmann- La Roche AG, Current Address: Novartis Inst. for BioMedical Res., F. Hoffmann- La Roche AG, Amgen Inc, F. Hoffmann- La Roche AG.*

3:00 H25-DP2 **810.03** Developmental changes to dentate gyrus PSD-95 expression and dendritic spine ultrastructure in a mouse model of Fragile X Syndrome. S. W. NOVAK*; M. VETRICI; C. R. KING; J. BOOTS; B. R. CHRISTIE; P. C. NAHIRNEY. *Univ. of Victoria.*

4:00 H26 **810.04** Subregion specific deficits in NMDA receptors and synaptic plasticity in the hippocampus of Fmr1 knock out mice. M. A. VETRICI*; C. BOSTROM; N. M. MAJAESS; B. R. CHRISTIE. *Univ. of Victoria.*

1:00 H27 **810.05** Dysregulation of AKT pathway protein in a *Drosophila melanogaster* model of Fragile X. D. B. CHAMBERS*; A. C. MAGICO; C. S. ROSENFELT; F. V. BOLDUC. *Univ. of Alberta, Univ. of Alberta.*

2:00 H28 **810.06** ● Chronic mGlu5 inhibition corrects local alterations of brain activity and improves cognitive performance in fragile X mice. L. LINDEMANN*; A. MICHALON; A. BRUNS; C. RISTERUCCI; M. HONER; T. M. BALLARD; L. OZMEN; G. JAESCHKE; J. G. WETTSTEIN; M. VON KIENLIN; B. KÜNNECKE. *F. Hoffmann-La Roche AG, pRED, Discovery Neurosci., Current address: Neurimmune Holding AG, F.Hoffmann-La Roche AG, pRED, Discovery Chem.*

3:00 H29 **810.07** Two regulators of protein synthesis, MAPK and p70-S6K, are dysregulated in a *Drosophila* model of Fragile X. A. C. MAGICO*; B. D. CHAMBERS; F. V. BOLDUC. *Univ. of Alberta.*

4:00 H30 **810.08** MMP-1 mediated activation of PAR-1 contributes to the fragile X syndrome phenotype. M. ALLEN*; H. S. HOE; A. SZKLARCZYK; K. A. MAGUIRE-ZEISS; K. E. CONANT. *Georgetown Univ., Jagiellonian Ctr. of Innovation.*

1:00 H31 **810.09** **Unable to Attend.** Fragile x, intermediate, and premutation alleles in the autism genetic resource exchange (agre). W. BROWN*; A. GLICKSMAN; X. DING; N. ERSALESI; C. DOBKIN; S. NOLIN. *Inst. Basic Res.*

2:00 H32 **810.10** Pathophysiology associated with the loss of FMRP in the rat. S. M. TILL; A. D. JACKSON; S. A. BARNES; D. KATSANEVAKI; E. OSTERWEIL; M. F. BEAR; D. WYLLIE*; P. C. KIND. *Univ. of Edinburgh, M.I.T., Univ. Edinburgh.*

3:00 H33 **810.11** Circuit-wide changes alter somatosensory cortical processing in the juvenile Fmr1-KO mouse model of Fragile X Syndrome. A. DOMANSKI*; J. T. R. ISAAC; P. C. KIND. *Univ. of Edinburgh, Patrick Wild Ctr., Natl. Institues of Hlth., Eli Lilly and Co.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 H34 **810.12** Novel conventional FMR1 mutations in patients with intellectual disability. L. K. MYRICK*; M. NAKAMOTO-KINOSHITA; X. LI; J. VISOOTSAK; N. M. LINDOR; S. KIRMANI; P. JIN; S. T. WARREN. *Emory Univ., Emory Univ., Mayo Clin., Mayo Clin., Emory Univ.*

1:00 H35 **810.13** Associated neural coordination and cognitive discrimination impairments in Fmr1 knockout mice. B. M. RADWAN*; D. DIVORAK; A. FENTON. *New York Univ., Polytechnic Inst. of New York Univ., New York Univ.*

2:00 H36 **810.14** Rescue of Fragile X-associated dendritic spine and behavioral abnormalities in Fmr1/Mmp9 double KO Mice. H. K. SIDHU*; L. DANSIE; S. MORTAZAVI; D. W. ETHELL; I. M. ETHELL. *Univ. of California Riverside, Western Univ. of Hlth. Sci.*

3:00 I1 **810.15** dFMR1 regulates heterochromatin formation in *Drosophila.* Y. CHANG*; Y. A. SAVVA; R. A. REENAN. *Brown Univ., Brown Univ.*

4:00 I2 **810.16** Impaired mGluR-dependent regulation of inhibition in the visual neocortex in a mouse model of Fragile X Syndrome. J. A. FENN*; C. L. COX. *Univ. of Illinois.*

1:00 I3 **810.17** Aberrant cofilin signaling in a mouse model of Fragile X Syndrome. A. PYRONNEAU*; R. ZUKIN. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

2:00 I4 **810.18** Differential rewiring of signaling networks in hippocampus vs cortex of Fragile X mice. K. SAWICKA; R. ZUKIN*. *Albert Einstein Col. Med.*

3:00 I5 **810.19** Developmental study of spontaneous activity and Up states in organotypic slices. H. MOTANIS*; D. BUONOMANO. *UCLA.*

4:00 I6 **810.20** ▲ Using adult mouse ultrasonic vocalizations as an assay of social communication. Z. ADAHMAN*; H. Y. LEE; B. SEMPLE; C. HOLLINGSWORTH; A. KWAKYE; L. Y. JAN; Y. N. JAN; L. NOBLE-HAEUSSLEIN; A. K. SCHENK. *Randolph Col., Univ. of California, San Francisco, Howard Hughes Med. Inst., Univ. of California, San Francisco, Randolph Col., Randolph Col., Univ. of California, San Francisco.*

1:00 I7 **810.21** Synaptic mechanisms of motor skill learning in the fmr1 KO mouse. A. SURESH; R. PADMASHRI; B. REINER; A. DUNAEVSKY*. *Univ. of Nebraska Med. Ctr.*

POSTER

811. Brain Injury IV

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 I8 **811.01** Mild blast-induced brain injury produces, social deficits, depression-like phenotype and exaggerated responses to anxiogenic cues in rats. W. A. TRUITT*; E. LUNGWITZ; B. HANRANHAN; M. K. WALLS; R. SHI. *Indiana Univ. Sch. Med., Purdue Univ.*

2:00 I9 **811.02** Longitudinal tensor-based morphometry in traumatic brain injury. E. S. LUTKENHOFF*; D. MCARTHUR; P. VESPA; M. M. MONTI. *UCLA, UCLA.*

3:00 I10 **811.03** A longitudinal diffusion tensor imaging study assessing white matter fiber tracts after sports related concussion. M. MURUGAVEL*; M. PUTUKIAN; V. CUBON; R. ECHEMENDIA; D. OSHERSON; A. DETTWILER. *Princeton Univ., Princeton Univ., Kent State Univ., Psychological and Neurobehavioral Associates, Inc., Princeton Univ.*

4:00 I11 **811.04** Behavioral training affects cortical neuroplasticity across modalities after mild traumatic brain injury. S. C. SCHWERIN*; J. R. LATOCHE; S. L. JULIANO. *Uniformed Services Univ.*

1:00 I12 **811.05** Proton magnetic resonance spectroscopy time course assessment of the neurochemical profile of the rat cerebellum after exposure to the blast-induced neurotrauma. F. GHODDOUSSI*; S. V. SAJJA; P. VANDEVORD; M. P. GALLOWAY. *Wayne State University, Sch. of Med., Virginia Polytechnic and State Univ.*

2:00 I13 **811.06** Behavioral differences following single and repeated shockwave exposure. B. D. STEMPER*; M. D. BUDDE; A. S. SHAH; M. MCCREA; S. N. KURPAD; F. A. PINTAR. *Dept. of Neurosurgery, Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

3:00 I14 **811.07** Differentiating mild traumatic brain injury from post-traumatic stress disorder: Sensory and stress reactivity. S. P. SINHA*; P. AVCU; J. J. ROLAND; V. SANTHAKUMAR; B. J. PFISTER; J. D. KILTS; C. E. MARX; R. J. SERVATIUS; K. C. H. PANG. *Stress & Motivated Behavior Inst., Grad. Sch. of Biomed. Sciences, UMDNJ, New Jersey Inst. of Technol., Durham VA Med. Ctr.*

4:00 I15 **811.08** The effect of premorbid intelligence on brain activation during a working memory task in traumatic brain injury patients. A. BIEGON*; A. LIVNY-EZER; M. WEISER; T. KUSHNIR; S. HARNOF; E. FRUCHTER; D. TOMASI. *Stony Brook Univ., Sheba Med. Ctr., Sheba Med. Ctr., Sheba Med. Ctr., IDF medical Corps, NIH.*

1:00 I16 **811.09** Traumatic brain injury induces a reduced inflammatory response at early timepoints, but worsens outcomes at late timepoints in a mouse model of Alzheimer's disease. O. KOKIKO-COCHRAN*; L. RANSOHOFF; S. LEE; Y. LEE; R. RANSOHOFF; B. LAMB. *Lerner Res. Inst. Cleveland Clin.*

2:00 I17 **811.10** Protective efficacy of the P7C3-class of neuroprotective molecules in blast-mediated traumatic brain-injured mice. J. K. BRITT*; T. C. YIN; M. J. WELSH; J. NADOO; J. M. READY; A. A. PIEPER. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, UT Southwestern, Univ. of Iowa.*

3:00 I18 **811.11** ▲ Repeated mild traumatic brain injury results in sub-acute white matter disruption. A. OBENAUS*; F. RASHID; V. DONOVAN. *Loma Linda Univ., Univ. of California, Riverside.*

4:00 J1 **811.12** Differences in brain activation during performance of a bimanual tracking task with or without augmented visual feedback in traumatic brain injury (TBI). J. GOOIJERS*; I. A. M. BEETS; S. P. SWINNEN. *KU Leuven.*

1:00 J2 **811.13** Differentiating mild traumatic brain injury from post-traumatic stress disorder: Risk factors. P. AVCU*; S. P. SINHA; K. C. H. PANG; R. J. SERVATIUS. *Stress & Motivated Behavior Institute, New Jersey Med. Sch., Grad. Sch. of Biomed. Sciences, UMDNJ.*

2:00 J3 **811.14** Characterization of fractional anisotropy changes in blast-induced traumatic brain injury using spatially registered diffusion tensor imaging. J. STOUT*; P. ROSKOS; J. BOLZENIUS; T. MALONE; D. MOGUL; R. BUCHOLZ. *Illinois Inst. of Technol., St. Louis Univ.*

3:00 J4 **811.15** Concussion detection scheme. S. C. JONES*; P. G. MENON; R. J. SCLABASSI; A. KHARLAMOV; V. E. YUSHMANOV. *Allegheny-Singer Res. Inst., Carnegie Mellon Univ., Computat. Diagnostics, Inc.*

4:00 J5 **811.16** Mild traumatic brain injury in a K_{ATP} KO: Effect on HSP mRNA expression. A. FARRAN; R. MYCHASIUK; I. MA; M. J. ESSER*. *Univ. of Calgary, Univ. of Calgary / Alberta Children's Hosp.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 J6 **811.17** Neurophysiological changes revealed in young athletes after a concussion in sport. T. DAVIDSON*; L. FERRON; F. TREMBLAY. *Univ. of Ottawa, Bruyère Res. Inst., Univ. of Ottawa.*

2:00 J7 **811.18** Altered EEG responses during response inhibition in combat veterans with PTSD and mild traumatic brain injury. J. A. ONTON*; I. SHU; S. C. MATTHEWS. *Naval Hlth. Res. Ctr., Veterans Affairs San Diego Healthcare Syst.*

3:00 J8 **811.19** Differing outcomes in blast and rotational mild traumatic brain injury. C. J. STADIG*; A. SHAH; R. CHIARIELLO; N. WILKINS; J. TREUDEN; M. MCCREA; M. BUDDE; F. PINTAR; B. D. STEMPER. *Med. Col. of Wisconsin, Clement J. Zablocki Veterans Affairs Med. Ctr.*

POSTER

812. Neuroimmunology

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 J9 **812.01** Behavioral abnormalities in paralysis-free periods during EAE in SJL mice: reversal of social recognition deficits and CNS lipid changes following late treatment with FTY-720. N. DE BRUIN*; S. TALMON; G. GEISSLINGER; N. FERREIRÓS; C. ANGIONI; M. J. PARNHAM. *Fraunhofer Inst. For Mol. Biol. and Applied Ecology IME, Pharmazentrum Frankfurt/ZAFES.*

2:00 J10 **812.02** IFNγ Stimulated dendritic cell exosomes as a therapeutic for remyelination. A. D. PUSIC*; K. M. PUSIC; R. P. KRAIG. *Univ. of Chicago, Univ. of Chicago.*

3:00 J11-DP4 **812.03** Diffusion-tensor metric sensitivity to white-matter changes in multiple-sclerosis and cognitive performance. J. L. HUTCHISON*; T. GUNDAPUNEEDI; H. HUANG; N. HUBBARD; G. REMINGTON; S. DAVIS; J. HART; E. FROHMAN; B. RYPMA. *Univ. of Texas at Dallas, Univ. of Texas at Dallas, Univ. of Texas Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr., Southern Methodist Univ., Univ. of Texas Southwestern Med. Ctr.*

4:00 J12 **812.04** Detecting cortical pathology in multiple sclerosis with 7T MRI. B. YAO*; S. HAMETNER; P. VAN GELDEREN; H. MERKLE; H. LASSMANN; J. H. DUYN; F. BAGNATO. *Kessler Fndn., NIH, Med. Univ., Vanderbilt Univ.*

1:00 J13 **812.05** *In vivo* imaging of axonal transport reveals early transport block in animal model of multiple sclerosis. C. D. SORBARA*; I. NIKIC; D. MERKLER; D. BISHOP; T. MISGELD; M. KERSCHENSTEINER. *Inst. Für Klinische Neuroimmunologie, Klinikum Der Univ. München, Inst. of Neuroscience, Technische Univ. Muenchen, Inst. of Neuropathology and Immunology, Univ. of Geneva, Indiana Univ. Sch. of Medicine-Muncie, Munich Cluster for Systems Neurol. (SyNergy), Inst. of Advanced Study, Technische Univ. Muenchen, German Ctr. for Neurodegenerative Dis. (DZNE).*

2:00 J14 **812.06** Resting state motor network changes associated with motor task performance in multiple sclerosis: A pilot study. J. ZHONG; J. NANTES; S. NARAYANAN; L. M. KOSKI*. *McGill Univ., McGill Univ. Hlth. Ctr.*

3:00 J15 **812.07** Anti-neuroinflammatory effects of duloxetine, a serotonin and norepinephrine reuptake inhibitor (SNRI), by microglial modulation. Y. YAMAUCHI*; H. HORIKAWA; T. A. KATO; Y. SEKI; M. OHGIDANI; N. SAGATA; M. SATO-KASAI; K. HAYAKAWA; N. SHIMOKAWA; Y. MIZOGUCHI; A. MONJI; S. KANBA. *Dept. of Neuropsychiatry, Grad. Sch. of Med. Sciences, Kyushu Univ., Kyushu Univ., Saga Univ.*

4:00 J16 **812.08** ● Serotonin transporter function in peripheral blood cells as a biomarker for depression treatment responsiveness. B. S. BEIKMANN*; S. C. ALTIERI; P. R. MOYA; Q. WEI; A. OZCAN; D. L. MURPHY; A. F. LEUCHTER; A. M. ANDREWS. *UCLA, Natl. Inst. of Mental Hlth., UCLA.*

1:00 J17 **812.09** Alterations in synaptic transmission caused by anti-NMDA receptor antibodies from patients with autoimmune encephalitis. E. H. MOSCATO*; X. PENG; A. JAIN; T. D. PARSONS; J. DALMAU; R. J. BALICE-GORDON. *Univ. of Pennsylvania, Univ. of Pennsylvania Sch. of Vet. Med., Univ. of Barcelona.*

2:00 J18 **812.10** The alpha7 nicotinic acetylcholine receptor positive allosteric modulator prevents lipopolysaccharide-induced inflammatory behavior and cytokine expression in mice. S. RAHMAN*; M. ABBAS. *South Dakota State Univ., South Dakota State Univ.*

3:00 K1 **812.11** Antiviral drug ganciclovir is a potent inhibitor of microglial proliferation and neuroinflammation. V. MATHUR*; Z. DING; J. LUO; T. WUSS-CORAY. *Stanford Univ., Stanford Univ.*

4:00 K2 **812.12** Exosome-mediated microrna transfer and its role in pain. S. K. AJIT*; M. K. MCDONALD; M. GORMLEY; R. QURESHI; A. SACAN; Y. TIAN; R. GAO; P. FORTINA; E. ARADILLAS LOPEZ; R. J. SCHWARTZMAN. *Drexel Univ. Col. of Med., Thomas Jefferson Univ., Drexel Univ., Drexel Univ. Col. of Med.*

1:00 K3 **812.13** The Lyme disease spirochete Borrelia burgdorferi induces inflammation and apoptosis in cells from dorsal root ganglia. G. RAMESH*; L. SANTANA-GOULD; F. M. INGLIS; J. D. ENGLAND; M. T. PHILIPP. *Tulane Natl. Primate Res. Ctr., Lousiana State Univ., Tulane Univ., Louisiana State Univ., Tulane Natl. Primate Res. Ctr.*

POSTER

813. Neurotoxicity and Neuroprotection: Neuroinflammation

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 K4 **813.01** Nanotechnology and neuro peptide delivery: Technological and *in vivo* experiments. G. TOSI*; D. BELLETTI; M. VANDELLI; F. FORNI; A. SHARMA; D. MURESANU; H. MOESSLER; H. SHARMA; B. RUOZI. *Te.far.t.I, Dept of Life Sciences, Univ. of Modena and Reggio Emilia, Te.far.t.I, Dept of Pharmaceut. Sciences, Univ. of Modena and Reggio Emilia, Uppsala Univ. Hosp., Univ. of Med. & Pharmacy,, Ever Neuro Pharma.*

2:00 K5 **813.02** Dual role of Bcl-xL inhibitor ABT-737 in neuronal death and survival. H. PARK*; K. N. ALAVIAN; S. SACCHETTI; E. A. JONAS. *Yale Sch. of Med.*

3:00 K6 **813.03** Protection of DRG neurons by schwann cells from manganese induced neurotoxicity. A. KAKKERLA BALARAJU; A. NETI; J. C. LAI*; V. IDIKUDA; S. W. LEUNG; A. BHUSHAN. *Idaho State Univ., Idaho State Univ., Idaho State Univ.*

4:00 K7 **813.04** Acute lipopolysaccharide (LPS) - induced neuroinflammation provokes interstitial acidification in mouse hippocampus. A. TYRTYSHNAIA; L. LYSENKO; F. MADAMBA; J. KIM; M. KHOTIMCHENKO; A. M. KLESCHEVNIKOV*. *Far Eastern Federal Univ., A.V.Zhirmunski Inst. of Marine Biol. FEBRAS, Univ. of California San Diego.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 K8 **813.05** Three distinct microglial morphologies associated with neuronal pathology following kainic acid injection. J. M. ZIEBELL*; J. LIFSHITZ. *Univ. of Arizona, Barrow Neurolog. Inst. at Phoenix Children's Hosp., Arizona State Univ., Phoenix VA Healthcare Syst.*

2:00 K9 **813.06** Antidepressants as neuroinflammation-reducing agents in a transgenic mouse model of Multiple System Atrophy. E. VALERA*; K. UBHI; M. MANTE; E. ROCKENSTEIN; E. MASLIAH. *UCSD Sch. of Med.*

3:00 K10 **813.07** Molecular mechanisms of p53 implicated in perinatal brain injury. C. THORNTON*; R. VONTELL; C. I. B. ROUSSET; B. FLEISS; A. KAVELAARS; C. HEIJNEN; P. GRESSENS; H. HAGBERG. *Ctr. For the Developing Brain, KCL, INSERM U676, Univ. of Texas MD Anderson Cancer Ctr., Univ. of Gothenburg.*

4:00 K11 **813.08** Hydrogen gas suppresses neuronal apoptosis and subsequent behavioral deficits caused by neonatal exposure to general anesthetics in mice. R. YONAMINE*; Y. SATOH; M. KODAMA; Y. ARAKI; T. KAZAMA. *Natl. Def. Med. Col.*

1:00 K12 **813.09** Amelioration of streptozotocin-induced diabetic neuropathy following administration of the antihypertensive drug telmisartan. S. ALSHARARI*; S. S. AL-REJAIE; K. AL-HOSAINI; M. M. AHMED; H. M. ABUOHASHISH; A. S. ALROUJAYEE. *VCU, King Saud Univ., Al Imam Mohammad Ibn Saud Islamic Univ.*

2:00 L1 **813.10** Peripheral myeloid cells invade the brain following neonatal hypoxic-ischemic insult. P. L. SMITH*; J. EK; H. E. G. HAGBERG; C. MALLARD. *Inst. For Neurosci. and Physiol., Ctr. for the Developing Brain.*

3:00 L2 **813.11** Methamphetamine-induced apoptosis and cytogenesis in the hippocampus following acute high-dose: 8-week time-course. J. A. AVILA*; V. SEBASTIAN; I. K. TULLOCH; J. A. ANGULO; P. A. SERRANO*. *Hunter Col., The Grad. Center, CUNY, NIH/NIDA-IRP, Hunter College, CUNY.*

4:00 L3 **813.12** Deficiency of Complement component 5 protects from neurodegeneration in glaucoma. I. SOTO*; M. RYAN; L. C. GRAHAM; R. S. SMITH; S. W. M. JOHN; G. R. HOWELL. *The Jackson Leboratory, Howard Hughes Med. Inst.*

1:00 L4 **813.13** Progranulin suppresses excessive lysosomal in activated microglia after traumatic brain injury in mice. Y. TANAKA*; T. MATSUWAKI; K. YAMANOUCHI; M. NISHIHARA. *Univ. of Tokyo.*

2:00 L5 **813.14** Focal thalamic degeneration from ethanol and thiamine deficiency is associated with neuroimmune activation and lack of monocarboxylic acid transporters. L. QIN*; F. T. CREWS. *Univ. North Carolina, Sch. Med.*

3:00 L6 **813.15** Cellular localization of glycoprotein non-metastatic melanoma B in axotomized rat sciatic nerve. S. YOKOYAMA*. *Res. Ctr. For Child Mental Development, Kanazawa Univ.*

4:00 L7 **813.16** The role of interactions between CDCrel1, VMAT2, and parkin in Methamphetamine neurotoxicity. H. D. CHAUHAN*; A. MOSZCZYNSKA. *Eugene Applebaum Col. of Pharm. and Hlth. Sci.*

1:00 L8 **813.17** Nanowired delivery of growth hormone attenuates pathophysiology of spinal cord injury and enhances insulin like growth factor-1 concentration in the plasma and the spinal cord. F. J. NYBERG*; R. PATNAIK; A. SHARMA; D. F. MURESANU; A. NOZARI; R. TIAN; H. S. SHARMA. *Uppsala Univ., Indian Inst. of Technology, Banaras Hindu Univ., Uppsala Univ. Hosp., Univ. of Med. & Pharm., Massachusetts Gen. Hospital, Harvard Med. Sch., Univ. of Arkansas.*

2:00 L9 **813.18** Potential role of nanodrug delivery of cerebrolysin and other neurotrophic factors in central nervous system injury and repair. A. K. PANDEY*; A. SHARMA; D. F. MURESANU; R. PATNAIK; H. HUANG; A. NOZARI; Z. TIAN; H. MOESSLER; H. S. SHARMA. *Senior Res. Fellow, IIT-BHU, Uppsala Univ. Hosp., Univ. of Med. & Pharm., Indian Inst. of Technology, Banaras Hindu Univ., Neurosci. Inst. of Taishan Med. Univ., Massachusetts Gen. Hospital, Harvard Med. Sch., Univ. of Arkansas, Ever Neuro Pharma.*

3:00 L10 **813.19** Cellular mechanism of toll like receptor 3 alters in response to white matter injury in the developing brain. R. T. VONTELL*; V. SUPRAMANIAM; C. THORNTON; P. GRESSENS; C. MALLARD; J. WYATT-ASHMEAD; M. RUTHERFORD; H. HAGBERG. *King's Col. London, Inserm, Universite´ Paris, Univ. of Gothenburg, Sahlgrenska Acad.*

4:00 L11 **813.20** Brain dysfunction following heat stress in hypertensive rats is exacerbated by a combined exposure of silica dust and carbon nanotubes. Neuroprotective effects of cerebrolysin. D. F. MURESANU*; A. SHARMA; R. PATNAIK; P. MENON; H. MOESSLER; H. S. SHARMA. *ROMANIAN SOCIETY FOR THE STUDY OF NEUROPROTECTION AND NEUROPLASTICITY, Uppsala Univ. Hosp., Sch. of Biomed. Engineering, Banaras Hindu Univ., Indian Inst. of Technology, Banaras Hindu Univ., Ever Neuro Pharma.*

1:00 L12 **813.21** Implicating TWEAK signalling in the development of white matter injury after hypoxic ischemic insult. A. V. KICHEV*; C. THORNTON; P. GRESSENS; H. HAGBERG. *Kings Col. London, Inserm U676, Perinatal Ctr.*

2:00 L13 **813.22** Nanoparticles aggravate cardiac arrest induced blood-brain barrier breakdown, edema formation and neuronal injuries. Neuroprotective effects of a potent antioxidant compound H-290/51. A. NOZARI*; R. PATNAIK; A. SHARMA; D. F. MURESANU; P. SJÖQUIST; G. OXENKRUG; H. S. SHARMA. *Massachusetts Gen. Hosp., Indian Inst. of Technology, Banaras Hindu Univ., Uppsala Univ. Hosp., Univ. of Med. & Pharm., Karolinska Institute, Karolinska Univ. Hosp., Tufts Med. Ctr.*

3:00 L14 **813.23** Influence of functionalized iron oxide magnetic nanoparticles on whole body hyperthermia induced brain damage and behavioral dysfunctions in relation to cerebrolysin therapy. P. K. MENON*; A. SHARMA; D. F. MURESANU; Z. P. AGUILAR; A. WANG; J. V. LAFUENTE; H. MOESSLER; A. NOZARI; R. PATNAIK; H. S. SHARMA. *Banaras Hindu Univ., Uppsala Univ. Hosp., Univ. of Med. & Pharm., Ocean NanoTech, Univ. of Basque Countries, Ever Neuro Pharma, Massachusetts Gen. Hosp., Indian Inst. of Technology, Banaras Hindu Univ.*

4:00 L15 **813.24** Nanowired delivery of a serotonin modulating compound AP-267 selectively attenuates Methamphetamine-induced hyperthermia, behavioral dysfunctions, blood-brain barrier breakdown, edema formation and neuronal injury. J. V. LAFUENTE*; A. SHARMA; E. A. KIYATKIN; R. TIAN; T. LUNDSTEDT; A. NOZARI; H. S. SHARMA. *Univ. of Basque Country, Uppsala Univ. Hosp., Natl. Inst. on Drug Abuse (NIDA), Univ. of Arkansas, Uppsala Univ., Massachusetts Gen. Hospital, Harvard Med. Sch.*

1:00 L16 **813.25** Age and gender related brain pathology and behavioral disturbances in a rat model of depression following nanoparticles exposure. A. SHARMA*; D. F. MURESANU; R. PATNAIK; H. S. SHARMA. *Uppsala Univ., Univ. of Med. & Pharm., Indian Inst. of Technology, Banaras Hindu Univ., Uppsala Univ. Hosp.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 L17 **813.26** The detrimental role of γδ T-cell in hypoxia-ischemia induced preterm brain injury in mice. A. ALBERTSSON*; X. ZHANG; D. BI; C. MALLARD; H. HAGBERG; S. CARDELL; J. LEAVENWORTH; H. CANTOR; X. WANG. *Univ. of Gothenburg/Inst of Neurosci. and Physiol., Univ. of Gothenburg, King's Col., Univ. of Gothenburg, Harvard Med. Sch., Harvard Med. Sch.*

3:00 L18 **813.27** Nanoparticles exacerbate methamphetamine neurotoxicity in both hot or cold environment. Neuroprotective effects of an antioxidant compound H-290/51. R. PATNAIK*; A. SHARMA; E. A. KIYATKIN; A. NOZARI; H. S. SHARMA. *Banaras Hindu University, Inst. Technol., Uppsala Univ. Hosp., Natl. Inst. on Drug Abuse(NIDA, Massachusetts Gen. Hosp.*

4:00 M1 **813.28** Silica dust (SiO2) and high environmental heat synergistically exacerbate neuropathic pain induced blood-spinal cord barrier disruption and cord pathology. Possible treatment with nanowired cerebrolysin. L. FENG*; A. SHARMA; D. F. MURESANU; P. MENON; H. MOESSLER; H. S. SHARMA. *Bethune Intl. Peace Hosp., Uppsala Univ. Hosp., Univ. of Med. & Pharm., Banaras Hindu Univ., Uppsala Univ. Hosp., Ever Neuro Pharma.*

1:00 M2 **813.29** Nanoparticles exacerbate Ubiquitin expression and pathophysiology of spinal cord injury. H. S. SHARMA*; D. F. MURESANU; A. SHARMA. *Uppsala Univ., Univ. of Med. & Pharm., Uppsala Univ. Hosp.*

2:00 M3 **813.30** Magnesium preconditioning of the neonatal rat brain. G. KONING*; A. LEVERIN; C. THORNTON; A. BABURAMANI; C. MALLARD; X. WANG; H. HAGBERG. *Univ. of Gothenburg / Inst. of Neurosci. and Physiol., Ctr. for the Developing Brain, Perinatal Ctr. Inst. for Clin. Sci.*

POSTER

814. Mood Disorders: Animal Models IV

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 M4 **814.01** Strain mediated stress vulnerability and resiliency on cognitive bias in the chick anxiety-depression model. K. A. HYMEL*; A. L. SALMETO; K. J. SUKFA. *Univ. of Mississippi, Univ. of Mississippi, Univ. of Mississippi.*

2:00 M5 **814.02** Molecular regulation of the adult rat hippocampal neurogenic niche in depression and by antidepressant drugs: Behavioral and cellular perspectives. A. MATEUS PINHEIRO*; P. PATRICIO; N. ALVES; M. MORAIS; A. SANTOS; J. BESSA; M. IRMLER; J. BECKERS; N. SOUSA; L. PINTO. *Life and Hlth. Sci. Res. Inst. (ICVS), ICVS/3B's - PT Government Associate Lab., Inst. of Exptl. Genet. and German Mouse Clinic, Helmholtz Zentrum München GmbH, Exptl. Genetics, Technische Univ. München.*

3:00 M6 **814.03** Enriched environment ameliorates stress-induced spatial learning deficits and depressive behavior without restoring anxiety and amygdalar hypertrophy. B. M. SHILPA*; K. MAHATI; V. BHAGYA; T. R. RAJU; B. S. SHANKARANARAYANA RAO. *NATIONAL INSTITUTE OF MENTAL HEALTH AND NEURO SCIENCES.*

4:00 M7 **814.04** Immunohistochemical examination of gabaergic interneuron markers in the hippocampus of rats exposed to chronic stress. E. Y. FENTON*; B. D. KULYK; H. J. CARUNCHO; L. E. KALYNCHUK. *Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan.*

1:00 M8 **814.05** Neurobiology of physical versus emotional stress in adolescent male mice. B. L. WARREN*; L. F. ALCANTARA; E. M. PARISE; S. D. IÑIGUEZ; V. F. VIALOU; E. J. NESTLER; C. A. BOLAÑOS-GUZMÁN. *Florida State Univ., California State Univ. San Bernardino, Inst. Natl. de la Santé et de la Recherche Médicale, Mount Sinai Sch. of Med.*

2:00 M9 **814.06** Sexual motivation and histamine release in the IL is reduced by Inmobilization stress and this effect is reversed by thioperamide treatment. M. E. RIVEROS*; M. D. L. A. RODRIGUEZ; M. DÍAZ; F. TORREALBA. *Pontificia Univ. Catolica, Pontificia Univ. Catolica de chile, Pontificia Universiada Catolica de Chile.*

3:00 M10 **814.07** Functional role of lateral habenula neurons projecting to ventral tegmental area in modulating susceptibility to social defeat stress. D. CHAUDHURY*; B. JUAREZ; H. ZHANG; A. FRIEDMAN; J. WALSH; S. KU; M. HAN. *Mount Sinai Sch. Of Med., Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*

4:00 M11 **814.08** Chronic unpredictable stress induced depression and related mood disorders in zebrafish model: A molecular and proteomic approach. S. CHAKRAVARTY*; B. R. REDDY; T. DAS; S. SAXENA; C. L. N. MURTHY; M. M. IDRIS; A. KUMAR. *Indian Inst. of Chem. Technol. (IICT/ CSIR), Indian Inst. of Chem. Technol. (CSIR-IICT), Ctr. for Cell. and Mol. Biol. (CSIR-CCMB).*

1:00 M12 **814.09** ▲ β-catenin expression in hippocampal progenitor cells determines opposite behavioral changes. R. VIDAL; F. PILAR-CUÉLLAR; R. LINGE; H. BLANCO; Á. DÍAZ; E. CASTRO; Á. PAZOS; E. M. VALDIZAN*. *Inst. De Biomedicina Y Biotecnologia IBBTEC (UC,CSIC,SODERCAN), Dept. de Fisiología y Farmacología, Univ. de Cantabria, Spain., CIBERSAM, Ciber de Salud Mental, Inst. Carlos III, Spain.*

2:00 M13 **814.10** ▲ Prenatal choline supplementation prevents depressive symptoms in a genetic rat model. A. L. BROWN*; W. YU; A. BATALLAN; M. J. GLENN. *Colby Col., Colby Col.*

3:00 M14 **814.11** Depression-like behavior is associated with disrupted sleep and thermoregulation in a rodent model of depression. A. F. SVED*; S. A. GULRAJANI; K. B. BRESLIN; I. V. NEGRIN; G. CANO. *Univ. Pittsburgh.*

4:00 M15 **814.12** Cycling of depression-like behavior in an animal model of depression. K. A. LEBEDEVA*; R. BOWEN; H. CARUNCHO; L. KALYNCHUK. *Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan.*

1:00 M16 **814.13** Attenuating corticosterone synthesis prevents chronic stress-induced behavioral and neurobiological changes at temporoammonic - CA1 synapses in the rat hippocampus. M. D. KVARTA*; S. M. THOMPSON. *Univ. of Maryland Sch. of Med.*

2:00 M17 **814.14** Parallel second messenger pathways mediate the 5-HT_{1B}R-dependent potentiation of temporoammonic - CA1 synaptic transmission in the hippocampus. A. M. VAN DYKE*; S. M. THOMPSON. *Univ. of Maryland, Baltimore.*

3:00 M18 **814.15** Suppression of appetite in Flinders Sensitive Line rats, an animal model of depression: Studies of feeding and food motivated behavior. H. M. CONTRERAS*; P. A. RANDALL; C. POLONSKI; L. CASTALDI; A. H. REZVANI; M. CORREA; J. D. SALAMONE. *Univ. of Connecticut, Duke Univ., Univ. Jaume I.*

4:00 N1 **814.16** Neurochemical characterization of leptin receptor-expressing neurons in the hippocampus. J. C. GARZA*; X. LU. *Univ. Texas Hlth. Sci. Ctr.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 N2 **814.17** Chronic adrenocorticotrophic hormone treatment alters dopamine receptor density and transient mesolimbic dopamine dynamics. A. J. WALKER*; A. GOGOS; M. VAN DEN BUUSE; S. J. TYE. *Mayo Clin., Deakin Univ., Florey Inst. of Neurosci. and Mental Hlth.*

2:00 N3 **814.18** Effects of estrogen replacement on depressive-related behavior in ovariectomized mice. S. SCHOENROCK*; R. B. ERVIN; J. FARRINGTON; L. M. TARANTINO. *Univ. of North Carolina At Chapel Hill.*

3:00 N4 **814.19** ▲ Cholinergic regulation of hippocampus-amygdala axis in depression-like and stress-related behavior. G. FOTE*; A. OBAYEMI, Jr.; M. B. WIGESTRAND; M. R. PICCIOTTO; Y. S. MINEUR. *Yale Univ.*

4:00 N5 **814.20** The α2delta ligand pregabalin reverts depressive-like behavior induced by an unpredictable chronic mild stress. B. CUCCURAZZU*; F. UBEZIO; K. LEOTTA; P. CANONICO; M. GRILLI. *Univ. of Piemonte Orientale a.Avogadro, Dept Pharmaceut. Sciences, Univ. of Piemonte Orientale, Novara, Italy.*

1:00 N6 **814.21** ▲ Effects of a novel chronic social defeat paradigm on fear conditioning and depressive-like behaviors in adolescent rats. K. MANZ; A. NAMIN; J. SECKLER; D. WILLIAMSON; M. DELVALLE; C. G. REICH*. *Ramapo Col. of New Jersey.*

2:00 N7 **814.22** Buprenorphine produces antidepressant-like effects in C57BL/6J and mu opioid receptor (MOR) knockout mice. E. FALCON*; K. MAIER; I. LUCKI. *Univ. of Pennsylvania.*

3:00 N8 **814.23** 5-ht1a receptor agonist-induced hypothermia: A simple biomarker of 5-ht deficiency in man and mouse? J. P. JACOBSEN*; T. ROBINSON; W. ROBERTS; M. FARRELL; M. RUDDER; M. CARON. *Duke Univ., Duke Univ., Univ. Of North Carolina.*

4:00 N9 **814.24** PSA-NCAM mediates antidepressant effects on markers of neural plasticity. S. R. WAINWRIGHT*; C. K. BARHA; D. K. HAMSON; U. RUTISHAUSER; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia, Mem. Sloan-Kettering Cancer Ctr.*

1:00 N10 **814.25** Assessment of persistent neuronal morphological changes after chronic CB1 antagonist SR141716A or antidepressant treatment in zebra finches. T. L. HOLLAND*; M. T. GILBERT; K. SODERSTROM. *East Carolina Univ.*

2:00 N11 **814.26** Dysregulated mTOR signaling in the prelimbic and infralimbic cortex of antidepressant resistant rats. A. J. WALKER; S. L. SUTOR; Y. KIM; M. K. EZZAT; S. J. TYE*. *Mayo Clin., Deakin Univ.*

3:00 N12 **814.27** Role of the dorsomedial hypothalamus in glucocorticoid-mediated fast feedback control of the hypothalamic-pituitary-adrenal axis. ; P. HENNESSEY; M. HALE; J. LUKKES; N. DONNER; K. LOWE; E. PAUL; R. SPENCER; K. RENNER; M. ORCHINIK; C. LOWRY. *Univ. of Colorado, La Trobe Univ., McLean Hospital, Harvard Med. Sch., Univ. of South Dakota, Arizona State Univ.*

4:00 N13 **814.28** Phosphoproteomics of environmental enrichment after acute stress in rat nucleus accumbens. T. A. GREEN*; X. FAN; D. LI; Y. ZHANG; Y. ZHANG; Y. ZHANG; X. LUO; C. F. LICHTI. *UT Med. Br.*

1:00 N14 **814.29** Disruption of dopaminergic tone in the chronic mild stress rodent model of depression: Differential roles of the infralimbic cortex and lateral habenula. J. L. MOREINES*; Z. L. OWRUTSKY; A. A. GRACE. *Univ. of Pittsburgh, Univ. of Pittsburgh Sch. of Med.*

2:00 N15 **814.30** Effects of maternal depression and antidepressant treatments on fetal neurodevelopment. J. C. VELASQUEZ*; A. BONNIN. *Keck Sch. of Med. of USC.*

POSTER

815. Nicotine: Neural Mechanisms of Addiction

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 N16 **815.01** Strengthening contextual memories with nicotine or increased trial number recruits JNK1 activity. P. T. LEACH*; J. W. KENNEY; T. J. GOULD. *Temple Univ., Univ. of Southampton, Temple Univ.*

2:00 N17 **815.02** Genetic variation within the Chrna7 gene modulates nicotine reward-like phenotypes in mice. M. DAMAJ*; J. HARENZA; P. P. MULDOON; M. DE BIASI; M. F. MILES. *Virginia Commonwealth Univ., Baylor Col. of Med.*

3:00 N18 **815.03** Nicotine-induced conditioned place aversions in mice- role of alpha5 nicotinic acetylcholine receptors. M. SHOAIB*; W. IFTIKHAR. *Inst. of Neurosci.*

4:00 O1 **815.04** The nicotinic receptor α5 subunit polymorphism CHRNA5 D398N changes both the development of conditioned place preference and receptor function. R. S. HELFAND*; J. A. STITZEL. *Univ. of Colorado / Inst. For Behavioral Genet., Univ. of Colorado Denver, Univ. of Colorado.*

1:00 O2 **815.05** ● Null mutation of the β2 nAChR subunit attenuated anhedonia induced by spontaneous and mecamylamine-precipitated nicotine withdrawal in mice. A. K. STOKER*; M. J. MARKS; A. MARKOU. *Univ. of California San Diego, Univ. of Colorado Boulder.*

2:00 O3 **815.06** Phosphorylation of α4β2 nicotinic acetylcholine receptors by protein kinase C ε facilitates recovery from desensitization. A. M. LEE*; D. WU; J. DADGAR; T. MCMAHON; D. WANG; R. O. MESSING. *Univ. of Texas At Ausin, Univ. of California at San Francisco.*

3:00 O4 **815.07** Chronic nicotine exposure impairs local GABA signaling but not modulation by cannabinoid receptors in the rat ventral tegmental area. M. W. BUCZYNSKI*; M. A. HERMAN; K. HSU; I. Y. POLIS; B. F. CRAVATT; M. ROBERTO; L. H. PARSONS. *The Scripps Res. Inst.*

4:00 O5 **815.08** A potential role for L-type calcium channel subtype CaV1.2 in nicotine sensitization in mice. S. UHRIG*; R. BERNARDI; R. SPANAGEL; A. C. HANSSON. *Central Inst. of Mental Hlth.*

1:00 O6 **815.09** Neuregulin 3 signaling during nicotine withdrawal. J. R. TURNER*; B. LEE; L. EVERETT; K. KAESTNER; J. A. BLENDY. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

2:00 O7 **815.10** Environmental enrichment-induced decrease in nicotine-taking behavior is associated with an attenuated nicotine-mediated ERK1/2 response in rat prefrontal cortex. A. M. GOMEZ*; N. M. MIDDE; S. B. HARROD; J. ZHU. *Univ. of South Carolina, Univ. of South Carolina.*

3:00 O8 **815.11** ● Selective inhibition of PDE7 attenuates nicotine reinforcement and nicotine-induced activation of the mesolimbic dopamine system. R. CICCOCIOPPO*; H. LI; M. MELIS; M. A. DELUCA; G. DEGUGLIELMO; E. DOMI; G. DEMOPULOS; G. GAITANARIS. *Univ. Camerino, Univ. of Cagliari, Omeros Corp.*

4:00 O9 **815.12** Brain-region specific implication of native and polymorphic alpha5 containing nicotinic receptors in behaviours modulated by nicotine. M. BESSON; C. MOREL; L. FATTORE; S. PONS; A. HAY; C. REPERANT; J. GUILLOUX; F. MARTI; S. GRANON; A. M. GARDIER; B. LAMBOLEZ; W. FRATTA; M. DE BIASI; M. LATHROP; P. FAURE; U. MASKOS*. *Inst. Pasteur, UPMC, CNR, Univ. Paris-Sud, Baylor Col., McGill.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 O10 **815.13** Long-term nicotine treatment downregulates α6β2* nicotinic receptor expression and function in nucleus accumbens. X. A. PEREZ*; J. M. MCINTOSH; M. QUIK. *SRI Intl., George E. Wahlen Veterans Affairs Med. Ctr. and Univ. of Utah.*

2:00 O11 **815.14** Novel high affinity nAChR ligands identified from a small molecule combinatorial library. J. WU*; Y. ZHANG; G. DEBEVEC; L. MAIDA; J. SCHOCH; Y. YU; M. GIULIANOTTI; L. TOLL. *Torrey Pines Inst. For Mol. Studies.*

3:00 O12 **815.15** The neurobehavioral effects of cigarette smoking in individuals with and without Attention-Deficit/ Hyperactivity Disorder. J. GEHRICKE*; J. NGUYEN; T. WIGAL; J. FALLON. *Univ. of California, Irvine, Univ. of California, Irvine.*

4:00 P1 **815.16** Cellular and synaptic mechanisms mediating the aversive effects of nicotine. S. L. WOLFMAN*; R. A. E. METZ; S. HATZ; D. S. MCGEHEE. *Univ. of Chicago, Univ. of Chicago, Illinois Mathematics and Sci. Acad.*

1:00 P2 **815.17** Rapid, experience-dependent sensitization of glutamate release in the VTA and NAcc induced by intravenous nicotine. E. A. KIYATKIN*; M. LENOIR. *NIDA-IRP, NIH, DHHS.*

2:00 P3 **815.18** Craving for cigarettes in female smokers is menstrual cycle phase dependent: An fMRI study. A. MENDREK*; J. BOURQUE; S. POTVIN. *Bishop's Univ., Ctr. de recherche Fernand-Seguin, Univ. de Montreal.*

3:00 P4 **815.19** Assessing the role of Ventral Tegmental Area GABAergic neurons in nicotine dependence-associated behaviors. J. NGOLAB*; L. LIU; P. D. GARDNER; A. R. TAPPER. *Brudnick Neuropsychiatric Res. Institute, Univ. of Massachusetts Med. Sch.*

4:00 P5 **815.20** Neuroanatomical and neurochemical profiles of neurons activated by nicotine stimulation of sensory neurons in adult GAD67-GFP knock-in mice. O. DEHKORDI*; J. E. ROSE; S. GOPISHETTY; M. ASADI; S. IRAVANI; R. M. MILLIS; K. F. MANAYE; A. JAYAM-TROUTH. *Howard Univ., Duke Univ., Howard Univ.*

1:00 P6 **815.21** Levo-tetrapalmatine, a novel drug for smoking cessation. D. H. TAYLOR*; M. GAO; Z. HUANG; R. LUKAS; J. WU. *Arizona State Univ., Barrow Neurolog. Inst.*

2:00 P7 **815.22** ● Spontaneous nicotine withdrawal enhanced anxiety-like behavior in the fear-potentiated startle procedure in rats. X. LI*; A. MARKOU; V. B. RISBROUGH. *Univ. of California San Diego, Univ. of California At San Diego.*

3:00 P8 **815.23** Re-exposure to nicotine during withdrawal increases the pacemaking activity of cholinergic habenular neurons. A. GORLICH*; B. ANTOLIN-FONTES; J. L. ABLES; S. FRAHM; M. A. ŚLIMAK; J. D. DOUGHERTY; I. IBAÑEZ-TALLON. *Rockefeller Univ., Max Delbrück Ctr. for Mol. Med., Washington Univ. Sch. of Med.*

4:00 P9 **815.24** Lateral habenula and nicotine addiction. J. YE*; W. ZUO; L. WANG; J. LI; L. CHEN; K. KRNJEVIC'; C. XIAO; Y. ZHANG; J. MCINTOSH; R. FU. *UMDNJ New Jersey Med. Sch., UMDNJ New Jersey Med. Sch., Jinan Univ., McGill Univ., Univ. of Utah.*

1:00 P10 **815.25** Habenular nicotinic receptor subtypes contributing to nicotine sensitization. B. L. EGGAN; E. M. SELL; S. D. GLICK; S. E. MCCALLUM*. *Albany Med. Col.*

2:00 P11 **815.26** Nicotine withdrawal alters sleep and EEG in the rat. H. L. MATHEWS*; C. P. WARD; L. D. THOMPSON; A. P. NEGRETE; J. BAUTISTA; P. GOYARZU; D. H. MALIN. *Univ. of Houston - Clear Lake.*

3:00 P12 **815.27** Nicotine perturbs PFC-VTA coupling: A new mechanism for nicotine addiction. M. GAO*; R. LUKAS; J. WU. *Barrow Neurolog. Institute, St. Joseph's Hosp. and Med. Ctr., Barrow Neurolog. Institute, St. Joseph's Hosp. and Med. Ctr.*

4:00 P13 **815.28** Dopaminergic receptor antagonism in the Anterior Cingulate Cortex and Nucleus Accumbens reduces nicotine self-administration in rats. B. J. HALL*; M. G. KUTLU; S. SLADE; J. E. ROSE; E. D. LEVIN. *Duke Univ. Med. Ctr.*

1:00 P14 **815.29** Influence of IL-13Rα1 deletion on dopamine-mediated behaviors in the mouse. W. R. MARRS*; A. ROBERTS; L. PARSONS; B. CONTI. *The Scripps Res. Inst., The Scripps Res. Inst., The Scripps Res. Inst.*

POSTER

816. Cocaine Reinforcement, Seeking, and Reinstatement II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 P15 **816.01** Vagus nerve stimulation modulates plasticity in the prefrontal cortex-amygdala pathway and enhances extinction of drug-seeking behavior. J. PRUETT*; J. RAMOS; V. JEEVAKUMAR; W. HU; S. KROENER. *Univ. of Texas At Dallas, Sch. of Behavioral and Brain Sci.*

2:00 P16 **816.02** Stress and noradrenergic modulation of extended amygdala projecting dopamine neurons of the rostral linear nucleus. M. A. FETTIG*; J. ZHOU; K. W. CHOI; C. M. OLSEN; R. T. MATTHEWS; D. G. WINDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Med. Col. of Wisconsin.*

3:00 P17 **816.03** Inhibition of mTORC1 in the nucleus accumbens 'protects' against drug-seeking behavior and is associated with reductions in addiction-relevant synaptic plasticity proteins. M. H. JAMES*; R. K. QUINN; E. M. LEVI; J. L. CHARNLEY; D. W. SMITH; P. W. DICKSON; C. V. DAYAS. *Univ. of Newcastle.*

4:00 P18 **816.04** Intra-VTA administration of the glucagon-like peptide-1 receptor agonist exendin-4 attenuates cocaine taking and seeking in rats. H. D. SCHMIDT*; E. G. MIETLICKI-BAASE; K. IGE; L. A. GUERCIO; M. WIMMER; C. PIERCE; M. R. HAYES. *Univ. of Pennsylvania Sch. of Med.*

1:00 Q1 **816.05** L-tetrahydropalmatine and l-stepholidine attenuate cocaine-induced conditioned place preference in mice: Role of dopamine D3 receptors. Z. YANG; H. YANG; Z. XI; E. L. GARDNER*. *Beijing Inst. of Basic Med. Sci., NIDA/ IRP.*

2:00 Q2 **816.06** Single prolonged stress decreases sign-tracking conditioned responses and attenuates cue-induced reinstatement of cocaine-seeking behavior. C. J. FITZPATRICK*; T. E. ROBINSON; J. D. MORROW. *Univ. of Michigan, Univ. of Michigan.*

3:00 Q3 **816.07** Selective, intake dependent, and transient plasticity in mGluR5 receptors following cocaine self-administration. M. GHASEMZADEH*; E. A. LAROSE; D. A. LEY; M. R. VUONCINO; J. R. MANTSCH. *Marquette Univ.*

4:00 Q4 **816.08** Early drug cue reactivity predicts cocaine self-administration and addiction-like behaviors. E. COLECHIO*; D. N. ALEXANDER; C. G. IMPERIO; J. SAMPER; P. GRIGSON. *Penn State Hershey, Lebanon Valley Col.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 Q5 **816.09** Chronic voluntary exercise reduces cocaine-primed reinstatement and elevates galanin mRNA expression levels in the locus coeruleus. Y. E. OGBONMWAN*; D. WEINSHENKER; P. HOLMES. *Emory Univ., Emory Univ., Univ. of Georgia.*

2:00 Q6 **816.10** Fos activation in D1/dynorphin- or D2/enkephalin-expressing striatal neurons during reinstatement of cocaine seeking. R. J. SMITH*; M. D. SCOFIELD; J. F. MCGINTY; P. W. KALIVAS. *Med. Univ. South Carolina.*

3:00 Q7 **816.11** Repeated cocaine administration in rats facilitates reward-seeking behavior in an approach-avoidance conflict model. D. NGUYEN; S. ERB; R. ITO*. *Univ. of Toronto Scarborough.*

4:00 Q8 **816.12** Paradoxical enhancement in context-induced cocaine-seeking behavior following glucocorticoid receptor antagonism in the BLA. S. J. STRINGFIELD*; A. A. ARGUELLO; M. A. PRESKER, Jr.; R. A. FUCHS. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill.*

1:00 Q9 **816.13** Chronic forced exercise inhibits stress-induced reinstatement of cocaine conditioned place preference in female Sprague Dawley rats. L. S. ROBISON*; L. ALESSI; J. K. ROBINSON; B. J. ANDERSON; N. D. VOLKOW; P. K. THANOS. *Stony Brook Univ., Brookhaven Natl. Lab., NIAAA, NIH.*

2:00 Q10 **816.14** Role of dorsal raphe serotonin neurons and serotonergic projection to ventral tegmental area in reward: An optogenetic behavioral study. J. QI; H. WANG; M. F. MORALES*. *IRP, NIDA, NIH.*

3:00 Q11 **816.15** Behavioral and molecular alterations in rats as a function of access duration to cocaine in the 'conflict model'. A. SHAI; N. BARNEA-YGAEL; R. COHEN-GINDI; A. FRIEDMAN*; O. BEN-SHAHAR; A. ZANGEN. *Ben-Gurion Univ. of the Negev, Univ. of California.*

4:00 Q12 **816.16** Exposure to HIV-1 Tat protein potentiates the rewarding effects of cocaine and ethanol, and reinstates extinguished conditioned place preference. J. P. MCLAUGHLIN*; M. L. GANNO; H. D. SINGH; J. J. PARIS. *Torrey Pines Inst. For Mol. Studies.*

1:00 Q13 **816.17** Methyl supplementation via L-Methionine promotes extinction after self-administration of cocaine and attenuates cocaine-primed reinstatement in rats. K. N. WRIGHT*; F. HOLLIS; D. M. DIETZ; J. FENG; E. J. NESTLER; M. KABBAJ. *Florida State Univ., École Polytechnique Fédérale de Lausanne, Univ. at Buffalo, Mount Sinai Sch. of Med.*

2:00 Q14 **816.18** Regulation of instrumental contextual cocaine-memory reconsolidation by NF-κB. A. M. WELLS*; K. L. HEALEY; V. L. GREENE; R. A. FUCHS. *Univ. of North Carolina At Chapel Hill.*

3:00 Q15 **816.19** Individual differences in dopamine, cocaine taking, and seeking in female rats as a result of chronic social defeat stress. A. SHIMAMOTO*; E. N. HOLLY; J. F. DEBOLD; K. A. MICZEK. *Tufts Univ.*

4:00 Q16 **816.20** Acute elevation in estradiol influences expression of cocaine conditioned place preference. S. MORRIS BOBZEAN*; T. DENNIS; L. PERROTTI. *Univ. of Texas At Arlington.*

1:00 Q17 **816.21** Determining a critical window for optogenetic inhibition of cocaine seeking. M. T. STEFANIK*; P. W. KALIVAS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

2:00 Q18 **816.22** Stress-induced reinstatement of the incentive motivational value of a cocaine cue. E. S. COGAN*; T. E. ROBINSON. *Univ. of Michigan.*

3:00 R1 **816.23** The Rostromedial Tegmental Nucleus is involved in the extinction and suppression of cocaine-seeking behavior in rats. C. COSME*; M. L. HUFF; R. T. LALUMIERE. *Univ. of Iowa.*

4:00 R2 **816.24** Social stress, behavioral sensitization and intravenous cocaine self-administration in CFW mice. X. HAN*; E. GRANUCCI; J. F. DEBOLD; K. A. MICZEK. *Tufts Univ.*

1:00 R3 **816.25** Using self-administration behavior to measure the cocaine elimination rate constant in rats. V. L. TSIBULSKY*; A. B. NORMAN. *Univ. Cincinnati.*

2:00 R4 **816.26** [3H]CGP-54626 binding to GABAB receptors in nonhuman primate prefrontal cortex is elevated after chronic cocaine self-administration and subsequent withdrawal. A. KULIKOVA*; H. R. SMITH; T. J. BEVERIDGE; M. A. NADER; L. J. PORRINO. *Wake Forest Univ. Sch. of Med., Wake Forest Sch. of Med.*

POSTER

817. Amphetamine and Related Drugs: Neural Mechanisms of Addiction

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 R5 **817.01** ▲ Activity of protein kinase m zeta (pkmζ) in the insular cortex is involved in the consolidation of the associative memory related to amphetamine-conditioning. F. J. MARTINEZ*; M. IBAÑEZ; K. GYSLING. *Pontificia Univ. Catolica De Chile, Millennium Sci. Nucleus in Stress and Addiction.*

2:00 R6 **817.02** Deficits in behavioral sensitization and dopaminergic responses to methamphetamine in adenylyl cyclase 1/8 knockout mice. J. L. LOWING*; K. E. BOSSE; L. L. SUSICK; A. L. EAGLE; T. A. MATHEWS; S. A. PERRINE; A. C. CONTI. *John D. Dingell VA Med. Ctr., Wayne State Univ. Sch. of Med., Wayne State Univ. Sch. of Med., Wayne State Univ.*

3:00 R7 **817.03** Decrease in dopamine releasability and in vesicular monoamine transporter-2 expression in the lateral septum of amphetamine-withdrawn rats. G. M. RENARD*; R. SOTOMAYOR-ZARATE; E. BLANCO; K. GYSLING. *Pontificia Univ. Catolica De Chile, Millenium Sci. Nucleus Stress and Addiction, Univ. de Valparaiso.*

4:00 R8 **817.04** Leptin protects striatal neurons from the methamphetamine-induced apoptosis in mice. N. H. KUTUB*; L. YELIN; J. LAING; J. A. ANGULO. *Hunter Col., The Grad. Ctr. of City Univ. of New York, Hunter Col.*

1:00 R9 **817.05** Dopamine D2/D3 receptor recovery with methamphetamine abstinence and exercise. C. L. ROBERTSON*; J. CHUDZYNSKI; R. RAWSON; C. B. COOPER; L. MOONEY; A. K. BROWN; M. A. MANDELKERN; K. ISHIBASHI; E. D. LONDON. *UCLA, VA Greater Los Angeles Hlth. Care Syst., UCLA, UCLA, Charles Drew Univ. of Med. and Sci.*

2:00 R10 **817.06** New recreational drug alpha-PVP affects dopaminergic neuron - Compared with methamphetamine and MDMA. A. KAIZAKI*; S. TANAKA; S. NUMAZAWA. *Showa univ.*

3:00 S1 **817.07** Individual differences and the role of the mesolimbic dopamine pathway in the response to acute amphetamine. P. R. GREGG*; M. G. MERSMANN; T. N. HADDON; M. E. CAIN. *Kansas State Univ.*

4:00 S2 **817.08** Mephedrone alters basal ganglia and limbic neurotensin systems. G. R. HANSON*; A. J. HOONAKKER; A. E. FLECKENSTEIN; C. L. GERMAN. *Col. Pharm., Univ. of Utah.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 S3 **817.09** Ketamine prevents the decrease in dopamine neuron activity following acute amphetamine withdrawal. P. BELUJON*; A. A. GRACE. *Univ. Pittsburgh.*

2:00 S4 **817.10** Blockade of ventral midbrain NMDA receptors prevents the development of neurotensin-induced sensitization to phosphorylation of extracellular signal-regulated kinases by amphetamine. D. VOYER*; D. LÉVESQUE; P. ROMPRÉ. *Univ. De Montreal, Univ. de Montréal, Univ. de Montréal, Concordia Univ.*

3:00 S5 **817.11** Effect of adolescent and adult nicotine exposure on methamphetamine self-administration in male rats. J. A. PIPKIN; G. J. KAPLAN; C. P. PLANT; S. E. BAIN; A. NORA; Z. I. ABDULLA; S. M. GIL; A. R. ZAVALA; C. A. CRAWFORD*. *California State Univ., California State Long Beach.*

4:00 S6 **817.12** Detection of molecular alterations in methamphetamine-activated Fos-expressing neurons from a single rat dorsal striatum using fluorescence-activated cell sorting (FACS). Q. LIU*; F. J. RUBIO; J. M. BOSSERT; N. J. MARCHANT; X. HOU; Y. SHAHAM; B. T. HOPE. *Intramural Res. Program, NIDA/ NIH.*

1:00 S7 **817.13** Chronic co-exposure of nicotine and methamphetamine have effects on dopamine D1 (D1R) and dopamine transporter (DAT) binding in rats. R. KIM*; M. ANANTH; Y. TIAN; M. J. ROCCO; J. CADET; N. D. VOLKOW; P. K. THANOS. *Brookhaven Natl. Lab., Stony Brook Univ., NIDA IRP, NIAAA/NIH, Stony Brook Univ.*

2:00 S8 **817.14** Nicotine and amphetamine chronically alter gene expression in prefrontal cortex and nucleus accumbens. B. E. KOLB*; A. MUHAMMAD; S. ILNYTSKYY; R. MYCHASIUK. *Univ. Lethbridge, Univ. Lethbridge.*

3:00 S9 **817.15** ▲ Immediate and long term effects of early adolescent methamphetamine exposure on behavior and cognition in mice. K. PELFREY; J. A. SIEGEL*. *Sewanee: The Univ. of the South.*

4:00 S10 **817.16** Transcriptional effects of a two-injection model of methamphetamine administration on immediate early gene expression in the nucleus accumbens. M. T. MCCOY*; B. KATZ; M. POUDEL; J. NEWMAN; S. JAYANTHI; F. SAINT-PREUX; B. LADENHEIM; I. N. KRASNOVA; J. L. CADET. *DHHS/NIH/NIDA/IRP.*

1:00 S11 **817.17** The clearance rate of methamphetamine-stimulated dopamine release is strain dependent: An *in vivo* electrochemical study. J. S. WOMERSLEY*; L. A. KELLAWAY; D. J. STEIN; G. A. GERHARDT; V. A. RUSSELL. *Univ. of Cape Town, Univ. of Cape Town, Univ. of Cape Town, Univ. of Kentucky.*

2:00 S12 **817.18** Methamphetamine self-administration differentially alters expression of stress-related peptide transcripts in the rat hippocampus. I. K. TULLOCH*; I. N. KRASNOVA; J. JUSTINOVA; B. LADENHEIM; C. BARNES; S. R. GOLDBERG; J. L. CADET. *NIH/NIDA-IRP, Stevenson Univ.*

3:00 S13 **817.19** Sex differences in activation of the hypothalamic-pituitary-adrenal axis by methamphetamine. D. G. ZULOAGA*; L. A. JOHNSON; M. AGAM; J. RABER. *Oregon Hlth. and Sci. Univ., Oregon Hlth. and Sci. Univ., Oregon Hlth. and Sci. Univ.*

4:00 S14 **817.20** Readily releasable dopamine stores are not compromised by amphetamine during sustained and robust activation of phasic dopamine signaling. D. P. COVEY*; E. S. RAMSSON; P. A. GARRIS. *Illinois State Univ., Grand Valley State Univ.*

1:00 S15 **817.21** ● Role of the striatal neuropeptide neurotensin on the methamphetamine-induced neural injury in mice. Q. LIU*; A. HAZAN; E. GRINMAN; N. HOQUE-KUTUB; J. A. ANGULO. *Hunter College, City Univ. of New York, Grad. center.*

2:00 S16 **817.22** Prior exposure to restraint stress followed by 3,4-Methylenedioxymethamphetamine (MDMA, 'ecstasy') treatment increases serotonin neurons in the mouse dorsal raphe nucleus. W. L. BONKALE*; K. A. YOUNG; C. R. YOUNG; J. C. R. WELSH. *Texas A & M Univ. Syst. HSC, Central Texas Veterans HSC/Texas, Texas A & M Univ.*

3:00 S17 **817.23** Different effects of shati/nat8l-overexpression on the responses to methamphetamine between in of the nucleus accumbens and dorsal striatum in mice. A. NITTA*; K. SUMI; Y. ISHIKAWA; N. IEGAKI; Y. FURUKAWA-HIBI; S. MURAMATSU; T. NABESHIMA; K. UNO; Y. MIYAMOTO. *Univ. of Toyama, Nagoya Univ. Grad. Sch. of Med., Jichi Med. Univ., Meijo Univ.*

4:00 S18 **817.24** Impairments in cognitive function and changes in oscillatory activity and firing patterns of the PFC following methamphetamine sensitization. S. S. JANETSIAN*; D. N. LINSENBARDT; C. C. LAPISH. *Dept. of Psychology; Indiana University-Purdue Univ. Indianapolis, Stark Neurosci. Res. Inst., Inst. for Mathematical Modeling and Computat. Sciences, Indiana Univ. Sch. of Med.*

1:00 T1 **817.25** Opioid receptor antagonists attenuate methamphetamine-induced stereotypical behavior in mice via μ opioid receptors. N. KITANAKA*; J. KITANAKA; F. S. HALL; G. R. UHL; K. WATABE; H. KUBO; H. TAKAHASHI; K. TANAKA; N. NISHIYAMA; M. TAKEMURA. *Hyogo Col. Med., NIDA-IRP, Muromachi Kikai, Co, Ltd, Hyogo Univ. Hlth. Sci.*

2:00 T2 **817.26** Agmatine attenuates methamphetamine-induced stereotypical behavior and hyperlocomotion in mice. J. KITANAKA*; N. KITANAKA; F. S. HALL; G. R. UHL; K. TANAKA; N. NISHIYAMA; T. TATSUTA; M. TAKEMURA. *Hyogo Col. Med., NIDA-IRP, Hyogo Univ. Hlth. Sci., Ibogawa Hosp.*

POSTER

818. Opioid Reinforcement, Seeking, and Reinstatement

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 T3 **818.01** Exposure to environmental enrichment attenuates the motivation to work for heroin in adult male rats and diminishes relapse-like behaviors after drug abstinence. C. G. IMPERIO*; A. COFFEY; P. S. GRIGSON. *Penn State Col. of Med.*

2:00 T4 **818.02** A classically conditioned opioid cue is more attractive and desired in rats prone to attribute incentive salience to a food cue. L. M. YAGER*; T. E. ROBINSON. *Univ. of Michigan.*

3:00 T5 **818.03** Attenuation of compulsive-like heroin self-administration with high frequency stimulation of the subthalamic nucleus. C. L. WADE; E. BREYSSE; D. O. HERNANDEZ; G. F. KOOB*; C. BAUNEZ; O. GEORGE. *The Scripps Rsrch Inst., UMR7289 CNRS&Aix-Marseille Univ.*

4:00 T6 **818.04** Investigation of potential adaptations in nucleus accumbens shell AMPA GluA1 receptor subunits following tests for heroin seeking in chronically food restricted and sated rats. F. SEDKI*; S. ANGELIS; J. GARDNER GREGORY; T. D'CUNHA; A. KHODAMI-POUR; U. SHALEV. *Concordia Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 T7 **818.05** Acupuncture attenuates morphine-seeking behavior in progressive ratio. B. LEE*; S. IN; H. HAN; H. KIM; S. YOON; C. YANG; S. LEE; R. ZHAO; R. ZHAO; R. ZHAO; S. LIM; J. KIM; Y. LEE; H. LEE; T. JUNG; T. JUNG; B. LEE; B. LEE; B. LEE. *Daegu Haany Univ., Daegu Haany Univ., Daegu Haany Univ., Mudanjiang Med. Univ., Daegu Haany Univ.*

2:00 T8 **818.06** Changes in dopamine in the nucleus accumbens core during the augmentation of heroin seeking in chronically food restricted, abstinent rats. T. M. D'CUNHA*; E. DAOUD; F. SEDKI; U. SHALEV. *Concordia Univ.*

3:00 T9 **818.07** ● Social housing conditions influence extinction of morphine place preference in adolescent mice. M. BATES*; S. L. COLE; R. S. HOFFORD; M. A. EMERY; P. J. WELLMAN; S. EITAN. *Texas A&M Univ.*

4:00 T10 **818.08** Opiate reward in male and female prairie voles. P. C. KEYES*; B. J. ARAGONA. *Univ. of Michigan, Univ. of Michigan.*

1:00 T11 **818.09** Role of exogenous oxytocin on heroin intake and yohimbine-induced reinstatement of extinguished heroin seeking. J. DUCHESNEAU*; L. WELCH; C. CASOLA; U. SHALEV. *Concordia Univ.*

2:00 T12 **818.10** The effect of an animal conflict model of drug addiction on perineuronal nets. P. CHU*; J. PECK; E. KARIYEVA; R. ABRAHAM; U. KHAN; R. RANALDI; J. C. BRUMBERG. *Queens College, City Univ. of New York, The Grad. Center, CUNY, Queens College, City Universty of New York, Queens College, City Universty of New York, Queens College, City Univ. of New York.*

3:00 T13 **818.11** ● Blockade of type 5 metabotropic glutamate receptors in nucleus accumbens shell but not core attenuates heroin seeking induced by cues or heroin in rats. W. ZHOU*; Z. LOU. *Ningbo Addiction Res. and Treat. Cent. Med. Sch. of Ningbo Univ., Lab. of Behavioral Neuroscience, Ningbo Addiction Res. and Treatment Center, Sch. of Medicine, Ningbo University, 42 Xibei Str., Ningbo 315010, Zhejiang Province, P.R.China.*

4:00 T14 **818.12** Context-induced relapse after suppression of heroin seeking by adverse consequences and an alternative palatable food reward. R. M. ST. LAURENT; H. WANG; M. MORALES; Y. SHAHAM; J. M. BOSSERT*. *NIH, NIDA, IRP.*

1:00 T15 **818.13** Electrical stimulation of the lateral habenula enhances heroin self-administration but decreases cue-induced heroin seeking in rats. F. ZHANG*; S. YANG; H. ZHU; H. LIU; J. GU; W. ZHOU. *Ningbo Addiction Res. and Treatment Ctr., Med. Sch. Ningbo Univ., Ningbo Addiction Res. and Treatment Ctr.*

2:00 T16 **818.14** Role of deep brain stimulation of medial prefrontal cortex on heroin seeking behavior in rats. H. LIU*; J. CHEN; H. ZHU; A. SUN; M. LAI; F. ZHANG; W. ZHOU. *Ningbo Inst. of Microcirculation and Henbane,Ningbo Addiction Res. and T, Med. Sch. Ningbo Univ., Ningbo Addiction Res. and Treatment Ctr.*

POSTER

819. Cannabinoids: Neural Mechanisms, Addiction, Reinforcement, Seeking, Reinstatement, and Development

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 T17 **819.01** Cannabinoid CB2 receptor gene variation and behavioral modification. E. S. ONAIVI*; H. ISHIGURO; C. M. LEONARD; S. SGRO; Q. LIU. *William Paterson Univ., NIDA-IRP/NIH, Yamanashi Univ., William Paterson Univ.*

2:00 T18 **819.02** Expression and function of cannabinoid CB2 receptors in ventral tegmental area dopamine neurons in mice. H. ZHANG*; M. GAO; Q. LIU; G. BI; H. YANG; E. GARDNER; J. WU; Z. XI. *NIDA/IRP, Barrow Neurolog. Inst.*

3:00 U1 **819.03** The role of central cannabinoid receptors in human neural oscillations. P. D. SKOSNIK*; J. A. CORTES; J. D. CAHILL; M. RANGANATHAN; R. A. SEWELL; A. SCHNAKENBERG; B. HUGUENEL; S. JAYATILAKA; D. C. D'SOUZA. *Yale Univ. Sch. of Med.*

4:00 U2 **819.04** Cannabinoid CB1 receptor transmission in the basolateral amygdala bi-directionally controls the motivational properties of opiates via functional excitatory inputs to the nucleus accumbens shell. T. AHMAD*; S. R. LAVIOLETTE. *Univ. of Western Ontario.*

1:00 U3 **819.05** Expression of the small interacting protein $CRIP_{1a}$ modulates cannabinoid CB_1 receptor signalling. N. KARUNARATNE*; P. J. WHITE; M. CONNOR; D. T. MALONE. *Monash Inst. of Pharmaceut. Sci., Macquarie Univ.*

2:00 U4 **819.06** Characterization of the intrinsic activity for a novel class of indole quinuclidine analogs (IQDs) exhibiting high nanomolar affinity for CB1 and CB2 cannabinoid receptors. L. N. FRANKS; B. M. FORD; N. R. MADADI; N. R. PENTHALA; P. A. CROOKS; P. L. PRATHER*. *Univ. Arkansas Med. Sci., Univ. Arkansas Med. Sci., Univ. Arkansas Med. Sci.*

3:00 U5 **819.07** The effect of tetrahydrocannabinol on cerebellum-dependent learning in humans. J. D. CAHILL*; J. A. CORTES; C. LUDDY; M. RANGANATHAN; R. A. SEWELL; D. C. D'SOUZA; P. D. SKOSNIK. *Yale Univ.*

4:00 U6 **819.08** ▲ Low expression of CB1 receptor in the nucleus accumbens and prefrontal cortex compels adolescent rats to consume palatable food. O. AMANCIO BELMONT*; M. MÉNDEZ-DÍAZ; A. ROMANO-LÓPEZ; O. PROSPÉRO-GARCÍA. *UNAM.*

1:00 U7 **819.09** Amphetamine-induced conditioned place preference in an animal model of adolescent THC use: Strain and sex differences. R. J. KEELEY*; J. TROW; C. BYE; R. J. MCDONALD. *Univ. of Lethbridge.*

2:00 U8 **819.10** ▲ Changes in the endocannabinoid system induced by subchronic treatment with win 55212,2 in rats. L. MOSCOSA ORTIZ*; M. MENDEZ-DIAZ; A. RUIZ-CONTRERAS; O. PROSPÉRO-GARCÍA. *UNAM, UNAM.*

3:00 U9 **819.11** Effect of cannabinoid receptor type 1 (CB1r) deletion on indices of cortical noradrenergic activity. E. J. VAN BOCKSTAELE*; B. A. REYES; L. KIRBY. *Thomas Jefferson Univ., Temple Univ.*

4:00 U10 **819.12** Ultrastructural distribution of cannabinoid type 1 and alpha 2-adrenergic receptors in the medial prefrontal cortex. B. A. REYES*; V. BIRABAHARAN; Q. WANG; K. MACKIE; E. J. VAN BOCKSTAELE. *Thomas Jefferson Univ., Univ. of Alabama at Birmingham, Indiana Univ.*

1:00 U11 **819.13** Prenatal cannabis exposure leads to long-term disturbances of chromatin modifying enzymes within the mesolimbic system. C. V. MORRIS*; J. DINIERI; Y. L. HURD. *Icahn Sch. of Med. At Mount Sinai.*

2:00 U12 **819.14** Dual FAAH and MAGL inhibitor, JZL195, alone and in combination with anandamide and 2-arachidonoyl glycerol, attenuates anticipatory nausea in a rodent model of contextually elicited conditioned gaping. L. A. PARKER*; C. L. LIMEBEER; E. M. ROCK; R. A. ABDULLAH; A. H. LICHTMAN. *Univ. of Guelph, Univ. of Guelph, Virginia Commonwealth Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 U13 **819.15** Using Iontophoresis to identify receptor activation on medium spiny neurons in the nucleus accumbens during intracranial self-stimulation. C. A. OWESSON-WHITE*; A. M. BELLE; N. R. HERR; J. L. PEELE; R. M. CARELLI; R. M. WIGHTMAN. *UNC Chapel Hill, UNC.*

4:00 U14 **819.16** The impact of adolescent THC on mesolimbic microRNA regulation. M. L. MILLER*; Y. L. HURD. *Icahn Sch. of Med. At Mt. Sinai.*

1:00 U15 **819.17** The role of intra-visceral insular cortex endocannabinoids in nausea-induced conditioned gaping in rats. M. A. STICHT*; L. A. PARKER. *Univ. of Guelph.*

2:00 U16 **819.18** ▲ Does estrogen modulate the long-term impact of adolescent cannabinoid exposure on adult female socio-sexual behavior? S. M. MINNEY; R. H. BIND; M. C. PELZ; S. ROSENFELD; H. H. LOPEZ*. *Skidmore Col., Skidmore Col.*

3:00 U17 **819.19** ● Norepinephrine-mediated smooth muscle contraction of the spleen is attenuated in mice lacking CB1 and CB2 cannabinoid receptors. T. J. SIMKINS*; D. FRIED; J. J. GALLIGAN; J. L. GOUDREAU; K. J. LOOKINGLAND; B. L. F. KAPLAN. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*

4:00 U18 **819.20** Functional inhibitory circuit deficits emerge following chronic prenatal exposure to cannabinoids. G. A. VARGISH*; X. YUAN; K. A. PELKEY; C. J. MCBAIN. *NICHD, Natl. Inst. of Child Hlth. and Human Develop.*

POSTER

820. Neural Plasticity, Dependence, and Addiction

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 V1 **820.01** Role of epigenetic mechanisms in ventral medial prefrontal cortex in incubation of methamphetamine craving. X. LI*; H. CATES; P. KENNEDY; S. KAMBHAMPATI; J. BOSSERT; E. NESTLER; Y. SHAHAM. *Natl. Inst. On Drug Abuse, Mount Sinai Sch. of Med.*

2:00 V2 **820.02** Methamphetamine self-administration attenuates hippocampal serotonergic deficits: Role of brain derived neurotrophic factor. L. M. MCFADDEN*; G. R. HANSON; A. E. FLECKENSTEIN. *Univ. of Utah, Univ. of Utah.*

3:00 V3 **820.03** Sex differences in FosB Expression after administration of cocaine, methamphetamine, and cannabinoids. C. E. DALY*; A. TOUSSAINT; M. ALTUBI; J. ENCARNACION; S. JENAB; V. QUINONES-JENAB. *Hunter Col., CUNY-The Grad. Ctr.*

4:00 V4 **820.04** Breaking bad habits: Chronic stress, methamphetamine and the dorsolateral striatum. S. B. TAYLOR*; J. M. ANGLIN; P. R. PAODE; A. G. RIGGERT; S. E. TOMEK; M. F. OLIVE; C. D. CONRAD. *Arizona State Univ.*

1:00 V5 **820.05** Physiological properties of nucleus accumbens core medium spiny neurons predict neuronal subpopulation and toluene-induced long term depression. J. T. BECKLEY*; P. K. RANDALL; R. J. SMITH; P. W. KALIVAS; J. J. WOODWARD. *Med. Univ. of South Carolina.*

2:00 V6 **820.06** Plasticity of the intrinsic membrane properties of jcBNST neurons during morphine protracted abstinence. A. SZUCS; F. BERTON; L. F. VENDRUSCOLO; G. F. KOOB; P. P. SANNA; W. FRANCESCONI*. *UCSD, The Scripps Res. Inst., The Scripps Res. Inst.*

3:00 V7 **820.07** Autonomous striatal CaMKII activity boosts morphine sensitization but disrupts morphine-induced AMPAR plasticity. J. P. JEDYNAK; T. MACHEDA; A. J. ASP; C. E. SCHMIDT; M. THOMAS*. *Univ. of Minnesota, Univ. of Minnesota.*

4:00 V8 **820.08** Chronic social stress persistently facilitates NMDAR-LTP induction mechanism in VTA dopaminergic neurons. C. STELLY*; H. MORIKAWA. *Univ. of Texas At Austin, Univ. of Texas At Austin.*

1:00 V9 **820.09** A role for glucocorticoid and kappa opioid receptors in long-lasting effects of stress on VTA inhibitory synaptic plasticity. A. M. POLTER*; R. BISHOP; L. BRIAND; C. PIERCE; J. KAUER. *Brown Univ., Univ. of Pennsylvania Sch. of Med.*

2:00 V10 **820.10** The impact of social buffering on the behavioral consequences of intermittent social defeat stress and ΔFosB expression in mesocorticolimbic regions of rats. E. M. NIKULINA; D. HERSCHEL; C. E. JOHNSTON; R. P. HAMMER*, Jr. *Univ. Arizona Coll. Med., Arizona State Univ.*

3:00 V11 **820.11** Prevention of cocaine conditioning relapse by social interaction: Investigating accumbens neuronal network activity by multi-electrode array (MEA). K. K. KUMMER*; M. KRESS; A. SARIA; G. ZERNIG. *Innsbruck Med. Univ., Innsbruck Med. Univ.*

4:00 V12 **820.12** Conditioned place prefrence for dyadic social interaction vs cocaine in C57BL/6 mice. G. ZERNIG*; E. M. VON LEITNER; T. WINKLER; F. N. MAYR; A. SCHARDL; M. TROMBINI; J. M. PRAST; K. K. KUMMER. *Innsbruck Med. Univ.*

1:00 W1 **820.13** Rats prone to obesity show 'addiction-like' deficits in behavior and synaptic plasticity. R. M. BROWN*; Y. M. KUPCHIK; S. SPENCER; T. C. JHOU; P. W. KALIVAS. *Med. Univ. of South Carolina, Florey Inst. of Neurosci. & Mental Hlth.*

2:00 W2 **820.14** Nucleus accumbens histone deacetylases actively regulate cocaine-seeking in mice. J. R. BAGLEY; B. W. MILLER; C. ARTH; R. R. CAMPBELL; E. J. NESTLER; S. J. HAGGERTY; T. E. KIPPIN*; K. K. SZUMLINSKI; R. L. NEVE. *Univ. California, Santa Barbara, Mount Sinai Sch. Med., Harvard Med. Sch., MIT.*

3:00 W3 **820.15** Synaptic activity mediates ability of BDNF-TrkB signaling to suppress cocaine-seeking in rats. B. GO*; J. F. MCGINTY. *Med. Univ. of South Carolina.*

4:00 W4 **820.16** Kappa opioid receptor-mediated dysregulation of GABAergic transmission in the central amygdala in cocaine addiction. M. KALLUPI; S. EDWARDS*; S. WEE; T. W. WHITFIELD, Jr; C. S. OLEATA; G. LUU; B. E. SCHMEICHEL; G. F. KOOB; M. ROBERTO. *The Scripps Res. Inst., Scripps Florida.*

1:00 W5 **820.17** Dynamic changes in dna methylation and rna transcription after cocaine abstinence. K. PLOENSE*; A. E. CARR; D. BAKER-ANDRESEN; N. WOODWARD; Y. SUN; T. BREDY; T. E. KIPPIN. *Univ. of California Santa Barbara, Univ. of California Santa Barbara, Univ. of Queensland, USC, Univ. of California Los Angeles, Univ. of California Santa Barbara.*

2:00 W6 **820.18** Group I metabotrobic glutamate receptor activation negatively regulates GluA2-lacking AMPA receptors in cultured nucleus accumbens neurons. J. A. LOWETH*; J. M. REIMERS; K. Y. TSENG; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci., UT Southwestern Med. Ctr., Rosalind Franklin Univ. of Med. and Sci.*

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

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3:00 W7 **820.19** Protein synthesis-dependent mechanism for maintaining synaptic adaptations in the NAc during withdrawal from extended-access cocaine self-administration. A. F. SCHEYER*; M. E. WOLF; K. Y. TSENG. *Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci.*

4:00 W8 **820.20** Cocaine memory retrieval during prolonged withdrawal does not induce changes in ubiquitin-proteasome system activity in the nucleus accumbens. C. T. WERNER*; M. M. MILOVANOVIC; J. A. LOWETH; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci.*

1:00 W9 **820.21** Effects of extended access cocaine self-administration on parvalbumin-positive interneurons in the nucleus accumbens. A. PURGIANTO*; M. MILOVANOVIC; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci.*

2:00 W10 **820.22** Differential calcium signaling mediated by NMDA and AMPA receptors in individual dendritic spines of nucleus accumbens medium spiny neurons. D. T. CHRISTIAN*; C. A. BRIGGS; G. E. STUTZMANN; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci.*

3:00 W11 **820.23** Is the cerebellum a special brain area for environment-drug interactions? PART I. D. B. VAZQUEZ SANROMAN*; M. CARBÓ-GAS; I. GIL-MIRAVET; J. MANZO; C. SANCHIS-SEGURA; M. MIQUEL. *Univ. Jaume I, Univ. Veracruzana.*

4:00 W12 **820.24** Is the cerebellum a special brain area for environment-drug interactions? PART II. M. MIQUEL*; D. VAZQUEZ-SANROMAN; I. GIL-MIRAVET; M. CARBÓ-GAS; C. SANCHIS-SEGURA; J. MANZO. *Jaume I Univ., CENTRO DE INVESTIGACIONES CEREBRALES.*

POSTER

821. Monoamines and Behavior: Dopamine and Norepinephrine

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 W13 **821.01** Early-life risperidone administration enhances sensitivity to dopamine agonists during adulthood. M. E. BARDGETT*; R. M. STEVENS; K. R. JUNEAU; K. R. COLEMIRE; M. S. GRIFFITH. *Northern Kentucky Univ.*

2:00 W14 **821.02** Functional variation in the macaque dopamine D4 receptor in response to dopamine, anti-psychotics, and putative erectile dysfunction drugs. L. M. OGAWA; H. N. PANAS; J. M. WARD; D. B. GOSWAMI; G. M. MILLER; E. J. VALLENDER*. *Harvard Med. School/ Neprc.*

3:00 W15 **821.03** Behavioral effects of the imidazoline I_2 receptor ligand BU99006 in rats. J. LI*; D. A. THORN; Y. QIU; Y. ZHANG. *Univ. At Buffalo, Res. Triangle Inst.*

4:00 W16 **821.04** Modest loss of LC noradrenergic neurons is associated with depressive-like behavior in mice. P. SZOT*; A. FRANKLIN; A. M. KEENEY; M. A. RASKIND. *Puget Sound Hlth. Care Syst., Puget Sound Hlth. Care Syst.*

1:00 W17-DP5 **821.05** Can we use zebrafish to identify new antipsychotics? A. J. RENNEKAMP*; D. KOKEL; R. T. PETERSON. *Massachusetts Gen. Hosp.*

2:00 W18 **821.06** ● Humanized COMTval158met mice exhibit predictive validity for human COMTval158met behavioral phenotypes. V. B. RISBROUGH*; B. JI; M. A. GEYER; X. ZHOU. *Univ. California San Diego, Veterans Affairs Ctr. of Excellence for Stress and Mental Hlth.*

3:00 X1 **821.07** Role of dopamine D1 receptors within the dorsal hippocampus in modulating the individual susceptibility to arousal-induced motor impulsivity. J. N. FERLAND*; W. K. ADAMS; M. M. BARRUS; C. A. WINSTANLEY. *Univ. of British Columbia, The Univ. of British Columbia.*

4:00 X2 **821.08** Methylphenidate electrophysiological effects on prefrontal cortex neurons from juvenile male rats. A. VAZQUEZ-ALVAREZ*; B. PRIETO-GÓMEZ; J. PAZ-FLORES; C. REYES-VÁZQUEZ. *Univ. Nacional Autónoma De México.*

1:00 X3 **821.09** Changes in locomotor behavior after treatment with dopaminergic agonist: basis for a possible animal model of augmentation. A. M. ESTEVES*; W. A. O. ALMEIDA; C. L. ALMEIDA-JUNIOR; K. S. LEE; M. O. MARIANO; M. K. FRANK; R. FRUSSA-FILHO; S. TUFIK; M. DE MELLO. *Univ. Estadual De Campinas - UNICAMP, Univ. Federal de São Paulo, Univ. Federal de São Paulo, Univ. Federal de São Paulo.*

2:00 X4 **821.10** ΔFosB in nucleus accumbens underlies recovery of sensorimotor gating following repeated D_2-like agonist treatment in rats. A. M. MAPLE*; T. CALL; V. F. VIALOU; E. J. NESTLER; E. M. NIKULINA; R. P. HAMMER, Jr. *Arizona State Univ., Univ. of Arizona Col. of Med., Arizona State Univ., Univ. Pierre et Marie Curie, Icahn Sch. of Med. at Mount Sinai, Arizona State Univ.*

3:00 X5 **821.11** Preweanling exposure to selective catecholamine transporter inhibitors differentially affects morphine-induced antinociception in adulthood. J. VALENTINE*; G. J. KAPLAN; S. E. BAIN; C. A. CRAWFORD. *California State University, San Bernardino.*

4:00 X6 **821.12** ● Learning motivational cost in the D2-corticostriatal pathway: Implications for antipsychotic treatment. N. E. VIERLING-CLAASSEN*; K. G. BATH; M. J. FRANK; C. I. MOORE. *Brown Univ., Brown Inst. for Brain Sci., Brown Univ.*

1:00 X7 **821.13** Daily spontaneous exercise volume affects brain dopamine and serotonin levels in rats. S. YANAGITA*; N. KUBOTA; H. OCHIAI; Y. TAKANO; K. TAKEDA. *Tokyo Univ. of Sci., The Ctr. for Envrn. Hlth. Sci. for the Next Generation, Tokyo Univ. of Sci., Fac. of Sci. and Technology, Tokyo Univ. of Sci.*

2:00 X8 **821.14** Dual dopaminergic mechanisms mediate modafinil's stimulus properties. A. J. QUISENBERRY; T. PRISINZANO; L. E. BAKER*. *Western Michigan Univ., Univ. of Kansas.*

3:00 X9 **821.15** Inhibition of DOI-induced head twitch response movements by D2/D3 and D2 dopamine receptor selective compounds. C. RANGEL BARAJAS*; M. MALIK; S. VANGVERAVONG; R. H. MACH; R. R. LUEDTKE. *Univ. of North Texas Hlth. Sci. Ctr., Washington Univ. Sch. of Med.*

4:00 X10 **821.16** Adiponectin regulation of the mesolimbic dopamine system. J. LIU*; J. C. GARZA; S. M. PEREZ; D. J. LODGE; X. LU. *Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr.*

1:00 X11 **821.17** Role of DAT and NET in methylphenidate's pro-cognitive versus reinforcing effects. S. A. CARMACK*; K. K. HOWELL; C. BLOCK; S. G. ANAGNOSTARAS. *Univ. of CA, San Diego, UCSD.*

2:00 X12 **821.18** ▲ Dopamine depletion with tyrosine free amino acid mixture in nucleus accumbens of awake rats. S. TAYLOR*; T. SHNITKO; D. ROBINSON. *Univ. of North Carolina At Chapel Hill.*

3:00 X13 **821.19** Peripheral 3-methoxytyramine reduces depressive-like symptoms. B. GRIFFIN*; C. CHARLTON. *Meharry Med. Col.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

822. Pain, Headache, and Migraine

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 X14 **822.01** ● Pharmacological characterization of CB_2 agonist in animal models of neuropathic and inflammatory pain. R. ABRAHAM*; V. GOURA; S. PAL; A. SHINDE; J. KONDA; P. KOTHMIRKAR; A. V. DAULATABAD; R. NIROGI. *Suven Life Sci.*

2:00 X15 **822.02** ● Characterization of the subpopulation of neurons responding in an electric field stimulation assay. S. ASPENGREN*; A. KARLSSON; S. LARDELL; M. TOKARZ; P. KARILA. *Cellectricon.*

3:00 X16 **822.03** Neuropharmacological profile of a novel analogue of lidocaine. M. DECIGA-CAMPOS*; G. NAVARRETE-VAZQUEZ; F. J. LÓPEZ-MUÑOZ. *Escuela Superior De Medicina IPN, Univ. Autónoma del Estado de Morelos, CINVESTAV-Sede sur.*

4:00 X17 **822.04** ● Development of a high throughput electric field stimulation assay for identification of compounds modulating excitability in sensory neurons. A. KARLSSON; P. KARILA*; S. LARDELL; M. TOKARZ; S. ASPENGREN. *Cellectricon AB.*

1:00 X18 **822.05** Synergistic effect of TR-L-382 and pregabalin for the treatment of neuropathic pain in mice. K. HASEBE*; N. IZUMIMOTO; K. NAKAO; C. YOSHIDA-KANEKO; T. SUZUKI; H. MOCHIZUKI; Y. SUGAWARA. *Toray Industries Inc. Pharmaceut. Res. Labs.*

2:00 Y1 **822.06** Intranasal delivery of IGF-1 decreases spreading depression susceptibility in rat. Y. Y. GRINBERG*; R. P. KRAIG. *Univ. of Chicago.*

3:00 Y2 **822.07** ● Preclinical to clinical translation of central transporter occupancy of TD-9855 a novel, norepinephrine and serotonin reuptake inhibitor (NSRI). J. A. SMITH*; D. L. BOURDET; O. T. DANIELS; Y. DING; J. GALLEZOT; S. HENRY; K. KIM; S. KSHIRSAGAR; W. J. MARTIN; G. OBEDENCIO; E. STANGELAND; P. R. TSURUDA; W. WILLIAMS; R. E. CARSON; S. T. PATIL. *Theravance Inc, Yale Sch. of Med.*

4:00 Y3 **822.08** Assessment of N-type Calcium channel blockers in reducing pain perception using in-vivo spinal microdialysis in conscious rats. S. M. IRAPPANAVAR*; V. BENADE; S. DARIPELLI; G. AYYANKI; G. BHYRAPUNENI; V. KANDIKERE; R. NIROGI. *SUVEN LIFE SCIENCES LTD.*

1:00 Y4 **822.09** ● Dynamic weight bearing as a method for assessment of nociceptive behavior in models of burn, neuropathic and osteoarthritis pain in rats. M. HUMMEL*; B. STRENKOWSKI; T. KNAPPENBERGER; J. BALDASSARI; K. RAEHAL; G. WHITESIDE. *Purdue Pharma.*

2:00 Y5 **822.10** The role of CGRP and photic blink response in central trigeminal hypersensitivity and photophobia during migraine. B. J. REA; E. A. KAISER; P. POOLMAN; S. THOMPSON; A. RECOBER*; R. H. KARDON; A. F. RUSSO. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.*

3:00 Y6 **822.11** Incorporation of unnatural amino acids into the C-terminal end of apelin-13: Influence on binding, biased signaling and receptor functions. A. MURZA*; E. BESSERER-OFFROY; M. LAFRANCE; N. BEAUDET; J. LONGPRÉ; R. LEDUC; E. MARSAULT; P. SARRET. *Univ. De Sherbrooke, Univ. De Sherbrooke.*

4:00 Y7 **822.12** ● Development and validation of a population patch clamp assay for profiling use-dependent blockers of voltage-gated calcium channels. Y. A. KURYSHEV; H. LEE; C. MATHES*; G. E. KIRSCH; A. M. BROWN; E. DUZIC. *ChanTest, Chantest Corp.*

1:00 Y8 **822.13** ● Identification of potential biomarkers of ONO-2952, a novel translocator protein 18kDa antagonist: Metabolomics analysis of urine in the rat stress models. K. MITSUI*; A. HAYASHI; M. SUGIOKA; T. NIWA; H. WAKAZONO; H. TADA; J. MURAI; S. FUJITA; S. KATSUMATA. *Minase Res. Institute, ONO Pharmaceut. Co., Ltd., Tsukuba Res. Institute, ONO Pharmaceut. Co., Ltd., Fukui Res. Institute, ONO Pharmaceut. Co., Ltd., Discovery Res. Alliance, ONO Pharma UK Ltd.*

2:00 Y9 **822.14** ▲ Comparison of CGRP receptor antagonists using partially humanized transgenic CGRP receptor mice. K. J. BOHN; K. W. JOHNSON; A. F. RUSSO*. *Univ. of Iowa, Eli Lilly and Co.*

POSTER

823. Striate Cortex: Ocular Dominance Plasticity

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Y10 **823.01** Exploring improvement of visual acuity after delayed deletion of nogo-66 receptor. H. M. DORTON*; C. STEPHANY; A. W. MCGEE. *Saban Res. Inst.*

2:00 Z1 **823.02** Nogo receptor 1 regulates plasticity of distinct circuits for binocularity and acuity. C. STEPHANY*; L. L. H. CHAN; H. M. DORTON; S. N. PARIVASH; A. W. MCGEE. *Saban Res. Institute, Children's Hosp. Los Angeles, City Univ. of Hong Kong.*

3:00 Z2 **823.03** Reactivating ocular dominance plasticity in adult mice by deletion of NgR1. K. S. CHAPMAN*; L. L. H. CHAN; C. STEPHANY; A. W. MCGEE. *Saban Res. Institute, Children's Hosp. Los Angeles, City Univ. of Hong Kong.*

4:00 Z3 **823.04** Circadian rhythm in parvalbumin-circuits controls critical period timing in visual cortex. Y. KOBAYASHI*; T. K. HENSCH. *Harvard Univ., Boston Children's Hosp.*

1:00 Z4 **823.05** Monocular deprivation induces desegregation of ocular dominance domains ipsilateral to the deprived eye in rat visual cortex. R. J. LAING*; J. F. OLAVARRIA. *Univ. of Washington.*

2:00 Z5 **823.06** Early onset binocular pattern deprivation regulates the expression of proteins involved in GABA release, clathrin-mediated endocytosis, axonal outgrowth and metabolism. K. LASKOWSKA-MACIOS; T. HU; M. KOSSUT; K. BURNAT*; L. ARCKENS. *Nencki Inst., KU Leuven.*

3:00 Z6 **823.07** Raising mice in an enriched environment preserved a juvenile-like ocular dominance plasticity and inhibitory tone into adulthood in mouse primary visual cortex. F. GREIFZU*; P. D. FAVARO; O. M. SCHLÜTER; S. LÖWEL. *Georg-August Univ. Göttingen, European Neurosci. Inst. Göttingen (ENI).*

4:00 Z7 **823.08** PSD-95 dependent network reorganization is required for the maturation of visual cortical function and the closure of the critical period for ocular dominance plasticity. S. LOEWEL*; X. HUANG; B. GOETZE; C. WILHAUK; Y. DONG; K. SCHMIDT; O. M. SCHLÜTER. *Göttingen Univ., European Neurosci. Inst. Göttingen (ENI), Univ. of Pittsburgh.*

1:00 Z8 **823.09** Acute enhancement of plasticity and spine density by blockade of PirB. D. N. BOCHNER*; R. W. SAPP; G. S. VIDAL; M. DJURISIC; C. J. SHATZ. *Stanford Univ., Stanford Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 Z9 **823.10** Divergent expression of the Lynx family in visual cortex: Implications for critical period plasticity. M. DEMARS*; P. BURMAN; H. MORISHITA. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

3:00 Z10 **823.11** Mechanisms regulating plasticity in the adult visual cortex by a cholinergic brake lynx1. N. BUKHARI*; A. HUSSEIN; P. BURMAN; M. DEMARS; S. RUSSO; S. TSIRKA; H. MORISHITA. *Icahn Sch. of Med. At Mount Sinai, Stony Brook Univ.*

4:00 Z11 **823.12** Protein expression and cross-modal plasticity mechanisms in mouse visual cortex following monocular enucleation differ with age. K. SMOLDERS; J. NYS; J. AERTS; G. BAGGERMAN; T. HU; L. H. ARCKENS*. *KU Leuven, Univ. Antwerpen.*

1:00 Z12 **823.13** Neonatal enucleation and anophthalmia differently alter the proteome of occipital areas in the mouse. M. LARAMEE*; T. HU; G. BRONCHTI; D. BOIRE; L. ARCKENS. *KU Leuven, Univ. du Quebec a Trois-Rivieres, Univ. de Montreal.*

2:00 Z13 **823.14** Push-pull neuromodulation of ocular dominance plasticity. S. HUANG*; A. KIRKWOOD. *Johns Hopkins Univ., Johns Hopkins Univ.*

3:00 Z14 **823.15** ● Theory-based options for assessing and treating disorders of binocular vision. B. T. BACKUS*; C. L. LAW. *Grad. Ctr. For Vision Res., SUNY Col. of Optometry, SUNY Eye Inst.*

4:00 Z15 **823.16** Patching the eye makes it stronger: Enhanced binocular vision following brief monocular deprivation. R. F. HESS*; J. ZHOU; R. FARIVAR-MOHSENI; B. THOMPSON; S. CLAVAGNIER. *McGill, McGill Univ., McGill Univertsity, Univ. of Auckland.*

POSTER

824. Extrastriate Cortex: Functional Organization

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Z16 **824.01** Observing three classes of action performed with the upper limb. S. FERRI*; G. RIZZOLATTI; G. A. ORBAN. *Univ. of Parma, Inst. Italiano di Tecnologia.*

2:00 Z17 **824.02** More data, more category-selective voxels: Massively widespread face- and scene-selectivity with increasing amounts of data revealed at 7T. J. M. ARIZPE*; D. J. KRAVITZ; E. BILGER; C. I. BAKER. *NIMH, Univ. Col. London, NIMH, George Washington Univ.*

3:00 Z18 **824.03** Category selectivity of occipito-temporal cortex is related to resting state correlations. A. TAMBINI*; L. DAVACHI. *New York Univ., New York Univ.*

4:00 AA1 **824.04** A right temporo-parietal junction region that responds strongly to salient or attended visual stimuli (vTPJ). H. HORIGUCHI*; B. A. WANDELL; J. WINAWER. *Jikei Univ. Sch. of Med., Stanford Univ., New York Univ.*

1:00 AA2 **824.05** The existence of retinotopic organization without visual experience. A. S. BOCK*; P. BINDA; K. E. WATKINS; H. BRIDGE; I. FINE. *Univ. of Washington, Universita' di Pisa, Univ. of Oxford.*

2:00 AA3 **824.06** Intensive early experience with cartoon-face stimuli alters the modular organization of inferotemporal cortex. K. SRIHASAM*; T. SAVAGE; M. LIVINGSTONE. *Harvard Med. Sch.*

3:00 AA4 **824.07** A strong input to area LIP from two distinct regions in IT cortex revealed by combined fMRI and microstimulation. T. B. CRAPSE*; D. Y. TSAO. *Caltech.*

4:00 AA5 **824.08** The mid-fusiform sulcus: A landmark identifying both cytoarchitectonic and functional divisions of human ventral temporal cortex. K. S. WEINER*; G. GOLARAI; J. CASPERS; M. R. CHUAPOCO; H. MOHLBERG; K. ZILLES; K. AMUNTS; K. GRILL-SPECTOR. *Stanford Univ., Heinrich Heine Univ., JARA Brain Res. Ctr. Jülich, Univ. Düsseldorf, RWTH Aachen Univ., Stanford Univ.*

1:00 AA6 **824.09** Childhood development of place-selectivity along the anterior-posterior axis of the ventral temporal cortex (VTC). G. GOLARAI*; A. LIBERMAN; K. GRILL-SPECTOR. *Stanford Univ.*

2:00 AA7 **824.10** Comparisons of the spatial matrix of f subfields between multiple nearby V2 neurons in amblyopic monkeys. X. TAO*; B. ZHANG; G. SHEN; J. WENSVEEN; E. L. SMITH, 3rd; I. OHZAWA; Y. M. CHINO. *Univ. of Houston, NOVA Southeastern Univ., Osaka Univ.*

3:00 AA8 **824.11** Neural representation of natural movies in rat extrastriate visual areas. K. VINKEN*; G. VAN DEN BERGH; B. VERMAERCKE; H. P. OP DE BEECK. *KU Leuven.*

4:00 AA9 **824.12** Calculation modulates local neuronal responses to numerals in the inferior temporal gyrus. D. HERMES*; V. RANGARAJAN; B. L. FOSTER; J. KING; I. KASIKCI; K. J. MILLER; J. PARVIZI. *Stanford Univ., INSERM.*

1:00 AA10 **824.13** Functional parcellation of human visual cortex. R. RAJIMEHR*; S. KORNBLITH; R. DESIMONE. *MIT.*

2:00 AA11 **824.14** Reward related patches induced in inferior temporal cortex following learning in macaque monkeys demonstrated with fast event-related BOLD fMRI. P. M. KASKAN*; J. A. ZEMSKOVA; V. D. COSTA; A. R. MITZ; D. A. LEOPOLD; L. G. UNGERLEIDER; E. A. MURRAY. *Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth.*

3:00 AA12 **824.15** A probabilistic atlas of 18 human retinotopic areas. R. O. ABDOLLAHI*; M. F. GLASSER; D. L. DIERKER; D. C. VAN ESSEN; G. A. ORBAN. *K.U. Leuven, Washington Univ. Sch. of Med., Univ. of Parma.*

4:00 AA13 **824.16** Estimation of average single-unit receptive field size by fMRI. G. A. KELIRIS*; Y. SHAO; A. PAPANIKOLAOU; N. K. LOGOTHETIS; S. M. SMIRNAKIS. *Max-Planck for Biol. Cybernetics, Bernstein Ctr. for Computat. Neurosci., Univ. of Manchester, Baylor Col. of Med.*

1:00 AA14 **824.17** Visual cortical architecture in autism spectrum disorders. D. S. SCHWARZKOPF*; E. J. ANDERSON; B. DE HAAS; S. J. WHITE; G. REES. *Univ. Col. London.*

2:00 AA15 **824.18** Subcortical connections of the functionally-defined face patches in the macaque monkey. P. GRIMALDI*; K. S. SALEEM; D. Y. TSAO. *Caltech, NIMH.*

3:00 AA16 **824.19** Parallel, hierarchical processing of colors and shapes in macaque inferior temporal cortex. R. LAFER-SOUSA*; B. R. CONWAY. *Wellesley Col., Wellesley Col., Harvard Med. Sch.*

4:00 AA17 **824.20** Functional architecture for orientation and spatial frequency tuning in monkey V4 revealed by *in vivo* 2-photon calcium imaging of visual responses to natural movies. K. IKEZOE*; S. NISHIMOTO; R. TAKEUCHI; T. FUKAZAWA; Y. SAITO; I. FUJITA. *Osaka Univ., Ctr. for Information and Neural Networks (CiNet), Osaka Univ. and Natl. Inst. of Information and Communications Technol.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 AA18 **824.21** The relationships between hue and orientation representations in macaque area V4. D. J. FELLEMAN*; A. PARAJULI; Y. XIAO; H. LIM; A. ERIKSSON. *Univ. Texas Med. Sch., Univ. Texas Med. Sch., Mount Sinai Sch. of Med.*

2:00 BB1 **824.22** FMRI pattern analysis reveals rotation-invariant shape representation in the lateral occipital complex. M. S. PRATTE*; E. H. COHEN; F. TONG. *Vanderbilt Univ.*

3:00 BB2 **824.23** Variation of visual processing across the visual field. D. J. HAGLER*, Jr. *UCSD.*

4:00 BB3 **824.24** Brain function imaging using functional near-infrared spectroscopy for the development of training: A study on ability differences in stereopsis. A. HAYAKAWA*; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ.*

POSTER

825. Vision: Processing of Contrast, Orientation, and Color

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BB4 **825.01** The neural basis of temporal brightness effects. H. RIEIRO*; M. SANCHEZ-VIVES; S. MARTINEZ-CONDE; J. CUI; R. REIG; S. L. MACKNIK. *Barrow Neurolog. Inst., Univ. de Vigo, IDIBAPS, ICREA.*

2:00 BB5 **825.02** Binocular summation of decrement and increment contrast discrimination thresholds. J. L. LANG*; W. W. STINE. *Univ. of New Hampshire.*

3:00 BB6 **825.03** Intra and cross-modal negative BOLD responses in grey matter regions and large draining veins under contrast-varying visual stimulation. J. JORGE*; P. FIGUEIREDO; R. GRUETTER; W. VAN DER ZWAAG. *LIFMET / ISR, Inst. Superior Técnico, École Polytechnique Fédérale de Lausanne.*

4:00 BB7 **825.04** Noisy brain: Visual evoked response is more variable in primary generalized epilepsy. J. J. TSAI*; W. KIM; J. ALES; S. HAKIMIAN; A. WADE; A. NORCIA. *Univ. of Washington, Stanford Univ., Univ. of York.*

1:00 BB8 **825.05** ● The neural correlates of flicker fusion. S. L. MACKNIK*; H. RIEIRO; J. CUI; M. L. LEDO; M. R. AFRASIABI; S. MARTINEZ-CONDE. *Barrow Neurolog. Inst., Univ. of Vigo, Creighton Univ.*

2:00 BB9 **825.06** Time course of far-surround modulation of perceived contrast in human vision. K. ISHIBASHI*; Y. OKAZAKI; I. MURAKAMI. *Grad. Sch. of Humanities and Sociology, The Univ. of Tokyo.*

3:00 BB10 **825.07** ● Neural dynamics during repetitive visual stimulation. T. TSONEVA; G. GARCIA MOLINA*. *Philips Group Innovation, Univ. Wisconsin Dept. of Psychiatry, Philips Group Innovation.*

4:00 BB11 **825.08** Neuronal modulations related to contour integration in primary visual cortex of the macaque monkey. S. VAN STIJN*; W. SINGER; H. S. LEE. *Ernst Strüngmann Inst. (ESI) In Cooperation With Max Planck Society, Max Planck Inst. for Brain Res.*

1:00 BB12 **825.09** Iso-orientation tuning of surround modulation in V1 allows for unbiased orientation coding. S. W. KEEMINK; C. BOUCSEIN; M. C. VAN ROSSUM*. *Univ. Edinburgh, Univ. of Freiburg.*

2:00 CC1 **825.10** Physiological correlates of fast stimulus processing in the rat visual cortex. A. I. JASPER; S. ROUX; D. SUCHANEK; A. AERTSEN*; C. BOUCSEIN. *Inst. of Biol. III, Bernstein Ctr. Freiburg, CNRS and Aix-Marseille Univ.*

3:00 CC2 **825.11** ▲ The Relationship of the phase of the local field potentials and the orientation of the stimulus in the primary visual cortex of the rat. N. X. KE*; Z. WANG; L. SHI; H. WAN. *Zhengzhou Univeersity In China, Zhengzhou Ubiversity.*

4:00 CC3 **825.12** ● Visually guided behavior in freely moving mice. B. SRIRAM*; A. CRUZ-MARTIN; L. DENARDO; E. J. KIM; M. PATEL; P. HUYNH; E. GIERING; P. REINAGEL; A. GHOSH. *UCSD Div. of Biol., Stanford Univ., Salk Inst. for Biol. Sci., Neurosci. Discovery,Hoffmann-La Roche.*

1:00 CC4 **825.13** Microstimulation of macaque posterior inferior temporal cortex impairs coarse orientation discrimination. H. ZIVARI ADAB*; R. VOGELS. *Lab. voor Neuro- en Psychofysiologie, KU Leuven Med. Sch.*

2:00 CC5 **825.14** Figure-ground modulation in primate LGN. H. E. JONES*; I. M. ANDOLINA; S. D. SHIPP; J. T. C. CLEMENTS; A. M. YOUNG; D. L. ADAMS; T. E. SALT; A. M. SILLITO. *UCL Inst. of Ophthalmology, Univ. of California.*

3:00 CC6 **825.15** Spike stochastics during figure-ground discrimination in primate LGN. I. M. ANDOLINA*; H. E. JONES; S. D. SHIPP; J. T. C. CLEMENTS; A. M. YOUNG; D. L. ADAMS; T. E. SALT; A. M. SILLITO. *UCL Inst. of Ophthalmology, Univ. of California.*

4:00 CC7 **825.16** ▲ Spatiotemporal properties of macaque retinal ganglion cells to complex waveforms: An harmonic analysis. B. M. COOPER*; B. B. LEE. *State Univ. of New York -college of Optometry, SUNY: Col. of Optometry.*

1:00 CC8 **825.17** A model of sensitivity to binary local image statistics: Testing the predictions. M. M. CONTE*; S. M. RIZVI; D. J. THENGONE; J. D. VICTOR. *Brain & Mind Res. Inst. - Weill Cornell Med. Col.*

2:00 CC9 **825.18** Form processing: Why are dynamic Glass patterns detected more readily than static Glass patterns? C. R. MADAN*; J. NANKOO; M. L. SPETCH; D. R. WYLIE. *Univ. of Alberta, Univ. of Alberta.*

3:00 CC10 **825.19** Contextual influences on unique hues. S. KLAUKE*; T. WACHTLER. *Philipps-University Marburg, Ludwig-Maximilians-Universität München.*

4:00 CC11 **825.20** Electrophysiological correlates of color salience. L. E. WOOL*; J. KREMKOW; S. J. KOMBAN; M. JANSEN; X. LI; Y. BERESHPOLOVA; H. SWADLOW; Q. ZAIDI; J. ALONSO. *SUNY Col. of Optometry, Univ. of Connecticut.*

POSTER

826. Visual Perception and Eye Movements

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 CC12 **826.01** Near-hand effects on saccade performance: Real vs. fake hands. S. CARLIN*; L. E. BROWN. *Trent Univ.*

2:00 CC13 **826.02** Neuronal activities in cortical areas MT/MST during spatiotopic integration of visual motion across saccadic eye movements. N. INABA*; K. KAWANO. *Kyoto Univ., Kyoto Univ.*

3:00 CC14 **826.03** The influence of saccadic adaptation on perceived location of the pre-saccade fixation target and the saccade goal target. J. POLA*; E. MATIN; L. MATIN. *SUNY Col. Optometry, LIU Post, Columbia Univ.*

4:00 DD1 **826.04** Cognitive control of saccades in the visual perception of complex tool-use. N. NATRAJ*; Y. M. PELLA; A. M. BORGHI; L. A. WHEATON. *GEORGIA INSTITUTE OF TECHNOLOGY, Univ. of Bologna.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 DD2 **826.05** Extra-retinal input from ocular pursuit improves spatial estimation accuracy of circular target motion. S. J. BENNETT*; N. BENGUIGUI. *Liverpool John Moores, Normandie Univ., UNICAEN.*

2:00 DD3 **826.06** The influence of competing stimuli on classical visual response fields in the frontal eye fields. R. A. MARINO*; A. SAJAD; H. WANG; X. YAN; J. D. CRAWFORD. *York Univ.*

3:00 DD4 **826.07** ● Effects of CN-NINM intervention on eye movement rehabilitation in chronic stroke: a case study. Y. I. VERBNY*; K. L. SKINNER; M. E. TYLER; K. A. KACZMAREK; Y. P. DANILOV. *Dept. Biomed. Engineering, Univ.Wisconsin-Madison.*

4:00 DD5 **826.08** A corollary discharge circuit contributes to the perception of visual space. W. M. JOINER*; R. A. BERMAN; J. CAVANAUGH; R. H. WURTZ. *George Mason Univ., Natl. Eye Inst.*

1:00 DD6 **826.09** Comparison of visual processing in superior colliculus and primary visual cortex: Implications for the coding of visual salience. B. J. WHITE*; T. IKEDA; D. BERG; L. ITTI; D. P. MUNOZ. *Queen's Univ., USC.*

2:00 DD7 **826.10** An event-related fMRI investigation of human brain responses to saccadic and vergence eye movements. B. IP*; L. MININI; S. L. HICKS; J. DOW; P. SARKAR; A. J. PARKER; H. BRIDGE. *Univ. of Oxford, Univ. of Oxford, Univ. of Oxford.*

3:00 DD8 **826.11** ● Neural correlates of presaccadic spatial compression in the human visual system. E. G. CENTER*; N. A. PARKS. *Univ. of Arkansas, Univ. of Arkansas.*

4:00 DD9 **826.12** Microsaccades restore the visibility of minute foveal targets. F. COSTELA*; M. MCCAMY; S. MACKNIK; S. MARTINEZ-CONDE. *Barrow Neurolog. Inst.*

1:00 DD10 **826.13** Oscillatory hierarchy between frontal eye field and area V4 during free-gaze visual search. H. ZHOU*; R. DESIMONE. *MIT.*

2:00 DD11 **826.14** Dorsal stream interactions between remapped and perceived orientation information across saccades. B. T. DUNKLEY*; J. D. CRAWFORD. *York Univ.*

3:00 DD12 **826.15** Visuomotor updating within an illusory context: Behavioral and neural mechanisms. A. J. DE BROUWER*; J. B. J. SMEETS; T. P. GUTTELING; W. P. MEDENDORP. *VU Univ. Amsterdam, Radboud Univ. Nijmegen.*

4:00 DD13 **826.16** V1 responses and perceptual sensitivity to stimuli are reduced after saccades. J. NIEMEYER*; M. PARADISO. *Brown Univ.*

1:00 DD14 **826.17** A computational robotic model for testing the neural necessities of visual stability. H. RAO*; J. S. JUAN; J. VILLA; K. RAFIE; F. SHEN; C. ARORA; M. A. SOMMER. *Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

2:00 DD15 **826.18** Evidence for differential top-down and bottom-up suppression in LIP from local field potential recordings. K. MIRPOUR*; J. W. BISLEY. *UCLA, UCLA, UCLA.*

3:00 DD16 **826.19** The cortical neurophysiology of oscillopsia. B. M. SEEMUNGAL*; Y. NIGMATULLINA; N. YOUSIF. *Imperial Col. London.*

4:00 DD17 **826.20** Influence of eye movements on ongoing neuronal oscillatory activity during active vision. A. BARCZAK*; A. FALCHIER; D. ROSS; P. LAKATOS; C. E. SCHROEDER. *Nathan S. Kline Inst. For Psychiatric Res., New York Univ. Sch. of Med., Columbia Univ. Col. of Physicians & Surgeons.*

1:00 DD18 **826.21** Probabilistic maps of peri-saccadic receptive fields in the frontal eye fields. A. R. DITOMASSO; J. P. MAYO; M. A. SMITH*. *Univ. of Pittsburgh, Harvard Med. Sch.*

2:00 EE1 **826.22** Eye movements change the reference frame for remembered tactile targets in a localization task. S. MUELLER*; K. FIEHLER. *Justus-Liebig Univ. Giessen, Justus-Liebig Univ. Giessen.*

3:00 EE2 **826.23** Perceptual modulation of motor _ but not visual _ responses in the frontal eye field during an urgent-decision task. M. G. COSTELLO*; D. ZHU; E. SALINAS; T. R. STANFORD. *Wake Forest Sch. of Med.*

4:00 EE3 **826.24** Impact of multifeature integration on performance dissociated from reaction time effects via an urgent decision-making task. C. K. HAUSER*; S. SHANKAR; E. SALINAS; T. STANFORD. *Wake Forest Sch. of Med., Ernest Gallo Clin. and Res. Ctr.*

1:00 EE4-DP7 **826.25** Traveling waves in macaque V4 optimize post-saccadic visual processing. T. P. ZANOS*; P. J. MINEAULT; J. A. MONTEON; K. T. NASIOTIS; D. GUITTON; C. C. PACK. *Montreal Neurolog. Institute, McGill Univ.*

2:00 EE5 **826.26** Visual sensitivity of frontal eye field neurons during the preparation of saccadic eye movements. R. M. KROCK*; T. MOORE. *Stanford Univ., Stanford Univ.*

3:00 EE6 **826.27** Effects of frontal eye field on spatial compression. J. HSIAO*; Y. CHOU. *Natl. Dong Hwa Univ.*

4:00 EE7 **826.28** Perisaccadic response modulations in V1 are stimulus-dependent. S. KLINGENHOEFER*; T. S. HARTMANN; R. T. BORN; F. BREMMER. *Philipps-University, Harvard Med. Sch.*

1:00 EE8 **826.29** Spatial extent of spike-field coherence in posterior parietal cortex. A. G. BERARDINO*; M. A. HAGAN; B. PESARAN. *New York Univ.*

2:00 EE9 **826.30** Self-motion perception is modulated by eye fixation. P. R. MACNEILAGE*; I. A. H. CLEMENS; L. P. J. SELEN; W. P. MEDENDORP. *Univ. Hosp. of Munich, Radboud Univ.*

POSTER

827. Spinal Cord Processing: Pharmacology

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 EE10 **827.01** Effect of carvacrol on glutamatergic spontaneous excitatory transmission in adult rat spinal substantia gelatinosa neurons. Q. LUO; T. FUJITA*; C. JIANG; Q. KANG; T. YASAKA; S. OHTSUBO; A. MATSUSHITA; E. KUMAMOTO. *Dept. Physiol., Fac. Med., Saga Univ.*

2:00 EE11 **827.02** Modulation by oxytocin of excitatory and inhibitory synaptic transmission in adult rat spinal substantia gelatinosa neurons. C. JIANG; T. FUJITA; Q. LUO; Q. KANG; S. OHTSUBO; A. MATSUSHITA; E. KUMAMOTO*. *Dept Physiol, Saga Med. Sch.*

3:00 EE12 **827.03** Dorsal horn synaptogenesis after painful joint injury is attenuated by gabapentin. N. CROSBY*; L. DONG; B. WINKELSTEIN. *Univ. of Pennsylvania.*

4:00 EE13 **827.04** Involvement of G-protein-coupled receptor 40 in the regulation of spinal nociceptive transmission. P. KARKI; T. KURIHARA*; T. ASADA; T. OYOSHI; M. YOSHIMURA; K. ARITA; A. MIYATA. *Kagoshima Univ., Kagoshima Univ., Kumamoto Hlth. Sci. Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 EE14 **827.05** The change of long-chain fatty acid receptor GPR40 expression induced by chronic pain exposure in the brains of mice. T. NISHINAKA*; N. SATO; K. NAKAMOTO; F. KASUYA; M. MANKURA; Y. KOYAMA; S. TOKUYAMA. *Kobe Gakuin Univ., Kobe Gakuin Univ., Bizen Chem. Co., Ltd, Osaka Ohtani Univ.*

2:00 EE15 **827.06** Pro- and antinociceptive effects of buprenorphine in the spinal dorsal horn cover a dose range of four orders of magnitude. K. GERHOLD; R. DRDLA*; J. SANDKÜHLER. *Ctr. for Brain Res.*

3:00 EE16 **827.07** The role of PAR2 receptors in modulation of nociceptive signalling at the spinal cord level. P. MRÓZKOVÁ*; J. PALECEK. *Inst. of Physiol. Acad. of Sci., Charles Univ. in Prague, Fac. of Sci., Inst. of Physiol. Acad. of Sci.*

4:00 EE17 **827.08** Regulation of spinal glial glutamate transporters (GLT-1) by PKC in the genesis of neuropathic pain. R. YADAV*; X. YAN; M. GAO; H. WENG. *Univ. of Georgia- Col. of Pharm. - PBS.*

1:00 EE18 **827.09** Effects of NMDA receptor activation on KCC2 and N-cadherin expression in spinal synapses. J. KIM*; E. MURAD; B. LIANG; T. J. PRICE. *Univ. of Arizona.*

2:00 FF1 **827.10** The putative neurotransmitter agmatine blocks C-fiber-evoked long term potentiation in dorsal horn. J. J. WAATAJA*; G. L. WILCOX; C. A. FAIRBANKS. *Univ. of Minnesota.*

3:00 FF2 **827.11** Optogenetic activation of VGluT3-positive primary afferent fibers reveals a pharmacological profile closely resembling that of nociceptive C-fibers. S. D. HONSEK*; L. FORSTHUBER; R. P. SEAL; J. SANDKÜHLER. *Med. Univ. of Vienna, Univ. of Pittsburgh.*

4:00 FF3 **827.12** Intrathecal administration of botulinum toxin A presynaptically inhibits excitatory synaptic transmission in the spinal dorsal horn. K. NEMOTO; R. MATSUZAWA; T. FUKUSHIMA; T. TAKASUSUKI; S. YAMAGUCHI; Y. HORI*. *Dokkyo Univ. Sch. Med.*

1:00 FF4 **827.13** Chronic peripheral inflammation increases excitability of neuronal network in substantia gelatinosa of spinal cord. O. KOPACH*; V. KROTOV; P. BILAN; N. VOITENKO. *Bogomoletz Inst. Physiol, Bogomoletz Inst. Physiol.*

2:00 FF5 **827.14** Activation of spinal 5-HT5 receptors leads to antinociception in inflammatory pain models. E. MUÑOZ-ISLAS*; G. C. VIDAL-CANTÚ; M. BRAVO-HERNÁNDEZ; C. CERVANTES-DURÁN; G. N. QUIÑONEZ-BASTIDAS; J. B. PINEDA-FARIAS; P. BARRAGÁN-IGLESIAS; V. GRANADOS-SOTO. *INSTITUTO NACIONAL DE PERINATOLOGIA, CINVESTAV-SEDE SUR.*

3:00 FF6 **827.15** Modulation of nociceptive synaptic transmission at spinal cord level by TRPV1 and CB1 receptors. V. NERANDZIC*; J. PALECEK. *Inst. of Physiol. AS CR, V.v.I.*

4:00 FF7 **827.16** IL-1β contributes to central sensitization in a rat fracture model of complex regional pain syndrome. W. LI*; T. GUO; T. WEI; X. SHI; J. CLARK; W. KINGERY. *Stanford Univ., VAPAHCS, VAPAHCS.*

1:00 FF8 **827.17** ● Suppressive effect of microglial interleukin-1β on development of contralateral mechanical allodynia in peripheral inflammatory mirror-image pain rats. J. LEE*. *Seoul Natl. Univ.*

POSTER

828. Pain Models: Pharmacology II

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FF9 **828.01** The atypical antipsychotics attenuate pain-related behavior in a rat model with trigeminal neuropathic pain. K. NAKAI*; A. NAKAE; R. HASHIMOTO; Y. FUJINO; K. HOSOKAWA. *Saka City Hosp., Osaka Univ. Grad. Sch. of Med., United Grad. Sch. of Child Development, Osaka Univ., Osaka Univ. Grad. Sch. of Med.*

2:00 FF10 **828.02** Antinociceptive effect of 3-alpha-5-beta-pregnanolon glutamate and its comparison with memantine in rats. M. FRANEK*; S. VACULIN; M. FERDOVA; K. VALES; L. RAMBOUSEK; A. STUCHLIK. *Charles University, 3rd Fac. of Med., Acad. of Sci. of the Czech Republic.*

3:00 GG1 **828.03** ● Pharmacological comparison of therapeutics in experimental fibromyalgia-like model mice using intermittent cold stress or intramuscular injection of acidic saline. T. MUKAE*; H. UEDA. *Nagasaki-University.*

4:00 GG2 **828.04** The use of spinal wide dynamic range neuron recording as a routine screen for candidate analgesic drugs. J. ALLARD*. *E-Phys.*

1:00 GG3 **828.05** ▲ LPA1 receptor signaling is involved in the post-stroke neuropathic pain following thrombosis and tPA-treatment in mice. Y. DAISUKE*. *Nagasaki Univ.*

2:00 GG4 **828.06** Intrathecal lipoxins and resolvins attenuate inflammation-induced mechanical hypersensitivity and spinal TNF release. S. ABDELMOATY*; G. WIGERBLAD; D. B. BAS; S. CODELUPPI; T. FERNANDEZ ZAFRA; C. I. SVENSSON. *Dept. of Physiol. and Pharmacology, Karolinska Institutet, Dept. of Mol. Biochem. and Biophysics, Karolinska Institutet.*

3:00 GG5 **828.07** Effects of the mineralocorticoid receptor antagonist eplerenone in back pain and postoperative pain models. L. YE; W. XIE; J. A. STRONG*; J. ZHANG. *Univ. Cincinnati.*

4:00 GG6 **828.08** The effect of continuous treatment with anticonvulsant in STZ model for neuropathic pain on the immune system. S. B. MEILIN*. *MD Biosci.*

1:00 GG7 **828.09** Paclitaxel produces free radicals in the primary dorsal root ganglia cells culture. H. KIM*; S. ABDI. *MD Anderson Cancer Ctr.*

2:00 GG8 **828.10** PKCδ as a novel mechanism in paclitaxel-induced spontaneous and evoked pain. Y. HE*; Z. WANG. *Univ. of Illinois at Chicago.*

3:00 GG9 **828.11** ● R-isovaline activates peripheral group II metabotropic glutamate receptors. K. A. ASSERI*; R. A. WHITEHEAD; B. A. MACLEOD; E. PUIL. *Univ. of British Columbia, King Khalid Univ.*

4:00 GG10 **828.12** DALDA is more effective in inhibiting heat than mechanical hyperalgesia in neuropathic rats through activation of peripheral opioid receptors. R. SHECHTER; S. HE; Y. CHEONG; F. YANG; Q. XU; Y. GUAN; S. RAJA*. *Johns Hopkins Sch. Med., Wonkwang Univ. Sch. of Med., Nanjing Univ. Sch. of Med.*

1:00 GG11 **828.13** Cross-tolerance to hyperbaric oxygen (HBO_2)-induced antinociception in opioid-tolerant mice. Y. ZHANG*; P. A. STOLZ; A. L. BREWER; D. Y. SHIRACHI; R. M. QUOCK. *Washington State Univ., Univ. of the Pacific.*

2:00 GG12 **828.14** Investigation of the cumulative antinociceptive effect of multiple hyperbaric oxygen (HBO_2) exposures. A. BREWER*; Y. ZHANG; A. V. BUHLER; D. Y. SHIRACHI; R. M. QUOCK. *Washington State Univ., Pacific Univ., Univ. of the Pacific.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 GG13 **828.15** Allosteric enhancers of A1 adenosine receptors for the treatment of neural hyper-excitation in chronic pain. W. L. IMLACH*; L. T. MAY; A. CHRISTOPOULOS; M. J. CHRISTIE. *The Univ. of Sydney, Monash Univ.*

4:00 GG14 **828.16** α9-nicotinic acetylcholine receptors contribute to the development and maintenance of mechanical hyperalgesia, but not allodynia, in chronic inflammatory and neuropathic pain. S. MOHAMMADI*; M. J. CHRISTIE. *The Univ. of Sydney.*

1:00 GG15 **828.17** Peripheral nerve injury is followed by differential changes in the actions of omega-conotoxins CVID, CVIE and CVIF and their analogs. S. S. MURALI*; I. A. NAPIER; P. F. ALEWOOD; R. J. LEWIS; M. J. CHRISTIE. *Univ. of Sydney, Univ. of Queensland.*

2:00 GG16 **828.18** Abdominal pain due to peritoneal carcinomatosis is accompanied by change in the expression of substance P and μ-opioid receptors in the dorsal root ganglion. M. SUZUKI*; M. NARITA; T. KAWAMATA; S. SHIBATA; K. MIYANO; M. MATOBA; Y. UEZONO. *Natl. Cancer Ctr. Res. Inst., Hoshi Univ. Sch. of Pharm. and Pharmaceut. Sci., Shinshu Univ. Sch. of Med., Keio Univ. Sch. of Med., Natl. Cancer Ctr. Res. Hosp.*

3:00 GG17-DP6 **828.19** ● Gait as a functional pain endpoint: Pharmacological characterization of a rat joint pain model. B. L. ADAMS*; W. GUO; R. J. DAVIS; K. W. JOHNSON; K. L. KNOPP. *Lilly Res. Labs.*

4:00 GG18 **828.20** ● Tramadol reduces pain induced anxiety and depression related behaviors in the chronic constriction injury model of neuropathic pain in rats. O. CASPANI*; M. REITZ; R. TREEDE. *Med. Fac. Mannheim of the Univ. of Heidelberg.*

1:00 HH1 **828.21** Inhibitors of endocannabinoid deactivation in combination with the tricyclic antidepressant amitryptiline produce synergistic antinociceptive effects in a rat model of cisplatin-induced peripheral neuropathy. J. GUINDON*; E. LEISHMAN; L. DENG; H. B. BRADSHAW; A. G. HOHMANN. *Indiana Univ., Indiana Univ.*

2:00 HH2 **828.22** ● Interplay between apelin and endothelin systems in pediatric sickle cell disease patients and a rodent model of endothelin-1-induced sensitization. T. P. SMITH*; A. M. SCHLENZ; R. MAITRA; S. RUNYON; S. M. SWEITZER. *Univ. of South Carolina-School of Med., Univ. of South Carolina, RTI Intl., Presbyterian College, Sch. of Pharm.*

3:00 HH3 **828.23** Pain relief increases dopamine efflux in the nucleus accumbens. J. Y. XIE*; D. LU; C. QU; D. J. WASIAK; B. S. SILVER; J. OYARZO; N. GOSHIMA; P. HERNANDEZ; F. PORRECA; E. NAVRATILOVA; M. H. OSSIPOV; F. PORRECA. *Univ. of Arizona, Univ. of Arizona.*

4:00 HH4 **828.24** Systemic glibenclamide blocks antihyperalgesic effect of diclofenac but not of Indomethacin. J. E. TORRES*; R. MÉNDEZ-MENA; C. GUZMÁN-PRIEGO; J. HUERTA-CRUZ; J. ZAPOT-MARTÍNEZ. *Univ. Juárez Autónoma De Tabasco, Hosp. Regional de Alta Especialidad "Dr. Juan Graham Casasus".*

1:00 HH5 **828.25** Evaluation of the Zucker Fatty rat as a model of Diabetic Neuropathy. N. W. MILGRAM*; W. LAU; J. DESNOYER; I. A. M. DELANNOY; G. A. HIGGINS. *Cancog Technologies, U. Toronto, Intervivo Solutions Inc.*

2:00 HH6 **828.26** URB937, a brain impermeant inhibitor of the endocannabinoid-hydrolyzing enzyme fatty-acid amide hydrolase, produces conditioned place preference in the presence but not in the absence of chemotherapy-induced neuropathic pain. T. GUTIERREZ; J. D. CRYSTAL; A. G. HOHMANN*. *Indiana Univ.*

3:00 HH7 **828.27** Curcumin treatment attenuates spontaneous pain and enhances functional recovery after incision. P. SAHBAIE*; Y. SUN; D. LIANG; X. SHI; J. CLARK. *Stanford Univ., VAPAHCS.*

POSTER

829. Mechanisms of Neuropathic Pain: Ion Channels

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HH8 **829.01** ● T-type calcium channel blocker reduces chronic pain. M. F. JARVIS*; V. SCOTT; S. MCGARAUGHTY; W. NIFORATOS; I. MILICIC; S. JOSHI; Q. ZHANG; Z. XIA. *Abbvie, Inc.*

2:00 HH9 **829.02** ● ABT-639, a selective, peripherally acting T-type calcium channel blocker, inhibits spontaneous activity of C-nociceptors in a rat model of neuropathic pain. J. SERRA*; M. JONES; E. GARCIA; M. SUMALLA; M. F. JARVIS. *Neurosci. Technologies, AbbVie Inc.*

3:00 HH10 **829.03** Positive, negative and nonpainful peripheral STZ-diabetic neuropathies are associated with specific changes in T-type calcium channel signalling. E. V. KHOMULA*; A. L. BORISYUK; V. Y. VIATCHENKO-KARPINSKI; P. V. BELAN; N. V. VOITENKO. *Int Ctr. Mol Physiol, Nat Acad Sci. Ukraine, Bogomoletz Inst. of Physiol. of Natl. Acad. of Sci. of Ukraine.*

4:00 HH11 **829.04** Bidirectional effects of thrombospondin-4 on HVA and LVA calcium currents in primary sensory neurons. B. PAN*; Y. GUO; E. R. SIMON; H. WU; S. MUELLER; D. Z. LUO; Q. H. HOGAN. *Med. Coll Wisconsin, Univ. of California, Irvine.*

1:00 HH12 **829.05** Functional characterization of a subpopulation of nociceptors underlying neuropathic pain. S. LAINEZ VICENTE*; L. CHEN; P. MCNAUGHTON. *Univ. of Cambridge.*

2:00 HH13 **829.06** Characterization of HCN isoform expression in mouse dorsal root ganglia and regulation by nerve injury. C. TSANTOULAS*; L. CHEN; E. MOONEY; P. MCNAUGHTON. *Univ. of Cambridge.*

3:00 HH14 **829.07** How does inducible deletion of HCN2 in sensory neurons affect neuropathic pain? E. MOONEY*; C. TSANTOULAS; J. WOOD; P. A. MCNAUGHTON. *Univ. of Cambridge, Univ. Col. London.*

4:00 HH15 **829.08** Differential expression of HCN channel subunits in sub-populations of rat dorsal root ganglion cells. K. A. BOYLE*; D. I. HUGHES. *Univ. of Glasgow.*

1:00 HH16 **829.09** Epigenetic control of sensory neuron potassium channel genes in neuropathic pain. G. O. LAUMET*; S. CHEN; Y. ZHANG; J. JELINEK; J. GARRIGA; J. ISSA; H. PAN. *Univ. of Texas MD Anderson Cancer Ctr., Temple Univ. Sch. of Medicine, Fels Inst. for Cancer Res. and Mol. Biol.*

2:00 HH17 **829.10** Altered responsiveness of corneal cold-thermoreceptive nerve terminals in long-term eye dryness is associated with changes of voltage-gated Na^+ and K^+ currents. X. GASULL*; G. CALLEJO; C. L. LUNA; S. QUIRCE; I. KOVÁCS; V. M. MESEGUER; M. C. ACOSTA; C. BELMONTE; J. GALLAR. *Facultat de Medicina, Univ. de Barcelona-IDIBAPS, Inst. de Neurociencias, Univ. Miguel Hernandez-CSIC, Dept. of Ophthalmology, Semmelweis Univ.*

3:00 HH18 **829.11** Investigation of the role of TNF alpha in paclitaxel-induced neuropathic pain. Z. WU*; S. WANG; J. MYERS; D. FINK; M. MATA. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 II1 **829.12** Persistent modification of $Na_v1.9$ following chronic exposure to insecticides and pyridostigmine bromide. B. Y. COOPER*; T. J. NUTTER. *Univ. Florida, Univ. Florida.*

1:00 II2 **829.13** Knockdown of the Nav1.6 sodium channel reduces pain behaviors, sympathetic sprouting, and sensory neuron hyperexcitability in a rat model of neuropathic pain. W. XIE; J. A. STRONG; J. ZHANG*. *Univ. Cincinnati Coll Med.*

2:00 II3 **829.14** Disinhibition by chloride dysregulation in superficial dorsal horn neurons: Importance of neuronal spiking pattern and inhibitory-excitatory input ratio. K. LEE*; S. A. PRESCOTT. *Neurosciences and Mental Health, Hosp. For Sick Children, Univ. of Toronto.*

3:00 II4 **829.15** α5 containing nicotinic receptors in animal models of neuropathic pain and response to nicotine. D. N. XANTHOS; A. T. THRUN; B. IANOSI; J. BEIERSDORF; S. E. HUCK*; P. SCHOLZE. *Med. Univ. Vienna.*

4:00 II5 **829.16** ● Modeling the role of peri-axonal potassium concentration in activity-dependent depression of nerve excitability. C. D. MORCH*; K. HENNINGS; P. W. WACNIK; O. K. ANDERSEN. *Aalborg Univ., Medtronic Inc.*

1:00 II6 **829.17** ● Ivabradine for neuropathic pain? S. NOH; N. BUKHANOVA; N. KUMAR; P. L. STEMKOWSKI; P. A. SMITH*. *Univ. Alberta, Univ. of Calgary, Univ. Alberta.*

2:00 II7 **829.18** Potentiation of mechanically activated currents by inflammatory mediators in rat dorsal root ganglion neurons. Z. JIA*; R. IKEDA; J. LING; J. GU. *Univ. of Cincinnati, Col. of Med.*

3:00 II8 **829.19** Proton-sensing G-protein-coupled receptors are involved in neuropathic pain. W. SUN*; C. KUNG; W. HUANG; C. LIN. *Natl. Central Univ.*

POSTER

830. Spinal Cord Injury: Motor Systems II

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 II9 **830.01** Multisegmental motor responses of pelvic floor muscles in healthy subjects. F. OVAK BITTAR*; M. A. SABBAHI; A. ABDILAHI. *Texas Electrophysiolgy Services, TEXAS WOMAN UNIVERSITY.*

2:00 II10 **830.02** Combined strategies for reliable evaluation of spinal cord injury with an *in vivo* model. R. M. GOMEZ*; K. GHOTME; J. NIÑO NARCISO; M. SANCHEZ MOLINA; D. VARGAS BROCHERO; M. QUIROZ PADILLA. *Univ. De La Sabana.*

3:00 II11 **830.03** Adjustments to transverse split-belt locomotion in the adult cat before and after a lateral spinal hemisection. Y. THIBAUDIER*; G. D'ANGELO; M. HURTEAU; A. TELONIO; A. FRIGON. *Univ. de Sherbrooke, Univ. de Sherbrooke.*

4:00 II12 **830.04** Split-belt locomotion in chronic spinalized adult cats: Animal-to-animal variability in the functional dissociation of spinal locomotor networks. A. FRIGON*; C. DAMBREVILLE; C. DESAULNIERS; M. HURTEAU; Y. THIBAUDIER; G. D'ANGELO; A. TELONIO. *Univ. de Sherbrooke.*

1:00 II13 **830.05** Adjustments to split-belt locomotion before and after a lateral spinal hemisection in the adult cat. G. D'ANGELO*; Y. THIBAUDIER; M. HURTEAU; A. TELONIO; A. FRIGON. *Univ. De Sherbrooke.*

2:00 II14 **830.06** Postnatal development and spinal mediation of the bilateral leg extension response (LER) in rats. S. D. KAUER; M. E. ROBERTO; M. VINEYARD; M. M. STRAIN; R. SINGH; T. KAO; M. R. BRUMLEY*. *Idaho State Univ., Texas A & M Univ., Columbia Univ.*

3:00 II15 **830.07** Probing the development of locomotor mechanisms in rats with the 5-HT agonist quipazine: Air-stepping, open-field, and spinal locomotion in newborn rats. H. SWANN*; S. D. KAUER; M. M. STRAIN; K. H. MOORE; T. KAO; M. R. BRUMLEY. *Idaho State Univ., Texas A & M Univ., Columbia Univ.*

4:00 II16 **830.08** Behavioral assessment of gait deficits enhanced by using DigiGait™ analysis and integration of the step cycle in a graded model of spinal cord injury. K. E. MCCARSON*; D. KRIZSAN-AGBAS; M. K. WINTER; L. S. EGGIMANN; J. MERIWETHER; N. E. J. BERMAN; P. G. SMITH. *Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr.*

1:00 II17 **830.09** Effect of acute lateral hemisection of the spinal cord on neurons of spinal postural network. T. DELIAGINA*; P. V. ZELENIN; V. F. LYALKA; L. HSU; G. N. ORLOVSKY. *Karolinska Inst.*

2:00 II18 **830.10** Modulation of the locomotor pattern and weight support by cutaneous stimulation of the lumbar back in chronic spinalized adult cats. M. HURTEAU*; Y. THIBAUDIER; G. D'ANGELO; A. TELONIO; A. FRIGON. *Univ. De Sherbrooke, Univ. de Sherbrooke.*

3:00 JJ1 **830.11** Multisegmental motor responses of facial muscles in healthy subjects. M. M. SABBAHI*; F. OVAK BITTAR; A. ABDILAHI. *Texas Woman's Univ., TEXAS ELECTROPHYSIOLOGY SERVICES.*

4:00 JJ2 **830.12** The ability of lumbar segments to generate fictive locomotion after a hemisection of the spinal cord at T10 in cats. J. GOSSARD*; M. MARTINEZ; H. DELIVET-MONGRAIN; S. ROSSIGNOL. *Univ. de Montreal.*

1:00 JJ3 **830.13** ▲ Propriospinal neurons can contribute to behavioral recovery following spinal cord injury in the lamprey. K. N. BENTHALL; A. D. MCCLELLAN*. *Univ. of Missouri, Univ. of Missouri.*

2:00 JJ4 **830.14** Emergence of deletions during treadmill locomotion as a function of supraspinal and sensory inputs. M. MARTINEZ*; M. TUZNIK; H. DELIVET-MONGRAIN; S. ROSSIGNOL. *Univ. of Montreal.*

3:00 JJ5 **830.15** Proteolytic cleavage of sodium channels after spinal cord injury increases the persistent current and contributes to spasticity. C. BROCARD; P. BOULENGUEZ; V. PLANTIER; S. LIABEUF; A. VIALLAT-LIEUTAUD; L. VINAY; F. BROCARD*. *CNRS.*

POSTER

831. Spinal Cord Injury: Plasticity II

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJ6 **831.01** Change in Miami Porcine Walking Scale scores during chronic survival after thoracic SCI, Schwann cell transplantation and intensive rehabilitation. L. GUADA*; A. J. SANTAMARIA; F. D. BENAVIDES; Y. NUNEZ; K. NASSER; J. P. SOLANO; J. D. GUEST. *Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 JJ7 **831.02** Activity dependent plasticity in cervical spinal cord after inactivation of M1 forelimb representation reveals competition and cooperation within spinal circuits. Y. JIANG*; H. KIMURA; J. MARTIN. *CITY COLLEGE OF THE CITY UNIVERSITY OF NEW YORK.*

3:00 JJ8 **831.03** Effects of pelvic robot rehabilitation on lumbar muscle synergies for stepping and pattern generation in spinalized rats. Q. YANG*; A. RAMAKRISHNAN; A. BRANNER; C. HART; S. GISZTER. *Drexel Univ. Col. of Med., Drexel Univ., Lockheed Martin Corp.*

4:00 JJ9 **831.04** Targeted, activity-dependent spinal stimulation for motor rehabilitation following spinal cord injury. J. G. MCPHERSON*; R. R. MILLER; S. I. PERLMUTTER. *Univ. of Washington, Univ. of Washington.*

1:00 JJ10 **831.05** Development of the Miami Porcine Impactor (MPI) to create reproducible spinal cord contusion injuries. F. D. BENAVIDES*; A. J. SANTAMARIA; L. G. GUADA; K. PADGETT; Y. NUNEZ; K. NASSER; J. P. SOLANO; H. LEVENE; J. D. GUEST. *Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med.*

2:00 JJ11 **831.06** ▲ Therapeutic combination of Calendula officinalis and rehabilitation on nervous tissue preservation and motor function in a rat's model with traumatic spinal cord injury. E. MONTIEL-FLORES*, SR; B. ALVARADO-SÁNCHEZ; M. LÓPEZ-HERNÁNDEZ; H. SALGADO-CEBALLOS; S. TORRES-CASTILLO. *UNAM, UNIVERSIDAD ESTATAL DEL VALLE DE ECATEPEC, INSTITUTO POLITECNICO NACIONAL, IMSS, PROYECTO CAMINA.*

3:00 JJ12 **831.07** Molecular and cellular changes in the lumbar spinal cord below injury site: Regulation by treadmill locomotor training following contusive spinal cord injury. H. SHIN*; H. KIM; K. LEE; D. HWANG; H. ANH; B. KIM. *Ajou University, Med. Sch., Dept. of medical informatics, Ajou Univ. school of medicine, Dept. of Neurology, Ajou university Sch. of Medicine, Suwon,.*

4:00 JJ13 **831.08** Robotic pelvis and leg manipulation improves locomotor function in human with sci. M. WU*; J. KIM; P. ARORA. *Northwestern Univ., Rehabil. Inst. of Chicago.*

1:00 JJ14 **831.09** Patterned motor cortex stimulation can be potentiated by spinal cathodal DC stimulation to harness corticospinal system plasticity in the intact rat. W. SONG*; J. H. MARTIN. *City Col. of the City Univ. of New York, CCNY, City Col. of the City Univ. of New York.*

2:00 JJ15 **831.10** Chloride cotransporter KCC2 is essential to exercise-dependent recovery of spinal reflexes after SCI. M. COTE*; J. D. HOULÉ. *Drexel Univ. Col. of Med.*

3:00 JJ16 **831.11** Adaptive learning in spinally transected rats: Evidence that training affects acetylcholine receptor density at the neuromuscular junction *in vivo.* J. HARTMAN; K. C. HOY; M. HARLOW; J. W. GRAU*. *Texas A&M Univ., MetroHealth Med. Ctr., Texas A&M Univ.*

4:00 JJ17 **831.12** Transplantation of GDNF and Artemin gene modified marrow stromal cells support sensory and motor axonal growth after spinal cord injury in rats. Y. LIU*; L. KELAMANGALATH; X. TANG; B. GHOSH; B. KRYNSKA; G. SMITH. *Temple Univ. Sch. of Med.*

1:00 JJ18 **831.13** Compensatory motor adjustments after unilateral corticospinal tract lesion. W. A. CARVALHO*; A. F. ROCHA E SILVA; J. C. TEIXEIRA; W. GOME-LEAL; C. P. BAHIA; A. PEREIRA. *CESUPA, Neuroplasticity Lab. - ICS/HUJBB/UFPa, FFTO/ICS/UFPa, LNNE/ICB/UFPa, Brain Institute/UFRN.*

2:00 KK1 **831.14** Development of swine model of stereotactic intraspinal microstimulation for functional restoration of paralyzed limbs following spinal cord injury. J. JEONG; P. J. GRAHN; J. T. HACHMANN; A. BIEBER; J. L. ANDERSON; M. P. MARSH; K. E. BENNET*; J. LUJAN; K. H. LEE. *Mayo Clin., Kosin Univ., Mayo Clin., Mayo Clin., Mayo Clin., Mayo Clin.*

3:00 KK2 **831.15** Characterization of the central nervous system tissue reaction to oligo (polyethylene glycol) fumarate hydrogel scaffolds implanted after spinal cord transection injury. J. S. HAKIM*; P. J. GRAHN; M. ESMAEILI RAD; B. K. CHEN; A. M. SCHMEICHEL; J. J. NESBITT; A. M. KNIGHT; M. J. YASZEMSKI; A. J. WINDEBANK. *Mayo Clin.*

4:00 KK3 **831.16** Recovery of locomotion on a grade in a step trained spinal cat. D. L. HIGGIN*; D. KOWALSKI; B. I. PRILUTSKI; M. LEMAY. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med., Georgia Tech.*

1:00 KK4 **831.17** Activation of cholinergic interneurons surrounding the central canal during stepping in adult intact and spinal cord transected rats. P. O. DURU; J. KIM; M. XIAO; M. MIKHAEIL; V. ESQUIVEL; M. JOSEPH; H. ZHONG; R. R. ROY; V. EDGERTON; N. TILLAKARATNE*. *UCLA, UCLA, UCLA, UCLA.*

2:00 KK5 **831.18** Major effect of treadmill training alone on the re-expression of locomotion in fully spinalized rats. O. ALLUIN*; H. DELIVET-MONGRAIN; S. ROSSIGNOL. *Univ. of Montreal.*

3:00 KK6 **831.19** Epidural electrical stimulation in the porcine SCI model, initial observations of long-term tissue effects. A. J. SANTAMARIA*; F. D. BENAVIDES; L. G. GUADA; Y. NUNEZ; K. NASSER; J. P. SOLANO; J. D. GUEST. *Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med.*

4:00 KK7 **831.20** A principle neurotransmitter Nppb and its role in itch sensation. S. K. MISHRA*; M. A. HOON. *Natl. Inst. of Dent. and Craniofacial Research/NIH.*

1:00 KK8 **831.21** Role of Tetraspanin proteins in organizing a multi-subunit receptor complex for neurite growth inhibitory Nogo-A-Δ20. N. K. THIEDE-STAN*; D. ALBRECHT; B. TEWS; H. EWERS; M. SCHWAB. *Brain Res. Inst. UZH and Dept. of Hlth. & Technol. ETH, Inst. of Biochem. ETH Zürich.*

2:00 LL1 **831.22** PCAF-dependent epigenetic changes promote axonal regeneration in the central nervous system. R. PUTTAGUNTA; A. TEDESCHI; M. SORIA; R. LINDNER; A. HERVERA; K. RATHORE; P. GAUB; Y. JOSHI; F. BRADKE; S. DI GIOVANNI*. *HIH, DZNE, HIH, Univ. of Tuebingen.*

3:00 LL2 **831.23** Aromatic L-amino acid decarboxylase cells could potentially provide dopamine and noradrenaline in the spinal cord after spinal cord injury. L. REN*; J. WIENECKE; H. HULTBORN; M. ZHANG. *Univ. of Copenhagen, Chengde Med. Col.*

4:00 LL3 **831.24** The importance of sulfation in Chondroitin Sulfate Glycosaminoglycans in nerve regeneration. J. ALVES*; J. F. C. KWOK; J. W. FAWCETT. *Brain Repair Ctr.*

1:00 LL4 **831.25** Quantitative expression profiling in mouse spinal cord reveals changing relationships among channel and receptor expression across postnatal maturation. V. B. GARCIA; M. L. GARCIA; D. J. SCHULZ*. *Univ. Missouri.*

2:00 LL5 **831.26** Is the vagus an alternate pathway from the pelvic viscera to the brainstem? A. N. HERRITY*; K. RAU; J. PETRUSKA; C. HUBSCHER. *Univ. of Louisville.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 LL6 **831.27** Molecular mechanism for enhanced activity of aromatic L-amino acid decarboxylase cells to provide serotonin after spinal cord injury. Y. ZHANG; J. WIENECKE; L. REN; H. HULTBORN; O. KIEHN; M. ZHANG*. *Univ. Copenhagen, Karolinska Inst.*

4:00 LL7 **831.28** GABAergic responses of mammalian ependymal cells in the central canal neurogenic niche of the postnatal spinal cord. L. CORNS; N. MOHD NOOR; J. DEUCHARS; S. A. DEUCHARS*. *Univ. of Leeds.*

1:00 LL8 **831.29** Impact of spinal cord injury on vagal afferents. C. HUBSCHER*; A. HERRITY; K. RAU; J. PETRUSKA. *Univ. Louisville Sch. Med.*

POSTER

832. Posture and Gait: Afferent Control

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LL9 **832.01** ● Determining mode of action of pymetrozine - From single cell to system level. J. FOERSTER*; U. EBBINGHAUS-KINTSCHER; M. FORSTNER; A. BUESCHGES. *Univ. of Cologne, Bayer Crop Sci.*

2:00 LL10 **832.02** Incorporating sensory signals of substrate grip/adherence in force control. S. N. ZILL*; S. CHAUDHRY; A. BÜSCHGES; J. SCHMITZ. *J.C. Edwards Sch. Med., Univ. of Cologne, Univ. of Bielefeld.*

3:00 LL11 **832.03** Serotonin reduces homosynaptic depression by decreasing synaptic efficacy of low threshold afferents in the *in vitro* mouse spinal cord. D. GARCÍA-RAMIREZ*; J. R. CALVO; S. HOCHMAN; J. N. QUEVEDO*. *CINVESTAV, Emory Univ.*

4:00 LL12 **832.04** Activated spinal neurons during quadrupedal stepping in adult intact mice injected with pseudorabies virus into the tibialis anterior. J. A. KIM; M. S. XIAO; A. J. HORNAK; M. MKHAEIL; V. ESQUIVEL; E. J. GONZALEZ; P. O. DURU; M. S. JOSEPH; H. ZHONG; R. R. ROY*; V. R. EDGERTON; N. J. K. TILLAKARATNE. *UCLA, Univ. of Puget Sound, UCLA, UCLA, UCLA.*

1:00 MM1 **832.05** ▲ Reversal or prevention of physiological and structural changes in muscle spindle afferents of short-term hyperglycemic rats using nanoparticles. J. DE SHIELDS; K. NUMA; R. BUTLER; O. ETIENNE; V. K. HAFTEL*. *Morehouse Col.*

2:00 MM2 **832.06** Mechanisms of balance control during locomotion. P. V. ZELENIN*; P. E. MUSIENKO; Y. P. GERASIMENKO; G. N. ORLOVSKY; T. G. DELIAGINA. *Karolinska Inst., Pavlov Inst. of Physiol.*

3:00 MM3 **832.07** Stabilization of cat paw trajectory during locomotion after denervation and self-reinnervation of cat soleus and lateral gastrocnemius muscles. A. N. KLISHKO*; M. A. LEMAY; M. L. LATASH; R. J. GREGOR; B. I. PRILUTSKY. *Georgia Inst. of Technol., Drexel Univ. Col. of Med., Penn State Univ., Georgia Inst. of Technol., USC.*

4:00 MM4 **832.08** Knee stiffness decreases during continuous volitional movement. D. LUDVIG*; M. PLOCHARSKI; P. PLOCHARSKI; E. J. PERREAULT. *Rehabil. Inst. of Chicago, Northwestern Univ., Aalborg Univ.*

1:00 MM5 **832.09** Automatic postural responses following displacement of a light touch contact during standing. J. E. MISIASZEK*; J. FORERO; E. HIOB. *Univ. Alberta.*

2:00 MM6 **832.10** An investigation of the sensory mechanisms behind Wii Fit balance training improvements. B. CONE; D. J. GOBLE*. *San Diego State Univ.*

3:00 MM7 **832.11** The role of plantar-surface mechanoreception during slipping. S. D. PERRY*; R. S. BILLO; J. M. R. BERRIGAN. *Wilfrid Laurier Univ., Univ. of Toronto.*

4:00 MM8 **832.12** Interlimb communication: Functionality of the contralateral biceps femoris reflex response during human walking. A. J. T. STEVENSON*; S. S. GEERTSEN; T. SINKJÆR; J. B. NIELSEN; N. MRACHACZ-KERSTING. *Ctr. for Sensory-Motor Interaction, Aalborg Univ., Univ. of Copenhagen, Univ. of Copenhagen, The Danish Natl. Res. Fndn.*

1:00 MM9 **832.13** Contralateral afferent contribution to crossed responses during human locomotion. S. GERVASIO*; M. VOIGT; U. G. KERSTING; N. MRACHACZ-KERSTING. *Aalborg Univ.*

2:00 MM10 **832.14** The interplay between the three sensory modalities during standing. S. HWANG*; P. AGADA; T. KIEMEL; J. J. JEKA. *Temple Univ., Univ. of Maryland, Temple Univ., Shriners Hosp. for Children.*

3:00 NN1 **832.15** Task-relevant proprioceptive vigilance evidenced by a modality-specific and independent late sensory process. L. MOUCHNINO*; A. H. SARADJIAN; N. TEASDALE; J. BLOUIN. *Lab. Cognitive Neurosci., Univ. Laval.*

4:00 NN2 **832.16** Is electrical noise stimulation applied to the anterior ankle muscles effective in improving postural steadiness? F. H. MAGALHÃES*; A. F. KOHN. *Univ. De Sao Paulo.*

1:00 NN3 **832.17** Gait characteristics of children walking barefoot and with socks. C. W. CHAU*; L. ALBERT; A. AUFIERO; L. MOCK; K. WARD. *Nazareth Col.*

POSTER

833. Brain-Machine Interface V

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NN4 **833.01** A new brain-machine interface using low-frequency cortical dynamics. T. M. HALL*; F. DE CARVALHO; A. JACKSON. *Newcastle Univ.*

2:00 NN5 **833.02** Training locomotion motor imagery combined with plantar stimulation: Looking to increase EEG signals for BCI control. A. BENGOETXEA*; M. PETIEAU; M. BLANCO; C. CEVALLOS; K. SEETHARAMAN; T. HOELLINGER; C. DE SAEDELEER; Y. IVANENKO; G. CHERON. *Univ. Libre de Bruxelles, IRCCS Fondazione Santa Lucia.*

3:00 NN6 **833.03** Neural co-modulation constrains motor learning. P. T. SADTLER*; K. M. QUICK; M. D. GOLUB; S. I. RYU; B. M. YU; A. P. BATISTA. *Univ. of Pittsburgh, Ctr. for the Neural Basis of Cognition, Carnegie Mellon Univ., Palo Alto Med. Fndn., Stanford Univ., Carnegie Mellon Univ.*

4:00 NN7 **833.04** A fully-implantable wireless system for human brain-machine interfaces using brain surface electrodes: W-HERBS. M. HIRATA*; K. MATSUSHITA; T. SUZUKI; T. YOSHIDA; F. SATO; H. ANDO; T. UMEDA; Y. NISHIMURA; S. MORRIS; T. YANAGISAWA; H. KISHIMA; M. KAWATO; T. YOSHIMINE. *Osaka Univ. Med. Sch., NICT, Hiroshima Univ., Tohoku Univ., NIPS, ATR.*

1:00 NN8 **833.05** Design of a P300-based brain-computer interface for smart TV control. J. J. KIM; E. OH; S. KIM*. *Korea Univ., Samsung Electronics.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 NN9 **833.06** ● Neurosurgical approach to the cerebral cortex for acute and chronic cortical stimulation and recording studies in minipigs and sheep. M. GIERTHMUEHLEN*; X. WANG; C. KUEHN; A. GKOGKIDIS; C. HENLE; M. RAAB; J. FISCHER; F. KOHLER; J. HABERSTROH; T. STIEGLITZ; M. SCHUETTLER; J. RICKERT; T. BALL; T. M. FREIMAN. *Univ. Med. Ctr. Freiburg, Univ. Med. Ctr. Freiburg, CorTec GmbH, Lab. for Biomed. Microtechnology, Univ. Med. Ctr. Freiburg.*

3:00 NN10 **833.07** ● Acute and chronic µECoG-based brain mapping using a wireless implant system in a large animal model. X. WANG*; A. GKOGKIDIS; M. GIERTHMUEHLEN; T. M. FREIMAN; C. HENLE; M. RAAB; J. FISCHER; T. FEHRENBACHER; F. KOHLER; K. FOERSTER; J. HABERSTROH; A. SCHULZE-BONHAGE; A. AERTSEN; T. STIEGLITZ; M. SCHUETTLER; J. RICKERT; T. BALL. *Univ. Med. Ctr. Freiburg, Univ. of Freiburg, Univ. Med. Ctr. Freiburg, Univ. of Freiburg, Univ. of Freiburg, CorTec GmbH, Heart Ctr. Freiburg Univ., Univ. of Freiburg.*

4:00 NN11 **833.08** Long-term stability of recordings from chronic intracortical microwire electrode arrays in macaque monkeys. R. RAJAN*; L. LAZAR; G. RANGARAJAN; N. JAIN. *Natl. Brain Res. Ctr., Indian Inst. of Sci.*

1:00 NN12 **833.09** Activation and blockade of feline pudendal nerve fibers: Driving bladder contractions or relaxing the urethral sphincter using acutely implanted (<30hrs) intrafascicular electrodes. H. A. WARK*; K. S. MATHEWS; K. GUSTAFSON; R. A. NORMANN. *Univ. of Utah, Univ. of Utah, Case Western Reserve Univ.*

2:00 NN13 **833.10** ● The Braincon platform software architecture for invasive closed-loop Brain-Machine Interfaces and electrical stimulation. J. FISCHER*; T. MILEKOVIC; C. MEHRING; J. HAMMER; J. RICKERT; A. AERTSEN; T. BALL. *CorTec GmbH, Albert-Ludwigs Univ., Bernstein Ctr. Freiburg, Univ. Med. Ctr. Freiburg, Albert-Ludwigs Univ., Albert-Ludwigs Univ.*

3:00 NN14 **833.11** Clustered relevance vector machines for transfer learning to accelerate p300 speller training. K. A. COLWELL*; C. S. THROCKMORTON; L. M. COLLINS; K. D. MORTON. *Duke Univ.*

4:00 NN15 **833.12** Magnetic Stimulation of feline sciatic nerve with solenoid coils: Evoking motor responses. Z. B. KAGAN; A. K. RAMRAKHYANI; F. KHAN; G. LAZZI; R. A. NORMANN; D. J. WARREN*. *Univ. of Utah.*

1:00 NN16 **833.13** Bipolar and multi-electrode intrafascicular nerve stimulation improve selectivity, independence, and strength of motor responses. D. R. HILGART*; M. A. FRANKEL; D. J. WARREN; G. A. CLARK. *Univ. of Utah.*

2:00 NN17 **833.14** Decoding spectrotemporal features of spoken and imagined speech from the human cortex. S. MARTIN*; P. BRUNNER; C. HOLDGRAF; G. MOSS; H. HEINZE; N. E. CRONE; J. RIEGER; G. SCHALK; R. T. KNIGHT; B. PASLEY. *Univ. of California, École Polytechnique Fédérale de Lausanne, Wadsworth Ctr., Albany Med. Col., Otto-von-Guericke-Universität Magdeburg, Johns Hopkins Univ. Sch. of Medicine,, Carl-von-Ossietzky Univ.*

3:00 NN18 **833.15** ● Invasive BMI - one way forward to a desirable treatment option? A survey on paralyzed patients' attitudes, state of knowledge and ways of information retrieval. C. SCHWARTZ; J. LAHR; S. CARDOSO DE OLIVEIRA*; B. HEIMBACH; A. AERTSEN; C. WEILLER; T. BALL; J. RICKERT. *Univ. of Freiburg, CorTec GmbH, Univ. Med. Ctr., Univ. Med. Ctr., Albert Ludwigs Univ. Freiburg, Univ. of Freiburg, Univ. Med. Ctr., Univ. of Freiburg.*

4:00 OO1 **833.16** Selective monitoring of pudendal nerve activity using acutely implanted intrafascicular microelectrodes (<30 hours). K. S. MATHEWS*; H. A. C. WARK; K. GUSTAFSON; R. A. NORMANN. *Univ. of Utah, Case Western Reserve Univ.*

1:00 OO2 **833.17** ● An implantable brain-computer interface for chronic cortical recording and stimulation using a micro-ECoG electrode array. J. RICKERT*; F. KOHLER; J. FISCHER; T. FEHRENBACHER; A. GKOGKIDIS; R. MOHRLOK; J. PAETZOLD; K. BOVEN; C. HENLE; W. MEIER; M. RAAB; J. S. ORDONEZ; X. WANG; M. GIERTHMUEHLEN; T. BALL; K. FOERSTER; J. HABERSTROH; T. M. FREIMAN; T. STIEGLITZ; M. SCHUETTLER. *Cortec Gmbh, Univ. of Freiburg, CorTec GmbH, Univ. Hosp., Multi Channel Systems GmbH.*

2:00 OO3 **833.18** Comprehensive abiotic and biotic characterization of Pt/Ir floating microelectrode array in chronic neural implants. A. PRASAD; Q. XUE; V. SANKAR; R. DIEME; T. NISHIDA; W. STREIT; J. C. SANCHEZ*. *Univ. of Miami, Univ. of Florida, Univ. of Florida.*

3:00 OO4 **833.19** Direct control of an Assistive Technology device based on human subdural electrocortical brain signals. E. J. AARNOUTSE*; M. J. VANSTEENSEL; M. G. BLEICHNER; Z. V. FREUDENBERG; N. F. RAMSEY. *Rudolf Magnus Inst.*

4:00 OO5 **833.20** Decoding finger movements from one hand pairwise using EEG. R. XIAO*; L. DING. *Univ. of Oklahoma.*

1:00 OO6 **833.21** Parylene-based EC-MEMS sensor array for chronic cortical implant mechanics studies. B. J. KIM*; C. A. GUTIERREZ; E. MENG. *USC, Independent Consultant.*

POSTER

834. Brain-Machine Interface VI

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 OO7 **834.01** Remind: Toward a remind prosthesis for the human hippocampus. M. HSIAO*; P. YU; D. SONG; C. Y. LIU; C. N. HECK; D. MILLETT; T. W. BERGER. *USC, USC, USC.*

2:00 OO8 **834.02** REMIND: Glutamate release in prefrontal cortex correlates with differential encoding of behavioral task in nonhuman primates. R. E. HAMPSON*; J. L. FUQUA; P. F. HUETTL; I. OPRIS; L. M. SANTOS; D. SONG; D. SHIN; V. Z. MARMARELIS; T. W. BERGER; G. A. GERHARDT; S. A. DEADWYLER. *Wake Forest Sch. of Med., Owensboro Cancer Res. Program, Univ. of Kentucky, USC.*

3:00 OO9 **834.03** ● Development and characterization of ultra-thin, multisite, matrix embedded electrodes for deep brain stimulation and recording. L. ETEMADI; M. MOHAMMED; J. EKSTRAND; A. FRIBERG; M. GRANMO; L. M. PETTERSSON*; J. SCHOUENBORG. *Lund Univ.*

4:00 OO10 **834.04** REMIND: Parsing the neural Code in the primate hippocampus via dynamic nonlinear modeling. V. Z. MARMARELIS*; D. C. SHIN; D. SONG; R. HAMPSON; S. DEADWYLER; T. BERGER. *USC, Wake Forest Univ.*

1:00 OO11 **834.05** Use of a posterior parietal cortex brain-machine interface in a cognitive face-in-a-crowd task. B. REVECHKIS*; T. N. AFLALO; R. A. ANDERSEN. *Caltech.*

2:00 OO12 **834.06** Remind- Closed-loop modeling of the hippocampus predicts theta-band resonances. R. SANDLER*; D. SHIN; D. SONG; I. OPRIS; R. HAMPSON; S. DEADWYLER; T. BERGER; V. MARMARELIS. *USC, Wake Forest Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 OO13 **834.07** ● Development of an ultra-flexible multichannel electrode array for implantation in the brain. J. AGORELIUS*; F. TSANAKALIS; A. FRIBERG; P. PETTERSSON; L. M. E. PETTERSSON; J. SCHOUENBORG. *Lund Univ.*

4:00 OO14 **834.08** REMIND: Hippocampal neural ensembles in nonhuman primates encode task-related features relevant to implementation of a neural prosthetic. I. OPRIS*; L. M. SANTOS; D. SONG; D. SHIN; V. Z. MARMARELIS; T. W. BERGER; G. A. GERHARDT; R. E. HAMPSON; S. A. DEADWYLER. *Wake Forest Sch. of Med., USC, Univ. of Kentucky.*

1:00 OO15 **834.09** REMIND: Volterra estimation of a spike-timing-dependent plasticity learning rule from spiking data. B. ROBINSON*; D. SONG; T. W. BERGER. *USC.*

2:00 OO16 **834.10** REMIND: A non-stationary nonlinear dynamical modeling approach to the identification of functional synaptic plasticity in behaving animals. D. SONG*; B. S. ROBINSON; R. H. M. CHAN; I. OPRIS; V. Z. MARMARELIS; R. E. HAMPSON; S. A. DEADWYLER; T. W. BERGER. *Univ. of Southern California, City Univ. of Hong Kong, Wake Forest Sch. of Med.*

3:00 OO17 **834.11** REMIND: Simultaneous place cells recording from dentate gyrus, CA3 and CA1 regions in rat with a triple-region electrode array. H. XU*; M. HSIAO; S. DONG; T. W. BERGER. *USC, USC.*

4:00 OO18 **834.12** Volitional control of cortical cell activity during restrained and free behavior rewarded by intracranial stimulation in monkeys. T. G. LIBEY*; R. EATON; Z. ROBERTS; E. E. FETZ. *Univ. of Washington, Univ. of Washington, Univ. of Washington.*

1:00 PP1 **834.13** Stimulation of central thalamic nuclei affects central nervous system arousal in rhesus monkey: A computational analysis. X. F. WEI*; J. L. BAKER; J. RYOU; N. D. SCHIFF; K. P. PURPURA; C. R. BUTSON. *Med. Col. of Wisconsin, Weill Cornell Med. Col., Med. Col. of Wisconsin.*

2:00 PP2 **834.14** Asynchronous serial communication to the rat brain: Temporal patterns of microstimulation dictating behavioral outcome. M. F. D. MORAES; F. A. MOURÃO*; A. L. V. LOCKMANN; G. P. CASTRO; D. C. MEDEIROS; M. P. REIS; G. S. PEREIRA; A. R. MASSENSINI. *Univ. Federal De Minas Gerais.*

3:00 PP3 **834.15** Change in event-related desynchronization during motor imagery induced by brain-machine interface training for upper extremity function among stroke patients with severe hemiparesis. T. MAEDA*; T. FUJIWARA; J. USHIBA; A. NISHIMOTO; M. LIU. *Keio Univ., Keio Univ., Keio Univ.*

4:00 PP4 **834.16** Role of stimulation location in arousal regulation for central thalamic deep brain stimulation in mouse. C. R. BUTSON*; X. F. WEI; A. W. QUINKERT; N. D. SCHIFF; K. P. PURPURA; D. W. PFAFF. *Med. Col. of Wisconsin, Rockefeller Univ., Weill Cornell Med. Col.*

1:00 PP5 **834.17** Modulation of global brain dynamics by central thalamic deep brain stimulation. K. P. PURPURA*; J. L. BAKER; E. FRIDMAN; J. RYOU; X. F. WEI; C. R. BUTSON; N. D. SCHIFF. *Weill Cornell Med. Col., Med. Col. of Wisconsin.*

2:00 PP6 **834.18** Assisted closed-loop adaptation in brain-computer interfaces. P. VARONA*; J. FERNANDEZ-VARGAS; H. U. PFAFF; F. B. RODRIGUEZ. *Univ. Autonoma de Madrid.*

3:00 PP7 **834.19** Training network coherence with a brain-computer interface: Feasibility study. A. MOTTAZ*; M. SOLCA; A. SCHNIDER; A. G. GUGGISBERG. *Div. of Neurorehabilitation, Dept. of Clin. Neurosciences.*

4:00 PP8 **834.20** Multi-modal neuroimaging to identify behaviorally relevant brain signal features for operant conditioning. C. BOULAY*; K. HASEGAWA; T. ONO; J. USHIBA. *Keio Univ., Saiseikai Kanagawa-ken Hosp.*

1:00 PP9 **834.21** Matrigel as a drug eluting coating for neural probes. ; L. YU; J. KUO; B. J. KIM; T. HOANG; E. MENG. *USC.*

POSTER

835. Brain-Machine Interface VII

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 PP10 **835.01** Somatosensory feedback through intracortical microstimulation (ICMS) for a posterior parietal brain-machine-interface (BMI). C. KLAES*; S. KELLIS; J. MINXHA; Y. SHI; K. PEJSA; R. A. ANDERSEN. *Caltech.*

2:00 PP11 **835.02** Electrocorticographic classification of grasp type and grasp force. B. MURPHY*; J. MILLER; A. AJIBOYE. *Case Western Reserve Univ., Cleveland FES Ctr., Louis Stoke Cleveland VA Med. Ctr., Univ. Hosp. Case Med. Ctr.*

3:00 PP12 **835.03** Multi-electrode stimulation in somatosensory area 2 induces a natural sensation of limb movement. T. TOMLINSON*; R. RUIZ-TORRES; L. E. MILLER. *Tucker Tomlinson, Feinberg Sch. of Medicine, Northwestern Univ., Northwestern Univ., Feinberg Sch. of Medicine, Northwestern Univ.*

4:00 PP13 **835.04** ● Cortical mapping of sensory hand activity after chronic paralysis. M. RANDAZZO; S. FOLDES; D. J. WEBER; J. L. COLLINGER*. *Univ. of Pittsburgh.*

1:00 PP14 **835.05** Rehabilitation using brain-machine-interfaces (BMIs) in severely impaired chronic stroke patients. A. RAMOS MURGUIALDAY*; D. BROETZ; M. REA; L. LAEER; O. YILMAZ; F. L. BRASIL; G. LIBERATI; M. R. CURADO; E. GARCIA-COSSIO; A. VYZIOTIS; W. CHO; M. AGOSTINI; E. SOARES; S. R. SOEKADAR; A. CARIA; L. G. COHEN; N. BIRBAUMER. *Univ. of Tubingen, TECNALIA, Univ. Hosp. Tubingen, Natl. Inst. of Neurolog. Disorders and Stroke, NIH, IRCCS, Ospedale San Camillo, Inst. di Ricovero e Cura a Carattere Scientifico.*

2:00 PP15 **835.06** Interfacing regenerated peripheral nerve axons through novel macro-sieve electrodes - A modelling study. E. ZELLMER*; M. R. MACEWAN; W. Z. RAY; D. W. MORAN. *Washington Univ. In St. Louis.*

3:00 PP16 **835.07** Restoring touch using a brain interface: Dependence of artificial percepts on stimulation parameters. G. TABOT; J. BOBACK; F. DAMMANN; F. TENORE; S. J. BENSMAIA*. *Univ. of Chicago, Johns Hopkins Applied Physics Lab.*

4:00 PP17 **835.08** ▲ Rapid adaptation to brain-controlled functional electrical stimulation of paretic muscle in stroke monkeys. K. KATO*; M. SAWADA; Y. NISHIMURA. *Dept. of Developmental Physiology, Natl. Inst. For Physiological Sci., Life Science, The Grad. Univ. for Advanced Studies, Japan Society for the Promotion of Sci. (JSPS), Dept. of Developmental Physiology, Natl. Inst. For Physiological Sci., Neurosurgery, Kyoto Univ. Med. Sch. of Med., PRESTO, Japan Sci. and Technol. Agency.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 PP18 **835.09** ● Human electrocorticographic correlates of contralateral and ipsilateral 3D reaching movements. D. T. BUNDY*; M. SHARMA; N. SZRAMA; M. PAHWA; C. D. HACKER; A. DAITCH; T. MITCHELL; E. C. LEUTHARDT. *Washington Univ., Washington Univ.*

2:00 PP19 **835.10** Bayesian filtering for classification enhancement of myoelectric signals. D. HOFMANN*; M. J. HERRMANN. *Max Planck Inst. For Dynamics and Self-Organization, Univ. of Edinburgh.*

3:00 PP20 **835.11** Force error back propagation in EMG space for FES Neuroprosthesis decoder training. C. ETHIER*; D. E. ACUNA; L. E. MILLER. *Northwestern Univ., Northwestern Univ., Northwestern Univ.*

4:00 PP21 **835.12** Fixed neuron to muscle mappings across dynamically different tasks. S. N. NAUFEL*; L. MILLER. *Northwestern Univ., Northwestern Univ.*

1:00 PP22 **835.13** Hybrid online adaptive decoding of intended movements using a feedback error learning approach. A. J. SUMINSKI*; A. H. FAGG; F. R. WILLETT; M. BODENHAMER; N. G. HATSOPOULOS. *Univ. of Chicago, Univ. of Oklahoma, Case Western Reserve Univ.*

2:00 PP23 **835.14** Spinal neuromodulation via epidural stimulation to facilitate stepping in a rhesus after spinal cord injury. D. C. DUNBAR*; M. CACERES; B. VAZQUEZ; Y. GERASIMENKO; R. R. ROY; H. ZHONG; D. C. LU; S. ZDUNOWSKI; M. M. CONTES; D. MANGUAL; L. A. RUIZ; M. ROSARIO; V. R. EDGERTON. *Univ. Puerto Rico Sch. Med., Univ. Puerto Rico-Rio Piedras, UCLA, UCLA, Pavlov Inst. Physiol., UCLA, UCLA.*

POSTER

836. Steroids in Cognition, Arousal, and Associated Endpoints

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 PP24 **836.01** Object recognition and brain-derived neurotrophic factor in the prefrontal cortex is enhanced with replacement of estradiol and/or progesterone, or conjugated equine estrogens, among female rats. A. A. WALF*; C. J. KOONCE; C. A. FRYE. *UAlbany & UAlaska-Fairbanks, UAlbany & UAlaska-Fairbanks.*

2:00 QQ1 **836.02** Differences in plasma levels of progesterone in male and female sled dogs immediately and twenty fours after exercising. J. RUSCONI*; K. L. DUNLAP; T. SCHNURR; J. M. POWER; A. A. WALF; C. A. FRYE. *Taconic, Inc, Univ. of Alaska–Fairbanks, Univ. of Alaska–Fairbanks.*

3:00 QQ2 **836.03** Progesterone exerts cognitive enhancing effects to wildtype and progesterone receptor knockout mice. M. MAULIK*; C. J. KOONCE; A. A. WALF; C. A. FRYE. *Univ. of Alaska Fairbanks, UAlbany & UAlaska-Fairbanks, UAlbany & UAlaska-Fairbanks.*

4:00 QQ3 **836.04** ▲ History of sexual experience influence cognitive performance and cortical androgen and brain derived neurotropic factor levels of male rats. C. J. KOONCE*; A. A. WALF; C. A. FRYE. *Ualbany & Ualaska-Fairbanks, Ualbany & Ualaska-Fairbanks.*

1:00 QQ4 **836.05** Pregnane Xenobiotic Receptor is necessary for neurosteroidogenesis of 3α,5α-THP in the midbrain ventral tegmental area and lordosis of female rats. C. A. FRYE*; C. J. KOONCE; A. A. WALF. *Ualbany & Ualaska-Fairbanks, Ualbany & Ualaska-Fairbanks.*

2:00 QQ5 **836.06** Differences in plasma cholesterol, stress, sex, neurosteroids and brain derived neurotrophic factor are associated with emergence from hibernation in black bears. J. P. HARNEY*; J. M. POWER; A. A. WALF; O. TØIEN; B. M. BARNES; C. A. FRYE. *Univ. Hartford, Univ. of Alaska–Fairbanks, Univ. of Alaska–Fairbanks.*

3:00 QQ6 **836.07** ▲ Neurosteroids and neuroplasticity associated with interbout arousal from hibernation in arctic ground squirrel. J. M. POWER*; C. FRARE; K. L. DREW; C. A. FRYE. *Univ. of Alaska–Fairbanks, Univ. of Alaska–Fairbanks.*

4:00 QQ7 **836.08** Androgens act in a sex dependent manner to increase adult neurogenesis in the dentate gyrus. D. K. HAMSON*; S. R. WAINWRIGHT; C. CHOW; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia.*

1:00 QQ8 **836.09** Medroxyprogesterone acetate, but not progesterone, in combination with estradiol, reduces neurogenesis in the dentate gyrus of adult female rats. C. CHOW*; M. Y. T. CHAN; D. K. HAMSON; S. E. LIEBLICH; L. A. M. GALEA. *Univ. of British Columbia.*

2:00 QQ9 **836.10** Effects of ovariectomy and 17β -estradiol suplementation on the number of mf-ca3 synapses in the hippocampus of the adult rat. E. PADILLA*; L. PALMA-TIRADO; A. AGUILAR-VAZQUEZ; S. DÍAZ-CINTRA. *Inst. Neurobiol.*

3:00 QQ10 **836.11** Nutrition, gender, and brain plasticity: DHA preconditions the action of progesterone on brain trauma. E. TYAGI*; F. GOMEZ-PINILLA. *Univ. of California Los Angeles (UCLA), UCLA brain injury research center.*

4:00 QQ11 **836.12** Systematic investigation of the emotional, endocrine and physiological stress response: Sex and gender effects. N. ALI*; C. COOPERMAN; J. PRUESSNER. *McGill Univ.*

POSTER

837. Cardiovascular Regulation II

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 QQ12 **837.01** Intravenous or intraperitoneal osmotic stimulus in different doses modulates cardiovascular responses and mediate vasopressin release in unanesthetized rats. E. T. FORTALEZA*, SR; C. BUSNARDO; J. ANTUNES-RODRIGUES; J. ANTUNES-RODRIGUES; F. CORRÊA. *Sch. of Med. of Ribeirão Preto, Sch. of Med. of Ribeirão Preto.*

2:00 QQ13 **837.02** Hydrogen peroxide into the subfornical organ reduces angiotensin II-induced pressor response. M. R. LAUAR*; C. F. RONCARI; P. M. DE PAULA; D. S. A. COLOMBARI; E. COLOMBARI; J. V. MENANI. *Dent. School, UNESP.*

3:00 QQ14 **837.03** Activation of vasopressinergic pressor mechanisms by central cholinergic stimulation in rats treated with moxonidine into the RVLM. J. M. GOMIDE*; S. GASPARINI; L. A. DE LUCA JR; D. S. A. COLOMBARI; P. M. DE PAULA; E. COLOMBARI; T. S. MOREIRA; J. V. MENANI. *Sch. of Dentistry, Sao Paulo State Univ. (UNESP), Inst. of Biomed. Science, Univ. of São Paulo (USP).*

4:00 QQ15 **837.04** Withdrawal or replacement of estrogen alters expression of GABA receptors and markers of GABA transmission in the NTS of the female rat. T. F. BATTEN*; S. M. CROSSLAND; M. J. DRINKHILL; A. MAQBOOL; E. J. SPARY. *Univ. of Leeds, Univ. of Leeds.*

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

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1:00 QQ16 **837.05** The NMDA receptors, CB1 receptors and nitric oxide into the dorsal hippocampus modulate the cardiac baroreflex in rats. N. C. FERREIRA JUNIOR*, SR; D. C. LAGATTA; L. B. RESSTEL. *Univ. of São Paulo-School of Med. of Ribeirão Preto.*

2:00 QQ17 **837.06** Slow and rapid heart rate change in mice/rats mediated by sympathetic-parasympathetic interaction in intrinsic cardiac ganglia. S. SATO*; J. TOKUNAGA; T. KANBAYASHI; Y. SAGAWA; M. SATO; N. SAKAI; K. ONO; T. SHIMIZU; S. NISHINO. *Stanford Univ. Sch. of Med., Akita Univ. Grad. Sch. of Med., Akita Univ. Grad. Sch. of Med.*

3:00 QQ18 **837.07** Pharmacological evidence that ergotamine inhibits peripherally the vasopressor sympathetic outflow in pithed rats. M. T. VILLAMIL HERNÁNDEZ*; O. ALCÁNTARA-VÁZQUEZ; A. SÁNCHEZ-LÓPEZ; D. CENTURIÓN. *CINVESTAV-IPN.*

4:00 QQ19 **837.08** Microinjection of muscimol into the basomedial amygdala increases blood pressure and heart rate in conscious rats. L. G. B. T. SANTOS; A. R. R. DE ABREU; A. R. R. ABREU; D. A. CHIANCA JR; R. C. MENEZES*. *Federal Univ. of Ouro Preto- UFOP.*

1:00 QQ20 **837.09** An elPBN-rVLM excitatory pathway participates in cardiac-sympathoexcitatory responses. Z. GUO; L. FU; S. C. TJEN-A-LOOI; J. C. LONGHURST*. *Univ. California, Irvine.*

2:00 QQ21 **837.10** Pro-opiomelanocortin neurones of the brainstem release opiates to enhance vagal outflow and inhibit breathing. S. CERRITELLI*; N. BALTHASAR; A. E. PICKERING. *Univ. of Bristol.*

3:00 QQ22 **837.11** Tachycardia induced by chemical stimulation of the hypothalamic arcuate nucleus is mediated through the nucleus ambiguus. V. C. CHITRAVANSHI*; H. N. SAPRU. *New Jersey Med. Sch, UMDNJ, UMDNJ-New Jersey Med. Sch.*

4:00 QQ23 **837.12** Pharmacological evidence that BW723C86 mediates vasopressor responses by activation of central and peripheral 5-$HT_{2A/2B/2C}$ receptors in anaesthetized rats. O. ALCÁNTARA VÁZQUEZ DEL MERCADO*; M. T. VILLAMIL-HERNÁNDEZ; A. SÁNCHEZ-LÓPEZ; D. CENTURIÓN. *CINVESTAV-IPN.*

1:00 QQ24 **837.13** Optogenetic stimulation of rostroventrolateral medulla (RVLM) catecholaminergic C1 neurons in rat produces sleep state-dependent cardiorespiratory stimulation and arousal. P. G. BURKE*; K. VIAR; S. B. G. ABBOTT; M. B. COATES; R. L. STORNETTA; P. G. GUYENET. *Univ. of Virginia.*

2:00 QQ25 **837.14** Comparison of repeated restraint stress and chronic variable stress in cardiovascular function of adolescent and adult rats. C. CRESTANI*; J. O. DUARTE; F. C. CRUZ; R. M. LEÃO; C. S. PLANETA. *São Paulo State University, Sch. of Pharmaceut. Sciences., Sch. of Pharmaceut. Sciences, São Paulo State University, UNESP., Sch. of Pharmaceut. Sci. of Araraquara, São Paulo State University- UNESP, Araraquara, SP, Brazil., , Sch. of Pharmaceut. Sci. of Araraquara, São Paulo State University-UNESP, Araraquara, SP, Brazil.*

3:00 QQ26 **837.15** Hydrogen peroxide suppresses excitability of cardiac vagal neurons of the nucleus ambiguus to alter the neural basis of respiratory sinus arrhythmia. A. J. GARCIA, III; S. SANKARANKUTTY; A. DOI; R. D. HODGE*; J. RAMIREZ. *Seattle Childrens Res. Inst., Seattle Childrens Res. Inst., The Univ. of Washington, Univ. Washington.*

4:00 RR1 **837.16** TNFα contributes to the enhancement of reactive oxygen species (ROS) and NMDA currents in hypothalamic paraventricular nucleus (PVN) neurons in slow pressor angiotensin II (AngII)-hypertension. G. WANG*; G. FARACO; Y. SUGIYAMA; V. M. PICKEL; C. IADECOLA. *Weill Med. Col. Cornell Univ.*

1:00 RR2 **837.17** Differential post-synaptic NMDA receptor trafficking in estrogen receptor β containing hypothalamic paraventricular neurons correlates with increased susceptibility to hypertension in a mouse model of menopause. J. MARQUES LOPES*; T. VAN KEMPEN; V. M. PICKEL; C. IADECOLA; E. M. WATERS; T. A. MILNER. *Weill Cornell Med. Col., Weill Cornell Med. Col., The Rockefeller Univ.*

2:00 RR3 **837.18** NADPH oxidase p47phox trafficking in the hypothalamic paraventricular nucleus following slow pressor Angiotensin II induced hypertension in postmenopausal mice differs from males. T. A. VAN KEMPEN*; A. NARAYAN; E. M. WATERS; J. MARQUES-LOPES; V. M. PICKEL; C. IADECOLA; T. A. MILNER. *Weill Cornell Med. Col., Weill Cornell Grad. Sch. of Med. Sci., Rockefeller Univ.*

3:00 RR4 **837.19** Deletion of the NMDA-NR1 receptor subunit gene in the mouse hypothalamic paraventricular nucleus attenuates the slow pressor response to angiotensin II. V. M. PICKEL*; M. J. GLASS; G. WANG; S. BUTLER; C. YOUNG; R. L. DAVISSON; C. G. COLEMAN; J. CHAN; C. IADECOLA. *Weill Cornell Med. Col., Weill Cornell Med. Col., Cornell Univ.*

4:00 RR5 **837.20** ▲ Central mehanism involved on pressor responses evoked by the microinjection of l-proline into the paraventricular nucleus of hypothalamus of rats. S. LOPES AZEVEDO*; C. BUSNARDO; F. M. A. CORREA. *Univ. of Sao Paulo/Fmrp.*

POSTER

838. Thermoregulation

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 RR6 **838.01** Neurochemical sensitization to decreased thermogenesis and metabolism as mediated by adenosine A1 receptors in rat brainstem. L. A. MOORE*; K. L. DREW. *Univ. of Alaska Fairbanks.*

2:00 RR7 **838.02** The role of tanycytes in seasonal response to adenosine-induced hibernation. C. FRARE*; K. L. DREW. *Univ. of Alaska Fairbanks.*

3:00 RR8 **838.03** A molecular basis for temperature adaptation in the nervous tissue of a mammalian hibernator. W. J. LAURSEN*; M. MASTROTTO; O. FUNK; J. GOODMAN; S. N. BAGRIANTSEV; E. O. GRACHEVA. *Yale Univ.*

4:00 RR9 **838.04** Monoacylglycerol lipase and the brain endocannabinoid-prostaglandin pathway regulate fever response. M. SANCHEZ-ALAVEZ*; D. NOMURA; B. CRAVATT; B. CONTI. *Scripps Res. Inst., Univ. of California Berkeley.*

1:00 RR10 **838.05** Hypothalamomedullary projection neurons that drive psychological stress-induced thermogenesis in brown adipose tissue and hyperthermia. K. NAKAMURA*; N. KATAOKA; H. HIOKI; T. KANEKO. *Kyoto Univ., Kyoto Univ.*

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

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2:00 RR11 **838.06** provocative motion elicits hypothermia and tail vasodilation in rats: A new index of motion sickness in pre-clinical studies? A. KAMPHEE*; S. NGAMPRAMUAN; M. CERRI; F. D. VECCHIO; J. RUDD; E. NALIVAIKO. *Inst. of Mol. Biosci., Inst. of Mol. Biosciences, Mahidol Univ., Univ. of Bologna, Univ. of Bologna, Chinese Univ. of Hong Kong, Univ. of Newcastle.*

3:00 RR12 **838.07** Uncoupling protein 2 (UCP2)-deficient (-/-) mice are able to defend against cold following repeated daily forced swims faster than wild type mice suggesting a role in thermoregulation. K. J. KOVACS*; A. S. LEUIN; M. G. NUNEZ; A. A. LARSON. *Univ. of Minnesota.*

4:00 RR13 **838.08** Brain endothelial COX-2 is a key player in inflammatory fever. D. S. BJORK*; U. KUGELBERG; A. BLOMQVIST; D. ENGBLOM. *IKE, Linkoping Univ.*

1:00 RR14 **838.09** Effects of exercise or thermal exposure on monoaminergic neurotransmitters in the hypothalamic area. T. ISHIWATA*; K. SUZUKI; C. NINOMIYA; T. MATSUMURA; H. NAKAGAWA; S. YANAGITA; H. HASEGAWA. *Rikkyo University, Dept. of Sport and Wellness, Rikkyo Univ., Tokyo Univ. of Sci., Hiroshima Univ.*

2:00 RR15 **838.10** Remarkable stress-induced hyperthermia observed in a patient with chronic fatigue syndrome. T. OKA*; K. OKA. *Grad. Sch. of Med. Sciences, Kyushu Univ., Kurume Univ.*

POSTER

839. Sleep Regulators

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 RR16 **839.01** The brain fatty-acid binding protein FABP7 regulates sleep quality. I. J. PERRON*; G. PASCHOS; Y. OWADA; G. FITZGERALD; A. I. PACK; J. R. GERSTNER. *Univ. of Pennsylvania, Univ. of Pennsylvania, Yamaguchi Univ. Grad. Sch. of Med.*

2:00 RR17 **839.02** Sleep-inducing signals from the brown adipose tissue are mediated via sensory afferents. C. AMES; E. SZENTIRMAI*. *Washington State Univ.*

3:00 RR18 **839.03** Behavioral and molecular analyses of Sharp1 and Sharp2 double knockout mice. A. SHAHMORADI*; M. ROSSNER. *Max Planck Inst. of Exptl. Med., Ludwig Maximilian Univ.*

4:00 RR19 **839.04** The purinergic regulation of sleep and wakefulness. A. V. KALINCHUK*; M. DWORAK; Y. YIN; T. KIM; J. ZANT; F. PERVIN; P. HAYDON; R. MCCARLEY; R. BASHEER. *Boston VA Healthcare System-Harvard Med. Sch., Tufts Univ.*

1:00 RR20 **839.05** Controlling for ambient temperature eliminates effects of 5-HT depletion by PCPA on sleep architecture in the mouse. G. F. BUCHANAN*; N. M. MURRAY; G. B. RICHERSON. *Yale Univ., VA Med. Ctr., Univ. of Iowa Carver Col. of Med., Univ. of Iowa Carver Col. of Med., VA Med. Ctr.*

2:00 RR21 **839.06** Glial-mediated control of homeostatic sleep need by adenosine. T. E. BJORNESS*; A. SUZUKI; G. METTLACH; N. DALE; A. FIENBERG; J. BIBB; R. W. GREENE. *Univ. of Texas, Southwestern Med. Ctr., Univ. of Texas Southwestern, Univ. of Warwick, Intra-Cellular Therapies, Inc.*

3:00 RR22 **839.07** Single neuron activity in the PPT across the sleep wake cycle in mice. C. J. VAN DORT*; R. R. GOLDBLUM; D. P. ZACHS; J. D. KENNY; M. A. WILSON; E. N. BROWN. *Massachusetts Gen Hosp, MIT.*

4:00 RR23 **839.08** Homeostatic changes in GABA and glutamate receptors within pyramidal neurons following sleep deprivation and recovery in mice. E. DEL CID PELLITERO*; B. E. JONES. *McGill Univ.*

1:00 RR24 **839.09** Central injection of cholecystokinin promotes sleep. L. KAPAS*; E. SZENTRIMAI. *Washington State University, Spokane.*

2:00 RR25 **839.10** Identification of a direct inhibitory lateral hypothalamic-reticular thalamic arousal circuit. R. C. GUTIERREZ HERRERA*; S. JEGO; J. COLBY-MILLEY; A. ADAMANTIDIS. *McGill University, Douglas Mental Hlth. Univ. Inst.*

3:00 RR26 **839.11** Sirt3 neuroprotection in locus coeruleus neurons across wakefulness. S. C. VEASEY*; Y. ZHU; Z. GUANXIA; P. FENIK; J. ZHANG. *Univ. Pennsylvania.*

4:00 SS1 **839.12** Reanimation from general anesthesia induced by optical control of dopamine neurons in the ventral tegmental area. N. TAYLOR*; C. J. VAN DORT; J. KENNY; E. N. BROWN; K. SOLT. *Massachusetts Gen. Hosp., MIT.*

1:00 SS2 **839.13** Differences in zolpidem effects between C57BL/6J and DBA/2J mice. B. T. WRIGHT*; S. A. HELDT. *Univ. of Tennessee Hlth. Sci. Ctr.*

2:00 SS3 **839.14** Alteration observed in scanning electron microscope in cerebellar cortex of 12-day-old male mice treated from 6 to 9 days with midazolam. M. MARQUEZ-OROZCO*; J. SEPULVEDA-SANCHEZ; G. DE LA FUENTE-JUAREZ; J. SEPULVEDA-SANCHEZ; M. GASCA-RAMIREZ; J. JOYA-VENEGAS; S. SANTIAGO-LOPEZ; A. FORTANEL.FONSECA; A. MARQUEZ-OROZCO. *Univ. of Mexico (UNAM), UAM-Iztapalapa.*

POSTER

840. Energy Metabolism: Blood Flow

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

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 SS4 **840.01** Two-photon imaging of cerebral blood vessel dynamics during voluntary locomotion in mice. Y. GAO*; P. J. DREW. *Pennsylvania State Univ.*

2:00 SS5 **840.02** Optical imaging and quantification of the locomotion-driven hemodynamic response in the cortex. B. HUO*; P. J. DREW. *Pennsylvania State Univ.*

3:00 SS6 **840.03** The metabolic regulatory approach in the treatment of stroke; clues from the naked mole rat. T. I. NATHANIEL*; E. E. OTUKONYONG; M. OKON; A. I. NATHANIEL. *Univ. of South Carolina Sch. of Med. At Greenville, East Tennessee State Univ., Obafemi Awolowo Univ., North Greenville Univ. Tigerville.*

4:00 SS7 **840.04** The optimal acoustic pressure of focused ultrasound for brain modulation. T. CHANG*; P. CHU; H. LAI; H. TSAI; Y. CHANG; Y. CHEN; H. LIU; Y. PEI. *Chang Gung Mem. Hosp. At Linkou, Chang Gung Univ., Chang Gung Univ., Chang Gung Univ., Chang Gung Mem. Hosp. at Linkou, Natl. Yang Ming Univ.*

1:00 SS8 **840.05** The definition of the default mode, motor-sensory cortex, dorsal and ventral striatum networks in the rat brain: Comparison to human networks using resting state-fMRI. A. SIERAKOWIAK*; C. MONNOT; S. NIKKHOU ASKI; M. UPPMAN; T. LI; P. DAMBERG; S. BRENÉ. *Karolinska Institutet, Karolinska Institutet, Karolinska Institutet.*

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

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2:00 SS9 **840.06** Developing a multimodal mouse model of neurovascular function in health and disease. P. S. SHARP; K. SHAW; A. KENNERLEY; L. BOORMAN; S. HARRIS; Y. ZHENG*; M. AZZOUZ; J. BERWICK. *Univ. Sheffield, Univ. Sheffield.*

3:00 SS10 **840.07** Temporal changes in the blood-spinal cord barrier integrity after contusive spinal cord injury in the rat. T. MATSUSHITA*; K. L. LANKFORD; E. J. ARROYO; J. D. KOCSIS. *Ctr. for Neurosci. Res. and Regeneration, VA CT Healthcare Syst., Yale Univ. Sch.of Med.*

4:00 SS11 **840.08** Medial prefrontal cortical injections of a GABA agonist and antagonist: Quantification of glucose metabolism in the rat brain using microPET. J. PARTHOENS*; S. SERVAES; T. WYCKHUYS; S. STROOBANTS; S. STAELENS. *Univ. of Antwerp.*

1:00 SS12 **840.09** Meditation increases cerebral blood oxygenation during a selective attention task. D. SINGH*, JR; K. NAVEEN; C. V. RIZZO-SIERRA; H. BHARGAV. *Swami Vivekananda Yoga Res. Fndn., St. Thomas Univ. & Neuronikas Laboratory, Unicolciencias, Colombia.*

2:00 TT1 **840.10** A tube-shaped *in vitro* blood-brain-barrier model in planar microfluidics. H. CHO*; J. SEO; K. WONG; K. BONG; K. ARAI; E. H. LO; D. IRIMIA. *Harvard Med. School/MGH.*

3:00 TT2 **840.11** Pericyte morphologies differ by brain region in mice: Focus on the paraventricular nucleus of the hypothalamus. K. A. FRAHM*; S. A. TOBET. *Colorado State Univ., Colorado State Univ.*

4:00 TT3 **840.12** Measurement of Po2 in the tissue and vasculature of the awake mouse brain. D. LYONS*; A. PARPALEIX; S. CHARPAK. *INSERM U603.*

1:00 TT4 **840.13** Noradrenergic regulation of oxygen dynamics in the ventral bed nucleus of the stria terminalis. E. BUCHER*; L. KIM; M. FOX; A. BELL; R. M. WIGHTMAN. *UNC Chapel Hill.*

2:00 TT5 **840.14** Involvement of NMDA receptor subtypes in cortical spreading depression assessed with fMRI technique. A. SHATILLO*; R. GINIATULLIN; O. H. GROHN. *Univ. of Eastern Finland.*

3:00 TT6 **840.15** Spatiotemporal properties of multiple neural measures and cerebral blood volume during recurrent acute neocortical seizures. S. S. HARRIS*; L. BOORMAN; A. KENNERLEY; M. BRUYNS-HAYLETT; P. S. SHARP; P. G. OVERTON; H. MA; M. ZHAO; T. H. SCHWARTZ; J. BERWICK. *Univ. of Sheffield, Weill Cornell Med. Col.*

4:00 TT7 **840.16** Regulation of Breast-cancer resistance protein in isolated human brain capillaries. J. D. SALVAMOSER*; J. AVEMARY; B. PASCHER; T. GETZINGER; M. KUDERNATSCH; H. POTSCHKA. *Inst. of Pharmakology, Toxicology and Pharm., , Hosp. for Neuropediatrics and Neurolog. Rehabilitation, Epilepsy Ctr. for Children and Adolescents.*

1:00 TT8 **840.17** Reduced jagged 1 and 2 expression prevents cerebral arteriovenous malformation in matrix gla protein null mice. Y. YAO*; M. RADPARVAR; M. JUMABAY; K. I. BOSTROM. *UCLA.*

2:00 TT9 **840.18** ▲ Gonadectomy and chemical castration revert the increased blood-brain barrier permeability induced by acute stress in the male rat. A. CABAÑAS MORALES; E. DOMINGUEZ SALAZAR; J. VELAZQUEZ MOCTEZUMA; B. GOMEZ*. *Neurosci. Area, Univ. Autonoma Metropolitana, Iztapalapa.*

3:00 TT10 **840.19** Neurovascular coupling and brain temperature regulation. J. BERWICK; L. BOORMAN; S. HARRIS; P. SHARP; A. KENNERLEY; C. MARTIN; Y. ZHENG; M. JONES*. *Univ. Sheffield.*

4:00 TT11 **840.20** ● Utilization of the Angiopep platform to enable brain penetration of biologics: Evidence for the uptake of exogenous An2-GFP fusion protein in the mouse brain. M. DEMEULE*; M. MARCINKIEWICZ; D. BOIVIN; A. REGINA; J. LACHOWICZ; J. CASTAIGNE. *Angiochem Inc., Cytochem.*

1:00 TT12 **840.21** LSR, a new tight junction protein expressed at the blood-brain barrier. F. SOHET*; S. LEE; Z. VEXLER; D. FERNANDEZ-LOPEZ; N. RUDERISCH; A. PRAT; R. DANEMAN. *Univ. of California - San Francisco, Univ. of California - San Francisco, Ctr. de Recherche du Ctr. Hospitalier de l'Université de Montréal.*

2:00 UU1 **840.22** C-type natriuretic peptide modulates permeability of the blood-brain barrier. M. BOHARA; Y. KAMBE; T. KURIHARA; T. NAGAYAMA*; H. TOKIMURA; K. ARITA; A. MIYATA. *Kagoshima Univ. Grad Sch. Med. & Dent. Sci., Kagoshima Univ. Grad Sch. Med. & Dent. Sci., Atsuchi Neurosurgical Hosp.*

3:00 UU2 **840.23** Blood flow through the retinal vascular network is actively regulated by arterioles but not by capillaries. T. E. KORNFIELD*; E. A. NEWMAN. *Univ. of Minnesota.*

4:00 UU3 **840.24** ▲ Cortical pyramidal cells are a major source of vasodilatory prostanoids. A. LACROIX*; F. PLAISIER; A. KARAGIANNIS; X. TOUSSAY; P. CHAUSSON; F. JARLIER; S. A. BURGESS; A. F. H. MCCASLIN; E. HAMEL; E. M. C. HILLMAN; B. CAULI. *CNRS - UPMC, McGill Univ., Columbia Univ.*

1:00 UU4 **840.25** Serotonergic modulation of neurovascular coupling: Implications for functional and pharmacological MRI. A. SPAIN; M. MACZKA; J. HAENSEL; C. J. MARTIN*. *The Univ. of Sheffield, The Univ. of Oxford.*

2:00 UU5 **840.26** TAK1 as an important regulator of brain endothelial function. D. A. RIDDER; M. KHAN; M. RAHMAN; T. WEBER; H. WOLBURG; S. STROOBANTS; X. TONG; E. KORPOS; R. D'HOOGE; L. SOROKIN; E. HAMEL; D. BALSCHUN; M. SCHWANINGER*. *Univ. Luebeck, Univ. of Tuebingen, Katholieke Univ., McGill Univ., Univ. of Muenster.*

3:00 UU6 **840.27** Transcriptional signature of Notch3 function in retinal pericytes. J. ARBOLEDA-VELASQUEZ*; V. A. PRIMO; M. J. GRAHAM; P. A. D'AMORE. *Schepens Eye Res. Inst., Exeter Univ.*

4:00 UU7 **840.28** ● *In vivo* optogenetic manipulation of cells within the neurovascular unit leads to local changes in neural activity. T. C. BROWN*; C. BURLEY; C. A. DEISTER; C. I. MOORE. *Brown Univ.*

1:00 UU8 **840.29** Cola suppresses the hypothalamic BOLD response: A dose-response fMRI study. S. HUDGINS; A. SMALIY; W. ZHAN; J. LEGER; S. GEBAUER; D. BAER; A. E. SCHLAPPAL*; T. W. CASTONGUAY. *Dept. of Nutr. and Food Sci., Univ. of Maryland, Human Nutr. Lab.*

2:00 UU9 **840.30** Oral contraceptive pill use and menstrual cycle phase are associated with altered resting state functional connectivity. N. ERTMAN*; L. KILPATRICK; A. GOHARZAD; L. CAHILL. *Univ. of California, Irvine, UCLA, California State University, Fullerton, Univ. of California, Irvine.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

841. Human Perception: Neuropsychological Investigations

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 UU10 **841.01** Multivoxel pattern analysis of grapheme-color synesthesia. M. J. RUIZ*; M. DOJAT; J. HUPÉ. *Grenoble Inst. De Neurosciences, Ctr. de Recherche Cerveau et Cognition.*

2:00 UU11 **841.02** Functional connectivity in individuals with BDD: Examining psychophysiological interactions within visual processing systems. M. A. SASAKI; T. D. MOODY*; C. BOHON; D. ARIENZO; C. SHEEN; J. D. FEUSNER. *UCLA, UCLA - Semel Inst., Stanford Univ. Sch. of Med., Pediatric Brain Res. and Intervention, Univ. of Illinois at Chicago, UCLA.*

3:00 UU12 **841.03** Neuroimaging and genetics of colored sequence synesthesia. S. N. TOMSON*; M. NARAYAN; G. I. ALLEN; D. M. EAGLEMAN. *UCLA, Rice Univ., Rice Univ., Baylor Col. of Med.*

4:00 UU13 **841.04** Grapheme-color synesthesia: Examining photism occurrence utilizing Gaussian blurs. R. BENOUN*; K. HOLLER; S. A. DREW. *California State Univ. Northridge, California State Univ. Northridge.*

1:00 UU14 **841.05** ▲ Can color induce magnitude? A study of grapheme-color synesthesia. H. N. LEVY*; C. DANE; J. F. AWAD; L. D. HILL; M. S. FISHER; C. FESL; S. A. DREW. *California State Univ. Northridge.*

2:00 UU15 **841.06** Color contrast effects in grapheme-colored synesthetes. K. HOLLER*; R. BENOUN; S. A. DREW. *California State Univ., California State Univ.*

3:00 UU16 **841.07** Incidence of learned synesthesia in a large online sample of color grapheme synesthetes. N. WITTHOFT*; J. WINAWER; J. COCJIN; D. M. EAGLEMAN. *Stanford Univ., Baylor Col. of Med.*

4:00 UU17 **841.08** Why is one heavier than three? E. SECKEL*; V. RAMACHANDRAN; R. GOSAVI. *UCSD Ctr. For Brain and Cognition, UCSD Ctr. For Brain and Cognition, UCSD Ctr. For Brain and Cognition.*

1:00 UU18 **841.09** The electrophysiological basis of changed multisensory integration in paraplegic patients. G. LUCCI*; B. LENGGENHAGER; F. DI RUSSO; C. CORTEGIANI; G. SCIVOLETTO; M. MOLINARI; M. PAZZAGLIA. *Santa Lucia Fndn. IRCCS, Univ. of Bern, Univ. of Rome 'Foro Italico', Univ. of Rome "La Sapienza".*

2:00 UU19 **841.10** ▲ The biblical brain: An fMRI investigation into the differences between religious and nonreligious biblical reading. T. L. THOMAS*; J. SIMENAUER; E. BLUMSTEIN; S. HAFFERKAMP; M. T. DIAZ. *Duke Univ., Duke Univ., Duke Univ.*

3:00 UU20 **841.11** Modulation of cultural effects on perception with transcranial direct current stimulation. H. HUANG*; L. TCHEANG; D. L. HUNG; O. J. L. TZENG; C. JUAN; N. G. MUGGLETON. *Inst. of Cognitive Neurosci., Inst. of Cognitive Neurosci.*

4:00 UU21 **841.12** Motor imagery among older adults. Mental chronometry and environmental requirements. M. KALICINSKI*; O. BOCK; B. LOBINGER; M. RAAB. *German Sports Univ., German Sports Univ.*

1:00 UU22 **841.13** Assessing functional modularity with awareness in the human brain. D. GODWIN*; R. BARRY; R. MAROIS. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ., Vanderbilt Univ.*

2:00 UU23 **841.14** Motor cortex correlates of virtual body ownership. M. SLATER*; M. GONZÁLEZ-FRANCO; T. C. PECK; A. RODRÍGUEZ-FORNELLS. *Icrea-University of Barcelona, Univ. of Barcelona, ICREA-University of Barcelona.*

3:00 UU24 **841.15** ● Localized brain volume and white matter integrity alterations in adolescent anorexia nervosa. L. METTLER*; M. E. SHOTT; J. O. HAGMAN; G. K. W. FRANK. *Univ. of Colorado Sch. of Med., Univ. of Colorado Sch. of Med., Children's hospital Colorado.*

4:00 UU25 **841.16** Neural signatures of small arms expertise in the absence of behavioral markers. J. S. SHERWIN*; J. GASTON; A. RIES. *Columbia Univ., Army Res. Lab.*

1:00 UU26 **841.17** Sex differences in white matter microstructure with IQ: A DTI study. M. OH*; S. YOON; C. JANG; J. LEE; H. PARK. *Yonsei Univ. Heth, Yonsei Univ. Col. of Med., Yonsei Univ.*

POSTER

842. Human Navigation and Spatial Representation

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 VV1 **842.01** Spatial learners have lower baseline heart coherence than response learners. Y. YANG*; A. SMITH-DIJAK; J. RANDHAWA; V. D. BOHBOT. *Douglas Mental Hlth. Univ. Inst.*

2:00 VV2 **842.02** ▲ Higher dietary omega 3 and a lower omega 6 to 3 ratio is associated with better cognitive status and faster learning on a virtual navigation task in healthy older adults. N. ANDRUCHOW*; K. KONISHI; B. SHATENSTEIN; V. D. BOHBOT. *Douglas Mental Hlth. Univ. Institute, Dept. of Psychiatry, McGill Uni, Univ. de Montréal.*

3:00 VV3 **842.03** High levels of physical activity in older adults are linked to hippocampus-dependent spatial strategies in a virtual navigation task. Z. K. CHAUDHARY*; K. KONISHI; V. D. BOHBOT. *Douglas Mental Hlth. Univ. Institute, FBC Building.*

4:00 VV4 **842.04** ▲ Benefits of immediate financial rewards are selective to response learners but not spatial learners tested in a virtual navigation task. A. I. SMITH-DIJAK*; J. RANDHAWA; V. MURTY; R. ADCOCK; V. BOHBOT. *Douglas Mental Hlth. Univ. Institute, FBC Building, Duke Univ.*

1:00 VV5 **842.05** Superior memory is associated with flexibility at using spatial and response strategies in virtual navigation tasks: A case study. M. PAWLICZKA*; V. D. BOHBOT. *Inst. Douglas, Inst. Douglas.*

2:00 VV6 **842.06** Virtual navigation task performance correlates strongly with brief conventional psychometric battery (RBANS) scores in healthy elderly at risk of dementia. I. DEMACHEVA*; D. FONTAINE; I. STOP-AD INVESTIGATORS; J. BREITNER; V. D. BOHBOT. *Douglas Mental Hlth. Univ. Institute, FBC Building, Douglas Mental Hlth. Univ. Institute, FBC Building.*

3:00 VV7 **842.07** Wayfinding ability in a virtual town correlates with performance on the Montreal Cognitive Assessment in healthy aging. K. KONISHI*; S. MCKENZIE; C. FOUQUET; S. ROY; V. D. BOHBOT. *Douglas Mental Hlth. Univ. Institute, McGill Univ.*

4:00 VV8 **842.08** Spatial and response strategy users show grey matter differences in the prefrontal cortex. L. DAHMANI*; V. BOHBOT. *McGill Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 VV9 **842.09** Delayed rewards elevate cortisol levels to the benefit of spatial but not response learners in a virtual navigation task. V. D. BOHBOT*; A. SMITH-DIJAK; J. RANDHAWA; V. MURTY; R. ADCOCK. *Douglas Mental Hlth. Univ. Institute, Dept. of Psychiatry, McGill Uni, Douglas Mental Hlth. Univ. Institute, Dept. of Psychiatry, McGill Uni, Duke Univ.*

2:00 VV10 **842.10** Brain mechanisms supporting heading direction in humans. E. CHRASTIL*; T. I. BROWN; I. ASELCIOGLU; M. E. HASSELMO; C. E. STERN. *Boston Univ., Ctr. for Memory and Brain, Athinoula A. Martinos Ctr. for Biomed. Imaging, Boston Univ.*

3:00 VV11 **842.11** Path integration and optic flow correlates of ground-level navigation. K. R. SHERRILL*; R. S. ROSS; T. I. BROWN; U. M. ERDEM; M. E. HASSELMO; C. E. STERN. *Boston Univ., Athinoula A. Martinos Ctr. for Biomed. Imaging, Massachusetts Gen. Hosp.*

4:00 VV12 **842.12** Importance of somatosensory input in learning basic movements of pantomime. S. SUWA*; M. MAETOMO; N. KIYOTA; K. KANOSUE. *Grad. Sch. of Sport Sciences, Waseda Univ., Fac. of Sport Sciences, Waseda Univ.*

1:00 VV13 **842.13** Perceptual short-term learning of stimulus statistics requires behavioral relevance. S. GLASAUER*; F. H. PETZSCHNER; P. MAIER. *Ludwig-Maximilian-University, Ludwig-Maximilian-University, Ludwig-Maximilian-University.*

2:00 VV14 **842.14** Double training or diagonal location benefit? Q. TAN*; T. WATANABE. *Brown Univ.*

3:00 VV15 **842.15** Perceptual learning of motion direction discrimination transfers to an opposite direction with TPE training. J. ZHANG*; R. WANG; Y. YANG. *Peking Univ., State Key Lab. of Cognitive Neurosci. and Learning.*

4:00 VV16 **842.16** ● Effect of REM sleep specific obstructive sleep apnea on spatial navigational learning and memory. J. MANTUA; V. KOUSHYK; D. M. RAPOPORT; I. AYAPPA; A. W. VARGA*. *NYU Sleep Disorders Ctr., NYU, NYU Ctr. for Neural Sci.*

1:00 VV17 **842.17** Sound localizability of visually impaired and the effect of feedback training on accuracy improvement. M. TAUCHI*; T. NAKAMURA; Y. SAWADA. *Okayama Prefectural Univ.*

2:00 VV18 **842.18** ● Perceptual learning can reduce the size of the perceptive field leading to reduced impact of masking and crowding. M. LEV*; O. YEHEZKEL; A. STERKIN; U. POLAT. *Tel-Aviv University, Fac. of Med., Sch. of Optometry and Helen Wills Neurosci. Inst., Ucansi Inc.*

3:00 VV19 **842.19** The difficulties of rapid switching between declarative and procedural learning systems. J. L. ROEDER*; M. J. CROSSLEY; G. CANTWELL; F. ASHBY. *Univ. of California, Santa Barbara, Univ. of California, Berkeley.*

4:00 VV20 **842.20** Brain mechanisms underlying the exploration of small city maps. S. SAKELLARIDI*; P. CHRISTOVA; A. C. LEUTHOLD; J. PEPONIS; A. P. GEORGOPOULOS. *Brain Sci. Ctr., Univ. of Minnesota, Univ. of Minnesota, Georgia Inst. of Technol.*

1:00 VV21 **842.21** Object-cued place search in virtual reality recruits the hippocampus and associated cortical regions based on BOLD signals in fMRI. C. LEE*; S. LEE; I. LEE. *Dept. of Brain & Cognitive Sci.*

2:00 VV22 **842.22** Human behavior during spatial exploration. C. ROPPELT*; S. GLASAUER; V. L. FLANAGIN. *Ludwig Maximilians Univ., Ludwig Maximilians Univ., Ludwig Maximilians Univ., Ludwig Maximilians Univ.*

POSTER

843. Human Motor and Sequence Learning

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 WW1 **843.01** Context-dependent motor learning is mediated by the frontostriatal circuit. Y. LEE*; C. J. WINSTEIN; G. M. PETZINGER; J. GORDON; E. ZALINSKI; B. E. FISHER. *USC, USC.*

2:00 WW2 **843.02** ▲ Transfer effect of learning with the right hand on mirror-writing with the left hand. I.; Y. ITAGUCHI; K. FUKUZAWA. *Waseda University, Psychology Dept.*

3:00 WW3 **843.03** Effects of dance-based exercise therapy program on balance and locomotion performance in a patient with cerebellar ataxia: A case study. Y. SONG*; S. IM; Y. LEE; J. PARK. *Jin-Hoon Park.*

4:00 WW4 **843.04** Explosive-strength training might compensate for age-related decline in precision grip performance. C. VOELCKER-REHAGE*; S. VIELUF; L. HÜBNER; E. REUTER; B. GODDE. *Jacobs Univ. Bremen, Saarland Univ., Univ. Bielefeld.*

1:00 WW5 **843.05** The response time effects of Transcranial direct current stimulation over primary motor cortex are unreliable between and within subjects. J. D. FORTE*; J. C. HORVATH; O. CARTER. *The Univ. of Melbourne.*

2:00 WW6 **843.06** Representational similarity of motor sequences in human motor cortex. D. M. MÜSSGENS*; C. I. BAKER; F. ULLÉN. *Karolinska Institutet, NIH.*

3:00 WW7 **843.07** Long-lasting paradoxical effects of attentional-states on visuomotor memory. J. SONG*; P. BÉDARD. *Brown Univ., Brown Univ.*

4:00 WW8 **843.08** Motor learning and offline processes of consolidation associated with rapid GABA modulation. C. GUDBERG*; C. STAGG; J. NEAR; H. JOHANSEN-BERG. *Univ. of Oxford, Univ. of Oxford.*

1:00 WW9 **843.09** ● Mental chronometry and fMRI measure for learning a manual, motoric sequence. H. LEE*; W. KUO. *Natl. Yang-Ming Univ.*

2:00 WW10 **843.10** Effect of transcranial direct current stimulation (tDCS) during complex whole body motor skill learning. P. RAGERT*; E. KAMINSKI; M. HOFF; B. SEHM; M. TAUBERT; V. CONDE; C. J. STEELE; A. VILLRINGER. *Max Planck Inst. Leipzig.*

3:00 WW11 **843.11** ERP topography reveals changes in N400 during implicit learning. S. A. KISER*; R. L. M. FULLER; K. M. O'NEIL; D. V. HOWARD; J. H. HOWARD, Jr. *The Catholic Univ. of America, The Catholic Univ. of America, Georgetown Univ., Georgetown Univ.*

4:00 WW12 **843.12** The cognitive and neural foundations of discrete motor sequencing skill: A TMS study. W. B. VERWEY*; M. F. L. RUITENBERG; E. L. ABRAHAMSE. *Univ. of Twente, Univ. of Ghent.*

1:00 WW13 **843.13** ● Neural correlates of visual statistical learning in young children with ASD. S. S. JESTE*; N. KIRKHAM; S. P. JOHNSON. *UCLA Semel Inst. of Biobehavioral Sci., Birkbeck, Univ. of London, UCLA.*

2:00 WW14 **843.14** An individual approach to the interaction between positive emotion and sequence learning. B. GREELEY*; S. B. FESTINI; R. D. SEIDLER. *Univ. of Michigan, Univ. of Michigan, Sch. of Kinesiology.*

3:00 WW15 **843.15** The importance of sequence structure in motor sequence learning. S. PRASHAD*; S. YOULIOS; Y. DU; J. E. CLARK. *Univ. of Maryland, Univ. of Maryland.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 WW16 **843.16** Observational practice and movement sequence representation: Age-related differences. S. PANZER*; A. BOUTIN; Y. BLANDIN; C. H. SHEA. *Saarland Univ., IfADo, Univ. of Poitiers, Teaxas A&M.*

1:00 WW17 **843.17** The stimulus interval length affects motor sequence learning processes. Y. DU*; J. WHITALL; J. E. CLARK. *Univ. of Maryland, Univ. of Maryland, Sch. of Med., Univ. of Maryland.*

2:00 WW18 **843.18** Disrupted gesture comprehension and production in Parkinson's disease. N. KLOOSTER*; S. WAGNER COOK; E. Y. UC; M. C. DUFF. *Univ. of Iowa.*

3:00 WW19 **843.19** Modulation of human motor cortical plasticity by attention to the hand. S. TANAKA*; T. YAMAGUCHI; K. MORIYA; S. TANABE; Y. OTAKA. *Nagoya Inst. of Technol., Keio Univ. Sch. of Med., Tokyo Bay Rehabil. Hosp., Fujita Hlth. Univ.*

4:00 WW20 **843.20** Interference with existing motor memories alters offline intrinsic human functional brain connectivity. N. CENSOR*; S. G. HOROVITZ; L. G. COHEN. *NIH, NIH.*

1:00 WW21 **843.21** Task knowledge behaves like reward: Immediate motor-skill improvements without learning. A. L. WONG*; A. M. HAITH; J. W. KRAKAUER. *Johns Hopkins Univ. Sch. Med.*

2:00 WW22 **843.22** Motor practice in a force modulation task in young and middle-aged adults. B. GODDE*; M. TRAUTMANN; C. VOELCKER-REHAGE. *Jacobs Univ., Jacobs Univ.*

3:00 XX1 **843.23** White matter structural changes during the acquisition of Stone Age tool-making skills. E. E. HECHT*; D. A. GUTMAN; T. CHAMINADE; N. KHREISHEH; B. BRADLEY; D. STOUT. *Emory Univ., Emory Univ., Aix-Marseille Univ., Univ. of Exeter.*

4:00 XX2 **843.24** Learning and intermanual transfer of the finger-to-thumb opposition sequence task in children: Comparison among mental, physical and combined practice. M. E. PIEMONTE*; C. MAZZITELLI; S. ASA; I. R. C. SILVA; D. V. KOLISCH. *Univ. Sao Paulo.*

1:00 XX3 **843.25** White matter neuroplasticity sculpted by art. T. HONG*; C. LIN; W. HUANG; J. HSIEH. *Inst. of Brain Science, Natl. Yang-Ming Univ., Integrated Brain Res. Unit, Dept. of Med. Res. and Education, Taipei Veterans Gen. Hosp., Dept. of Dentistry, Natl. Yang-Ming Univ.*

POSTER

844. Human Motor Learning and Skill Acquisition

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 XX4 **844.01** The effects of intermittent feedback on retention in saccade adaptation. J. P. HERMAN*; A. BLANGERO; L. MADELAIN; M. R. HARWOOD. *Natl. Eye Inst., The City Col. of New York, Univ. Charles-de-Gaulle Lille III, The City Col. of New York.*

2:00 XX5 **844.02** Parietofrontal connectivity predicts subsequent visuomotor learning and performance. E. R. BUCH*; V. P. BUCH; L. G. COHEN. *NINDS, NIH.*

3:00 XX6 **844.03** Learning with pre-existing muscle synergies during human split-belt walking. P. A. ITURRALDE; L. H. TING; A. J. BASTIAN; G. H. TORRES-OVIEDO*. *Univ. of Pittsburgh, Georgia Tech-Emory Univ., Kennedy Krieger Inst., Johns Hopkins Univ.*

4:00 XX7 **844.04** Gaze control during simultaneous acquisition of anticipatory strategies in a visuomotor learning task. J. J. MARIMAN*; P. BURGOS; P. E. MALDONADO. *Univ. De Chile, CENEM, Fac. of Medicine, Univ. of Chile, BNI, Fac. of Medicine, Univ. of Chile.*

1:00 XX8 **844.05** Does long-term practice benefit motor sequence generalization? N. F. WYMBS*; S. T. GRAFTON. *UC Santa Barbara.*

2:00 XX9 **844.06** Interaction between the medial temporal lobe and the striatum during configural and elemental probabilistic classification learning. K. D. DUNCAN*; B. B. DOLL; N. D. DAW; D. SHOHAMY. *Columbia Univ., New York Univ., New York Univ.*

3:00 XX10 **844.07** Continuous visuomotor implicit sequence learning is driven by motor not perceptual factors. L. Y. SUZUKI; J. L. MIRDAMADI; S. K. MEEHAN*. *Univ. of Michigan.*

4:00 XX11 **844.08** A single bout of moderate aerobic exercise improves motor skill acquisition. M. STATTON*; P. CELNIK; A. J. BASTIAN. *Johns Hopkins Univ., Kennedy Krieger Inst., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

1:00 XX12 **844.09** Gray matter structural differences between glider pilots and non-pilots. T. AHAMED*; M. KAWANABE; S. ISHII; D. E. CALLAN. *Advanced Telecommunications Res. Inst. Intl., Advanced Telecommunications Res. Inst. Intl.*

2:00 YY1 **844.10** Interactive effect of age and genetic polymorphisms of COMT, DRD2 and BDNF on individual differences in motor learning. F. NOOHIBEZANJANI*; N. BOYDEN; Y. KWAK; J. HUMFLEET; D. BURKE; M. MULLER; N. BOHNEN; R. SEIDLER. *Univ. of Michigan, Duke Univ.*

3:00 YY2 **844.11** Functional connectivity and visuomotor coordination in modular motor learning of a continuous task. P. I. BURGOS*; J. J. MARIMAN; P. E. MALDONADO. *Lab. Neurosistemas, Facultad De Medicina , Univ. De Chile, CENEM, BNI.*

4:00 YY3 **844.12** Structural brain changes within a functional network of motor sequence learning. B. S. SEHM*; A. VILLRINGER; P. RAGERT. *Max Planck Inst. For Human Cognitive and Brain Sci.*

POSTER

845. Human Memory: Physiology of Retrieval Mechanisms

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 YY4 **845.01** Retrieval from long term memory underlies metacognitive monitoring of learning: Reverse inference from multivariate pattern classification. P. STIERS*; L. FALBO; T. VAN GOG; A. DE BRUIN; A. GOULAS. *Fac. of Psychology and Neuroscience, Maastricht Univ., Inst. of Psychology, Erasmus Univ. Rotterdam, Fac. of Health, Med. and Life Sciences, Maastricht Univ.*

2:00 YY5 **845.02** Electrophysiology of correlated and anti-correlated interactions between medial and lateral parietal cortex in humans. B. L. FOSTER*; V. RANGARAJAN; J. PARVIZI. *Stanford Univ.*

3:00 YY6 **845.03** Strength vs. associative-based mechanisms for retrieving spatial layout and temporal order information. D. SMUDA; J. LEE; T. JAMES; A. D. EKSTROM*. *UC-Davis Cntr. For Neurosci.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 YY7 **845.04** Neural correlates of musical memory: An ECoG study on musical imagery. Y. DING; B. HONG; J. HUANG; X. WANG*. *Tsinghua Univ., Johns Hopkins Univ. Sch. Med.*

1:00 YY8 **845.05** How long is the window of short-term memory under naturalistic conditions? J. CHEN*; C. J. HONEY; E. SIMONY; U. HASSON. *Princeton Univ.*

2:00 YY9 **845.06** Inhibition reduces cortical pattern similarity for competing memories during memory recall. M. WIMBER*; A. ALINK; I. CHAREST; N. KRIEGESKORTE; M. C. ANDERSON. *MRC Cognition & Brain Sci. Unit.*

3:00 YY10 **845.07** Electrocorticography identifies individual subject spatiotemporal memory retrieval networks. A. WATROUS*; N. TANDON; C. CONNER; T. PIETERS; A. EKSTROM. *Univ. of California,Davis, Univ. of Texas Med. Ctr.*

4:00 YY11 **845.08** Evaluating and updating control processes in recognition memory. J. M. SCIMECA*; P. L. KATZMAN; D. BADRE. *Brown Univ., Brown Univ.*

1:00 YY12 **845.09** "Is" versus "has-just-been": Electrophysiological comparison between reality filtering and temporal order judgment. M. C. LIVERANI*; L. NAHUM; A. MANUEL; M. GENETTI; A. BOUZERDA-WAHLEN; A. GUGGISBERG; A. SCHNIDER. *Div. of Neurorehabilitation, Dept. of Clin. Neurosciences, HUG, Dept. of Neurol. and Fundamental Neurosciences, HUG.*

2:00 ZZ1 **845.10** Modular structure of olfactory memory odor recognition functional networks. D. MEUNIER*; P. FONLUPT; A. SAIVE; J. PLAILLY; J. ROYET. *CMO Team, Ctr. De Recherche En Neurosciences De Lyon, Ctr. De Recherche En Neurosciences De Lyon.*

3:00 ZZ2 **845.11** Orbitofrontal inhibition by tDCS impairs reality filtering. A. L. MANUEL*; A. SCHNIDER. *Div. of Neurorehabilitation, Dept. of Clin. Neuroscience, HUG.*

4:00 ZZ3 **845.12** Cortical reinstatement tracks the confidence and accuracy of source retrieval. P. P. THAKRAL*; T. H. WANG; M. D. RUGG. *Univ. of Texas at Dallas.*

1:00 ZZ4 **845.13** A BOLD medial temporal lobe code for spatio-temporal memory. E. T. REAS*; J. B. BREWER. *UNIVERSITY OF CALIFORNIA, SAN DIEGO, UNIVERSITY OF CALIFORNIA, SAN DIEGO.*

2:00 ZZ5 **845.14** The role of sleep in long term gist-based false memories. E. PARDILLA-DELGADO*; J. D. PAYNE. *Univ. of Notre Dame.*

3:00 ZZ6 **845.15** Manipulations of old/new ratio and activity within the ventral parietal cortex. A. FRITHSEN*; M. B. MILLER. *Univ. of California Santa Barbara, Univ. of California.*

4:00 ZZ7 **845.16** Relational memories are expressed obligatorily in eye movement behavior: Eye movements unmask feigned memory impairment. E. J. MAHONEY*; D. C. OSMON; N. KAPUR; D. E. HANNULA. *Univ. of Wisconsin - Milwaukee, Univ. Col. London.*

1:00 ZZ8 **845.17** High-resolution fmri multivoxel pattern analysis suggests a role for hippocampal ca fields in binding of spatiotemporal memories. M. COPARA*; C. KYLE; D. SMUDA; A. HASSAN; A. EKSTROM. *UC Davis, UC Davis, UC Davis, UC Davis, Ctr. for Neurosci.*

2:00 ZZ9 **845.18** Cortical reactivation of related stimuli associated with hippocampal volume. J. A. WALKER*; K. A. LOW; M. A. FLETCHER; N. J. COHEN; G. GRATTON; M. FABIANI. *Univ. of Illinois at Urbana-Champaign.*

3:00 ZZ10 **845.19** The relationship between single human hippocampal and amygdala neurons and subjective memory strength. S. YE*; I. B. ROSS; J. M. CHUNG; A. N. MAMELAK; U. RUTISHAUSER. *Caltech, Huntington Mem. Hosp., Cedars-Sinai Med. Ctr.*

4:00 ZZ11 **845.20** The resting state of highly superior autobiographical memory (HSAM). A. K. LEPORT*; J. L. MCGAUGH; C. E. L. STARK. *Univ. of California Irvine, Univ. of California Irvine.*

1:00 ZZ12 **845.21** ● Differences in fMRI network activity as a function of task type and difficulty in source monitoring. P. D. METZAK*; T. S. WOODWARD. *Univ. of British Columbia.*

2:00 ZZ13 **845.22** Complementary functional roles for alpha and theta oscillations in human nucleus accumbens. J. M. HORSCHIG*; R. S. SMOLDERS; M. BONNEFOND; D. DENYS; O. JENSEN. *Radboud Univ. Nijmegen,Donders Inst. for Brain, Cognition and Behaviour, Academic Med. Ctr., The Netherlands Inst. for Neuroscience, Royal Netherlands Acad. of Arts and Sci.*

POSTER

846. Functional Mechanisms of Attention II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 ZZ14 **846.01** Low frequency oscillatory responses to spatiotemporal aspects of dynamic attention. K. DORON*; M. RIESS-JONES; J. GILBERT; M. GAZZANIGA. *Univ. of California, Santa Barbara, Ohio State Univ.*

2:00 ZZ15 **846.02** Attention to task-irrelevant features of an object is not mandatory, but rather resource-dependent. J. L. SY*; J. JEHEE; F. TONG. *Vanderbilt Univ., Donders Inst. for Brain, Cognition, and Behaviour.*

3:00 ZZ16 **846.03** Discussion of brain functional on the effects of color temperature on sustained attention using functional near-infrared spectroscopy. N. ONISHI*; M. TANAKA; A. FUKUSHIMA; M. TANAKA; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ., Kyoto Univ.*

4:00 ZZ17 **846.04** Attentional low frequency phase modulations relate to visual response and reaction time. A. L. DAITCH*; D. T. BUNDY; C. D. HACKER; M. PAHWA; M. SHARMA; N. SZRAMA; G. L. SHULMAN; E. C. LEUTHARDT; M. CORBETTA. *Washington Univ, St Louis.*

1:00 ZZ18 **846.05** Spatial attention modulates phase-amplitude coupling in precentral gyrus and posterior parietal cortex. J. B. SHUTE*; P. BRUNNER; B. PESARAN; G. SCHALK; A. GUNDUZ. *UF, Wadsworth Ctr., New York Univ., Univ. of Florida.*

2:00 ZZ19 **846.06** Alteration in cognitive motor interference in chronic hemiparetic stroke survivors. P. PATEL; T. S. BHATT*. *Univ. of Illinois at Chicago, Univ. Illinois.*

3:00 ZZ20 **846.07** Visuospatial attention asymmetries are indexed by a temporal lag in the accumulation of sensory evidence. G. LOUGHNANE*; D. NEWMAN; S. KELLY; E. LALOR; M. BELLGROVE; R. O'CONNELL. *Trinity Col., Monash Univ., City Col. of New York.*

4:00 ZZ21 **846.08** Pre-target alpha differentiates transient and sustained attentional failures during a continuous performance task. J. C. ELLIOTT*; D. H. WEISSMAN; B. GIESBRECHT. *Univ. of California, Univ. of California, Santa Barbara, Univ. of Michigan, Univ. of California, Santa Barbara.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 ZZ22 **846.09** Binge drinking and electrophysiology of attention to alcohol stimuli. D. S. LELAND*; L. WEG FERNANDEZ; A. R. BRANDT; P. M. JOHNSON; S. N. KLASEK; R. R. ENGUM. *UWEC Psychology.*

2:00 ZZ23 **846.10** Activity within the mid-insula primary interoceptive cortex is related to the conscious experience of interoceptive signals from the heart. J. AVERY*; K. KERR; K. BURROWS; J. C. BARCALOW; J. BODURKA; W. K. SIMMONS. *The Laureate Inst. for Brain Res., The Univ. of Tulsa, The Univ. of Oklahoma.*

3:00 ZZ24 **846.11** Electrophysiological monitoring of cognitive performance during exercise. T. W. BULLOCK*; H. CECOTTI; B. GIESBRECHT. *Univ. of California.*

4:00 ZZ25 **846.12** The response of the left ventral attentional system to invalid targets and its implication for the spatial neglect syndrome: A multivariate fMRI investigation. F. DORICCHI*; S. LASAPONARA; F. LECCE; E. MACALUSO; M. SILVETTI. *Universita' Di Roma la Sapienza - Dept. Di Psicologia, Fondazione Santa Lucia IRCCS - Univ. La Sapienza, Universita' La Sapienza, Fondazione Santa Lucia IRCCS, Univ. of Gent.*

1:00 ZZ26 **846.13** Vestibular influence on endogenous and exogenous visual attention: A behavioural and ERP study. O. BLANKE; M. VAN ELK; S. BERGER; C. PFEIFFER; R. SALOMON; B. HERBELIN*; M. KALIUZHNA. *Ctr. for Neuroprosthetics, Sch. of Life Sciences, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland; Lab. of Cognitive Neuroscience, Brain Mind Institute, Sch. of Life Sciences, Ecole Polytechnique Fédérale de Lausanne, EPFL-SV-BMI-LNCO.*

2:00 AAA1 **846.14** Temporal dynamics of the motor influence on auditory decision-making. B. MORILLON*; V. WYART; S. BAILLET; C. E. SCHROEDER. *Columbia Univ., Inserm U960 - ENS, McGill Univ., Nathan Kline Inst.*

3:00 AAA2 **846.15** Mechanisms of selective visual attention as revealed by model-based fMRI. K. MOOS; R. WEIDNER*; S. VOSSEL; M. DYRHOLM; E. ZIMMERMANN; G. R. FINK. *Res. Ctr. Juelich, Univ. Hosp. Cologne, Univ. of Copenhagen.*

4:00 AAA3 **846.16** The right anterior insula and network interactions involved in cognitive control. S. R. JILKA*; T. HAM; G. SCOTT; A. PICKERING; R. M. BRAGA; R. LEECH; D. SHARP. *C3NL, Goldsmiths Col.*

1:00 AAA4 **846.17** Attention moderates the effects of memory encoding and subsequent item recognition: Evidence from combined eye tracking and fMRI. J. MARKANT*; M. S. WORDEN; D. AMSO. *Brown Univ.*

2:00 AAA5 **846.18** The "serendipitous brain": Timing uncertainty and low expectancy improve conscious visual processing (an ERPs study). S. LASAPONARA*; A. DRAGONE; F. LECCE; F. DI RUSSO; F. DORICCHI. *IRCCS Santa Lucia, Univ. La Sapienza - Fondazione Santa Lucia IRCCS, Univ. "Foro Italico", Univ. La Sapienza - Fondazione Santa Lucia IRCCS.*

3:00 AAA6 **846.19** Development of neural mechanisms for selective attention in young children from lower socioeconomic backgrounds. A. HAMPTON WRAY*; E. PAKULAK; T. BELL; E. ISBELL; C. STEVENS; H. NEVILLE. *Univ. of Oregon, Willamette Univ.*

4:00 AAA7 **846.20** ▲ The amplitude of the contingent negative variation following neurofeedback procedure. J. NESWALD; E. E. PONGPIPAT; V. MAGANA; S. SARKISSIANS; C. LENIK; D. BARB; J. P. ABARA*. *California State University, Northridge, California State Univ. Northridge.*

1:00 AAA8 **846.21** Task Matters: Interference between voluntary balancecontrol and cognitive tasks in Chronic hemiparetic stroke. S. SUBRAMANIAM*; T. BHATT. *2680 Dunrobin Cirlce,, Univ. of Illinois, Chicago.*

2:00 AAA9 **846.22** Active suppression of salient distractors in a within-dimension additional singleton task. J. J. MCDONALD*; J. M. GASPAR. *Simon Fraser Univ.*

3:00 AAA10 **846.23** Sensory and response interference is resolved locally. J. GRINBAND*; T. TEICHERT; V. P. FERRERA; J. HIRSCH. *Columbia Univ., Yale Univ.*

4:00 AAA11 **846.24** Mechanisms of attention in early visual cortex revealed with multivariate fMRI analysis. K. K. SREENIVASAN*; C. GRATTON; M. D'ESPOSITO. *Univ. of California Berkeley.*

POSTER

847. Attentional Networks II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AAA12 **847.01** Tracking fluctuations in sustained attention under varying degrees and types of task load. M. ROSENBERG*; E. S. FINN; M. M. CHUN. *Yale Univ., Yale Univ., Yale Univ. Sch. of Med.*

2:00 AAA13 **847.02** Depth electrode recordings unravel the neuronal underpinnings of long-distance correlations within the default-mode network. K. JERBI*; C. PICHAT; M. PERRONE-BERTOLOTTI; J. R. VIDAL; T. OSSANDON; A. MINCIC; P. KAHANE; M. BACIU; J. LACHAUX. *Lyon Neurosci. Res. Ctr. - Univ. Lyon I - U1028 - UMR5292, CNRS UMR 5105, Univ. Pierre Mendès-France, PUC, Univ. Pierre Mendès-France, Grenoble Hosp.*

3:00 AAA14 **847.03** Transcranial Direct Current Stimulation and acquisition of complex cognitive tasks: Effect of site specificity and training time. M. R. SCHELDRUP*; J. VANCE; Y. DARMANI; B. FALCONE; R. MCKENDRICK; A. MCKINLEY; R. PARASURAMAN; P. GREENWOOD. *George Mason Univ., Air Force Res. Lab.*

4:00 AAA15 **847.04** Effects of sleep deprivation on attention: A meta-analysis of functional MRI studies. N. MA*; H. RAO. *Univ. of Pennsylvania.*

1:00 AAA16 **847.05** Deconstructing the auditory sensory discrimination network and associated source-projected clinical, cognitive, and functional correlates in schizophrenia patients. G. A. LIGHT*; A. J. RISSLING; M. MIYAKOSHI; C. SUGAR; D. L. BRAFF; S. MAKEIG. *Univ. of California San Diego, VA San Diego Healthcare Syst., Univ. of California San Diego, Greater Los Angeles VA Healthcare Syst.*

2:00 AAA17 **847.06** ● Neural circuit model for cognition-emotion interactions: Affective and task-relevant interference differentially impact working memory. A. ANTICEVIC*; J. D. MURRAY; J. H. KRYSTAL; X. WANG. *Yale Univ., Yale Univ., NYU.*

3:00 AAA18 **847.07** Lesion to the fronto-parietal adaptive control network impacts alpha-band phase synchrony. P. L. DOMBERT; S. SADAGHIANI*; M. LØVSTAD; I. FUNDERUD; R. T. KNIGHT; A. SOLBAKK; M. D'ESPOSITO. *Univ. of California, Maastricht Univ., Sunnaas Rehabil. Hosp., Oslo Univ. Hospital, Rikshospitalet.*

4:00 AAA19 **847.08** Improving quality of sensory representations with prismatic adaptation. S. S. SHOMSTEIN*; F. UYAR; A. S. GREENBERG; M. NEPPI-MODONA; M. BEHRMANN. *George Washington Univ., George Washington Univ., Carnegie Mellon Univ., Univ. of Turin.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 AAA20 **847.09** Practicing buzzing Preksha meditation alters frontal cortex EEG activity in theta and gamma bands. A. K. STAROSCIAK*; N. DELONE; U. PRAGYA; M. N. ABDELGHANI; J. PARIKH; L. ANDERSON; O. MARR; G. ROMAN; R. JUNG. *Florida Intl. Univ., Florida Intl. Univ.*

2:00 AAA21 **847.10** Neural signature of inattentional deafness. K. MOLLOY*; M. CHAIT; N. LAVIE. *Inst. of Cognitive Neuroscience, UCL, Ear Institute, UCL.*

3:00 AAA22 **847.11** Oscillatory interactions between prefrontal and sensory cortex during spatial/intermodal attention and working memory. K. L. ANDERSON*; R. T. KNIGHT. *UC Berkeley, UC Berkeley.*

4:00 AAA23 **847.12** A control system framework for cingulo-opercular function. M. NETA*; S. M. NELSON; J. W. DUBIS; N. U. F. DOSENBACH; B. L. SCHLAGGAR; S. E. PETERSEN. *Washington Univ. Sch. of Med., Washington Univ., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ.*

1:00 AAA24 **847.13** The "AttentionTrip": A game-like tool for measuring the networks of attention. R. M. KLEIN*; G. C. WILSON. *Dalhousie Univ., Dalhousie Univ.*

2:00 AAA25 **847.14** Awareness is necessary for cognitive control. J. T. LO VOI*; Q. WU; Y. WU; J. FAN. *CUNY Grad. Ctr., Peking Univ., Queens Col., Mount Sinai Sch. of Med.*

3:00 AAA26 **847.15** Evaluating variations of cue-target interval in an Eriksen flanker task. A. ZADBOOD*; S. KASTNER. *Psychology Department, Princeton Univ., Princeton Neurosci. Institute, Princeton Univ.*

4:00 BBB1 **847.16** "PageRanking" human brain regions in large-scale neural synchrony networks in cognitive processing. Y. UNO*; Y. MIZUNO; K. KITAJO. *RIKEN, Tokyo Univ. of Agr. and Technol., RIKEN.*

1:00 BBB2 **847.17** A sense of direction: The effects of cathodal or anodal tDCS on hemispheric-biased cognitive ability. L. M. LI*; R. LEECH; P. MALHOTRA; B. SEEMUNGAL; D. J. SHARP. *C3NL, Imperial Col. London.*

2:00 BBB3 **847.18** ▲ Conscious and unconscious processing of affective biological motion. E. NGUYEN*; W. KHOE; A. P. SAYGIN. *UCSD.*

POSTER

848. Language III

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BBB4 **848.01** Rhythmic priming in language comprehension: How speech rhythm affects semantic ambiguity resolution. K. ROTHERMICH*; S. A. KOTZ. *McGill University, Sch. of Communication Sci. & Disorders, Univ. of Manchester.*

2:00 BBB5 **848.02** Putting an 'end' to the motor cortex representations of action words. G. I. DE ZUBICARAY*; J. ARCIULI; K. MCMAHON. *Univ. of Queensland, Univ. of Sydney.*

3:00 BBB6 **848.03** The neural circuits recruited for the production of fingerspelling and signing. K. D. EMMOREY*; S. H. MEHTA; S. MCCULLOUGH; T. J. GRABOWSKI. *San Diego State Univ., Univ. of Washington.*

4:00 BBB7 **848.04** Associating language processing in higher cognitive regions and local of γ-Aminobutyric acid (GABA) concentration using MR-spectroscopy. ; A. HULTÉN; N. DE GOUW; K. PETERSSON; D. NORRIS; P. HAGOORT. *Max Planck Inst. For Psycholinguistics, Donders Inst. for Brain, Cognition and Behaviour, Ctr. for Cognitive Neuroimaging, Radboud Univ. Nijmegen.*

1:00 BBB8 **848.05** Distinct networks are engaged in speech versus non-speech monitoring. S. RIES-CORNOU*; K. Y. XIE; K. Y. HAALAND; N. F. DRONKERS; R. T. KNIGHT. *Univ. of California, Univ. of New Mexico and New Mexico Veterans Affairs Healthcare Syst., Univ. of California, Davis, and Veterans Affairs Northern California Hlth. Care Syst.*

2:00 BBB9 **848.06** A hobby can alter your brain: The effect of extended deliberate Scrabble® practice on early visual word perception components in EEG. S. SEYFFARTH; P. PEXMAN; I. HARGREAVES; L. ZDRAZILOVA; P. SARGIOUS; F. CORTESE; A. B. PROTZNER*. *Univ. of Calgary, Hotchkiss Brain Inst., Univ. of Calgary, Univ. of Calgary.*

3:00 BBB10 **848.07** A critical role for the angular gyrus in conceptual combination: Evidence from patients and healthy subjects. A. R. PRICE*; M. F. BONNER; J. E. PEELLE; M. GROSSMAN. *Univ. of Pennsylvania, Washington Univ.*

4:00 BBB11 **848.08** Syntactic priming effect during second language sentence production by Japanese learners of English: An fMRI study. E. NAKAGAWA*; H. YOKOKAWA; T. KOIKE; K. MAKITA; K. SHIMADA; H. YOSHIDA; N. SADATO. *Kobe University, Grad. school of Intercultural studies, Kobe Univ., Natl. Inst. of Physiological Sci., Osaka Kyoiku Univ.*

1:00 BBB12 **848.09** Dual stream contributions to speech perception in noise. S. EVANS*; S. ROSEN; C. MCGETTIGAN; Z. K. AGNEW; S. K. SCOTT. *Univ. Col. London, Univ. Col. London, Royal Holloway.*

2:00 BBB13 **848.10** High gamma band activity reveals lexical cohorts in human electrocorticographic recordings. S. EL DAMATY*; J. JACOBS; M. SPERLING; A. SHARAN. *Drexel Univ., Thomas Jefferson Univ.*

3:00 BBB14 **848.11** ● Dissociating speech-production pathways from posterior temporal and parietal regions. O. PARKER JONES*; D. W. GREEN; M. L. SEGHIER; C. J. PRICE. *Wellcome Trust Ctr. For Neuroimaging, Cognitive, Perceptual and Brain Sciences, Univ. Col. London, Wellcome Trust Ctr. for Neuroimaging.*

4:00 BBB15 **848.12** ▲ Breaking the McGurk effect - Auditory illusion persistence in the absence of facial stimulation as a consequence of prolonged McGurk effect exposure. C. BROOKS; D. POEPPEL; R. LLINÁS; W. M. FINDLEY*. *The Dalton Sch., New York Univ., New York Univ. Sch. of Med.*

1:00 BBB16 **848.13** Behavioral correlates of atrophy in the logopenic variant of primary progressive aphasia. A. ISENBERG*; J. REILLY; M. GROSSMAN. *Univ. of Pennsylvania, Univ. of Florida.*

2:00 BBB17 **848.14** Dorsal and ventral auditory pathways for processing human vocalizations. S. FRUEHHOLZ*; M. GSCHWIND; D. GRANDJEAN. *Swiss Ctr. For Affective Sciences, Univ. of Geneva, Lab. for Neurol. and Imaging of Cognition, Dept. of Neurosciences, Univ. Med. Ctr. (CMU), Geneva, Switzerland.*

3:00 BBB18 **848.15** An fMRI study of concreteness effects in spoken word recognition. T. ROXBURY*; K. MCMAHON; A. COULTHARD; R. BUCKLEY; C. MCHENERY; D. COPLAND. *The Univ. of Queensland, The Univ. of Queensland, Royal Brisbane and Women's Hosp.*

4:00 BBB19 **848.16** How does the brain represent the meanings of words? Comparing similarity-based against linear representation, and using group-level information to improve decoding within individuals. R. D. RAIZADA*. *Univ. of Rochester.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 BBB20 **848.17** Increased white matter integrity following treatment for anomia post-stroke. S. VAN HEES*; K. MCMAHON; A. ANGWIN; G. DE ZUBICARAY; S. READ; D. COPLAND. *Univ. of Queensland, Royal Brisbane and Women's Hosp.*

2:00 BBB21 **848.18** The cerebellum and cognition: Investigating functional specialization within the cerebellum. T. A. ALVAREZ*; C. LOPRESTI; C. DURISKO; J. TREMEL; S. KIM; J. A. FIEZ. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Carnegie Mellon Univ., Univ. of Pittsburgh, Carnegie Mellon Univ.*

3:00 BBB22 **848.19** Relationship between agraphia and cortical degeneration in patients with amytrophic lateral sclerosis (ALS). N. KOMORI*. *Intl. Univ. of Hlth. and Welfare Hosp.*

4:00 BBB23 **848.20** Auditory envelope processing shifts from sensory cortices towards cognitive control systems with age. J. ERB*; M. J. HENRY; J. OBLESER. *Max Planck Inst. for Human Cognitive & Brain Sci.*

1:00 BBB24 **848.21** altered autonomic differentiation of biologically relevant sounds in semantic dementia. P. FLETCHER*; J. NICHOLAS; T. SHAKESPEARE; H. GOLDEN; L. DOWNEY; J. WARREN. *Dementia Res. Ctr.*

POSTER

849. Emotion II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BBB25 **849.01** Multi-voxel pattern analysis of fMRI data reveals discrete neural representation of basic human emotions. H. P. HEIKKILÄ*; A. GOTSOPOULOS; I. P. JÄÄSKELÄINEN; J. LAMPINEN; P. VUILLEUMIER; R. HARI; M. SAMS; L. NUMMENMAA. *Aalto Univ., Aalto NeuroImaging, Univ. of Geneva, Aalto Univ.*

2:00 BBB26 **849.02** Positive emotional contexts at encoding enhance face recognition. Behavioral and electrophysiological findings. J. G. MARTÍNEZ-GALINDO*; S. CANSINO. *Nat Autonomous Univ. of Mexico.*

3:00 CCC1 **849.03** Evoked anxiety alters resting state functional connectivity within subjects. B. W. MCMENAMIN*; S. J. E. LANGESLAG; M. M. SIRBU; S. PADMALA; L. PESSOA. *Univ. of Maryland.*

4:00 CCC2 **849.04** The influence of emotion on visual awareness: Fear-related enhancements in blindsight and subjective awareness vary as a function of psychopathic traits. L. D. OLIVER*; A. MAO; D. G. V. MITCHELL. *Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario.*

1:00 CCC3 **849.05** Facial expressions modulate amygdala responses to emotional pictures. S. KIM*; H. S. YOON; S. A. KIM; H. JUNG. *Korea Univ.*

2:00 CCC4 **849.06** Brain activity underlying anxious reactivity to unpredictable threat. R. P. ALVAREZ*; N. KIRLIC; J. HAMMOND. *Laureate Inst. For Brain Res.*

3:00 CCC5 **849.07** Attention bias to angry face: Effect of trait anxiety and mood. E. MATSUMOTO*. *Kobe Univ.*

4:00 CCC6 **849.08** Developmental changes in amygdala-based fear learning from early childhood through adulthood. D. S. LUMIAN*; B. GOFF; L. GABARD-DURNAM; D. GEE; J. E. FLANNERY; N. TOTTENHAM. *UCLA, UCLA.*

1:00 CCC7 **849.09** Implicit regulation of amygdala response to facial fear under high cognitive load. C. L. SEBASTIAN*; E. J. MCCRORY; S. A. DE BRITO; E. VIDING. *Royal Holloway, Univ. of London, Univ. Col. London, Univ. of Birmingham.*

2:00 CCC8 **849.10** The 'theory of mind' network forms abstract representations of attributed emotions. A. SKERRY*; R. SAXE. *Harvard Univ., MIT.*

3:00 CCC9 **849.11** Effects of culture on attention to emotional stimuli: Electrophysiological evidence. P. LIU*; S. RIGOULOT; M. D. PELL. *McGill Univ., Univ. de Montréal, McGill Univerisity.*

4:00 CCC10 **849.12** Classification of emotions from EEG with features derived from Discrete Wavelet Transformation. T. ISLAM*; S. VALENZI; A. CICHOCKI. *Brain Sci. Institute, RIKEN, Brain Sci. Institute, RIKEN.*

1:00 CCC11 **849.13** ● Autonomic mechanisms of emotional regulation after Traumatic Brain Injury. C. C. UY*; V. ALURU; M. WILSON; I. A. JEFFERY; A. MADAN; T. ASHMAN; B. IM; P. RAGHAVAN. *NYU Langone Med. Ctr., NYU Sch. of Med., NYU Langone Med. Center, Rusk Inst. of Rehabil. Med., Hunter College, City Univ. of New York, Touro Col. of Osteo. Med.*

2:00 CCC12 **849.14** Hand movement behavior as an indicator of emotional processing in alexithymia. I.; S. HINZMANN; H. SKOMROCH; K. IHME; N. ROSENBERG; V. LICHEV; A. KERSTING; M. RUFER; H. GRABE; T. SUSLOW. *German Sports Univ., Univ. of Leipzig, Univ. Hosp. of Zurich, Ernst-Moritz-Arndt-University of Greifswald.*

3:00 DDD1 **849.15** ● Serum brain derived neurotrophic factor levels are associated with executive functioning performance in major depressive disorder: An exploratory study. T. L. GREER*; B. D. GRANNEMANN; F. D. MARTINEZ; M. H. TRIVEDI. *Univ. Texas Southwestern Med. Ctr.*

4:00 DDD2 **849.16** Caudate volume reductions correlate with depression and anxiety severity in heart failure. J. A. OGREN*; P. M. MACEY; R. KUMAR; G. C. FONAROW; M. A. HAMILTON; R. M. HARPER; M. A. WOO. *UCLA, UCLA, UCLA, Cedars Sinai Med. Ctr.*

1:00 DDD3 **849.17** Mapping brain function in the human cerebral cortex using hierarchical contrast classification profiles (HiCCuP). T. J. HERRON*; K. SCHENDEL; A. U. TURKEN. *US Veterans Affairs, NCHCS, US Veterans Affairs, NCHCS.*

2:00 DDD4 **849.18** ADRA2b and 5HTTLPR polymorphisms influence behavioral and fMRI indices of emotionally enhanced perceptual vividness. R. M. TODD*; A. ROBERTSON; D. MUELLER; D. PALOMBO; B. LEVINE; A. K. ANDERSON. *Univ. of British Columbia, Hosp. for Sick Children, Ctr. for Addiction and Mental Hlth., Boston Univ., Baycrest Ctr. for Geriatric Care, Cornell Univ.*

3:00 DDD5 **849.19** Disgust and obesity: Associations of the disgust response, neural activation, and body mass index (BMI). T. J. WATKINS*; C. R. DI IORIO; B. O. OLATUNJI; M. M. BENNINGFIELD; J. U. BLACKFORD; M. S. DIETRICH; R. M. SALOMON; K. NISWENDER; R. L. COWAN. *Vanderbilt Univ., Washington Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

4:00 DDD6 **849.20** Do words stink? The effect of emotions on reading revealed by EEG, sEEG, fMRI, and TMS. A. PONZ*; B. BRIESEMEISTER; M. BRAUN; C. LIEGEOIS-CHAUVEL; B. WICKER; M. BONNARD; C. SILVA; T. TABEA BRINK; A. M. JACOBS; J. C. ZIEGLER; M. MONTANT. *LPC (UMR 7920) Lab. De Psychologie Cognitive, Gen. and Neurocognitive Psychology, Freie Univ., Inst. Natl. de la Santé et de la Recherche Médicale U751, Inst. de Neurosciences de la Timone, CNRS UMR 7289 & Aix-Marseille Univ., Aix-Marseille Université, INSERM, INS UMR_S 1106, Inst. de Neurosciences de la Timone (UMR 7289), CNRS and Aix Marseille Univ.*

1:00 DDD7 **849.21** ● ▲ Quantification of human comfort - multilateral study with subjective evaluation and neurophysiological signals. H. YANO*; K. KATAHIRA; E. AIBA; S. MATSUURA; K. TOBITANI; N. NAGATA; K. MIYA; S. FURUKAWA. *Sch. of Sci. and Technology, Kwansei Gakuin Univ., Sch. of Sci. and Technology, Kwansei Gakuin Univ. / Natl. Inst. of Advanced Industrial Sci. and Technol. / Japan Society for the Promotion of Sci., Advanced Technol. R&D Center, Mitsubishi Electric Corp.*

POSTER

850. Language IV

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DDD8 **850.01** Using the dynamics of the common listening experience to delineate functional neural domains of musical emotions. N. SINGER; N. JACOBI; E. SOREQ; G. RAZ; D. ABECASIS; E. PASTERNAK; R. TARRASCH; R. Y. GRANOT; T. HENDLER*. *Tel Aviv Univ., Tel Aviv Univ., Tel Aviv Sourasky Med. Ctr., Hebrew Univ. of Jerusalem, Bar Ilan Univ., Tel Aviv Univ., Tel Aviv Univ., Hebrew Univ. of Jerusalem, Tel-Aviv Sourasky Med. Ctr.*

2:00 DDD9 **850.02** The role of ATL as a semantic hub: Evidence from spatio-temporal brain dynamics as measured by combined EEG/MEG. O. HAUK*; E. COOPER; G. EVANS; Y. CHEN; K. PATTERSON; A. M. WOOLLAMS. *Med. Res. Council UK, Med. Res. Council, Univ. of Manchester.*

3:00 DDD10 **850.03** lesion distribution analysis of global aphasia without hemiparesis using brain MR images. W. KIM*. *Inje Med. Sch.*

4:00 DDD11 **850.04** Syntactic movement in broca's aphasic patients: An erp study. R. TORRES*; M. RODRÍGUEZ CAMACHO; J. SILVA PEREYRA; Y. RODRÍGUEZ AGUDELO; F. ROBLES AGUIRRE. *Inst. Nacional De Neurología Y Neurocirugía, Dept. De Neuropsicologia, Natl. Autonomous Univ. of Mexico, Iztacala Higher Educ. Fac., Natl. Inst. of Neurol. and Neurosurgery, Mexico, Autonomous Univ. of Guadalajara, North Campus.*

1:00 DDD12 **850.05** Task control systems are implicated in mapping meaning onto letter strings. B. NARDOS*; J. S. SIEGEL; K. MATHUR; R. L. LEPORE; S. E. PETERSEN; B. L. SCHLAGGAR. *Washington Univ. In St. Louis.*

2:00 EEE1 **850.06** Stripping off semantics from the syntax skeleton: The role of Broca's area. T. GOUCHA*; A. D. FRIEDERICI. *Max Planck Inst. For Human Cognitive and Brain Sci., Berlin Sch. of Mind and Brain, Humboldt Univ.*

3:00 EEE2 **850.07** Automatic and controlled semantic priming in temporal lobe epilepsy. A. G. JAIMES BAUTISTA*; M. RODRÍGUEZ CAMACHO; Y. RODRÍGUEZ AGUDELO; R. TORRES-AGUSTÍN. *Inst. Nacional De Neurología Y Neurocirugía Manuel Velasco Suárez, Univ. Nacional Autónoma de México. Facultad de Estudios Superiores Iztacala, Inst. Nacional de Neurología y Neurocirugía "MVS".*

4:00 EEE3 **850.08** Facilitating multisyllabic productions & assessing sympathetic arousal in children with developmental disorders. M. APARICIO BETANCOURT*; L. S. DETHORNE; K. KARAHALIOS. *Univ. of Illinois, Univ. of Illinois, Univ. of Illinois.*

1:00 EEE4 **850.09** An fMRI study of Tone 3 sandhi: Tone target substitution during Chinese production. H. CHANG*; W. KUO. *Inst. of Neuroscience, Natl. Yang-Ming Univ.*

2:00 EEE5 **850.10** Spatially and temporally distinct correlates of acoustic and phonemic components in speech perception. S. BOUTON*; A. GIRAUD. *Auditory Language Group / Geneva Univ.*

3:00 EEE6 **850.11** Response time and language cortex response in a one-back memory task for words depends on trial history further back. M. WALLENTIN*; I. RYNNE; J. L. D. MICHAELSEN; R. H. NIELSEN. *Aarhus Univ. Hosp., Aarhus Univ.*

4:00 EEE7 **850.12** ● Broca's area is functionally relevant for reading aloud within 100ms. Evidence from fMRI-guided TMS. K. L. WHEAT*; P. L. CORNELISSEN; T. SCHUHMANN; A. T. SACK. *Maastricht Univ., Maastricht Brain Imaging Ctr., Northumbria Univ.*

1:00 EEE8 **850.13** Two languages in one brain - dissociating between representations of language-comprehensive and language-specific processing of sublexical information in the bilingual brain. Y. OGANIAN*; M. CONRAD; K. SPALEK; H. R. HEEKEREN. *Freie Univ. Berlin, Bernstein Ctr. for Computat. Neurosci., Humboldt Univ. zu Berlin.*

2:00 EEE9 **850.14** Anticipation of speakers' end-of-turn indicated by lateralized readiness potential. H. M. MULLER*; H. WESSELMEIER; S. JANSEN. *Neurolinguistics.*

3:00 EEE10 **850.15** Mapping active human language processes. M. WHALEY*; S. COX; N. TANDON; C. CONNER. *Rice Univ., Rice Univ., Univ. of Texas Hlth. Sci. Ctr.*

4:00 EEE11 **850.16** Serial order of parallel network dynamics in the left inferior frontal convolution. C. R. CONNER*; N. TANDON. *UT Houston.*

1:00 EEE12 **850.17** ● Imaging speech comprehension in quiet with high density diffuse optical tomography. M. HASSANPOUR*; A. T. EGGEBRECHT; J. E. PEELLE; J. P. CULVER. *Washington Univ. In St. Louis, Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

2:00 EEE13 **850.18** Second language learning engages the first language network even during nonword reading: Evidence from Chinese learners of English. S. KIM*; F. CAO. *Nanyang Technological Univ.*

3:00 EEE14 **850.19** Structural white matter asymmetries are differentially related to hemispheric activation asymmetries during speech perception and production. S. OCKLENBURG*; K. HUGDAHL; R. WESTERHAUSEN. *Ruhr-University of Bochum, Univ. of Bergen.*

4:00 EEE15 **850.20** Two distinct forms of functional lateralization in the human brain. S. J. GOTTS*; H. JO; G. L. WALLACE; Z. S. SAAD; R. W. COX; A. MARTIN. *Lab. of Brain and Cognition, NIMH/NIH, NIMH/NIH.*

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POSTER

851. Working Memory and Executive Function I

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 EEE16 **851.01** 'Distraction from within': Neural correlates of the impact of internally generated emotional distraction on working memory. A. D. IORDAN*; W. ZHAO; S. DOLCOS; F. DOLCOS. *Univ. of Illinois U-C, Univ. of Illinois U-C, Univ. of Illinois U-C.*

2:00 EEE17 **851.02** Working memory in Parkinson's disease under distraction: The role of the basal ganglia across verbal and spatial domains. M. UITVLUGT; S. M. RAVIZZA*. *Michigan State Univ., Michigan State Univ.*

3:00 EEE18 **851.03** Functional connectivity of the [18F]-altanserin binding potential in working memory of faces: Data from PET studies. H. HAUTZEL*; R. GRANDT; M. BEU; H. HERZOG; H. MÜLLER. *Res. Ctr. Juelich & Univ. of Duesseldorf, Res. Ctr. Juelich & Univ. of Duesseldorf, Univ. of Duesseldorf, Res. Ctr. Juelich, Res. Ctr. Juelich.*

4:00 EEE19 **851.04** The influence of emotional stimuli on frontal theta reset and subsequent performance of a visual working memory task. J. M. WILLIAMS*; S. R. O'BRYAN. *Illinois Wesleyan Univ.*

1:00 EEE20 **851.05** Complex networks in creative cognition. S. RYMAN*; M. VAN DEN HEUVEL; R. YEO; A. VAKHTIN; J. CARRASCO; E. OWENS; C. WERTZ; R. E. JUNG. *UNM Dept. of Neurosurg., Rudolph Magnus Institute, UMC Utrecht, Univ. of New Mexico, Univ. of New Mexico.*

2:00 EEE21 **851.06** Dynamics of working memory and stimulation-evoked seizures in a cortical network. J. LEE*; B. ERMENTROUT; M. BODNER. *Univ. of Pittsburgh, MIND Res. Inst.*

3:00 EEE22 **851.07** Delay-period spatial representations of remembered stimuli in human visual, parietal & frontal cortex depend on memory load. T. C. SPRAGUE*; E. F. ESTER; J. T. SERENCES. *UCSD, UCSD.*

4:00 EEE23 **851.08** Differential effects of visual landmarks and memory load on spatial working memory accuracy. M. Z. KATSHU*; G. D'AVOSSA. *Bangor Univ.*

1:00 EEE24 **851.09** Frontostriatal correlates of predicted utility in working memory. C. CHATHAM*; D. BADRE. *Brown Univ.*

2:00 EEE25 **851.10** Comt genotype interacted with dopaminergic stimulation to modulate working memory-related brain activation in postmenopausal women. J. A. DUMAS*; J. MAKAREWICZ; M. R. NAYLOR; P. A. NEWHOUSE. *Univ. of Vermont Col. of Med., Vanderbilt Univ. Sch. of Med.*

3:00 EEE26 **851.11** Dopaminergic stimulation improves working memory and modulates low theta oscillations. C. ECKART*; L. FUENTEMILLA; E. BAUCH; N. BUNZECK. *Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of Barcelona.*

4:00 FFF1 **851.12** Common principles underlying visual, auditory and tactile working memory resources. S. JOSEPH*; S. KUMAR; P. IVERSON; S. TEKI; S. K. SCOTT*; T. D. GRIFFITHS; M. HUSAIN*. *Univ. Col. London, Inst. of Neurosci., Wellcome Trust Ctr. for Neuroimaging, Dept. of Speech, Hearing and Phonetic Sci., Nuffield Dept. of Clin. Neurosciences, Dept. of Exptl. Psychology.*

1:00 FFF2 **851.13** Dopamine replacement normalizes working memory deficits and aberrant fronto-striatal resting state functional connectivity in people with mild-moderate Parkinson's disease. A. C. SIMIONI*; A. DAGHER; L. K. FELLOWS. *McGill Univ.*

2:00 FFF3 **851.14** A spiking neural network model of working memory can solve delayed match-to-sample tasks and displays a serial position effect. J. G. FLEISCHER*; J. A. GALLY. *The Neurosciences Inst.*

3:00 FFF4 **851.15** Differential neural activation in Neurofibromatosis 1 (NF1) patients and healthy adults during performance on a spatial working memory capacity task. A. IBRAHIM*; C. A. MONTOJO; N. ENRIQUE; K. H. KARLSGODT; A. SILVA; T. ROSSER; C. E. BEARDEN. *UCLA, UCLA, UCLA, Zucker Hillside Hosp., UCLA, Children's Hosp. Los Angeles.*

4:00 FFF5 **851.16** Analysis of working memory using the reading span test: Basic research of regional brain activity on brain cortex using functional near-infrared spectroscopy. N. MASHIMA*; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ.*

1:00 FFF6 **851.17** Exploring interactions between long-term and working memory using the Hebbian repetition effect. K. L. GIGLER*; P. REBER. *Northwestern Univ.*

2:00 FFF7 **851.18** Gamma oscillations differentiates the maintenance of feature information in visual working memory. R. K. SIROLA*; S. WANG; J. M. PALVA; S. PALVA. *Neurosci. Ctr.*

3:00 FFF8 **851.19** Hemifield asymmetries in visual short-term memory capacity. S. L. SHEREMATA*; S. SHOMSTEIN. *George Washington Univ.*

4:00 FFF9 **851.20** Sensory-functional theory accounts for differences between natural and transformed food. G. PERGOLA*; F. FORONI; G. ARGIRIS; R. I. RUMIATI. *Scuola Internazionale Superiore Di Studi Avanzati, Univ. degli Studi di Bari.*

1:00 FFF10 **851.21** Neural activity during response inhibition as a predictor of cognitive impulsivity in 22q11.2 Deletion Syndrome. C. A. MONTOJO*; M. JALBRZIKOWSKI; E. CONGDON; S. DOMICOLI; K. KARLSGODT; C. CHOW; C. E. BEARDEN. *UCLA, UCLA, Feinstein Inst. for Med. Research, Zucker Hillside Hosp.*

2:00 FFF11 **851.22** Examining neuroanatomical correlates of catechol-O-methyltransferase gene expression levels in patients with 22q11.2 Deletion Syndrome. R. K. JONAS*; M. JALBRZIKOWSKI; A. PATEL; S. AGGARWAL; C. C. CHOW; C. A. MONTOJO; C. E. BEARDEN. *UCLA, UCLA.*

3:00 FFF12 **851.23** Decoding content of visual working memory. A. JAFARPOUR*; G. BARNES; W. PENNY; E. DUZEL. *UCL Inst. of Cognitive Neurosci., Wellcome Trust Ctr. for Neuroimaging.*

4:00 FFF13 **851.24** The role sensory expectation in working memory based decision making. M. STOKES*; B. M. CRITTENDEN; N. ADAMIAN; M. P. NOONAN. *Oxford Univ., Univ. of Oxford.*

POSTER

852. Human Cognition: Cognitive Development

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FFF14 **852.01** Category knowledge influences infant working memory: EEG evidence. B. POMIECHOWSKA*; N. KIRKHAM; T. GLIGA. *Ctr. For Brain and Cognitive Development, Birkbeck Col.*

2:00 FFF15 **852.02** Neural mechanisms for selective attention in bilingual preschoolers from lower socioeconomic status backgrounds. E. PAKULAK*; A. HAMPTON WRAY; J. SANTILLAN; T. BELL; Z. N. LONGORIA; H. NEVILLE. *Univ. of Oregon.*

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3:00 FFF16 **852.03** Long-distance plasticity: Alternative brain connectivity in callosal dysgenesis. F. TOVAR-MOLL*; V. V. LAZAREV; M. MONTEIRO; J. ANDRADE; I. BRAMATI; R. VIANA-BARBOSA; T. MARINS; E. RODRIGUES; N. DANTAS; L. AZEVEDO; R. DE OLIVEIRA-SOUZA; J. MOLL; R. LENT. *D'Or Inst. for Res. and Educ., Federal Univ. of Rio de Janeiro, Fernandes Figueira Natl. Institute, Oswaldo Cruz Foundation,, Augusto Motta Univ.*

4:00 FFF17 **852.04** Dentato-thalamic resting state functional connectivity in autism spectrum disorders. M. GHANE*; A. VALDESPINO; J. A. RICHEY. *Virginia Polytechnic Inst. and State Univ., Virginia Polytechnic Inst. and State Univ.*

1:00 FFF18 **852.05** Hippocampal white matter structure is linked to cognitive and academic skills in adolescents from low-income backgrounds. A. MACKEY*; A. S. FINN; J. A. LEONARD; J. SALVATORE; C. A. GOETZ; J. D. E. GABRIELI. *MIT.*

2:00 FFF19 **852.06** Behavioral and neural substrates of self-control. T. TESLOVICH*; A. POWERS; C. HELION; C. S. INSEL; J. A. SILVERS; K. N. OCHSNER; W. MISCHEL; B. J. CASEY. *Weill Cornell Med. Col., Columbia Univ.*

3:00 FFF20 **852.07** Principal component analyses of facial features after full and partial Procrustes superimpositions: Relationships with SATs and political orientation measures. J. CANNON*; K. J. ALBERT; R. S. GORE. *The Univ. of Scranton, The Univ. of Scranton, The Univ. of Scranton.*

4:00 FFF21 **852.08** A Study on the power distribution among the theta, alpha and beta bands of the electroencephalogram of infants of different monthly ages. N. T. MINAKAWA*; A. MORI; R. KOSHIZAWA; K. OKI; M. TAKAYOSE. *Nihon Univ., Nihon Univ., Nihon Univ.*

1:00 FFF22 **852.09** COMT rs4680 polymorphism modulates aggression and impulsivity. G. PUNZI*; R. RASETTI; G. URSINI; R. CATANESI; R. COPPOLA; Q. CHEN; R. ROMANO; G. BLASI; K. BERMAN; A. BERTOLINO; V. S. MATTAY; D. R. WEINBERGER. *Lieber Inst. For Brain Development, Johns Hopkins Med. Campus, Group of Psychiatric Neuroscience, Dept. of Neurosci. and Sense Organs, Univ. of Bari Aldo Moro, Inst. of Forensic Psychiatry and Criminology, Univ. of Bari Aldo Moro, Gene, Cognition and Psychosis Program, Clin. Brain Disorders Branch, Natl. Inst. of Mental Hlth. Intramural Res. Program, Natl. Inst. of Hlth.*

2:00 FFF23 **852.10** Resting state amygdalar functional connectivity relates to emotional cognitive control in youth with a family history of alcoholism. A. CSERVENKA*; D. A. FAIR; B. J. NAGEL. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

3:00 FFF24 **852.11** ▲ Cognitive inhibition in adolescents compared to young adults: A pilot fMRI study. L. E. QUIÑONES-CAMACHO*; I. BERRÍOS-TORRES; C. ROSADO-SANTIAGO; A. BEATO; G. TIRADO-SANTIAGO. *Inst. of Psychological Res., Univ. of Puerto Rico, Univ. of Puerto Rico.*

4:00 FFF25 **852.12** The morning star is the evening star: An fmri investigation of identity and awareness of perspective. A. ARORA*; J. PERNER; M. AICHHORN; M. SCHURZ. *Univ. of Salzburg.*

1:00 FFF26 **852.13** Temporal dynamics of basal ganglia activity: Insights from finite impulse response models and temporal derivatives. J. SALVATORE*; A. FINN; J. LEONARD; J. GABRIELI. *MIT, MIT.*

2:00 GGG1 **852.14** Drawn to Danger: Teens approach rather than retreat from threat. K. L. CAUDLE*; M. DREYFUSS; A. T. DRYSDALE; N. E. JOHNSTON; L. H. SOMERVILLE; T. A. HARE; B. J. CASEY. *Weill Cornell Med. Col., Harvard Univ., Univ. of Zurich.*

3:00 GGG2 **852.15** Segmenting the insular cortex in adolescents - A resting state functional connectivity study. M. D. RUDOLPH*; G. ALARCÓN; M. L. STROUP; D. A. FAIR; B. J. NAGEL. *Oregon Hlth. and Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

4:00 GGG3 **852.16** Working memory induced deactivation in children and adults. P. JIANG; M. TOKARIEV; V. VUONTELA; Y. MA; E. T. ARONEN; O. SALONEN; S. CARLSON*. *Univ. of Helsinki, Kunming Inst. of Zoology, Chinese Acad. of Sci., Inst. of Clin. Medicine, Clin. for Children and Adolescents, Helsinki Univ. and Helsinki Univ. Central Hosp., Helsinki Med. Imaging Center, Dept. of Radiology, Helsinki Univ. Central Hosp., Brain Res. Unit, O.V. Lounasmaa Lab. and Advanced Magnetic Imaging Centre, Aalto University, Sch. of Sci.*

1:00 GGG4 **852.17** Measures of subcortical structures in preterm-born neonates as predictors of long-term cognitive outcomes. J. M. YOUNG*; T. L. POWELL; B. R. MORGAN; D. CARD; J. G. SLED; M. L. SMITH; M. J. TAYLOR. *Univ. of Toronto, Hosp. for Sick Children, Univ. of Toronto, Hosp. for Sick Children.*

2:00 GGG5 **852.18** Performance development on the Towers of Hanoi task and prefrontal-parietal correlations in male children, adolescents and young adults. L. E. RIZO MARTÍNEZ*; M. HERNÁNDEZ-GONZÁLEZ; F. ROBLES; M. A. GUEVARA. *INSTITUTO DE NEUROCIENCIAS, Ctr. Universitario del Norte, Univ. de Guadalajara.*

3:00 GGG6 **852.19** Developmental changes in amygdala-insula connectivity mediates normative age-related increases in trust appraisals. B. GOFF*; D. G. GEE; L. GABARD-DURNAM; J. FLANNERY; E. H. TELZER; K. L. HUMPHREYS; J. LOUIE; N. TOTTENHAM. *UCLA, Univ. of Illinois, Urbana-Champaign.*

4:00 GGG7 **852.20** Functional organization of the basal ganglia differs in children and adults: A resting state functional connectivity MRI study. D. J. GREENE*; T. O. LAUMANN; J. W. DUBIS; S. K. IHNEN; M. NETA; J. D. POWER; J. R. PRUETT, Jr.; K. J. BLACK; B. L. SCHLAGGAR. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

1:00 GGG8 **852.21** Evaluating the front polar function in early childhood: Implication new cognitive battery for preschool children. T. HARADA*; N. FUJITA; M. TSURUNO. *Nihon Fukushi Univ., Mebae Child development Acad.*

2:00 GGG9 **852.22** ▲ Functional characterization of a human beta-protocadherin. R. A. GONÇALVES DA SILVA*; M. BARATA; M. GRALLE. *Univ. Federal Do Rio De Janeiro (UFRJ) , Inst. De Bioquímica Médica.*

3:00 GGG10 **852.23** Cortical network alterations during verbal and emotional processing: The differential effects of beta-adrenergic antagonists on autism spectrum disorder symptomatology. J. P. HEGARTY II*; B. J. FERGUSON; S. E. CHRIST; D. Q. BEVERSDORF. *Univ. of Missouri-Columbia.*

4:00 GGG11 **852.24** Longitudinal change in cognitive function is associated with white matter connectivity changes in children prenatally exposed to alcohol. P. GAUTAM*; S. NUNEZ; M. M. HERTING; K. A. UBAN; S. N. MATTSON; E. P. RILEY; E. C. KAN; J. B. COLBY; E. SOWELL. *Children's Hosp. Los Angeles/ Univ. of Southern California, San Diego State Univ.*

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POSTER

853. Social Cognition: Behavior and Pharmacology

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG12 **853.01** Intranasal oxytocin modulates attention to social stimuli in rhesus macaques. J. A. SOLYST*; E. A. BUFFALO. *Emory University, Neurosci. Program, Yerkes Natl. Primate Res. Ctr., Ctr. for Translational Social Neurosci., Emory Univ. Sch. of Med.*

2:00 GGG13 **853.02** The opioid system mediates perceived facial attractiveness and attention to others' eyes. O. CHELNOKOVA*; B. LAENG; S. LEKNES. *Univ. of Oslo.*

3:00 GGG14 **853.03** Neural and behavioural effects of testosterone on punishment and reward in the ultimatum game. S. DUNNE*; J. C. DREHER; A. PAZDERKSA; T. FRODL; J. NOLAN; J. P. O'DOHERTY. *Trinity Col. Inst. of Neuroscience, Trinity Col. Dublin, Caltech, CNRS, Reward and Decision-Making Group, St James's Hosp., Trinity Col. Dublin, Sch. of Med., Steno Diabetes Ctr., Caltech.*

4:00 GGG15 **853.04** Multidimensional affective ratings inventory (MARI): Standardized non-verbal, human vocalizations of emotion. M. D. MULLANE*; S. OKHOVAT; A. CHIBA. *UCSD, Univ. of California.*

1:00 GGG16 **853.05** Strategy shifts in a two-person bargaining task. T. NOLTE*; M. BHATT; T. LOHRENZ; R. MONTAGUE. *UCL, Virginia Tech. Carilion Res. Inst. and Dept. of Physics, Virginia Tech. Carilion Res. Inst. and Dept. of Physics and Wellcome Trust Ctr. for Neuroimaging, UCL, London.*

2:00 GGG17 **853.06** Familiar feature configuration drives automatic animacy inference. K. A. BARNES*; K. M. ANDERSON; A. MARTIN. *NIH.*

3:00 GGG18 **853.07** The eyes don't lie: Fearful averted postures cue attention. B. AZARIAN*; E. ESSER; T. GREEN; M. PETERSON. *George Mason Univ., George Mason Univ.*

4:00 GGG19 **853.08** Early mother-infant interaction: Comparative physiological assessment of infant calming responses in human and mouse. G. ESPOSITO*; S. YOSHIDA; K. KURODA. *Kuroda Unit, RIKEN Brain Sci. Inst., Univ. of Tsukuba, RIKEN Brain Sci. Inst.*

1:00 GGG20 **853.09** Social cognition affected by exposure to fiction. A. ONZO*; K. MOGI. *none, Sony computer science laboratories.*

2:00 GGG21 **853.10** Pointing according to instrumental or communicative goals. L. VERHAGEN*; A. MURILLO OOSTERWIJK; A. STOLK; M. DE BOER; I. TONI. *Radboud Univ.*

3:00 GGG22 **853.11** Social facilitation of skilled-motor performance. V. S. CHIB*; R. ADACHI; J. P. O'DOHERTY. *California Inst. Tech., California Inst. Tech.*

4:00 GGG23 **853.12** Watching novice action degrades darts expert's skill:Evidence that the motor system is involved in action understanding. T. IKEGAMI*; G. GANESH. *Natl. Inst. of Information and Communications Technol.*

1:00 GGG24 **853.13** Cocaine addicts show increased susceptibility to social influence during risky decision making. D. CHUNG*; G. CHRISTOPOULOS; T. NEWTON; R. DE LA GARZA; B. KING-CASAS; P. CHIU. *Virginia Tech. Carilion Res. Inst., Salem Veteran Affairs Med. Ctr., Nanyang Technological Univ., Culture Sci. Inst., Baylor Col. of Med. & Michael E. DeBakey VA Med. Ctr., Virginia Tech.*

2:00 GGG25 **853.14** Individual difference in sensory-motor processing and social self-concept in the aftermath of the Tohoku Earthquake. M. SUGIURA*; Y. KOTOZAKI; A. SEKIGUCHI; C. M. MIYAUCHI; S. HANAWA; S. NAKAGAWA; T. ARAKI; R. KAWASHIMA. *IDAC, Tohoku Univ., IRIDeS, Tohoku Univ., ToMMo, Tohoku Univ.*

POSTER

854. Neurochemical Mechanisms of Attention

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG26 **854.01** Model-based evaluation of the effects of phencyclidine (PCP) on mouse spontaneous activity: A proof-of-concept study. S. TANAKA*; J. W. YOUNG; A. L. HALBERSTADT; J. VAN ENKHUIZEN; M. A. GEYER. *Sophia Univ., Univ. of California, Res. Service, Utrecht Inst. for Pharmaceut. Sci.*

2:00 GGG27 **854.02** Assessment of the contributions of baseline performance and prefrontal cortical cholinergic projections to orexin A-induced attentional enhancement. K. N. ZAJO*; J. R. FADEL; J. A. BURK. *Col. of William & Mary, Univ. of South Carolina Sch. of Med.*

3:00 GGG28 **854.03** Reversal of ketamine-induced cognitive impairment by an alpha2, 3-$GABA_A$ receptor modulator in rhesus monkeys. Z. MENG*; M. M. J. POE; Z. WANG; J. M. COOK; J. K. ROWLETT. *Harvard Med. School, New England Primate Res. Ctr., UW-Milwaukee, Lawrence Berkeley Natl. Lab.*

4:00 GGG29 **854.04** Ventral tegmental area (VTA) neuronal units recorded from animals exhibiting behavioral sensitization respond to methylphenidate differently from VTA units recorded from animals expressing behavioral tolerance. Z. JONES; N. DAFNY*. *Univ. Texas Med. Sch.*

1:00 GGG30 **854.05** Dorsal striatum dopaminergic system are involved with sensorimotor gating on prepulse inhibition task. S. RODRIGUES; C. SALUM; M. G. M. OLIVEIRA; T. L. FERREIRA*. *Unversidade Federal ABC, Univ. Federal Sao Paulo.*

2:00 GGG31 **854.06** Effects of pituitary adenylate cyclase-activating polypeptide (PACAP) on attention and motivation. R. J. DONAHUE*; C. J. WEBBER; E. G. MELONI; W. A. CARLEZON JR. *Harvard Med. School, McLean Hosp.*

3:00 GGG32 **854.07** The role of dopamine receptors in the caudate nucleus following acute and chronic methylphenidate administration. C. M. CLAUSSEN*; N. DAFNY. *UT Med. Sch.*

4:00 GGG33 **854.08** Methylphenidate elicits gender difference in behavioral activity pattern. T. TRINH; S. KOHLLEPIN; P. YANG; K. BURAU; J. ARONOWSKI*; N. DAFNY. *Univ. Texas HSC - Houston.*

1:00 GGG34 **854.09** ▲ The effects of chronic methylphenidate administration during adolescence in Spontaneously Hypertensive Rats: Locomotor activity, impulsivity and conditioned place preference. M. D. FARBOTA; D. M. SAUTTER; L. A. THOMPSON; T. E. KOELTZOW*. *Bradley Univ.*

2:00 GGG35 **854.10** Distinguishing the mechanisms underlying differential effects of attention enhancing compounds on early sensory signal processing in the rat visual thalamus. R. L. NAVARRA*; B. D. CLARK; B. D. WATERHOUSE. *Drexel Univ. Col. of Med.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 GGG36 **854.11** Cholinergic modulation of attention-driven oscillations during feature binding in rats. V. LJUBOJEVIC*; L. BECKETT; P. R. GILL; P. LUU; K. TAKEHARA-NISHIUCHI; E. DE ROSA. *Univ. of Toronto, Rambus Inc., Univ. of Toronto.*

4:00 GGG37 **854.12** Cholinergic gating of information propagation between sensory and prefrontal cortices. N. JAMES*; N. KOPELL; X. HAN. *Boston Univ.*

1:00 GGG38 **854.13** Brain mechanisms of attention: The role of dopamine transporter. A. CYBULSKA-KLOSOWICZ*; A. RADWANSKA. *Nencki Inst.*

2:00 GGG39 **854.14** Bilateral 6-hydroxydopamine lesions of the thalamic reticular nucleus impair the re-orientation of attention. R. K. STANISLAUS-CARTER*; D. S. TAIT; V. J. BROWN. *St Andrews Univ.*

POSTER

855. Behavioral Flexibility and Response Inhibition

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG40-DP8 **855.01** ● Escalation of checking-like behaviour in the rat observing response task is related to information availability during periods of uncertainty: A model of obsessive-compulsive disorder. D. M. EAGLE*; K. C. HOCKING; A. WILSON; L. C. D'ANGELO; G. P. URCELAY; S. MOREIN-ZAMIR; A. C. MAR; T. W. ROBBINS. *Univ. Cambridge.*

2:00 GGG41 **855.02** A functional dissociation within the insular cortex contributes to the regulation of impulsive decision-making dependent on innate impulsive traits. B. C. FINGER*; I. KUSUMOTO-YOSHIDA; A. BONCI. *Intramural Res. Program, Natl. Inst. On Drug Abuse, Univ. of California San Francisco, Solomon H. Snyder Neurosci. Institute, Johns Hopkins Sch. of Med.*

3:00 GGG42 **855.03** Effect of methylphenidate on temporal discounting in impulsive and calm rhesus monkeys. A. RAJALA*; S. WEBER; A. ANDERSON; L. POPULIN. *Univ. of Wisconsin, Madison, Univ. of Wisconsin, Madison.*

4:00 GGG43 **855.04** Neuronal activity related to context-dependent selective inhibitory control in the primate ventrolateral prefrontal cortex. K. Z. XU*; E. E. EMERIC; V. STUPHORN. *Johns Hopkins Univ., The Johns Hopkins Univ.*

1:00 GGG44 **855.05** Effects of toxoplasma infection on choice impulsivity and changes in nucleus accumbens brain circuitry in the male rat. D. TAN*; A. VYAS. *Nanyang Technological Univ.*

2:00 GGG45 **855.06** Acute administration of d-amphetamine into nucleus accumbens decreases impulsive choice. M. R. MITCHELL*; K. G. SHIMP; D. J. OUIMET; B. I. MCLAURIN; B. SETLOW. *Yale Univ. Sch. of Med., Univ. of Florida.*

3:00 GGG46 **855.07** Contributions of motivational and cognitive functions to risky decision making. K. SHIMP*; M. R. MITCHELL; B. S. BEAS; J. L. BIZON; B. SETLOW. *Univ. of Florida, Yale.*

4:00 GGG47 **855.08** A comparison of a cannabinoid CB1 inverse agonist and two novel CB1 antagonists on a rodent model of impulsive decision making. P. J. MCLAUGHLIN*; K. K. SCHUTTE; V. K. VEMURI; E. S. PLYLER; T. M. PROPER; R. E. DROZDOWSKI; F. M. MYERS; A. MAKRIYANNIS. *Edinboro Univ. of Pennsylvania, Northeastern Univ.*

1:00 GGG48 **855.09** Impulsive decision making in developmentally vitamin D deficient rats. T. H. BURNE*; K. M. TURNER; D. W. EYLES; J. J. MCGRATH. *Queensland Brain Inst., Queensland Ctr. for Mental Hlth. Res.*

2:00 HHH1 **855.10** ● A longitudinal study of impulsive action and choice in female rats tested during adolescence and young adulthood. L. R. HAMMERSLAG*; O. A. ALADESUYI AROGUNDADE; A. G. KAROUNTZOS; J. M. GULLEY. *Univ. of Illinois - Urbana Champaign, Univ. of Illinois - Urbana Champaign, Univ. of Illinois - Urbana Champaign.*

3:00 HHH2 **855.11** The emergence of spatio-temporal neural patterns as rats learning a directional control task. H. MAO*; E. SMITH; J. SI. *Arizona State Univ.*

4:00 HHH3 **855.12** Differential effects of effort on motivation: behavioral and electrophysiological approaches in monkeys. A. SAN-GALLI; C. VARAZZANI; S. BOURET*. *Inst. du Cerveau et de la Moelle Epiniere.*

1:00 HHH4 **855.13** A multi-step decision task to distinguish model-based from model-free reinforcement learning in rats. K. J. MILLER*; J. C. ERLICH; C. D. KOPEC; M. M. BOTVINICK; C. D. BRODY. *Princeton Univ., Howard Hughes Med. Inst.*

2:00 HHH5 **855.14** Noradrenergic and dopaminergic neurons integrate reward value and effort cost: a direct electrophysiological comparison in behaving monkeys. C. VARAZZANI*; A. SAN-GALLI; S. BOURET. *ICM - Brain & Spine Inst., "Frontiers in Life Sciences", Univ. Paris Descartes-Sorbonne Paris Cité.*

3:00 HHH6 **855.15** Lesions of rat subthalamic nucleus change between-trial response sequence effect without impairing response inhibition. S. XIA*; D. S. TAIT; V. J. BROWN. *Univ. of St Andrews.*

4:00 HHH7 **855.16** Pathway-specific and dopamine receptor subtype-specific control of nucleus accumbens in reward learning and its flexibility. S. YAWATA*; T. YAMAGUCHI; T. DANJO; T. HIKIDA; S. NAKANISHI. *Osaka Biosci inst, Med. Innovation Center, Kyoto Univ. Grad. Sch. of Med.*

1:00 HHH8 **855.17** The neuronal activity in the rostral striatum during action value comparisons of objects and movements. S. NONOMURA*; Y. KATO; K. SAMEJIMA; K. DOYA; J. TANJI. *Tamagawa Univ., Tamagawa University, Brain Sci. Inst., Okinawa Inst. of Sci. & Technol., Tohoku university, Brain Sci. Ctr.*

2:00 HHH9 **855.18** ● The effects of a cannabinoid agonist during early adolescence or adulthood in rats on executive function. J. A. MCGAUGHY*; S. E. BRADSHAW, B.A.; J. A. MCBURNIE; J. MATTIE; D. J. CREER; E. M. BYRNES. *Univ. New Hampshire, Tufts Univ. Cummings Sch. of Vet. Med.*

3:00 HHH10 **855.19** Adolescent alcohol exposure results in decreased behavioral flexibility and increased resistance to extinction of alcohol self-administration in adulthood. L. CHANDLER*; M. LOPEZ; B. GLEN; J. MCGONIGAL; N. NEW; S. FLORESCO; J. GASS. *Med. Univ. S Carolina, Univ. of British Columbia.*

POSTER

856. Animal Cognition and Behavior: Timing and Temporal Processing II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH11 **856.01** The role of neuronal nitric oxide in controlling spontaneous motor activity rhythm in mice. Y. GAO*; S. HELDT. *Univ. of Tennessee Hlth. Sci. Ctr.*

2:00 HHH12 **856.02** Clustering of visual, motor, reward, and timing signals in the supplementary eye field during a concurrent interval timing task. M. R. KLEINMAN*; D. LEE. *Yale Univ. Sch. of Med.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 HHH13 **856.03** ▲ Blocking hippocampal acetylcholine receptors may accelerate meal onset in male rats. J. N. GENTRY*; J. N. DARLING; M. B. PARENT. *Georgia State Univ.*

4:00 HHH14 **856.04** Modulation of temporal integration by subanesthetic doses of ketamine. M. MISSAL*; I. AMEQRANE; N. WATTIEZ; P. POUGET. *Inst. of Neurosciences, IONS - COSY, Inst. du Cerveau et la Möelle (ICM).*

1:00 HHH15 **856.05** Interval- induced plasticity of Neural Dynamics in cortical networks *in vitro.* A. GOEL*; D. V. BUONOMANO. *UCLA.*

2:00 HHH16 **856.06** Theta oscillations as a mechanism for predicting trajectories through future events. I. SINGH*; M. HOWARD. *Boston Univ.*

3:00 HHH17 **856.07** Distinct neuronal activities in the rat granular retrosplenial cortex and their possible involvement in the time interval encoding. T. KUROTANI*; K. NIXIMA; K. OKANOYA. *JST, ERATO, Okanoya Emotional Information Project, Grad. Sch. of Arts and Sciences, the Univ. of Tokyo.*

4:00 HHH18 **856.08** Neural oscillations in frontal-striatal circuits during temporal processing in rats. B. GU*; W. H. MECK. *Duke Univ.*

1:00 HHH19 **856.09** ▲ Familiarity with distracters and working memory for time. J. D. OBRAY*; A. R. MATTHEWS; K. N. LAWANTO; C. V. BUHUSI. *Utah State Univ.*

2:00 HHH20 **856.10** ▲ Overcoming Fear: The effect of chronic anxiolytic medication administration on interval timing distracters. C. CHRISTENSEN*; A. R. MATTHEWS; M. BUHUSI; C. V. BUHUSI. *Utah State Univ.*

3:00 HHH21 **856.11** Effects of temporal information in perceptual decision making. G. R. YANG*; H. SEO; D. LEE. *Yale Univ., Yale Univ. Sch. of Med.*

4:00 HHH22 **856.12** Ventral hippocampal lesions produces temporary rightward shifts of peak times in a bi-peak procedure in mice. B. YIN*; W. H. MECK. *Duke Univ.*

1:00 HHH23 **856.13** A general theory of intertemporal decision making and the perception of time. V. K. NAMBOODIRI*; S. MIHALAS; T. MARTON; M. G. HUSSAIN SHULER. *Johns Hopkins Univ., Allen Inst. for Brain Sci.*

2:00 HHH24 **856.14** Effects of 5-HT1a agonist administration on multi-duration timing. Z. SHAPIRO*; M. MATELL. *Villanova Univ.*

3:00 HHH25 **856.15** The frequency and power of hippocampal theta rhythm are modulated on a circadian period and entrained by food availability. R. G. K. MUNN; S. M. TYREE; N. MCNAUGHTON; D. K. BILKEY*. *Univ. of Otago.*

4:00 HHH26 **856.16** Oscillations in LFP power during timing in macaque DLPFC. S. ZHANG; S. J. KERRIGAN; P. K. FAHEY; J. ASHE*. *VAMC and Univ. of Minnesota, VAMC and Univ. of Minnesota, Univ. of Minnesota.*

1:00 HHH27 **856.17** SCOP dependent circadian memory formation for novel objects. K. SHIMIZU*; Y. KOBAYASHI; E. NAKATSUJI; Y. FUKADA. *Dept. Biophysics and Biochemistry, The Univ. of Tokyo.*

2:00 HHH28 **856.18** Behavioral and single-neuron sensitivity to millisecond timing variations in communication signals of weakly electric fish. C. A. BAKER*; L. MA; C. R. CASAREALE; B. A. CARLSON. *Washington Univ. In St. Louis.*

POSTER

857. Prefrontal and Striatal Systems: Molecular Mechanisms

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH29 **857.01** Lack of central serotonin neurons produces lowered anxiety and excessive grooming in mice. J. M. ANDRE*; G. F. BUCHANAN; C. PITTENGER. *Yale Univ. Sch. of Med., Yale Univ. Sch. of Med., VA Med. Ctr., Yale Univ. Sch. of Med., Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*

2:00 HHH30 **857.02** Polypharmacological effects of a novel Dopamine D3 receptor agonist improve performance in cognitive task. S. KORTAGERE*; A. LIN; A. C. K. FONTANA; O. V. MORTENSEN; B. D. WATERHOUSE; J. SHUMSKY. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

3:00 HHH31 **857.03** Separation of similar context representations requires histone acetylation-dependent memory consolidation in prefrontal cortex. P. A. VIEIRA*; J. W. LOVELACE; A. BANA; C. L. HUGHES; A. HIROTO; E. KORZUS. *Univ. of California, Riverside, Univ. of California, Riverside.*

4:00 HHH32 **857.04** Extended exposure to sucrose results in persistent hyperactivity and changes to the proteome of the orbital frontal cortex in Sprague Dawley rats. J. L. FRANKLIN*; M. MIRZAEI; M. K. SAUER; T. A. WEARNE; J. HOMEWOOD; A. K. GOODCHILD; P. A. HAYNES; J. L. CORNISH. *Macquarie Univ., Macquarie Univ., Macquarie Univ., Macquarie Univ.*

1:00 HHH33 **857.05** Epigenetic regulation in the core of the nucleus accumbens is associated with individual differences in addiction liability. S. B. FLAGEL*; S. CHAUDHURY; R. KELLY; S. J. WATSON, Jr; H. AKIL. *Univ. of Michigan, Univ. of Michigan.*

2:00 HHH34 **857.06** Molecular characterisation of the effects of minimal and extended instrumental training. A. L. POWELL*; B. SCHOLZ; J. HADDON; A. ISLES; L. WILKINSON. *Cardiff Univ., Uppsala Univ., Cardiff Univ.*

3:00 HHH35 **857.07** Orbitofrontal IL-6 and JAK-STAT signaling attenuate stress-induced reversal learning deficits in the rat. J. J. DONEGAN*; M. GIROTTI; D. A. MORILAK. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*

4:00 HHH36 **857.08** Molecular and functional phenotyping of 'social' interneurons in the cortex. M. NAKAJIMA*; N. HEINTZ. *the Rockefeller Univ.*

1:00 HHH37 **857.09** Regulation of cAMP signaling in ventral striatum via phosphodiesterase-4 (PDE4) and cyclin-dependent kinase (Cdk5) controls mood and acts as a target for the development of antidepressants. F. PLATTNER*; K. HAYASHI; D. R. BENAVIDES; A. HERNANDEZ; T. C. TASSIN; C. TAN; J. DAY; M. W. FINA; A. C. NAIRN; P. GREENGARD; E. J. NESTLER; A. NISHI; R. TAUSSIG; M. D. HOUSLAY; J. A. BIBB. *UT Southwestern Med. Ctr., Keio Univ., The Johns Hopkins Univ. Sch. of Med., The Univ. of Texas Southwestern Med. Ctr., Univ. of Glasgow, Yale Univ., The Rockefeller Univ., Mount Sinai Sch. of Med., Kurume Univ. Sch. of Med., King's Col. London.*

2:00 HHH38 **857.10** Spontaneous eye blink rates strongly correlates with *in vivo* and *in vitro* measures of striatal dopamine D2-like receptors. S. M. GROMAN*; L. A. MAGANA; T. T. CLARK; Z. T. PENNINGTON; A. S. JAMES; J. JENTSCH. *UCLA, UCLA.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

858. Animal Behavior and Cognition: Prefrontal and Striatal Systems

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH39 **858.01** Temporally graded shifts of prefrontal E/I balance cause heterogeneous changes in emotional memory and sociability. J. LIANG*; W. XU; L. CHEN; T. C. SÜDHOF. *Stanford Univ., Inst. of Psychology, Chinese Acad. of Sci., Stanford Univ., Stanford Univ.*

2:00 HHH40 **858.02** Differential effects of cocaine, baclofen and dopamine receptor modulation on minicolumnar processing in Prefrontal Cortex of nonhuman primates. S. A. DEADWYLER*; I. OPRIS; L. J. PORRINO; G. A. GERHARDT; R. E. HAMPSON. *Wake Forest Sch. of Med., Univ. of Kentucky.*

3:00 HHH41 **858.03** Ghrelin affects both phasic dopamine and nucleus accumbens neuron responses to food-predictive stimuli. J. J. CONE*; J. D. ROITMAN; M. F. ROITMAN. *Univ. of Illinois At Chicago.*

4:00 HHH42 **858.04** Cerebellar stimulation differentially modulates neuronal spiking activity in mouse prefrontal cortex. Y. LIU*; C. BLAHA; G. MITTLEMAN; D. GOLDOWITZ; D. H. HECK. *Univ. Tennessee HSC, Univ. Memphis, Child and Family Res. Inst, Ctr. for Mol Med. and Therapeutics, Univ. of British Columbia.*

1:00 HHH43 **858.05** ▲ NMDA receptor function is necessary for the acute protective effect of control over a stressor, but not for the expression of its behavioral immunizing effect. R. M. ALEKSEJEV*; J. KIM; K. RICHESON; J. AMAT; L. R. WATKINS; S. F. MAIER. *Univ. Colorado, Boulder, Univ. of Colorado at Boulder.*

2:00 HHH44 **858.06** Kappa-opioid receptors inhibit amygdala, but not hippocampal, inputs to the prefrontal cortex in the rat. H. A. TEJEDA*; P. O'DONNELL. *Univ. of Maryland, Baltimore.*

3:00 HHH45 **858.07** Cortico-striatal neural ensembles in nonhuman primates encode behavior-relevant features. L. M. SANTOS*; I. OPRIS; L. J. PORRINO; R. E. HAMPSON; S. A. DEADWYLER. *Wake Forest Sch. of Med.*

4:00 HHH46 **858.08** Dynamics of circuit mPFC-DR in a genetic model targeting serotonin transporter. M. RAPANELLI*; A. MIGUELEZ-FERNANDEZ; S. ZANUTTO; J. HOMBERG; L. FRICK. *Yale Univ., IByME-CONICET, Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Nijmegen, Nijmegen, The Netherlands.*

1:00 III1 **858.09** Stimulation of the medial prefrontal cortex in rats alleviates MK-801-induced deficient attention in the five choice serial reaction time task. N. POLASCHECK*; M. WITTE; J. KRAUSS; K. SCHWABE. *Med. Sch. Hannover.*

2:00 III2 **858.10** Ventral striatum lesions enhance stimulus and response encoding in dorsal striatum. A. C. BURTON*; G. B. BISSONETTE; N. T. LICHTENBERG; V. KASHTELYAN; M. R. ROESCH. *Univ. of Maryland, Col. Park, Univ. of Maryland.*

3:00 III3 **858.11** Neural and behavioral examination of Medial Dorsal Striatal function during rule shifting. G. B. BISSONETTE*; M. R. ROESCH. *Univ. of Maryland, Univ. of Maryland.*

4:00 III4 **858.12** Microstimulation prior to visual stimulation in monkey caudate nucleus during perceptual decisions. T. DOI*; L. DING; J. I. GOLD. *Univ. of Pennsylvania.*

1:00 III5 **858.13** Activity of single neurons in the nucleus accumbens in a decision making paradigm. D. SIERRA-MERCADO*; E. J. MCDONALD; C. A. ECKHARDT; E. N. ESKANDAR. *Massachusetts Gen. Hosp., Northeastern Univ., MIT and Harvard Med. Sch.*

2:00 III6 **858.14** Endocannabinoid signaling in orbitofrontal cortex modulates habit formation. C. M. GREMEL*; G. LUO; D. LOVINGER; R. COSTA. *NIAAA/NIH, Champalimaud Ctr. for the Unknown.*

3:00 III7 **858.15** Maternal propofol anesthesia disrupts medial prefrontal cortex form and function in the offspring. A. G. SKORPUT*; H. H. YEH. *Geisel school of medicine at Dartmouth.*

4:00 III8 **858.16** Opponent neural signals for success and failure in a corticostriatal circuit. M. A. ROSSI*; H. H. YIN. *Duke Univ.*

1:00 III9 **858.17** Plastic changes in the dorsolateral striatum underlie serial order learning: Behavioural, electrophysiology, and optogenetic approaches. S. J. HAYTON*; M. FUCCILLO; P. ROTHWELL; B. LIM; R. C. MALENKA. *Stanford Univ. Sch. of Med.*

2:00 III10 **858.18** ▲ Impact of prenatal nicotine exposure on impulsivity and neural activity in medial prefrontal cortex. B. BARNETT; V. COHEN; T. HEARN; E. JONES; R. KARIYIL; A. KUNIN; S. KWAK; J. LEE; B. LUBINSKI; G. RAO; A. ZHAN; A. C. BURTON; D. W. BRYDEN; M. R. ROESCH*. *Univ. of Maryland, Univ. Maryland.*

3:00 III11 **858.19** Integration of ventral hippocampal and ventromedial prefrontal cortex theta signaling in the nucleus accumbens of rats. S. M. DIBBLE*; A. A. GRACE. *Univ. of Pittsburgh.*

4:00 III12 **858.20** Orbitofrontal cortex neurons express a value code that depends on the target of gaze. V. B. MCGINTY*; A. RANGEL; W. T. NEWSOME. *Stanford Univ., Caltech, Caltech, Howard Hughes Med. Inst.*

1:00 III13 **858.21** ● Low-dose NMDA antagonist treatment induces frequency-specific changes in lfp across primate cortico-striatal circuits during approach-avoidance decision-making. S. AMEMORI*; K. AMEMORI; D. J. GIBSON; A. M. GRAYBIEL. *MIT.*

2:00 III14 **858.22** Default-mode brain activity and increase in dopamine release - A monkey microdialysis study in the medial prefrontal cortex. T. KODAMA*; K. HIKOSAKA; Y. HONDA; T. KOJIMA; S. TANAKA; M. WATANABE. *Tokyo Metropol Inst. Med. Sci., Dept Sensory Science, Kawasaki Univ. of Med. Welfare.*

3:00 III15 **858.23** Striatal subregion-level variations of reward signal processing revealed by high-resolution electrophysiology. K. BAKHURIN*; W. SMITH; V. MAC; W. BABIEC; P. POLLACK; P. GOLSHANI; S. MASMANIDIS. *UCLA, UCLA.*

4:00 III16 **858.24** Key roles of striatal indirect pathway in response selection accuracy of auditory discrimination. K. KOBAYASHI*; K. NISHIZAWA; R. FUKABORI. *Fukushima Med. Univ.*

1:00 III17 **858.25** The role of prefrontal cortex and basal ganglia in model-based and model-free reinforcement learning. B. MIRANDA*; N. MALALASEKERA; P. DAYAN; S. W. KENNERLEY. *Univ. Col. of London, Champalimaud Neurosci. Programme, Gatsby Computat. Neurosci. Unit.*

2:00 III18 **858.26** Unraveling the role of serotonin in cognitive flexibility: A proposed function for 5-HT in the mPFC-DR circuit as a reward encoder. L. R. FRICK*; M. BERNARDEZ-VIDAL; M. RAPANELLI; C. HÖCHT; F. CAMICIA; S. ZANUTTO. *IBYME-CONICET, FFYB-UBA, FMed-UBA.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

859. Fear and Aversive Learning and Memory: Extinction II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 III19 **859.01** The use of rapid acting antidepressants ketamine and scopolamine to block the relapse of fear: Implications for the treatment of Post-traumatic Stress Disorder. N. M. FOURNIER*; M. BANASR; R. TERWILLGER; J. R. TAYLOR; R. S. DUMAN. *Yale Univ. Sch. of Med.*

2:00 III20 **859.02** Acute morphine or naloxone after fear learning: Implications for sex-specific PTSD treatment. E. M. PÉREZ-TORRES*; D. L. RAMOS-ORTOLAZA; K. D. MARTINEZ-CASIANO; Y. ALONSO; A. TORO-BAHAMONDE; E. SANTINI; A. TORRES-REVERON. *Ponce Sch. of Med. and Hlth. Sci., Pontifical Catholic Univ. of Puerto Rico, Univ. of Puerto Rico, Nova Southeastern Univ.*

3:00 III21 **859.03** Individual differences in rats selectively bred for locomotor response to a novel environment affect fear conditioning and extinction behavior. K. E. PRATER*; E. L. AURBACH; H. LARCINESE; P. BLANDINO, Jr.; S. J. WATSON; S. MAREN; H. AKIL. *Univ. of Michigan, Mol. and Behavioral Neurosci. Inst. at the Univ. of Michigan, Texas A&M Univ.*

4:00 III22 **859.04** Social partnering following fear conditioning increased γ-Amino-Butyric acid ($GABA_A$) receptor binding in Wistar-Kyoto rats. S. M. TEJANI-BUTT*; Y. LEI; J. DASILVA; E. HUSSAIN; A. MORRISON. *Univ. Sci. Philadelphia, Univ. of Tabuk, Univ. of Pennsylvania.*

1:00 III23 **859.05** Examining the effects of self-administered nicotine in an animal model of post-traumatic stress disorder. C. J. WEBBER; C. W. ADAM; E. G. MELONI; S. B. CAINE; W. A. CARLEZON*, Jr. *Harvard Med. Sch./Mclean Hosp.*

2:00 III24 **859.06** Impaired fear extinction in serotonin transporter knockout rats is transiently alleviated during adolescence. P. SCHIPPER*; D. W. P. DE LEEST; V. KOEKEN; J. R. HOMBERG. *Donders Inst. For Brain, Cognition and Behavior, Radboud Univ. Nijmegen Med. Ctr.*

3:00 III25 **859.07** ▲ Absence of CB1 receptors in glutamatergic neurons increases brain levels of inflammatory cytokines and induces deficits in extinction of contextual fear conditioning: Implications to the neurobiology of PTSD. S. F. LISBOA*; F. V. GOMES; A. L. TERZIAN; L. B. M. RESSTEL; F. S. GUIMARÃES; C. T. WOTJAK. *Univ. of São Paulo - FMRP, Max Planck Inst. of Psychiatry of Munich.*

4:00 III26 **859.08** Effects of dopamine D1 receptor antagonist SCH23390 on fear extinction retrieval in male and female rats. C. D. REY*; J. M. LIPPS; R. SHANSKY. *Northeastern Univ.*

1:00 III27 **859.09** Positive allosteric modulators for the AMPA receptor improve extinction learning. E. I. FLANDREAU*; V. RISBROUGH. *Univ. of California San Diego.*

2:00 III28 **859.10** Extinction of remote context fear memory is PKA-dependent and resistant to reinstatement. K. A. CORCORAN*; K. L. LEADERBRAND; J. RADULOVIC. *Northwestern Univ.*

3:00 III29 **859.11** Effects of calcineurin inhibition on different aspects of memory extinction in mice. S. ALMEIDA-CORREA*; T. C. MOULIN; C. F. D. CARNEIRO; M. M. C. GONÇALVES; O. B. AMARAL. *Univ. Federal Do Rio De Janeiro - UFRJ.*

4:00 III30 **859.12** GTPase activating protein, GIT2, in post-traumatic stress and related anxiety disorders. A. C. MARTYN*; K. TOTH; R. SCHMALZIGAUG; P. E. BONNER; R. M. RODRIGUIZ; W. C. WETSEL; R. T. PREMONT. *Duke Univ., Duke Univ.*

1:00 III31 **859.13** Involvement of ampar trafficking in the maintenance of extinction memory in the infralimbic cortex. G. E. ARCHBOLD*; O. HARDT; K. NADER. *McGill Univ.*

2:00 III32 **859.14** ▲ Determination of c-fos, Nurr1 and creb gene expression in the medial prefrontal cortex mouse model of emotional perseveration. S. LANDRAU*; A. BUDET; E. I. SÁEZ; V. BUDET; S. PEÑA DE ORTIZ; A. T. MENDEZ-MERCED. *Univ. Del Este-Suagm, Univ. de Puerto Rico.*

3:00 III33 **859.15** Down-regulation of EphB2 facilitates fear extinction. E. A. CRUZ TORRES*; M. CRIADO MARRERO; G. CHOMPRÉ; J. T. PORTER. *Ponce Sch. of Med. and Hlth. Sci.*

4:00 III34 **859.16** Differential effects of global and local relaxin-3 receptor (RXFP3) activation on fear extinction in the rat. S. MA*; S. H. ONG; F. SHABANPOOR; M. A. HOSSAIN; J. D. WADE; A. L. GUNDLACH. *Florey Inst. of Neurosci. and Mental Hlth.*

1:00 III35 **859.17** Cannabinoid receptor modulation of epigenetic alterations the nucleus accumbens following fear conditioning. J. D. LENZ; E. B. OLESON; A. RANGANATH; V. CHIOMA; M. LOBO*; J. F. CHEER. *Univ. of Maryland Sch. of Med.*

2:00 III36 **859.18** Regional pCREB expression following the extinction of pavlovian conditioned fear in differentially reared rats. M. G. MERSMANN*; P. R. A. GREGG; M. E. CAIN. *Kansas State Univ.*

3:00 III37 **859.19** Cortical DNA hydroxymethylation is associated with fear extinction learning and memory. X. LI*; W. WEI; Q. ZHAO; D. BAKER-ANDRESEN; C. FLAVELL; J. WIDAGDO; A. D'ALESSIO; Y. ZHANG; T. BREDY. *Queensland Brain Inst., Whitehead Inst. for Biomed. Res., Harvard Stem Cell Inst.*

4:00 III38 **859.20** Role of nuclear calcium signaling in memory consolidation and fear extinction. T. J. HEMSTEDT*; E. FREITAG; A. M. M. OLIVEIRA; H. BADING. *Univ. of Heidelberg.*

1:00 III39 **859.21** Systematic analysis of hippocampal CA1 transcriptome changes during the reconsolidation and extinction of contextual fear memories reveal the differential regulation of cytokine networks. B. L. SCHOLZ*; A. DOIDGE; P. BARNES; L. S. WILKINSON; K. L. THOMAS. *Dept. of Pharmaceut. Biosciences, Uppsala Univ., Cardiff Univ., Cardiff Univ.*

2:00 III40 **859.22** DNA repair-mediated active DNA demethylation is associated with fear extinction memory. W. WEI*; X. LI; B. TIMOTHY. *Queensland Brain Inst.*

3:00 III41 **859.23** Repeated anisomycin microinjections into the insular cortex delay extinction of conditioned taste aversion. K. ORLOWSKI*; M. HADAMITZKY*; K. BÖSCHE; H. ENGLER; M. SCHEDLOWSKI. *Inst. of Med. Psychology and Behavioral Immunobiology.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

860. Fear and Aversive Learning and Memory: Amygdala and Extended Amygdala Circuits I

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 III42 **860.01** Differential signaling of high-order trial structure and long-time scales in the amygdala and cingulate cortex during emotional learnin. U. LIVNEH*; R. PAZ. *Cold Spring Harbor Lab., Weizmann Inst. of Sci.*

2:00 III43 **860.02** Effects of valence, outcome-probability, and loss-aversion on shifts in exploration-exploitation tradeoff: Behavior and neural correlates. E. A. SCHILMAN*; R. PAZ. *Weizmann Inst. of Sci.*

3:00 III44 **860.03** Neural architecture in the primate amygdala underlies generalization of fear. J. RESNIK*; R. PAZ. *Weizmann Inst. of Sci.*

4:00 III45 **860.04** Dissociation of functional connectivity between the amygdala and prefrontal-cortex during flexible aversive learning. O. KLAVIR*; R. GENUD-GABAI; R. PAZ. *Weizmann Inst. of Sci.*

1:00 III46 **860.05** Alterations in perceptual sensitivity are dynamically induced by relative losses or gains: involvement of sensory-prefrontal-amygdala networks. O. LAUFER*; D. AMIR; R. PAZ. *Weizmann Inst. of Sci.*

2:00 JJJ1 **860.06** Safety signals in the primate cingulate-cortex and Amygdala. R. GENUD-GABAI*; O. KLAVIR; R. PAZ. *Weizmann Inst. of Neurosci.*

3:00 JJJ2 **860.07** Perceptual and neural mechanisms of over-generalization in anxiety. R. PAZ*; O. LAUFER; D. ISRAELI. *Neurobiology, Weizmann Institue of Sci., Jerusalem mental health center, Hebrew Univ.*

4:00 JJJ3 **860.08** Network model of Ce integrates inputs from other amygdala nuclei during fear conditioning. S. S. NAIR*; D. PARE; P. S. SAMARTH. *Univ. Missouri-Columbia, Rutgers Univ., Univ. of Missouri.*

1:00 JJJ4 **860.09** Synaptic competition in the lateral amygdala and the stimulus specificity of conditioned fear responses: A biophysical modeling study. V. GUNTU*; D. KIM; D. PARE; S. NAIR. *Univ. of Missouri, Rutgers State Univ.*

2:00 JJJ5 **860.10** Single cell models for network simulations. D. KIM*; P. SAMARTH; S. NAIR. *Univ. of Missouri- Columbia.*

3:00 JJJ6 **860.11** Physiological neural correlates of timing in the brain circuit underlying auditory threat conditioning. L. DIAZ-MATAIX*; M. GRAUPNER; J. E. LEDOUX; V. DOYERE. *New York Univ., Nathan Kline Inst. for Psychiatric Res., Univ. Paris-Sud, CNRS.*

4:00 JJJ7 **860.12** Short-term plasticity and noradrenergic modulation in the lateral amygdala. A. E. FINK*; M. HOU; J. E. LEDOUX. *New York Univ., Nathan S. Kline Inst. for Psychiatric Res.*

1:00 JJJ8 **860.13** Central amygdala as the gateway for defense reactions. Y. GU*; R. M. SEARS; J. E. LEDOUX. *New York Univ.*

2:00 JJJ9 **860.14** Causality and its neural underpinnings in active and passive aversive learning. T. MADARASZ*; O. AKHAND; J. P. JOHANSEN; J. E. LEDOUX. *Ctr. For Neural Science, New York Univ., RIKEN Brain Sci. Inst., New York Univ.*

3:00 JJJ10 **860.15** Effects of medial amygdala lesions on Pavlovian conditioning, Sidman avoidance and aversive Pavlovian-instrumental transfer. M. MCCUE; J. E. LEDOUX; C. K. CAIN*. *Nathan Kline Inst. For Psychiatric Res., New York Univ.*

4:00 JJJ11 **860.16** ▲ Effects of amygdala damage and reversible inactivation on aversive pavlovian-to-instrumental transfer in a rodent sidman avoidance paradigm. L. PEÑA*; V. CAMPESE; J. KIM; J. E. LEDOUX; C. K. CAIN. *Hunter Col. CUNY, New York Univ. Ctr. for Neural Sci., Emotional Brain Inst. at the Nathan S. Kline Inst. for Psychiatric Res.*

1:00 JJJ12 **860.17** The impact of amygdala damage on the acquisition of instrumental rearing in an escape from threat task. V. CAMPESE*; C. K. CAIN; J. E. LEDOUX. *New York Univ., Emotional Brain Inst. at the Nathan S. Kline Inst. for Psychiatric Res.*

2:00 JJJ13 **860.18** Instrumental learning alters the assessment of conditioned threats through a hippocampal mechanism. J. M. MOSCARELLO*; J. LEDOUX. *New York Univ., New York Univ., Nathan Kline Inst.*

3:00 JJJ14 **860.19** The role of STriatal-Enriched Protein tyrosine phosphatase (STEP) in chronic-stress induced activation of the CRF neurons in the BNSTALG. J. A. DABROWSKA*; R. HAZRA; J. GUO; C. LI; S. DEWITT; J. XU; P. J. LOMBROSO; D. G. RAINNIE. *Emory Univ., Emory Univ., Yale Univ.*

4:00 JJJ15 **860.20** Characterization of stress-induced alterations in dynorphin expression in the bed nucleus of the stria terminalis (BNST). R. HAZRA*; J. GUO; D. RAINNIE. *Emory Univ. Sch. of Med.*

1:00 JJJ16 **860.21** Reduced LTP induction threshold in the basolateral amygdala following prenatal exposure to valproic acid, a rodent model of autism spectrum disorders. S. J. RYAN*; C. LI; R. HAZRA; J. GUO; D. G. RAINNIE. *Emory Univ.*

2:00 JJJ17 **860.22** Repeated shock stress facilitates anxiety-like behaviors through a decrease cAMP-specific phosphodiesterase type IV (PDE4) expression. C. LI*; R. HAZRA; J. DABROWSKA; D. RAINNIE. *Behavioral Neurosci. & Psychiatric Disorders, Yerkes Natl. Primate Researc.*

3:00 JJJ18 **860.23** Identification and characterization of a novel subpopulation of glutamatergic neurons in the anterolateral bed nucleus of the stria terminalis in Thy1-YFP transgenic mice. S. E. DEWITT*; J. D. GUO; R. HAZRA; J. DABROWSKA; D. G. RAINNIE. *Emory Univ., Emory Univ.*

4:00 JJJ19 **860.24** Exploring the mechanisms of Deep Brain Stimulation for Depression, using novel multifunctional neural probes. T. E. MADSEN*; A. L. CROWELL; H. S. MAYBERG; V. M. TOLOSA; D. G. RAINNIE. *Emory Univ., Yerkes Natl. Primate Res. Ctr., Emory Univ., Emory Univ., Lawrence Livermore Natl. Lab.*

1:00 JJJ20 **860.25** Prenatal stress alters the developmental trajectory of basolateral amygdala neuron electrophysiology and GABAergic transmission in rats. D. E. EHRLICH*; M. E. BOWERS; R. HAZRA; K. J. RESSLER; D. G. RAINNIE. *Yerkes Natl. Primate Res. Ctr.*

2:00 JJJ21 **860.26** Prenatal valproic acid exposure causes changes in ultrasonic vocalizations in rat pups separated from their dams. T. M. HENNESSEY*; S. J. RYAN; D. G. RAINNIE. *Emory Univ.*

3:00 JJJ22 **860.27** CRF neurons in the paraventricular nucleus and the bed nucleus of the stria terminalis: distinct physiological properties and genetic phenotypes. J. GUO*; J. DABROWSKA; R. HAZRA; D. G. RAINNIE. *Yerkes Primate Res. Center,Emory Univ. Sch. Med.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

861. Fear and Aversive Learning and Memory: Amygdala and Extended Amygdala Circuits II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ23 **861.01** Population-specific changes in the intrinsic excitability of prelimbic neurons following contextual fear conditioning. M. SZLAPCZYNSKA*; A. FRICK. *Neurocentre Magendie, INSERM U862, Univ. of Bordeaux 2.*

2:00 JJJ24 **861.02** ▲ Effect of transcriptional inhibition in the amygdala on memory consolidation of enhanced inhibitory avoidance training. A. MARTÍNEZ*; A. C. MEDINA; G. L. QUIRARTE; R. A. PRADO-ALCALA. *Inst. De Neurobiología, Inst. De Neurobiología.*

3:00 JJJ25 **861.03** ▲ Analysis of environmental conditions that impact investigations of anxiety in developing rats. S. H. ALBANI*; M. M. ANDRAWIS; R. ABELLA; J. FULGHUM; D. PURVIS; T. C. DUMAS. *Krasnow Inst. For Advanced Study, George Mason Univ., Krasnow Inst. For Advanced Study, George Mason Univ.*

4:00 JJJ26 **861.04** ● Neuronal calcium-imaging in the lateral amygdala of freely behaving mice using the integrated fluorescence microscope. B. F. GREWE*; J. D. MARSHALL; J. A. LECOQ; L. KITCH; M. J. SCHNITZER. *Stanford Univ.*

1:00 JJJ27 **861.05** NMDA receptor and presynaptic activity in the lateral-basolateral amygdala neurons is not required for the retrieval of cued-fear memory. I. BERTOCCHI; D. ARCOS-DÍAZ; P. BOTTA; G. DOGBEVIA; A. LÜTHI; R. SPRENGEL*; M. T. HASAN. *Dept. of Mol. Neurobiology, Max Planck Inst. for Med. Res., Friedrich Miescher Inst. for Biomed. Res., Charite-Universitätsmedizin-Berlin.*

2:00 JJJ28 **861.06** Localization of mu opioid receptor immunoreactivity in the rat basolateral amygdala: An ultrastructural analysis. J. ZHANG*; J. F. MULLER; A. J. MCDONALD. *Sch. of Medicine, Univ. of South Carolina.*

3:00 JJJ29 **861.07** A role for ASIC1a in the BNST in predator odor-evoked defensive responses. R. J. TAUGHER*; C. J. KREPLE; Y. LU; Y. WANG; R. FAN; J. A. WEMMIE. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Veteran's Affairs Med. Ctr.*

4:00 JJJ30 **861.08** Specific deletion of NMDA NR1 subunits within corticotropin-releasing factor (CRF)-expressing neurons alters behavioral responses to social defeat. J. D. MEDURI*; J. P. DAMERT; A. M. JASNOW. *Kent State Universty.*

1:00 JJJ31 **861.09** Central amygdala microcircuits mediating learning and expression of passive and active defensive behaviors. M. MARKOVIC*; A. LUTHI. *Friedrich Miescher Inst.*

2:00 JJJ32 **861.10** Novel neurophysiological changes in lateral amygdala caused by fear conditioning. S. C. FURTAK*; A. PARSANA; T. H. BROWN. *California State University, Sacramento, Yale Univ., Yale Sch. of Med.*

3:00 JJJ33 **861.11** Sex differences in cued fear conditioning. L. H. CHEN*; J. CHUANG; L. YU. *Inst. of Basic Med. Sci. of Natl. Cheng Kung Univ., Inst. of Behavioral Med. of Natl. Cheng Kung Univ.*

4:00 JJJ34 **861.12** Identification of the adeno-associated viral (AAV) serotype that is optimal for the study of amygdala dependent learning and memory. R. HOLEHONNUR*; J. A. LUONG; S. K. LELLA; D. CHATURVEDI; M. P. HOSEK; J. E. PLOSKI. *Univ. of Texas At Dallas.*

1:00 JJJ35 **861.13** Effects of inactivation of the amygdala on taste neophobia. J. ARTHURS*; J. LIN; S. REILLY. *Univ. of Illinois At Chicago, Univ. of Illinois at Chicago.*

2:00 JJJ36 **861.14** Amygdala-Insular cortex interaction through glutamate release in aversive memory retrieval: Differential role of glutamate receptors. D. OSORIO-GÓMEZ*; K. GUZMAN-RAMOS; F. BERMUDEZ-RATTONI. *Inst. de Fisiologia Celular, UNAM.*

3:00 JJJ37 **861.15** Repeated corticosterone (CORT) injections increase freezing behavior and amygdalar c-Fos expression in response to contextual cues in delay fear conditioning. B. D. KULYK*; W. N. MARKS; L. E. KALYNCHUK. *Univ. of Saskatchewan.*

4:00 JJJ38 **861.16** Pharmacogenetic manipulation of subpopulations of neurons in the bed nucleus of the stria terminalis alters anxiety-related behaviors. C. M. MAZZONE*; C. A. MARCINKIEWCZ; A. J. LOPEZ; T. L. KASH. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill.*

1:00 JJJ39 **861.17** The basolateral complex of amygdala interacts with the hippocampus and the medial prefrontal cortex in modulating endocannabinoid effects on memory consolidation for emotionally arousing experiences. M. MORENA*; D. HAUER; V. TREZZA; A. PELOSO; P. ATSAK; V. CUOMO; B. ROOZENDAAL; G. SCHELLING; P. CAMPOLONGO. *Sapienza Univ. of Rome, Ludwig-Maximilians Univ., Univ. of Romatre, Radboud Univ. Nijmegen Med. Ctr.*

2:00 JJJ40 **861.18** Posttraining optogenetic modulation of basolateral amygdala projections in rats differentially influence the consolidation of spatial or emotional learning for contextual fear conditioning. M. L. HUFF*; R. T. LALUMIERE. *The Univ. of Iowa.*

3:00 JJJ41 **861.19** Prediction error coding in amygdala pyramidal neurons sets the strength of fear memories. T. OZAWA*; E. A. YCU; J. KOIVUMAA; J. P. JOHANSEN. *RIKEN Brain Sci. Inst. - Wako.*

4:00 JJJ42 **861.20** Bi-directional control of fear learning by amygdala interneurons. S. B. WOLFF*; J. GRÜNDEMANN; P. TOVOTE; G. A. JACOBSON; C. MÜLLER; J. J. LETZKUS; R. W. FRIEDRICH; A. LÜTHI. *Friedrich Miescher Inst.*

1:00 JJJ43 **861.21** Ghrelin blocks acquisition and extinction for conditioned taste aversion in rats. Y. ZHOU*; Q. ZHU; M. YU; T. LIU; Z. MA. *Med. Col. of Qingdao Univ.*

2:00 JJJ44 **861.22** ▲ Amygdala lesions disrupted signaled instrumental avoidance acquisition in Wistar Kyoto and Sprague Dawley rats. K. M. MOENCH*; Z. J. RESCH; J. J. WILSON; D. P. MILLER; K. A. MILLER; K. C. H. PANG; R. J. SERVATIUS. *Carthage Col., NJMS-UMDNJ, DVA Med. Center, NJHCS.*

3:00 JJJ45 **861.23** Abnormal synaptic plasticity in the basolateral amygdala to prelimbic cortex projection of anxiety vulnerable rats. J. E. CATUZZI*; K. C. H. PANG; R. J. SERVATIUS; K. D. BECK. *New Jersey Med. School-Grad. Sch. of Biomed. Sci., VA New Jersey Heath Care Syst., Stress and Motivated Behavior Inst.*

4:00 JJJ46 **861.24** Sleep alterations and changes in amygdalo-hippocampal activity patterns in a mouse model of post-traumatic stress disorder. S. A. POLTA; M. KREUZER; K. KÄFER; T. FENZL; M. CZISCH*; C. T. WOTJAK. *Max Planck Inst. of Psychiatry, Klinikum rechts der Isar, CCB - Ctr. for Chem. and Biomedicine, Univ. of Innsbruck.*

1:00 JJJ47 **861.25** Elucidating the neurocircuitry mediating conditioned olfactory fear. E. PAVESI*; Y. GAO; J. K. STEWART; M. L. FLETCHER; S. A. HELDT. *Univ. of Tennessee Hlth. Sci. Ctr.*

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

▲ Indicates a high school or undergraduate student presenter.

POSTER

862. Fear and Aversive Learning and Memory: Hippocampal and Other Circuits

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ48 **862.01** Neurogenesis in the dentate gyrus increases following object-fear conditioning but not contextual fear conditioning. G. A. SCOTT*; S. CUMMINGS; D. M. SAUCIER; H. LEHMANN. *Univ. of Ontario Inst. of Technol., Trent Univ., Trent Univ.*

2:00 JJJ49 **862.02** Dentate gyrus is not necessary for contextual fear discrimination. S. KUBIK*; H. BUCHTOVA. *Inst. of Physiol. Acad. of Sci. of the Czech Republic, v.v.i.*

3:00 JJJ50 **862.03** Partial reinforcement extinction effect and hippocampal gene expression in Roman High- and Low-Avoidance rat strains. C. TORRES*; M. SABARIEGO; I. MORÓN; M. J. GÓMEZ; R. DONAIRE; F. J. CANO; A. FERNÁNDEZ-TERUEL; F. J. ESTEBAN. *Univ. of Jaen, Univ. of Granada, Autonomous Univ. of Barcelona.*

4:00 JJJ51 **862.04** A critical role for extinction in the immediate shock deficit in contextual fear conditioning. B. E. BERNIER*; A. LACAGNINA; M. R. DREW. *Univ. Texas At Austin.*

1:00 JJJ52 **862.05** A hippocampus-mPFC interaction underlies the expression of a contextually imprecise fear memory. P. K. CULLEN*; D. DEJANOVIC; B. N. DULKA; J. D. MEDURI; D. C. RICCIO; A. M. JASNOW. *Kent State Univ.*

2:00 JJJ53 **862.06** Dorsal hippocampus TRPV1 receptors modulate the expression contextual fear conditioning. G. B. SPIACCI*; L. B. M. RESSTEL. *Fac. of Med. of Ribeirao Preto.*

3:00 JJJ54 **862.07** Classical tone-shock conditioning induces mature BDNF increases in the hippocampus and amygdala of pigeons. E. A. FERRARI*; R. S. DE FARIA; F. CANOVA; C. R. SARTORI. *UNICAMP.*

4:00 JJJ55 **862.08** The temporal organizing patterns of NMDA receptor-dependent associative memory codes in the hippocampus. H. ZHANG*; G. CHEN; H. KUANG; J. Z. TSIEN. *Georgia Regents Univ.*

1:00 JJJ56 **862.09** The effect of limbic and non-limbic kindling on conditioned fear behaviour and hippocampal function. J. J. BOTTERILL*; A. J. GUSKJOLEN; D. M. FERGUSON; W. N. MARKS; L. E. KALYNCHUK. *Univ. of Saskatchewan, Univ. of Toronto.*

2:00 JJJ57 **862.10** Dorsal hippocampus muscarinic m3 receptors modulate the expression of contextual fear conditioning in rats. L. B. RESSTEL*; L. ANTERO; G. B. L. SPIACCI. *Schl Med, FMRP-USP.*

3:00 JJJ58 **862.11** Electrophysiological and behavioral evidence for endogenous iron modulation of NMDA receptor dependent excitability in the hippocampus. R. S. WHITE*; Y. CHEN; B. BROOKSHIRE; R. LIN; M. MCMULLEN; I. LUCKI; S. SIEGEL; G. CARLSON; S. KIM. *Univ. of Pennsylvania Perelman Sch. of Med.*

4:00 JJJ59 **862.12** A possible location of contextual memory: CA1 subfield and laterality of learning-dependent synaptic delivery of AMPA receptors. J. MIZUNO*; D. MITSUSHIMA. *Kanagawa Dent. Univ., Yamaguchi University, Grad. Sch. of Med.*

1:00 JJJ60 **862.13** Connectivity profiles reveal the relationship between brain areas for social cognition in human and monkey temporoparietal cortex. R. B. MARS*; J. SALLET; F. NEUBERT; M. F. S. RUSHWORTH. *Univ. Oxford.*

2:00 JJJ61 **862.14** Norepinephrine involvement in a one-day Morris water maze procedure following intermittent swim stress. N. P. STAFFORD*; E. ELGERT; M. WILLIAMS; T. A. WARNER; R. C. DRUGAN. *Univ. of New Hampshire.*

3:00 JJJ62 **862.15** Activation of the norepinephrine system in the dorsal hippocampus switches the long-term storage of fear memory. J. LIU*; L. ZHAO; J. CHEN; Y. XUE; Y. LUO; L. LU. *Natl. Inst. On Drug Dependence, Peking Univ.*

4:00 JJJ63 **862.16** Fear conditioning activates different neural circuitry at PD 17 and PD 24 in the rat. M. A. BURMAN*; A. L. DEAL; K. J. ERICKSON. *Univ. of New England.*

1:00 JJJ64 **862.17** ▲ Functional mapping of the neural sites involved in the expression of contextual fear responses in defeated male rats. M. J. RANGEL*, JR; C. FATURI; N. CANTERAS. *Univ. De São Paulo/Instituto De Ciências Biomédicas.*

2:00 JJJ65 **862.18** Prefrontal cortical GABA transmission regulates discriminative fear-conditioning. P. T. PIANTADOSI*; S. B. FLORESCO. *Univ. of British Columbia.*

3:00 JJJ66 **862.19** The ventral part of the anteromedial thalamic nucleus is involved in the acquisition, but not the expression, of contextual responses to predatory threats. M. A. LIMA*; R. A. RUFINO; S. R. MOTA-ORTIZ; M. V. C. BALDO; N. S. CANTERAS*. *ICB - USP, UNICID*.

4:00 JJJ67 **862.20** The gustatory insular cortex and taste perception. J. LIN*; J. ARTHURS; S. REILLY. *UIC PSYCHOLOGY.*

1:00 JJJ68 **862.21** Costs and benefits of active avoidance training in infancy: Functional imaging in freely behaving mice. A. BRAUN*; A. SPROEWITZ; A. RIEDEL; J. BOCK. *Otto von Guericke Univ., Ctr. for Behavioral Brain Sci.*

POSTER

863. Animal Learning and Memory: Cortical and Hippocampal Circuits V

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ69 **863.01** 3D head direction cells in bats: Evidence for a toroidal neural compass. A. FINKELSTEIN*; D. DERDIKMAN; A. RUBIN; J. N. FOERSTER; L. LAS; N. ULANOVSKY. *Weizmann Inst. of Sci., Technion – Israel Inst. of Technol.*

2:00 JJJ70 **863.02** Hippocampal representation of multiple spatial scales during 2D versus 3D navigation in bats. N. ULANOVSKY*; A. FINKELSTEIN. *Weizmann Inst. of Sci.*

3:00 KKK1 **863.03** Developing methods for multi-channel neural recording and stimulation in freely flying bats. L. LAS*; I. SARAF-SINIK; J. VECHT; N. ULANOVSKY. *Weizmann Inst. of Sci., Deutron Technologies Ltd.*

4:00 KKK2 **863.04** Switching between sensory modalities and flight directions alters 3-D spatial codes in bat hippocampus. M. GEVA-SAGIV*; L. LAS; N. ULANOVSKY. *Weizmann Inst. of Sci., The Hebrew Univ. of Jerusalem.*

1:00 KKK3 **863.05** Physical exercise enhances cognitive performance on a hippocampus-medial prefrontal cortex-dependent task. A. T. BROCKETT*; M. OPENDAK; E. GOULD. *Princeton Univ., Princeton Univ.*

2:00 KKK4 **863.06** Dorsoventral segregation of spatial and non-spatial information in CA1 and CA3 during spontaneous recognition memory: An Arc IEG study. Z. BEER*; C. CHWIESKO; M. SAUVAGE. *Mercator Res. Group (FAM), Intl. Grad. Sch. of Neurosci., Mercator Res. Group.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 KKK5 **863.07** One and/or a history of exposures to an enriched environment affect c-fos expression in adolescent rat entorhinal cortex and hippocampal regions. W. C. WHITE, Jr; A. M. LITTLEFIELD; H. K. ANDERSEN; A. M. FRENCH; G. L. READ; S. A. ALTMAN; M. C. ZRULL*. *Appalachian State Univ.*

4:00 KKK6 **863.08** The use of sequential hippocampal-dependent and -non-dependent tasks to study changes in activation, expression and structure during recent and remote memory tests. B. C. WARTMAN*; M. R. HOLAHAN. *Carleton Univ.*

1:00 KKK7 **863.09** BOLD responses associated with hippocampal ripples in the rat brain. O. ESCHENKO*; M. BESSERVE; Y. MURAYAMA; H. EVRARD; M. BEYERLEIN; A. OELTERMANN; N. LOGOTHETIS. *Max Planck Inst. for Biol. Cybernetics, Max Planck Inst. for Intelligent Systems, Ctr. for Imaging Sciences, Biomed. Imaging Institute, The Univ. of Manchester.*

2:00 KKK8 **863.10** Chronic caffeine improves recognition memory in adolescent rats with modifications in hippocampal BDNF, GFAP and SNAP-25 immunocontent. C. SALLABERRY*; A. ARDAIS; A. ROCHA; M. F. BORGES; L. O. PORCIÚNCULA. *Univ. Federal Do Rio Grande Do Sul, Univ. Federal do Rio Grande do Sul.*

3:00 KKK9 **863.11** Development of spatial function in rats and associated c-Fos patterns in the hippocampal CA1 and CA3 regions. M. R. HOLAHAN*; R. COMBA; N. J. GERVAIS; B. WARTMAN; C. SMITH; D. G. MUMBY. *Carleton Univ., Concordia Univ.*

4:00 KKK10 **863.12** Dorsal CA1: Encoding- but not retrieval-like activity correlates with memory performance: An Arc/Homer1a imaging study. N. H. NAKAMURA*; M. M. SAUVAGE. *Ruhr Univ. Bochum.*

1:00 KKK11 **863.13** Modeling of intrinsic and extrinsic mechanisms in rat hippocampus and entorhinal cortex that may influence firing of grid and place cells. M. FERRANTE*; M. MIGLIORE; N. KOPELL; H. EICHENBAUM; M. E. HASSELMO. *Boston Univ., Natl. Res. Council.*

2:00 KKK12 **863.14** ● ▲ Developmental changes in structural and functional properties of hippocampal AMPA receptors parallels the emergence of deliberative spatial navigation in juvenile rats. M. G. BLAIR; N. N. NGUYEN; S. H. ALBANI; M. M. L'ETOILE; L. M. OWEN; R. F. OLIVEIRA; M. M. ANDRAWIS; M. W. JOHNSON; E. M. SANDERS; E. T. STONEHAM; H. XU; T. C. DUMAS*. *George Mason Univ., George Mason Univ.*

3:00 KKK13 **863.15** Longitudinal *in vivo* imaging of CA1 neuronal activity after fear conditioning in APPswe/PSEN1dE9 transgenic mice. S. KLEIBER*; L. SCHMID; J. STEFFEN; D. EHNINGER; M. FUHRMANN. *German Ctr. for Neurodegenerative Dis. (DZNE).*

4:00 KKK14 **863.16** Voluntary exercise rescues neurotrophin levels, hippocampal ACh release and behavior in an animal model of memory dysfunction. J. M. HALL*; L. M. SAVAGE; C. D. ALVARADO. *Binghamton Univ.*

1:00 KKK15 **863.17** The differentiation between grid and conjunctive units in medial Entorhinal Cortex: A model. B. SI; A. TREVES*. *Weizmann Inst., SISSA Intl. Sch. Adv Studies.*

2:00 KKK16 **863.18** Does rate remapping interfere with phase coding in hippocampal place cells? H. SANDERS*; D. JI; J. E. LISMAN. *Brandeis Univ., Baylor Col. of Med.*

3:00 KKK17 **863.19** Explicit memory creation during sleep: A causal role of place cell on navigation. G. DE LAVILLEON*; M. LACROIX; L. RONDI-REIG; K. BENCHENANE. *Team Mobs, Lab. of Neurobiology, CNRS UMR 7637, ESPCI Paristech, Team Navigation, Memory and Aging (ENMVI), CNRS UMR 7102, UPMC.*

4:00 KKK18 **863.20** Dopamine, social learning, and food intake: The effects of hippocampal dopamine D1-type receptor blockade with SCH23390 in the social transmission of food preferences in male and female mice. R. MATTA*; A. N. TIESSEN; E. CHOLERIS. *Univ. of Guelph.*

1:00 KKK19 **863.21** Spike time-dependent synaptic plasticity can organize a recurrent network of principal cells and interneurons to generate 2-d grid cell responses and achieve path-integration functionality. J. WIDLOSKI*; I. FIETE. *Univ. of Texas, Austin.*

2:00 KKK20 **863.22** Spatial memory encoding in a mouse model of tau-mediated neurodegeneration. S. CIUPEK; J. CHENG; D. JI*. *Baylor Col. of Med., Baylor Col. of Med., Baylor Col. Med.*

3:00 KKK21 **863.23** Prelimbic neuron coding of concrete and abstract stimulus features in trace eyeblink conditioning. M. D. MORRISSEY*; K. TAKEHARA-NISHIUCHI. *Univ. of Toronto.*

4:00 KKK22 **863.24** Balkanizing the rodent orbitofrontal cortex - evidence from spatial reversals. J. S. RICEBERG*; M. SHAPIRO. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*

POSTER

864. Animal Learning and Memory: Gamma and Theta Activity

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK23 **864.01** Spike train correlations among grid cells and the implications for the network model of grid formation. S. TRETTEL*; I. FIETE; L. L. COLGIN. *The Univ. of Texas At Austin, The Univ. of Texas at Austin.*

2:00 KKK24 **864.02** Slow and fast gamma oscillations support distinct spatial coding modes in hippocampal place cells. K. W. BIERI; K. N. BOBBITT; L. L. COLGIN*. *Univ. of Texas At Austin.*

3:00 KKK25 **864.03** Increased oscillatory activity in the hippocampal-ventral striatal system across multiple frequency bands during reward site approach. C. S. LANSINK*; J. C. JACKSON; J. V. LANKELMA; M. VINCK; C. M. A. PENNARTZ. *Univ. of Amsterdam, Univ. of St. Thomas.*

4:00 KKK26 **864.04** Enhancement of gamma oscillation after selective activation of dopamine D4 receptors in freely moving rats. B. KOCSIS*; P. LEE; R. DETH. *Harvard Med. Sch., Northeastern Univ.*

1:00 KKK27 **864.05** The role of gamma-band activity in hippocampal CA1 during memory-guided versus visually-cued spatial choice. N. M. ZOMMARA*; H. NISHIDA; M. TAKAHASHI; J. LAUWEREYNS. *Kyushu Univ., JSPS, Tamagawa Univ.*

2:00 KKK28 **864.06** Rule switching affects theta-gamma coupling in rat hippocampus. T. NAKAZONO*; S. TAKAHASHI; Y. SAKURAI. *Grad. Sch. of Letters, Kyoto Univ., JSPS Res. Fellow, Doshisya Univ.*

3:00 KKK29 **864.07** Spontaneous theta oscillations induced in mouse hippocampal slices. H. NORIMOTO*; T. MIYAWAKI; M. MIZUNUMA; N. MATSUKI; Y. IKEGAYA. *The Univ. of Tokyo.*

4:00 KKK30 **864.08** Bidirectional theta-rhythmic drive between medial septum and hippocampus in freely moving rats. M. DING*; D. KANG; L. SHIFFLETT; B. KOCSIS. *Univ. Florida, Harvard Med. Sch.*

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

▲ Indicates a high school or undergraduate student presenter.

1:00 KKK31 **864.09** Hippocampal theta rhythm after MK-801 administration into the ventral tegmental area in anesthetized rats. P. MATULEWICZ*; J. ORZEL-GRYGLEWSKA; E. JURKOWLANIEC. *Univ. of Gdansk.*

2:00 KKK32 **864.10** Identified interneurons of dorsal hippocampal area CA1 show different theta-contingent response profiles during classical eyeblink conditioning. J. J. CICCHESE*; R. D. DARLING; S. D. BERRY. *Miami Univ., Univ. of Mississippi Med. Ctr.*

3:00 KKK33 **864.11** Cross-frequency coupling in APP-deficient mice *in vivo.* X. ZHANG; S. WEYER; U. MÜLLER; J. BRANKACK; A. DRAGUHN*. *Inst. für Physiologie und Pathophysiologie, Inst. of Pharm. and Mol. Biotech., Heidelberg Univ.*

4:00 KKK34 **864.12** The role of differing interneuron types in fast and slow gamma oscillations in ca1. S. KEELEY*; J. RINZEL; A. FENTON. *New York Univ.*

1:00 KKK35 **864.13** Abrupt information changes in the hippocampal CA1 area during memory-guided alternation. H. NISHIDA*; M. TAKAHASHI; A. D. REDISH; J. LAUWEREYNS. *Kyushu Univ., JSPS, Tamagawa Univ., Univ. of Minnesota.*

2:00 KKK36 **864.14** Differential role of network oscillations during acquisiton and extinction of cerebellar theta-contingent trace eyeblink classical conditioning. L. C. HOFFMANN*; S. D. BERRY. *Miami Univ.*

3:00 KKK37 **864.15** ▲ EEG network oscillations: A target for screening drugs with cognition enhancing and antipsychotic potential. A. AHNAOU*; H. HUYSMANS; W. H. DRINKENBURG. *Janssen R&D, Pharmaceut. Companies of Johnson & Johnson.*

4:00 KKK38 **864.16** Gamma oscillations in the lateral septum in behaving mice. A. PONOMARENKO; N. P. DENISOVA; T. KOROTKOVA*. *Leibniz-Institut fuer Molekulare Pharmakologie (FMP), Behavioural Neurodynamics, Leibniz-Institut Fuer Molekulare Pharmakologie (FMP).*

1:00 KKK39 **864.17** Changes in odor-induced firing of mitral cells and oscillations in the local field potentials in mice learning to discriminate odors. A. LI*; D. RESTREPO. *Univ. of Colorado Anschutz Med. Campus.*

2:00 KKK40 **864.18** Voluntary and involuntary running in the rat show different patterns of theta rhythm, physical activity and heart rate. J. LI*; T. KUO; C. YANG. *Natl. Yang Ming Univ., Inst. of Brain Sci.*

3:00 KKK41 **864.19** Theta dynamics: The effect of novel acoustic input on the hippocampus. L. L. LONG*; A. A. NORRIS; H. L. READ; M. A. ESCABI; J. J. CHROBAK. *Univ. of Connecticut, Univ. of Connecticut, Univ. of Connecticut.*

4:00 KKK42 **864.20** Phase-Amplitude coupling in rat orbitofrontal cortex discriminates between correct and incorrect decisions during associative learning. M. VAN WINGERDEN*; R. VAN DER MEIJ; T. KALENSCHER; E. MARIS; C. M. A. PENNARTZ. *Heinrich-Heine Univ. Düsseldorf, Univ. of Amsterdam, Radboud Univ., Heinrich-Heine Univ. Düsseldorf.*

1:00 KKK43 **864.21** Effects of ethanol exposure in the EEG power during a spatial working memory test. S. HUITRON-RESENDIZ*; A. J. ROBERTS. *The Scripps Res. Inst.*

POSTER

865. Animal Learning and Memory: Pharmacology II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK44 **865.01** Modafinil rescues iron-induced memory impairment in rats. N. SCHRÖDER*; B. S. DE FREITAS; S. B. BUSATO; B. C. D. PORTAL; V. A. GARCIA. *Pontifical Catholic Univ. (PUCRS).*

2:00 KKK45 **865.02** The role of the NR2B subunit in the acquisition of fear in differentially reared rats. E. K. REINHARDT*; M. E. CAIN. *Kansas State Univ.*

3:00 KKK46 **865.03** A competitive NMDA receptor antagonist, CPP, selectively impairs odor span task performance in rats. D. A. MACQUEEN*; S. R. DALRYMPLE; D. M. DIAMOND. *Univ. of South Florida, VA Hosp.*

4:00 KKK47 **865.04** ● ▲ Neural mechanisms of the standardized extract of Ginkgo biloba L in the acquisition and extinction of conditioned fear: Role of gabaergic, glutamatergic and serotoninergic receptors. C. R. ZAMBERLAM*; S. M. CERUTTI. *Federal Univ. of Sao Paulo, Federal Univ. of Sao Paulo.*

1:00 KKK48 **865.05** Histamine microinjected into the cerebellar vermis facilitates retention of inhibitory avoidance learning in mice via H2 receptors. A. L. GIANLORENÇO*; K. SERAFIM; A. CANTO DE SOUZA; R. MATTIOLI. *Federal Univ. of São Carlos.*

2:00 KKK49 **865.06** ● Effects of the nicotinic alpha-7 agonist ABT-107 on reversal learning in a rat touchscreen visual discrimination task. Z. DING*; J. W. BROWN; L. E. RUETER; E. G. MOHLER. *Abbvie Inc.*

3:00 KKK50 **865.07** Oral administration of flavonoids from Georgian endemic grape species Saperavi ameliorates memory deficit associated with kainic acid-induced status epilepticus in laboratory white rats. N. DOREULEE*; M. KURASBEDIANI; M. ALANIA; B. CHKHARTISHVILI; M. CHIQOVANI; E. MITAISHVILI; T. KAPANADZE. *I.Javakhishvili Tbilisi State Univ.*

4:00 KKK51 **865.08** Lecithin and caffeine improves spatial memory in rats: Roles of protein synthesis. B. V. OWOYELE*; M. A. TOLUHI. *Univ. of Ilorin.*

1:00 KKK52 **865.09** Naltrexone facilitates spatial memory acquisition and delays extinction by increasing GluR1-S845 phosphorylation-dependent AMPARs trafficking. C. KIBALY; A. Y. F. KAM; P. LAW*. *Univ. of Minnesota.*

2:00 KKK53 **865.10** A new measure of rat behavior in the elevated plus-maze. G. G. BOSCO*; R. ARANTES; J. TEJADA; S. MORATO; A. C. ROQUE. *Univ. of São Paulo.*

3:00 KKK54 **865.11** ▲ Flavonoids as a modulator of fear memory. D. R. OLIVEIRA*, SR; G. M. RÊGO; A. J. CAVALHEIRO; J. M. CERUTTI; S. M. CERUTTI. *Univ. Federal De São Paulo, Brazilian Agr. Res. Corp. (EMBRAPA), Univ. Estadual de Sao Paulo, Univ. Federal de Sao Paulo, Univ. Federal de Sao Paulo.*

4:00 KKK55 **865.12** Acute metyrapone treatment impairs contextual fear memory retrieval independent of β-adrenergic signaling. M. B. CAREAGA*; S. M. OTA; P. TIBA; D. SUCHECKI. *Univ. Federal de São Paulo, Univ. Federal do ABC.*

1:00 KKK56 **865.13** Behavioral reversal of spatial learning deficits using the Hebb-Williams mazes in Fmr1 KO mice treated with the mGluR-5 antagonist, MPEP. R. M. GANDHI*; C. S. KOGAN; C. MESSIER; L. MACLEOD. *Univ. of Ottawa, Univ. of Ottawa.*

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

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2:00 KKK57 **865.14** Working memory deficits produced by prenatal nicotine exposure are associated with deficits in DRD4 receptor activity. K. LEE; L. JONES; T. SPENCER; J. BIEDERMAN; P. BHIDE; J. ZHU*. *Florida State Univ. Col. of Med., Massachusetts Gen. Hospital, Harvard Med. Sch.*

3:00 KKK58 **865.15** Differential involvement of nucleus accumbens dopamine receptors during taste aversive learning and extinction after chronic consumption of sugar. G. RODRÍGUEZ-GARCÍA*; J. A. RANGEL-HERNANDEZ; G. VERA; N. E. GARCIA-MEDINA; G. A. SOTO-ALONSO; M. I. MIRANDA. *Univ. Nacional Autonoma de Mexico - Inst. de Neurobiologia.*

4:00 KKK59 **865.16** Dose-response effect of standardized Ginkgo biloba extract on the acquisition of conditioned fear. R. B. GAIARDO*; M. M. TELLES; S. M. CERUTTI. *Univ. Federal De São Paulo.*

1:00 KKK60 **865.17** Ketone bodies improve learning, memory and mitochondrial complex I activity in APP transgenic mice. J. YIN*; M. MAALOUF; P. HAN; Z. TANG; F. SCHWEIZER; E. M. REIMAN; J. SHI. *Barrow Neurolog. Inst., UCLA, Banner Alzheimer's Inst.*

2:00 KKK61 **865.18** Divergent effects of the novel, "biased", 5-HT_{1A} receptor agonists F15599 and F13714 in a novel cognition task: object pattern separation. R. SCHREIBER*; N. VAN GOENTHEM; A. NEWMAN-TANCREDI; M. VARNEY; J. PRICKAERTS. *CNS Drug Discovery, Univ. of Groningen, Univ. of Maastricht, Neurolixis Inc.*

3:00 KKK62 **865.19** Role of 5-HT5 receptors in the consolidation of memory. A. MENESES*; R. GONZALEZ; K. CHAVEZ-PASCACIO. *Cinvestav - IPN, Natl. Sch. of Biol. Sci.*

4:00 KKK63 **865.20** The effects of chronic caffeine on learning and memory in adolescent mice. R. L. POOLE*; D. BRAAK; T. GOULD. *Temple Univ.*

1:00 KKK64 **865.21** Indiscriminate elevation of CaMKIIα activity impairs social recognition memory. W. WEI*; H. ZHU; L. ZHANG; J. Z. TSIEN; L. P. WANG. *BBDI, MCG, Georgia Regents Univ., Dept. of Psychiatry, MCG, Georgia Regents Univ., IBFG, East China Normal Univ.*

POSTER

866. Neural Mechanisms for Social Behavior across Evolutionary Phylogeny

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK65 **866.01** Prefrontal and accumbal electric activity during auditory stimulation in virgin female rats: Changes related to the estral cycle. D. R. CHAPA*; M. HERNANDEZ-GONZALEZ; M. A. GUEVARA; R. ROMERO-OROZCO. *Univ. De Guadalajara.*

2:00 KKK66 **866.02** Urine scent marking (USM): A novel test for depressive-like behavior and a predictor of stress resiliency in mice. M. HERKENHAM*; C. E. GEDDES; J. L. LEE; M. L. LEHMANN. *NIMH.*

3:00 KKK67 **866.03** Aging-related alterations in social investigation of, and preference for, a familiar versus unfamiliar social partner in male Fisher 344 rats. T. L. DOREMUS-FITZWATER*; E. I. VARLINSKAYA; E. M. TRUXELL; T. DEAK. *Binghamton Univ.*

4:00 KKK68 **866.04** The U-field test is useful to measure sociability and behavioral preference in mice. J. CHOI; J. PARK; T. KIM; J. KIM; E. LEE; J. LEE; P. HAN*. *Ewha Womans Univ., Inha Univ. Med. Sch.*

1:00 KKK69 **866.05** Rescuing a conspecific associated with changes in rats's anterior cingulate and insular cortical activity. W. WU*; M. TSAI; K. LIANG; C. YEN. *Natl. Taiwan Univ., Dept. of Biomechatronic Engin., Natl. Taiwan Univ., Neurobio. and Cognitive Sci. Ctr.*

2:00 KKK70 **866.06** Analysis of the neural basis of mate-guarding behavior in small fish, medaka. S. YOKOI*; T. OKUYAMA; Y. KAMEI; Y. TANIGUCHI; T. KUBO; H. TAKEUCHI. *Univ. of Tokyo, The Univ. of Tokyo, Natl. Inst. for Basic Biol., Keio Univ.*

3:00 LLL1 **866.07** ▲ Antennule flick rate as an assay for detection of novel social odors in lobsters. R. CLEMENTS*; N. RYCROFT; J. ATEMA. *Boston Univ.*

4:00 LLL2 **866.08** Disrupted social behaviors of CD38 knock-out mice assayed via three-chamber test and pup retrieval test. J. YOO*; H. LEE; B. KAANG. *Seoul Natl. Univ.*

1:00 LLL3 **866.09** A 3D-video-based computerized analysis of social and sexual interactions in rats. J. MATSUMOTO*; S. URAKAWA; Y. TAKAMURA; R. MALCHER-LOPES; E. HORI; C. TOMAZ; T. ONO; H. NISHIJO. *Univ. of Toyama, Univ. of Toyama, Univ. of Brasília.*

2:00 LLL4 **866.10** Retinoic acid signaling in the anterior insula is critical for social behavior. S. KIM*; A. SAWA. *Johns Hopkins Univ.*

3:00 LLL5 **866.11** Heterogeneity in social behavior and relation to associative learning in BXD recombinant inbred mice. A. T. KNOLL*; S. CHOI; B. REEB-SUTHERLAND; N. A. FOX; P. LEVITT. *USC, Florida Intl. Univ., Univ. of Maryland.*

4:00 LLL6 **866.12** Elucidating the role of the oxytocin system in specific social behaviors by using an oxytocin agonist and antagonist. C. WOOD; M. GREGG; H. SAMPLE; J. REYES; L. A. MARTIN*. *Azusa Pacific Univ., Azusa Pacific Univ.*

1:00 LLL7 **866.13** Escalated aggression and the dorsal raphe nucleus: Role of Glutamate and GABA. A. TAKAHASHI*; K. A. MICZEK; T. KOIDE. *Natl. Inst. of Genet., Tufts Univ.*

2:00 LLL8 **866.14** Temperature influence on social interaction in rats: Role of termo-TRP channels. M. ALMEIDA*; D. ISHIKAWA; R. C. L. VIZIN; C. O. S. AZZI. *Univ. Federal Do ABC.*

3:00 LLL9 **866.15** Emotional contagion is required for pro-social behavior in rats. I. BEN-AMI BARTAL*; T. M. MURRAY; J. Z. WILLIAMS; J. DECETY; P. MASON. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago.*

4:00 LLL10 **866.16** Disruption of pair bonding behavior after lesion to the nucleus taeniae(avian amygdala). A. DIOS; M. CHENG*. *Rutgers Univ., Rutgers Univ.*

1:00 LLL11 **866.17** Calming responses during maternal carrying in human infants and mouse pups: Comparative and ontogenic analyses. S. YOSHIDA*; G. ESPOSITO; K. O. KURODA. *Lab. of Neuroendocrinology, Fac. of Medicine, Univ. of Tsukuba, RIKEN Brain Sci. Inst.*

POSTER

867. Accumbens II

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL12 **867.01** ▲ Effects of chronic ethanol exposure and withdrawal on spine density in the nucleus accumbens. V. L. PETERSON*; J. P. RICE; B. A. MCCOOL; D. A. HAMILTON. *Univ. of New Mexico, Wake Forest Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

2:00 LLL13 **867.02** ▲ ΔFosB and GFAP changes in nucleus accumbens nucleus of rats exposed to a cafeteria diet combined with daily sleep delay. E. N. ESPITIA*; R. I. OSNAYA; M. A. VELASCO; C. ESCOBAR*. *UNAM.*

3:00 LLL14 **867.03** Nucleus accumbens involvement in cued-approach behavior during early versus extended stages of training. V. DOBROVITSKY*; A. KLEIN; M. BRIONES; R. I. CAAMAÑO TUBÍO; J. C. HORVITZ. *City Col. of the City Univ. of New York.*

4:00 LLL15 **867.04** Nucleus accumbens core but not basolateral amygdala neurons encode incentive motivation elicited by reward-predictive cues. F. AMBROGGI*; H. L. FIELDS. *UCSF/Gallo Ctr.*

1:00 LLL16 **867.05** Stimulatory role of CB1 receptors in the nucleus accumbens on palatable food intake in pre-satiated rats. F. CORTÉS SALAZAR*; J. O. SUÁREZ-ORTÍZ; J. M. MANCILLA-DÍAZ; V. E. LÓPEZ-ALONSO; A. HERNÁNDEZ-GUITIÉRREZ; R. E. ESCARTÍN-PÉREZ. *Univ. Nacional Autónoma de México, Inst. Politécnico Nacional.*

2:00 LLL17 **867.06** Optogenetic enhancement of food 'liking' versus 'wanting' in the ventral pallidum hotspot and lateral hypothalamus. D. C. CASTRO*; K. C. BERRIDGE. *Univ. of Michigan.*

3:00 LLL18 **867.07** The effect of NMDA receptor blockade within the nucleus accumbens core on the expression of Pavlovian approach. R. I. CAAMAÑO TUBÍO*; E. K. WARREN; J. C. HORVITZ. *The City Col. of NY of CUNY.*

4:00 LLL19 **867.08** Phasic dopamine transients in the nucleus accumbens during reward prediction. A. M. FIORENZA*; T. SHNITKO; D. ZITZMAN; C. DA CUNHA; D. ROBINSON. *Univ. of North Carolina At Chapel Hill, Federal Univ. of Paraná.*

1:00 LLL20 **867.09** Phasic and tonic dopamine transmission dynamics in the nucleus accumbens during unexpected reward omission. K. A. PORTER-STRANSKY*; J. S. SEILER; O. S. MABROUK; R. T. KENNEDY; B. J. ARAGONA. *Univ. of Michigan, Univ. of Michigan.*

2:00 LLL21 **867.10** Role of endogenous opioid signaling in nucleus accumbens neural activity and reward-seeking behavior. K. CAREF*; S. M. NICOLA. *Albert Einstein Col. of Med.*

3:00 LLL22 **867.11** Increased nucleus accumbens dopamine inhibits satiety in a cued approach task. J. DU HOFFMANN*; S. M. NICOLA. *Albert Einstein Col. of Med.*

4:00 LLL23-DP9 **867.12** Optogenetic excitation of the central amygdala controls choice by making an outcome more 'wanted'. M. J. ROBINSON*; K. C. BERRIDGE. *Univ. of Michigan.*

1:00 LLL24 **867.13** Reinforcing effects of optogenetic excitation of d1 and/or d2 cells in the nucleus accumbens and lateral septum. S. L. COLE*; M. J. F. ROBINSON; K. C. BERRIDGE. *Univ. of Michigan, Univ. of Michigan.*

POSTER

868. Cocaine and Amphetamine

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL25 **868.01** The expression of MC4Rs in D1R neurons regulates food intake and locomotor sensitization to cocaine. H. CUI*; M. LUTTER. *Univ. of Iowa Carver Col. of Med.*

2:00 LLL26 **868.02** Cocaine self-administration and extinction alter the ability of yohimbine to cause a conditioned place preference and activate noradrenergic neurons in rats. D. M. BUFFALARI*; A. E. MOROCO; L. RINAMAN. *Univ. of Pittsburgh.*

3:00 LLL27 **868.03** Intravenous cocaine challenge induces c-fos under isoflurane anesthesia in rats with a history of repeated cocaine administration. N. A. PEARTREE*; P. R. KUFAHL; K. L. HEINTZELMAN; M. CHUNG; J. L. NEISEWANDER. *Arizona State Univ., Arizona State Univ.*

4:00 LLL28 **868.04** Cocaine self-administration differentially affects excitatory and inhibitory associative encoding in the nucleus accumbens core and shell. M. SADDORIS*; R. M. CARELLI. *Univ. of North Carolina, Chapel Hill, UNC Neurosci. Ctr.*

1:00 LLL29 **868.05** Receptor subtype-selective dopamine agonists inhibit amphetamine-induced adult rat 50-kHz ultrasonic vocalizations. T. SCARDOCHIO*; P. B. S. CLARKE. *McGill Univ.*

2:00 LLL30 **868.06** A moderate dose of amphetamine fails to evoke 50 kHz ultrasonic vocalizations but induces psychomotor hyperactivity. E. J. GARCIA*; T. J. MCCOWAN; K. C. JOHNS; M. E. CAIN. *Kansas State Univ.*

3:00 LLL31 **868.07** Dopamine release in the nucleus accumbens dynamically tracks changes in relative reward value during delay discounting. J. A. SUGAM*; M. P. SADDORIS; R. M. CARELLI. *Univ. of North Carolina.*

4:00 LLL32 **868.08** Cue-directed behavior during appetitive training influences activity and ultrasonic vocalization after context conditioning with d-amphetamine. H. J. LEE*; M. MONFILS; M. E. OLSHAVSKY. *Univ. Texas, Austin.*

1:00 LLL33 **868.09** Nucleus accumbens core neurons encode associations between stimuli in a sensory preconditioning task. D. H. CERRI*; M. P. SADDORIS; R. M. CARELLI. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill.*

2:00 LLL34 **868.10** Effects of exercise reward on spontaneous and amphetamine-induced appetitive ultrasonic vocalizations in rats. J. C. BRENES*; N. HEYSE; G. ÁLVAREZ; R. K. W. SCHWARTING. *Philipps-University of Marburg.*

3:00 LLL35 **868.11** Reduced responding for primary and conditioned reinforcers in serotonin transporter knockout mice. C. BROWNE*; P. J. FLETCHER. *Univ. of Toronto/ Camh, Ctr. for Addiction and Mental Hlth., Univ. of Toronto.*

POSTER

869. Neuroethology: Sex and Seasonal Differences

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL36 **869.01** Rapid changes in microRNA expression during seasonal growth and regression of the adult avian song control system. T. LARSON*; K. L. LENT; R. LUCHE; F. M. FARIN; T. K. BAMMLER; J. W. MACDONALD; D. J. PERKEL; E. A. BRENOWITZ. *Univ. of Washington, Seattle, Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington.*

2:00 LLL37 **869.02** ▲ Turnover of adult born neurons in the avian song control system. N. M. THATRA*; T. A. LARSON; E. A. BRENOWITZ. *Univ. of Washington, Univ. of Washington.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 LLL38 **869.03** Black-capped chickadee fee-bee song: Immediate early gene expression, song production, and song perception in males and females. A. H. HAHN*; M. T. AVEY; A. KRYSLER; C. B. STURDY. *Univ. of Alberta, Univ. of Alberta.*

4:00 LLL39 **869.04** Adult neurogenesis and seasonal reconstruction of a cortical-like neural circuit. R. E. COHEN*; M. MACEDO-LIMA; E. A. BRENOWITZ. *Univ. of Washington, Federal Univ. of Sergipe.*

1:00 LLL40 **869.05** Diffusion tensor imaging of the song control system: Examining sex differences in adult zebra finches. A. PIRAINO*; S. MACDOUGALL-SHACKLETON; D. SHERRY. *Western Univ.*

2:00 LLL41 **869.06** The neural implications of sexual selection in agamid lizards. D. HOOPS*; S. KEOGH; M. WHITING. *The Australian Natl. Univ., Macquarie Univ.*

3:00 LLL42 **869.07** Does LMAN play a functional role in the vocal development of adult female canaries treated with testosterone? M. L. ROUSE, JR*; G. F. BALL. *The Johns Hopkins Univ.*

4:00 LLL43 **869.08** Gender differences in single neuron responses to emotional faces. M. NEWHOFF*; A. B. VALDEZ; M. H. PAPESH; D. M. TREIMAN; K. A. SMITH; S. D. GOLDINGER; P. N. STEINMETZ. *Barrow Neurolog. Inst., Barrow Neurolog. Inst., Louisiana State Univ., Barrow Neurolog. Inst., Arizona State Univ.*

1:00 LLL44 **869.09** Sexual dimorphism of brain region volumes varies by season in ground squirrels. A. N. IWANIUK*; R. J. KEELEY; D. K. BURGER; D. M. SAUCIER. *Univ. of Lethbridge, Univ. of Ontario Inst. of Technol.*

2:00 LLL45 **869.10** Effects of sex pheromones on circadian elements of locomotor rhythms in the sea lamprey. E. J. WALASZCZYK*; Y. CHUNG-DAVIDSON; N. S. JOHNSON; W. LI. *Michigan State Univ., USGS Great Lakes Sci. Ctr.*

3:00 LLL46 **869.11** Fictive Flirting: Strongly conserved neurohormonal control of reproductive circuitry in the leech nervous system. K. L. TODD*; W. B. KRISTAN; K. A. FRENCH. *Univ. California San Diego.*

POSTER

870. Sensory Systems and Behavior

Theme F: Cognition and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL47 **870.01** A new operant assay for thermosensation. M. ISAACSON; M. HOON*. *NIDCR.*

2:00 LLL48 **870.02** In-flight control of dragonfly head movements during prey capture. M. MISCHIATI*; H. LIN; I. SIWANOWICZ; A. LEONARDO. *HHMI/Janelia Farm.*

3:00 LLL49 **870.03** HCN channels within a looming sensitive neuron selectively enhance responses to spatially coherent stimuli producing visually evoked escape. R. B. DEWELL*; F. GABBIANI. *Baylor Col. of Med., Baylor Col. of Med., Rice Univ.*

4:00 LLL50 **870.04** Avian magnetoreception: A putative map/signpost sense associated with the trigeminal system. D. HEYERS*; D. KISHKINEV; N. LEFELDT; N. CHERNETSOV; H. MOURITSEN. *Carl-von-Ossietzky-Univ. Oldenburg, Dep. of Integrative Biol., Biol. Station Rybachy.*

1:00 LLL51 **870.05** Spontaneous activity in the zebrafish larval tectae. T. PIETRI*; S. A. ROMANO; G. SUMBRE. *Ecole Normale Superieure.*

2:00 LLL52 **870.06** Visual motion processing in the central complex of the cockroach. N. D. KATHMAN*; M. KESAVAN; A. J. POLLACK; R. E. RITZMANN. *Case Western Reserve Univ., Case Western Reserve Univ.*

3:00 LLL53 **870.07** Noise exposure induces a hyperacusis-like state in larval zebrafish. A. A. BHANDIWAD*; D. W. RAIBLE; J. A. SISNEROS. *Univ. of Washington, Univ. of Washington, Univ. of Washington.*

4:00 LLL54 **870.08** Biophysical mechanisms and computational principles of weak signal detection. S. N. JUNG*; C. MARCOUX; A. LONGTIN; L. MALER. *Univ. of Ottawa, Univ. of Ottawa.*

1:00 LLL55 **870.09** Widespread representation of vestibular activity in the rodent brain. F. DRAWITSCH; E. A. RANCZ; A. M. BRICHTA; S. G. CANALS; T. W. MARGRIE*. *NIMR, The Univ. of Newcastle, CSIC - Universitas Miguel Hernández, Univ. Col. London.*

2:00 LLL56 **870.10** Established period of diacetyl adaptation of the nematode Caenorhabditis elegans is related to breeding temperature. A. NISHINO*; T. MATSUURA; M. ICHINOSE. *Iwate Univ.*

3:00 LLL57 **870.11** Identification of magnetosensitive neurons required for magnetic orientation. A. G. VIDAL-GADEA*; K. A. WARD; J. T. PIERCE-SHIMOMURA. *The Univ. of Texas At Austin.*

4:00 LLL58 **870.12** Population coding of stimulus direction by ascending cell assembly in cercal and auditory systems in the cricket. H. OGAWA*; M. SOMEYA. *Hokkaido Univ., JST, Hokkaido Univ.*

1:00 LLL59 **870.13** Characteristics of physical motion information involved in the induction of shoaling behavior: Using biological motion stimuli. T. NAKAYASU*; E. WATANABE. *Natl. Inst. For Basic Biol.*

2:00 LLL60 **870.14** Modulation of olfactory sensitivity by high fat diet-induced stress in *Drosophila melanogaster*. J. KIM*; H. KWON. *Seoul Natl. Univ.*

3:00 LLL61 **870.15** Midazolam microinjection in dorsomedial telencephalon blocks stress-induced antinociception in the fish Leporinus macrocephalus. C. P. WOLKERS*; A. HOFFMANN. *Sch. of Med. - Univ. of São Paulo - FMRP/USP.*

POSTER

871. Optical Methods for Studying Neural Networks

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL62 **871.01** Four-dimensional photostimulation: Stimulating neurons in both space and time. M. GO*; M. TO; C. STRICKER; S. REDMAN; H. BACHOR; G. STUART; V. DARIA. *Australian Natl. Univ., Australian Natl. Univ.*

2:00 LLL63 **871.02** ● Imaging hippocampal neuronal activity across sleep/wake states in freely behaving mice. J. E. HEISS*; L. D. BURNS; Y. ZIV; S. W. BLACK; E. D. COCKER; S. MORAIRTY; M. SCHNITZER; K. K. GHOSH; T. S. KILDUFF. *SRI Intl., Inscopix, Inc.*

3:00 LLL64 **871.03** Rapid response dynamics of Fast-GCaMP calcium indicator proteins *in vitro* and *in vivo.* A. M. BADURA*; X. R. SUN; A. GIOVANNUCCI; L. A. LYNCH; D. A. PACHECO PINEDO; M. MURTHY; S. S. -. WANG. *Princeton Univ.*

4:00 LLL65 **871.04** ScanImage: Extensible software for laser scanning microscopy. V. IYER*; S. PERON; J. GUO; G. M. G. SHEPHERD; A. HANTMAN; K. SVOBODA. *HHMI/Janelia Farm, Feinberg Sch. of Medicine, Northwestern Univ.*

Wed. PM

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1:00 MMM1 **871.05** Development of new rabies virus variants for simultaneous optical imaging of activity from different neural populations. S. SATO*; S. OHARA; K. TSUTSUI; T. IIJIMA. *Tohoku Univ.*

2:00 MMM2 **871.06** Enhanced archaerhodopsin fluorescent protein voltage indicators. Y. GONG*; J. LI; M. J. SCHNITZER. *Stanford Univ.*

3:00 MMM3-DP10 **871.07** Optical imaging and stimulation of neural activity at cellular resolution in awake, mobile mice. J. P. RICKGAUER*; D. W. TANK. *Princeton Univ.*

4:00 MMM4 **871.08** Gene-integration free neuromodulation technique: Nano-plasmonics of gold nanorods suppresses neuronal activity. S. YOO; J. PARK; Y. NAM*. *KAIST.*

1:00 MMM5 **871.09** ● Optical and electrophysiological assays for screening $GABA_A$ receptors. R. E. PETROSKI*; J. LIMBERIS; K. SYMONS; M. E. MASSARI. *Dart Neurosci.*

2:00 MMM6 **871.10** Optical probing of three dimensional bio-engineered neuronal networks “optonets”. S. PALUCH*; H. DANA; A. MAROM; I. BROSH; S. SHOHAM. *Technion.*

3:00 MMM7 **871.11** Inference of neuronal network spike dynamics and topology from calcium imaging data. H. LUETCKE*; F. GERHARD; W. GERSTNER; F. HELMCHEN. *Brain Res. Institute, Univ. of Zurich, EPFL.*

4:00 MMM8 **871.12** Optical activation of hippocampal neurons *in vitro* using ultrashort pulse laser. J. M. JANG*; S. BAE; W. JUNG; N. JEON. *Seoul Natl. Univ., Ulsan Natl. Inst. of Sci. and Technol., Seoul Natl. Univ.*

1:00 MMM9 **871.13** Optimized temporally deconvolved Ca^{2+} imaging reveals the scale-free topology of CA1 hippocampal networks. S. REICHINNEK*; T. PFEIFFER; A. DRAGUHN; M. BOTH. *Univ. Heidelberg, Univ. Heidelberg, Univ. Bordeaux Segalen.*

2:00 MMM10 **871.14** Optical strategies for sensing neuronal voltage using quantum dots and other semiconductor nanocrystals. J. D. MARSHALL*; M. J. SCHNITZER. *Stanford Univ.*

3:00 MMM11 **871.15** ● Implantable device for intrinsic signals imaging in cortices of freely moving rats. M. HARUTA*; C. KITSUMOTO; Y. SUNAGA; H. TAKEHARA; T. NODA; K. SASAGAWA; T. TOKUDA; J. OHTA. *Nara Inst. of Sci. and Technol.*

4:00 MMM12 **871.16** Fast in-vivo recording of multiple brain regions in zebrafish using light-sheet microscopy. G. DEBREGEAS*; T. PANIER; R. OLIVE; R. CANDELIER; S. WOLF; T. PIETRI; S. A. ROMANO; G. SUMBRE. *LJP - UPMC/CNRS, Inst. de biologie de l’ENS - ENS/CNRS/INSERM.*

1:00 MMM13 **871.17** Optophysiological recordings of neuronal and synaptic activities from single neurons in rat hippocampal slice with the voltage-sensitive dye Annine-6plus. O. DUPONT-THERRIEN*; C. SALESSE; D. CÔTÉ; P. DE KONINCK. *Univ. Laval / CRULRG.*

2:00 MMM14 **871.18** The localization of changes in optical backscattering during seizure progression *in vivo* with optical coherence tomography. M. M. EBERLE*; C. L. REYNOLDS; J. I. SZU; Y. WANG; M. S. HSU; D. K. BINDER; B. H. PARK. *Univ. of California, Riverside, Univ. of California, Riverside, Univ. of California, Riverside.*

3:00 MMM15 **871.19** Increasing CLARITY throughput: Optical, histochemical, and computational strategies for large brain volumes imaged at sub-cellular resolution. R. TOMER*; J. MIRZABEKOV; K. CHUNG; K. DEISSEROTH. *HHMI, Stanford Univ., Stanford Univ., Stanford Univ.*

4:00 MMM16 **871.20** Analysis of transient structural changes in astrocytes using optical coherence phase microscopy. M. OLIVEIRA*; M. R. HAQUE; M. S. HSU; D. K. BINDER; B. H. PARK. *Univ. of California Riverside, Univ. of California Riverside.*

1:00 MMM17 **871.21** Changes in backscattered OCT intensity precede seizure onset. M. R. HAQUE*; M. C. OLIVEIRA; M. S. ISLAM; G. N. FILATOV; M. S. HSU; D. K. BINDER; M. BAZHENOV; B. H. PARK. *Univ. of California Riverside, Univ. of California Riverside, Univ. of California Riverside.*

2:00 MMM18 **871.22** ● Whole-brain calcium imaging during contextual fear learning in juvenile zebrafish using light field tomography. A. S. ANDALMAN*; V. M. BURNS; L. GROSENICK; M. J. BROXTON; S. J. YANG; N. COHEN; L. C. LEUNG; R. MADELAINE; B. GRONE; P. MOURRAIN; M. LEVOY; K. DEISSEROTH. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

3:00 MMM19 **871.23** Detection of cerebral edema using optical coherence tomography. C. L. REYNOLDS*; M. M. EBERLE; J. I. SZU; M. S. HSU; D. K. BINDER; B. H. PARK. *Univ. of California Riverside, Univ. of California Riverside.*

4:00 MMM20 **871.24** Synchronous 3-D imaging of large neural populations with single-neuron resolution at video rates *in vitro* and *in vivo* with light field microscopy. L. GROSENICK*; M. BROXTON; C. K. KIM; C. LISTON; S. YANG; A. ANDALMAN; N. COHEN; L. LEUNG; B. POOLE; J. VOGELSTEIN; T. ANDERSON; Z. ZHANG; O. YIZHAR; B. GRONE; C. RAMAKRISHNAN; A. MUTO; K. KAWAKAMI; P. MOURRAIN; S. J. SMITH; P. SUPPES; M. LEVOY; K. DEISSEROTH. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Duke Univ., Duke Univ., Stanford Univ., Weizmann Inst. of Sci., Grad. Univ. for Advanced Studies (SOKENDAI), Stanford Univ., HHMI.*

1:00 MMM21 **871.25** Tuning CLARITY based on underlying chemical engineering principles. K. CHUNG*; K. DEISSEROTH. *MIT, MIT, MIT, MIT, Stanford Univ., Stanford Univ., Stanford Univ.*

2:00 MMM22 **871.26** Monitoring of traumatic brain injury using optical coherence tomography. J. SZU*; C. REYNOLDS; M. HSU; B. PARK; D. BINDER. *Univ. of California, Riverside.*

3:00 MMM23 **871.27** A toolbox for spatiotemporal analysis of voltage sensitive dye imaging data. E. B. BOURGEOIS*; B. N. JOHNSON; A. J. MCCOY; L. TRIPPA; A. S. COHEN; E. D. MARSH. *Brigham and Women’s Hospital-Harvard Med. Sch., Children’s Hosp. of Philadelphia, Dana-Farber Cancer Institute, Harvard Sch. of Publ. Hlth., Univ. of Pennsylvania.*

4:00 MMM24 **871.28** NeuroCa: Automated multichannel signal processing toolbox for neuronal calcium imaging. M. J. JANG*; Y. NAM. *KAIST.*

1:00 MMM25 **871.29** Whole-brain functional imaging at cellular resolution using light-sheet microscopy. M. B. AHRENS*; M. B. ORGER; D. N. ROBSON; J. M. LI; P. J. KELLER. *Janelia Farm Res. Campus / HHMI, Champalimaud Ctr. for the Unknown, Harvard Univ.*

2:00 MMM26 **871.30** Fast two-photon *in vivo* imaging with three-dimensional random access scanning in large tissue volumes. G. KATONA*; G. SZALAY; P. MAÁK; A. KASZÁS; M. VERESS; B. CHIOVINI; D. PÁLFI; K. SPITZER; D. HILLIER; B. ROSKA; B. RÓZSA. *Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Budapest Univ. of Technol. and Econ., Pázmány Péter Catholic University, The Fac. of Information Technol., Friedrich Miescher Inst. for Biomed. Res.*

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3:00 MMM27 **871.31** ● A novel optical technique for the assessment of craniofacial autonomic function. M. CORTEZ*; J. THERIOT; S. BAGGALEY; K. BRENNAN. *Mayo Clin. Arizona, Univ. of Utah.*

4:00 MMM28 **871.32** ● The roachscope: A portable field microscope exploiting mobile phone optics. T. C. MARZULLO*; A. HATCH; G. GAGE. *Backyard Brains.*

POSTER

872. Optogenetics: Experimental Uses

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MMM29 **872.01** Transient activation of VTA neurons causes a sustained post-activation increase of terminal extrasynaptic dopamine. A. K. MARTIG*; S. UNDERHILL; A. DEFRANCESCO; J. TOCK; L. RINAMAN; I. WITTEN; K. DEISSEROTH; S. AMARA; B. MOGHADDAM. *Univ. of Pittsburgh, NIMH, Princeton Univ., Stanford Univ.*

2:00 MMM30 **872.02** Improving deep brain stimulation through targeted synaptic modification. B. D. HEIFETS*; M. B. MACIVER; K. DEISSEROTH; R. C. MALENKA. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

3:00 MMM31 **872.03** The role of the extracellular ionic milieu in modulating neuronal excitability as revealed by optogenetic and electrical stimulation. E. FERENCZI*; A. BERNDT; S. Y. LEE; C. RAMAKRISHNAN; K. THOMPSON; J. MATTIS; R. PRAKASH; K. DEISSEROTH. *Stanford Univ., Stanford Univ., Stanford Univ., HHMI.*

4:00 MMM32 **872.04** Real-time optical measurement of projection activity: Dynamics of genetically- and anatomically-defined neuronal afferents predict social behavior in freely moving mice. L. A. GUNAYDIN*; L. GROSENICK; I. V. KAUVAR; K. DEISSEROTH. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

1:00 MMM33 **872.05** Viral strategies for expression of genetically encoded tools in multiply defined neuron populations. L. E. FENNO*; J. MATTIS; M. HYUN; C. RAMAKRISHNAN; S. Y. LEE; A. SELIMBEYOGLU; K. A. ZALOCUSKY; M. HE; J. TUCCIARONE; A. BERNDT; C. PERRY; H. BERNSTEIN; C. E. BASS; R. L. NEVE; Z. J. HUANG; K. DEISSEROTH. *Stanford Univ., Stanford Univ., Cold Spring Harbor Lab., New York Univ. Sch. of Med., Univ. at Buffalo, MIT, Stanford Univ.*

2:00 MMM34 **872.06** ● An optogenetics-based, photo-switchable rodent model of Parkinson's disease. B. YANG*; S. RAVINDRA KUMAR; L. R. BREMNER; G. GAO; V. GRADINARU. *Caltech, Univ. of Massachusetts Med. Sch.*

3:00 MMM35 **872.07** Differential modulation of stress axis by optogenetic stimulation in paraventricular nucleus of the hypothalamus and dentate gyrus. Q. WEI*; S. J. WATSON; A. F. SEASHOLTZ; K. DEISSEROTH; G. G. MURPHY; H. AKIL. *Mol. Behav. Neurosci. Inst., Stanford Univ.*

4:00 MMM36 **872.08** ● Directed evolution meets optogenetics to develop the new generation of optogenetic controllers and sensors from naturally occurring opsins. N. FLYTZANIS*; M. ENGQVIST; C. BEDBROOK; V. ORPHAN; F. ARNOLD; V. GRADINARU. *Caltech, Caltech, Caltech, Caltech.*

1:00 MMM37 **872.09** Optogenetic characterization of a sparse dopaminergic population within the dorsal raphe nucleus and periaqueductal grey. J. B. TREWEEK*; L. R. BREMNER; V. GRADINARU. *Caltech.*

2:00 MMM38 **872.10** Engineering opsins through computational, structure-guided protein recombination to develop light-based sensors and actuators (Opsineering). C. BEDBROOK*; N. C. FLYTZANIS; C. XIAO; F. H. ARNOLD; V. GRADINARU. *Caltech, Caltech, Caltech.*

3:00 MMM39 **872.11** Imaging brainwide responses to stimulation of VTA dopaminergic neurons using ofMRI. K. ZALOCUSKY*; E. FERENCZI; L. GROSENICK; K. KATOVICH; B. KNUTSON; G. GLOVER; K. DEISSEROTH. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., HHMI.*

4:00 MMM40 **872.12** Differential prefrontal control of brainstem neuromodulatory systems in depression-related behavior. M. R. WARDEN*; E. A. FERENCZI; K. DEISSEROTH. *Stanford Univ., Stanford Univ., Stanford Univ.*

1:00 MMM41 **872.13** Optogenetic mapping of spatial organization of inhibitory circuits regulating cerebellar molecular layer interneurons. J. KIM*; G. J. AUGUSTINE. *Duke-Nus Grad. Med. Sch., Korea Inst. of Sci. and Technol.*

2:00 MMM42 **872.14** A new approach to study GABAergic synaptic transmission in the basal forebrain using optogenetic mice. D. W. DUBOIS*; D. MURCHISON; J. DAMBORSKY; W. GRIFFITH. *Texas A&M Univ. Hlth. Sci. Ctr.*

3:00 MMM43 **872.15** ● Effects of optogenetic and electrical stimulation on motor behavior in freely moving rats. A. W. WELLNER*; P. KALANITHI; E. FERENCZ; K. DEISSEROTH; I. DIESTER. *Ernst Strüngmann Inst. (ESI) For Neurosci. In Cooperation With Max Planck, Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

4:00 MMM44 **872.16** ● optogenetic characterization of neurons and circuits of the mouse claustrum. Y. TANG*; G. AUGUSTINE. *Duke-Nus Grad. Med. Sch., Korea Inst. of Sci. and Technol.*

1:00 MMM45 **872.17** A Ca^2-linked novel trisynaptic memory circuit in the hippocampus. K. KOHARA*; M. PIGNATELLI; H. JUNG; T. KITAMURA; D. FRANK; N. MISE; Y. OBATA; S. TONEGAWA. *MIT, RIKEN.*

2:00 MMM46 **872.18** Activation of noradrenergic locus coeruleus neurons promotes anxiety-like and aversive behaviors. J. G. MCCALL*; R. AL-HASANI; C. P. FORD; M. R. BRUCHAS. *Washington Univ., Case Western Reserve Univ.*

3:00 NNN1 **872.19** Optogenetic and anatomical examination of nucleus accumbens dynorphinergic neurons in aversion and reward. R. AL-HASANI*; J. G. MCCALL; N. A. CAPIK; B. SEBASTIAN; D. Y. HONG; A. M. FOSHAGE; M. J. KRASHES; B. B. LOWELL; T. L. KASH; M. R. BRUCHAS. *Washington Univ., Univ. of North Carolina, Harvard Med. Sch.*

4:00 NNN2 **872.20** Optical manipulation of adrenergic signaling in the basolateral amygdala induces anxiety-like behaviors. E. SIUDA*; J. G. MCCALL; R. AL-HASANI; Z. M. KASH; S. L. ANDERSON; W. J. PLANER; G. D. STUBER; M. R. BRUCHAS. *Washington Univ. In St. Louis, Univ. of North Carolina.*

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1:00 NNN3 **872.21** ▲ Anatomo-functional characterization of the motor cortico-subthalamic pathway in non human primates. Y. SENOVA*; J. DAUGUET; C. POUPON; C. JAN; K. HOSOMI; S. RALPH; L. BARNES; X. DROUOT; C. POUZAT; P. BRUGIERES; J. MANGIN; R. ARON-BADIN; E. BROUILLET; P. HANTRAYE; K. MITROPHANOUS; S. PALFI. *Assistance Publique-Hôpitaux De Paris, Groupe Henri-Mondor Albert-Chenevier, Commissariat à l'Energie Atomique-I2BM-Mircen-Laboratoire des Maladies Neurodégénératives-Paris11, Commissariat à l'Energie Atomique- I2BM- Neurospin-LRMN, Assistance Publique-Hôpitaux De Paris, Groupe Henri-Mondor Albert-Chenevier-Neurosurg. Dept., Oxford Biomedica, Assistance Publique-Hôpitaux De Paris, Groupe Henri-Mondor Albert-Chenevier-Functional Exploration Dept., MAP5, Mathématiques Appliquées Paris 5, CNRS UMR 8145, Assistance Publique-Hôpitaux De Paris, Groupe Henri-Mondor Albert-Chenevier-Neuroradiology Dept., Commissariat à l'Energie Atomique-I2BM- Neurospin- LNAO.*

2:00 NNN4 **872.22** Mapping neuronal projection activity *in vivo.* D. ERIKSSON*; I. DIESTER. *Ernst Strüngmann Inst.*

3:00 NNN5 **872.23** Optogenetic dissection of Gαq-11 signaling in CNS neurons. K. MCGREGOR*; C. BÉCAMEL; R. ANDRADE. *Wayne State Univ., Inst. de Génomique Fonctionnelle.*

4:00 NNN6 **872.24** Optogenetics in prefrontal cortex and medial septum of non-human primates. R. A. GULLI*; S. TREMBLAY; N. MALEK; S. WILLIAMS; A. R. ADAMANTIDIS; J. C. MARTINEZ-TRUJILLO. *McGill Univ., McGill Univ., McGill Univ.*

1:00 NNN7 **872.25** ● Chemical genetic presynaptic inhibition selectively silences axon collaterals in a central hunger circuit. T. J. STACHNIAK*; A. GHOSH; S. M. STERNSON. *Howard Hughes Med. Inst., UCSD, Hoffmann-La Roche.*

2:00 NNN8 **872.26** Establishing a standard protocol for effective integration of optogenetic methods in awake behaving non-human primate experiments. J. DAI*; D. I. BROOKS; D. L. SHEINBERG. *Brown Univ.*

3:00 NNN9 **872.27** Saccade errors increase with optogenetic inactivation of primate FEF. L. ACKER*; E. PINO; S. ALVAREZ; J. MOONEY; N. BICHOT; H. ZHOU; A. CHUONG; E. BOYDEN; R. DESIMONE. *MIT, Harvard Med. Sch.*

4:00 NNN10 **872.28** Optogenetic manipulation of neuronal intracellular signaling and plasticity with a photoactivated adenylyl cyclase. D. UDWARI*; C. E. GEE; J. HAO; P. HEGEMANN; T. G. OERTNER. *ZMNH - Ctr. for Mol. Neurobio., FMI - Friedrich Miescher Inst. for Biomed. Res., Humboldt-University.*

1:00 NNN11 **872.29** Dissecting long-range circuits in macaque cortex by registering optogenetically driven neural activity with anatomical connectivity. R. SHEWCRAFT*; V. PINSKIY; A. S. TOLPYGO; A. MUKHERJEE; D. PUTRINO; Y. T. WONG; P. P. MITRA; B. PESARAN. *New York Univ., Cold Spring Harbor Lab.*

POSTER

873. Optogenetics: Tool Development

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NNN12 **873.01** Probing interactions between distinct cortical microcircuits through spatiotemporally patterned 3-D optogenetics. A. N. ZORZOS*; T. J. BUSCHMAN; P. E. MONAHAN; J. SCHOLVIN; C. FONSTAD; E. S. BOYDEN. *MIT, Princeton.*

2:00 NNN13 **873.02** Multiple, *in vivo* patch clamp recordings along the mouse vibrissae pathway. W. STOY*; C. SHEPHARD; I. KOLB; G. HOLST; S. KODANDARAMAIAH; D. OLLERENSHAW; D. MILLARD; E. BOYDEN; G. STANLEY; C. FOREST. *Georgia Inst. of Technol., Georgia Inst. of Technol., cshephard3@gatech.edu, MIT.*

3:00 NNN14 **873.03** Principles of high–fidelity, high–density 3–d neural recording. C. MOORE-KOCHLACS*; J. SCHOLVIN; J. P. KINNEY; J. G. BERNSTEIN; Y. G. YOON; S. K. ARFIN; N. KOPELL; E. S. BOYDEN. *Boston Univ., MIT, Boston Univ., MIT, MIT, MIT, Boston Univ., MIT, MIT.*

4:00 NNN15 **873.04** Automation of brain surgery: Towards automation of *in vivo* neuroscience. N. PAK*; J. P. KINNEY; E. S. BOYDEN. *MIT.*

1:00 NNN16 **873.05** Awake Autopatching: Automatic whole cell patch clamp of hippocampal neurons in awake behaving animals. A. C. SINGER; G. T. FRANZESI; S. B. KODANDARAMAIAH; I. R. WICKERSHAM*; S. SHARMA; S. BATIR; N. PAK; G. HOLST; C. R. FOREST; N. J. KOPELL; E. S. BOYDEN. *MIT, MIT, Georgia Tech., Boston Univ.*

2:00 NNN17 **873.06** Principles of spectrally optimized channelrhodopsin and halorhodopsin in circuit analysis. A. S. CHUONG*; N. C. KLAPOETKE; M. L. MIRI; V. BUSSKAMP; Y. MURATA; B. ROSKA; J. A. CARDIN; M. CONSTANTINE-PATON; E. S. BOYDEN. *M.I.T., Yale Sch. of Med., Friedrich Miescher Inst. for Biomed. Res., Harvard Med. Sch., M.I.T.*

3:00 NNN18 **873.07** ● The Multipatcher: A robot for high-density measurement of intracellular dynamics *in vivo.* S. B. KODANDARAMAIAH*; F. J. FLORES; I. R. WICKERSHAM; G. L. HOLST; E. N. BROWN; C. R. FOREST; E. S. BOYDEN. *Georgia Inst. of Technol., MIT, MIT, Massachusetts Gen. Hosp., MIT, Harvard MIT, MIT, MIT.*

4:00 NNN19 **873.08** Behavioural and neural effects of silencing the auditory cortex in adult ferrets using optogenetics. V. M. BAJO-LORENZANA*; C. KORN; K. REYNOLDS; E. S. BOYDEN; F. R. NODAL; A. J. KING. *Univ. of Oxford, Dept. of Physiology, Anat. and Genet., MIT.*

1:00 NNN20 **873.09** Multidimensional optimization of optogenetic tools via systematic physiological screening. Y. K. CHO*; F. CHEN; A. S. CHUONG; N. C. KLAPOETKE; E. S. BOYDEN. *MIT.*

2:00 NNN21 **873.10** Fully genetically encoded tools for optical control of endogenous ion channels. D. SCHMIDT*; P. W. TILLBERG; F. CHEN; E. S. BOYDEN. *MIT Media Lab., MIT, MIT, MIT.*

3:00 NNN22 **873.11** ● Miniaturized actuation system for automated, in-vivo, patch clamp recording. G. HOLST*; S. KODANDARAMIAH; C. R. PHANEUF; W. STOY; I. KOLB; I. WICKERSHAM; N. KILLIAN; E. A. BUFFALO; E. S. BOYDEN; C. R. FOREST. *Georgia Inst. of Technol., MIT, Georgia Inst. of Technol., Emory Univ., Emory Univ.*

4:00 NNN23 **873.12** ● Pipette replacement robot to fully automate sequential patch clamp recordings in-vivo. J. GO*; G. HOLST; A. FAN; C. LU; S. KODANDARAMIAH; C. R. PHANEUF; W. STOY; I. KOLB; I. WICKERSHAM; E. S. BOYDEN; C. FOREST. *Georgia Inst. of Technol., Georgia Inst. of Technol., MIT, Georgia Inst. of Technol.*

1:00 NNN24 **873.13** Briefly silencing the dentate gyrus during recall of emotionally salient memory: Behavioral time dynamics. B. D. ALLEN*; J. G. BERNSTEIN; A. TURZA; A. YANG; E. S. BOYDEN. *MIT.*

2:00 NNN25 **873.14** Transparent micro-optoelectronic array for simultaneous spatiotemporal optical stimulation and electrical recording. J. LEE; I. OZDEN*; Y. SONG; A. V. NURMIKKO. *Brown Univ., Seoul Natl. Univ.*

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

▲ Indicates a high school or undergraduate student presenter.

3:00 NNN26 **873.15** Use of a genetically encoded photosensor from plants to regulate kinase (JNK) function in neurons. P. HOLLOS*; M. TUITTILA; P. DESHPANDE; A. PADZIK; L. YADAV; J. MIN; M. COURTNEY; E. COFFEY. *Turku Ctr. For Biotechnology, Univ. of Turku and Åbo Akademi Univ., A.I. Virtanen Institute, Univ. of Eastern Finland.*

4:00 NNN27 **873.16** Improved bioluminescence-activated channelrhodopsin for multimodal control of neuronal activity. K. BERGLUND; U. HOCHGESCHWENDER*. *Duke Univ.*

1:00 NNN28 **873.17** Optogenetic inhibition using a genetically encoded bioluminescent light source. J. K. TUNG*; C. GUTEKUNST; N. LAXPATI; L. WEI; R. E. GROSS. *Georgia Inst. of Technol., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.*

2:00 NNN29 **873.18** ● Optoelectronic 3D arrays for combined large-scale recordings and optogenetic stimulations. L. B. GRAND*; D. ERIKSSON; M. BAK; I. DIESTER. *Microprobes For Life Sci. Inc., Ernst Strüngmann Inst. (ESI) for Neurosci. in Cooperation with Max Planck Society.*

3:00 NNN30 **873.19** MRI guided cortical injection of Optogenetic viral vectors in non-human primates using convection enhanced delivery (CED). A. YAZDAN-SHAHMORAD*; N. TIAN; J. HE; A. KELLS; J. BRINGAS; K. BANKIEWICZ; P. SABES. *Univ. of California San Francisco, Univ. of California San Francisco.*

4:00 NNN31 **873.20** An improved channelrhodopsin for behavioural neuroscience. R. J. KITTEL*; A. DAWYDOW; R. GUETA; D. LJASCHENKO; M. HERMANN; A. FIALA; T. LANGENHAN; G. NAGEL. *Univ. of Würzburg, Univ. of Würzburg, Univ. of Würzburg, Univ. of Göttingen.*

1:00 NNN32 **873.21** A hybrid neural interface with integrated leds for optogenetics. K. KWON*; W. LI; A. J. WEBER. *Michigan State Univ., Michigan State Univ.*

2:00 NNN33 **873.22** Electrophysiological properties of channelrhodopsin2 channels differ when expressed in NT2 neurons and HEK239FT cells. M. B. KOZHEMYAKIN*; L. CUI; B. L. BEHRLE; L. J. GREENFIELD. *Univ. of Arkansas For Med. Sci.*

3:00 NNN34 **873.23** Characterization of silicon-based optrodes with integrated laser diode chips and SU-8 waveguides. M. SCHWAERZLE*; O. PAUL; P. RUTHER. *Univ. of Freiburg.*

4:00 NNN35 **873.24** Expression and function of a viral vector for optogenetic control of oxytocin neurons. A. L. SEVARINO; J. C. EISENACH*. *Wake Forest Univ. Med. Ctr.*

1:00 NNN36 **873.25** Microfluidic chip for site-specific drug delivery to 3D neuronal “opto-nets”. S. K. MAHTO*; A. MAROM; J. SZNITMAN; S. SHOHAM. *Technion-Israel Inst. of Technol.*

2:00 NNN37 **873.26** Closed-loop optogenetic spatial light modulation through real-time micro-electrocorticographic feedback. T. J. RICHNER*; R. A. BAUMGARTNER; S. K. BRODNICK; A. A. SCHENDEL; K. W. ELICEIRI; R. PASHAIE; J. C. WILLIAMS. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Milwaukee.*

3:00 NNN38 **873.27** Multi-stepped optogenetics: Infrared laser mediated local expression of ChR2 to visualize neural circuits involved in animal behaviors in zebrafish larvae. M. ITOH*; K. HATTA. *Univ. of Hyogo.*

4:00 NNN39 **873.28** GCaMP transgenic mice for neuronal activity imaging *in vivo.* H. DANA; T. CHEN; R. A. KERR; V. JAYARAMAN; L. L. LOOGER; K. SVOBODA; D. S. KIM*. *Howard Hughes Med. Inst.*

1:00 NNN40 **873.29** Neuron-based screening for improved red fluorescent genetically-encoded calcium indicators. H. DANA*; Y. SUN; T. CHEN; J. P. HASSEMAN; G. TSEGAYE; B. F. FOSQUE; E. R. SCHREITER; R. A. KERR; V. JAYARAMAN; L. L. LOOGER; K. SVOBODA; D. S. KIM. *Howard Hughes Med Inst.*

• Indicated a real or perceived conflict of interest, see page 144 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*

686.05 **L. Clark:** F. Consulting Fees (e.g., advisory boards); LC consults for Cambridge Cognition Ltd.

689 **G.F. Koob:** F. Consulting Fees (e.g., advisory boards); Alkermes, Arkeo Pharmaceuticals, Psychogenics, Embera NeuroTherapeutics.

691.07 **S. Viana Da Silva:** A. Employment/Salary (full or part-time):; full time.

692.02 **R.M. Smith:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Life Technologies. **R. Mascarenhas:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Life Technologies. **A.C. Papp:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Life Technologies. **W. Sadee:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Life Technologies.

693.08 **J.E. Lachowicz:** A. Employment/Salary (full or part-time):; Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **A. Regina:** A. Employment/Salary (full or part-time):; Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **M. Demeule:** A. Employment/Salary (full or part-time):; Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **S. Tripathy:** A. Employment/Salary (full or part-time):; Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **S. Lord-Dufour:** A. Employment/Salary (full or part-time):; Angiochem. **J. Currie:** A. Employment/Salary (full or part-time):; Angiochem. **T. Nguyen:** A. Employment/Salary (full or part-time):; Angiochem. **J. Castaigne:** A. Employment/Salary (full or part-time):; Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem.

694.06 **J.A. Sweeney:** F. Consulting Fees (e.g., advisory boards); Janssen; Pfizer.

696.02 **A.I. Geller:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alkermes.

ABSTRACT NUMBER *STATEMENT*

697.05 **E. Ramsay:** A. Employment/Salary (full or part-time):; Precision NanoSystems. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems. **C. Walsh:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems. **J. Taylor:** A. Employment/Salary (full or part-time):; Precision NanoSystems. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems. **P. Cullis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems. **B. MacVicar:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems.

697.07 **D. Simon:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); OBOE Players AB. **K. Tybrandt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); OBOE Players AB. **D. Nilsson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); OBOE Players AB. **M. Berggren:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); OBOE Players AB.

698.04 **E. Molokanova:** A. Employment/Salary (full or part-time):; Sanford Burnham Medical Research Institute. **A. Savchenko:** A. Employment/Salary (full or part-time):; Sanford Burnham Medical Research Institute. **M. Zamkov:** A. Employment/Salary (full or part-time):; Bowling Green State University. **G.B. Braun:** A. Employment/Salary (full or part-time):; Sanford Burnham Medical Research Institute. **N. Prevarskaya:** A. Employment/Salary (full or part-time):; Laboratory of Cell Physiology, National Institute of Health and Medical Research U800, Lille University of Science and Technology. **R. Skryma:** A. Employment/Salary (full or part-time):; Laboratory of Cell Physiology, National Institute of Health and Medical Research U800, Lille University of Science and Technology. **S.A. Lipton:** A. Employment/Salary (full or part-time):; Sanford Burnham Medical Research Institute.

698.07 **G. Vitaliano:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EXQOR Technologies Inc. **F. Vitaliano:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EXQOR Technologies Inc.

699.06 **M. Palmisano:** A. Employment/Salary (full or part-time):; FISM - Fondazione Italiana Sclerosi Multipla, Italy - 2010/B/12.

700.21 **S. Kurebayashi:** A. Employment/Salary (full or part-time):; Shizuoka University.

ABSTRACT NUMBER STATEMENT

701.05 **J.T. Coyle:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owns stock in Abbott and a patent owned by Massachusetts General Hospital for the use of D-serine as a treatment for serious mental illness could yield royalties for Dr. Coyle. F. Consulting Fees (e.g., advisory boards); Consultant for Biovail, Puretech, Abbott, and Bristol-Myers Squibb.

701.09 **T. Muthusamy:** A. Employment/Salary (full or part-time):; Full Time, University of Louisville. B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; VA Merit Grant, VA Medical Center.

702.09 **M.S. Thomsen:** F. Consulting Fees (e.g., advisory boards); Consultant to biomedical companies. **J.D. Mikkelsen:** F. Consulting Fees (e.g., advisory boards); Consultant to biomedical companies.

702.16 **H. Robb:** A. Employment/Salary (full or part-time):; AbbVie, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie, Inc. **S. McGaraughty:** A. Employment/Salary (full or part-time):; AbbVie, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie, Inc. **C. Lee:** A. Employment/Salary (full or part-time):; AbbVie, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); AbbVie, Inc. **R. Radek:** A. Employment/Salary (full or part-time):; AbbVie, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie, Inc.

703.01 **D. Torres-Salazar:** A. Employment/Salary (full or part-time):; National Institute of Mental Health.

706.05 **D. Ikegami:** A. Employment/Salary (full or part-time):; Dept. of Pharmacol.

706.15 **T. Nagendran:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition. **T. Tran:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition. **A.M. Taylor:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UC Irvine, Xona Microfluidics, LLC.

706.31 **Z. Smilansky:** A. Employment/Salary (full or part-time):; Anima Cell Metrology. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Anima Cell Metrology.

707.06 **H.J. Stratton:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); The Gaines Family Foundation.

708.03 **D. Zecevic:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); RedShirtImaging.

708.10 **D. Palfi:** A. Employment/Salary (full or part-time):; Pázmány Péter Chatolic University.

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708.26 **B. Rozsa:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ownership interest. **G. Katona:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ownership Interest. **M. Veress:** A. Employment/Salary (full or part-time):; Femtonics.

709.21 **Y. Hagos:** Other; Management (CEO) of PortaCellTec biosciences GmbH.

710.07 **L.N.G. Nilsson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BioArctic Neuroscience AB.

710.08 **M. Striz:** 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.

710.13 **R.C. Chang:** A. Employment/Salary (full or part-time):; The University of Hong Kong. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NeuroTech (Hong Kong) Limited.

711.05 **P. Gabbita:** A. Employment/Salary (full or part-time):; P2D. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); P2D. **F. Zemlan:** A. Employment/ Salary (full or part-time):; P2D Bioscience. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); P2D Bioscience.

711.06 **F.M. Longo:** Other; Dr. Longo is a founder of PharmatrophiX Inc., a company focused on the development of neurotrophin ligands including LM11A-31.

711.09 **C. de Rivera:** A. Employment/Salary (full or part-time):; Vivocore Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vivocore Inc. **S. Kelly:** A. Employment/Salary (full or part-time):; Vivocore Inc. **J. Baulk:** A. Employment/Salary (full or part-time):; Vivocore Inc. **M.L. Brooks:** A. Employment/Salary (full or part-time):; Vivocore Inc. **B. Milgram:** A. Employment/Salary (full or part-time):; CanCog Technologies Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); CanCog Technologies Inc. **J.A. Araujo:** A. Employment/ Salary (full or part-time):; InterVivo Solutions Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); InterVivo Solutions Inc.

711.10 **S. Du:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **S. Sankaranarayanan:** A. Employment/ Salary (full or part-time):; Bristol-Myers Squibb. **M. Meadowcroft:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **D. Stock:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **A. Pena:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **R. Roache:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **H. Malone:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **D. Barten:** A. Employment/ Salary (full or part-time):; Bristol-Myers Squibb. **P. Chow:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **R. Risinger:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **C. Albright:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **W. Hayes:** A. Employment/ Salary (full or part-time):; Bristol-Myers Squibb.

ABSTRACT NUMBER STATEMENT

712.02 **S.M. O'Connor:** A. Employment/Salary (full or part-time):; Bionomics Limited. **B. Huyard:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Neurofit SAS. **C. Coles:** A. Employment/Salary (full or part-time):; Bionomics Limited. **P. Kolesik:** A. Employment/ Salary (full or part-time):; Bionomics Limited. **Y. Kolev:** A. Employment/Salary (full or part-time):; Bionomics Limited. **S. Wagner:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Neurofit SAS. **E. Andriambeloson:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Neurofit SAS. **A. Harvey:** A. Employment/Salary (full or part-time):; Bionomics Limited. **A.A. Grishin:** A. Employment/Salary (full or part-time):; Bionomics Limited.

713.02 **T. Yamane:** A. Employment/Salary (full or part-time):; Hokkaido University.

713.03 **K.V. Christensen:** A. Employment/Salary (full or part-time):; Lundbeck. **M. Hentzer:** A. Employment/Salary (full or part-time):; Lundbeck. **J.C. Daechsel:** A. Employment/Salary (full or part-time):; Lundbeck. **M.C. Herzig:** A. Employment/ Salary (full or part-time):; Lundbeck. **G.P. Smith:** A. Employment/Salary (full or part-time):; Lundbeck.

714.06 **J. Eschbach:** A. Employment/Salary (full or part-time):; full. **A. Witting:** A. Employment/Salary (full or part-time):; full. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Ulm University. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bausteinprogramme. **A. Scheffold:** A. Employment/Salary (full or part-time):; part-time. **B. morrison:** A. Employment/Salary (full or part-time):; full. **K. Rudolph:** A. Employment/Salary (full or part-time):; full. **P. Weydt:** A. Employment/Salary (full or part-time):; full. **A. Laspada:** A. Employment/Salary (full or part-time):; full. **A. Ludolph:** A. Employment/Salary (full or part-time):; full. **K. Danzer:** A. Employment/Salary (full or part-time):; full.

714.13 **I. Singec:** A. Employment/Salary (full or part-time):; Pfizer. **D. Karlsson:** A. Employment/Salary (full or part-time):; Pfizer. **J. Joshi:** A. Employment/Salary (full or part-time):; Pfizer. **K. Fisher:** A. Employment/Salary (full or part-time):; Pfizer.

714.14 **M.G. Tansey:** F. Consulting Fees (e.g., advisory boards); Karyopharm, Angiochem. Other; Ex-employee of Xencor Inc which is developing XPro for neurological indications but is not a paid consultant and does not hold significant financial stake in the company.

714.19 **M.J. Farrer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Mayo Foundation. F. Consulting Fees (e.g., advisory boards); International Editorial board for Parkinsonism and Related Disorders, Parkinson Society of Canada Scientific Advisory Board member, Michael J. Fox Foundation Executive Scientific Advisory Board Member, EURAC Scientific Advisory Council member.

ABSTRACT NUMBER STATEMENT

715.11 **P. Dickson:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Genzyme. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); BioMarin. F. Consulting Fees (e.g., advisory boards); Isis, Armagen.

716.03 **T. Lam:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **D. Quach:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **R. Leavitt:** A. Employment/ Salary (full or part-time):; Neuralstem Inc. **I. Nguyen:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **D. Lee:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **M.P. Hefferan:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **M. Wu:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **T. Hazel:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **K. Johe:** A. Employment/ Salary (full or part-time):; Neuralstem Inc.

716.04 **R. Leavitt:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **D. Quach:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **T. Lam:** A. Employment/ Salary (full or part-time):; Neuralstem Inc. **I. Nguyen:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **D. Lee:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **M.P. Hefferan:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **M. Wu:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **T.G. Hazel:** A. Employment/Salary (full or part-time):; Neuralstem Inc. **K. Johe:** A. Employment/ Salary (full or part-time):; Neuralstem Inc.

716.20 **D.T. Brocker:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); DBI, LLC. **R.E. Gross:** F. Consulting Fees (e.g., advisory boards); DBI, LC. **D.A. Turner:** F. Consulting Fees (e.g., advisory boards); DBI, LLC. **W.M. Grill:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); DBI, LLC. F. Consulting Fees (e.g., advisory boards); NDI Medical, LLC.

717.21 **L. Hamilton:** 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),. **K.J.L. Fernandes:** Other; the Center of Excellence in Neurosciences of the Université de Montréal (CENUM),, the CNS Research Group (GRSNC).

718.12 **J. Berman:** A. Employment/Salary (full or part-time):; Bio-Rad Laboratories. **J. Regan:** A. Employment/Salary (full or part-time):; Bio-Rad Laboratories. **N. Heredia:** A. Employment/Salary (full or part-time):; Bio-Rad Laboratories. **D. Skvortsov:** A. Employment/Salary (full or part-time):; Bio-Rad Laboratories. **N. Klitgord:** A. Employment/Salary (full or part-time):; Bio-Rad Laboratories. **S. Tzonev:** A. Employment/Salary (full or part-time):; Bio-Rad Laboratories. **G. Karlin-Neumann:** A. Employment/Salary (full or part-time):; Bio-Rad Laboratories. **E. Hefner:** A. Employment/ Salary (full or part-time):; Bio-Rad Laboratories.

719.23 **S.M. McTighe:** A. Employment/Salary (full or part-time):; Pfizer Inc. **M. Pletcher:** A. Employment/Salary (full or part-time):; Pfizer Inc. **C. Arturi:** A. Employment/Salary (full or part-time):; Pfizer Inc. **P. Stolyar:** A. Employment/Salary (full or part-time):; Pfizer Inc. **S.J. Sukoff Rizzo:** A. Employment/ Salary (full or part-time):; Pfizer Inc. **V.L. Reinhart:** A. Employment/Salary (full or part-time):; Pfizer Inc. **Z.A. Hughes:** A. Employment/Salary (full or part-time):; Pfizer Inc.

ABSTRACT NUMBER STATEMENT

720.03 **P. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pablo Caviedes.

720.04 **J. 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.; Elly-Lilly, Population Genetics, Esai.

720.08 **R. Madani:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **M. Pihlgren:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **A. Plassard:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **V. Giriens:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **D. Hickman:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **P. Reis:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **A. Granet:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **D. Mlaki:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **M. Lopez-Deber:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **A. Pfeifer:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA. **A. Muhs:** A. Employment/Salary (full or part-time):; Employee of AC Immune SA.

720.15 **R. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IP protection for CTb and CNh cell lines. **P.A. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IP protection for CTb and CNh cell lines.

721.13 **K. Kubo:** A. Employment/Salary (full or part-time):; Keio University School of Medicine, full-time. **K. Nakajima:** A. Employment/Salary (full or part-time):; keio University School of Medicine, full-time.

723.02 **A. Tornes:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CONACyT CB2012 Grant 182266. **P. Aguilera:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CONACyT CB2012 Grant 182266. **M. Espinoza-Rojo:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); c.

723.07 **V.A. Eterovic:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Universidad Central del Caribe. **K.A. El Sayed:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ULM College of Pharmacy. **P.A. Ferchmin:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Universidad Central del Caribe.

ABSTRACT NUMBER STATEMENT

725.09 **M. Shankaran:** A. Employment/Salary (full or part-time):; KineMed, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. **T.E. Angel:** A. Employment/Salary (full or part-time):; KineMed Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed inc. **D.G. Villegas:** A. Employment/Salary (full or part-time):; KineMed Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. **J. Decaris:** A. Employment/Salary (full or part-time):; KineMed Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. **C.L. King:** A. Employment/Salary (full or part-time):; KineMed Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. **W.E. Holmes:** A. Employment/Salary (full or part-time):; KineMed Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. **J.C. Price:** A. Employment/Salary (full or part-time):; KineMed Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. **S.M. Turner:** A. Employment/Salary (full or part-time):; KineMed Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. **B.L. West:** A. Employment/Salary (full or part-time):; Plexxikon Inc. **M.K. Hellerstein:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineMed Inc. F. Consulting Fees (e.g., advisory boards); KineMed Inc.

725.18 **C.P. Miller:** A. Employment/Salary (full or part-time):; Radius Health Inc. **G. Hattersley:** A. Employment/Salary (full or part-time):; Radius Health Inc.

727.03 **J. Bryant:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent holder.

729.04 **M. Kurihara:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pfizer. **J. Dunlop:** A. Employment/Salary (full or part-time):; Pfizer. **N.J. Brandon:** A. Employment/Salary (full or part-time):; Pfizer. **Z.A. Hughes:** A. Employment/Salary (full or part-time):; Pfizer. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer.

729.08 **A. de Koning:** A. Employment/Salary (full or part-time):; Astellas Pharma. **N.M. Walton:** A. Employment/Salary (full or part-time):; Astellas Pharma. **K. Tajinda:** A. Employment/Salary (full or part-time):; Astellas Pharma. **S. Miyake:** A. Employment/Salary (full or part-time):; Astellas Pharma. **Q. Chen:** A. Employment/Salary (full or part-time):; Astellas Pharma. **A.K. Gross:** A. Employment/Salary (full or part-time):; Astellas Pharma. **J.H. Kogan:** A. Employment/Salary (full or part-time):; Astellas Pharma. **C.L. Heusner:** A. Employment/Salary (full or part-time):; Astellas Pharma. **R. Shin:** A. Employment/Salary (full or part-time):; Astellas Pharma. **K. Tamura:** A. Employment/Salary (full or part-time):; Astellas Pharma. **M. Matsumoto:** A. Employment/Salary (full or part-time):; Astellas Pharma.

729.15 **Y. Kobayashi:** A. Employment/Salary (full or part-time):; full.

ABSTRACT NUMBER STATEMENT

730.04 **J. Burgdorf:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc. F. Consulting Fees (e.g., advisory boards); Naurex Inc. **R.A. Kroes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc. F. Consulting Fees (e.g., advisory boards); Naurex Inc. **P.K. Stanton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc. F. Consulting Fees (e.g., advisory boards); Naurex Inc. **J.R. Moskal:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc. F. Consulting Fees (e.g., advisory boards); Naurex Inc.

730.05 **J.S. Burgdorf:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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-MH094835. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc. F. Consulting Fees (e.g., advisory boards); Naurex Inc. **R.A. Kroes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc. **P.K. Stanton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc. **J.R. Moskal:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex Inc.

730.08 **A. Montefeltro:** A. Employment/Salary (full or part-time):; nLife Therapeutics, S.L.

ABSTRACT NUMBER STATEMENT

730.12 **A.L. Gross:** A. Employment/Salary (full or part-time):; Naurex, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex, Inc. **J.S. Burgdorf:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 R01-MH094835. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex, Inc. F. Consulting Fees (e.g., advisory boards); Naurex, Inc. **M.E. Schmidt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex, Inc. **R.A. Kroes:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Naurex, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex, Inc. F. Consulting Fees (e.g., advisory boards); Naurex, Inc. **P.K. Stanton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex, Inc. F. Consulting Fees (e.g., advisory boards); Naurex, Inc. **J.R. Moskal:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 Ralph and Marian Falk Medical Research Trust. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Naurex, Inc. F. Consulting Fees (e.g., advisory boards); Naurex, Inc.

730.13 **C. Sanchez:** A. Employment/Salary (full or part-time):; Lundbeck Research USA, Inc.

730.16 **S. Nakagawa:** A. Employment/Salary (full or part-time):; Hokkaido 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.; Japanese Ministry of Education grants. **T. Inoue:** A. Employment/Salary (full or part-time):; Hokkaido University. F. Consulting Fees (e.g., advisory boards); GlaxoSmithKline, Eli Lilly, Mochida Pharmaceutical and Mitsubishi Tanabe Pharma. **I. Kusumi:** A. Employment/Salary (full or part-time):; Hokkaido University. F. Consulting Fees (e.g., advisory boards); Dainippon Sumitomo Pharma.

731.08 **M.J. Owens:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lundbeck A/S, Sunovion Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent: Method of assessing antidepressant drug therapy via transport inhibition of monoamine neurotransmitters (US 7,148,027 B2). F. Consulting Fees (e.g., advisory boards); Lundbeck A/S, R.J. Reynolds, United States Department of Justice.

731.15 **J. Shoblock:** A. Employment/Salary (full or part-time):; Janssen Research & Development, LLC. **W. Chen:** A. Employment/Salary (full or part-time):; Janssen Research & Development, LLC. **N. Welty:** A. Employment/Salary (full or part-time):; Janssen Research & Development, LLC. **G. Chen:** A. Employment/Salary (full or part-time):; Janssen Research & Development, LLC.

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731.19 **A. Frazer:** A. Employment/Salary (full or part-time):; South Texas Veterans Health care system, San Antonio, TX. F. Consulting Fees (e.g., advisory boards); Lundbeck, Takeda Pharmaceuticals International.

733.06 **A. Ettenberg:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; PI on NIH grant DA033370.

734.04 **T.N. Grammatopoulos:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Founder. **L. Stiles:** A. Employment/Salary (full or part-time):; Employee. **E. Ritou:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-Founder. **J. Kama:** A. Employment/Salary (full or part-time):; Employee. **A. Ferree:** F. Consulting Fees (e.g., advisory boards); Consultant. **O. Shirihai:** F. Consulting Fees (e.g., advisory boards); Consultant.

734.05 **B.S. Bleier:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Benjamin Saul Skorr Bleier is an inventor of the described technique which is protected under a non-provisional US patent (US20130030056 A1).

734.06 **O.V. Kopyov:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Celavie Biosciences LLC.

734.08 **O. Kopyov:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Celavie Biosciences LLC.

734.09 **E. Meng:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Fluid Synchrony LLC.

734.10 **J.D. Hoekman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Impel NeuroPharma. **M. Hite:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Impel NeuroPharma. **A. Brunelle:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Impel NeuroPharma. **C. Fuller:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Impel NeuroPharma. **P. Kim:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Impel NeuroPharma. **A. Chiu:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Impel NeuroPharma. **Z. Forcade:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Impel NeuroPharma.

735.10 **A. Roorda:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder.

736.03 **P. Degenaar:** A. Employment/Salary (full or part-time):; Spin-out company, OptoNeuro, with interest in retinal prosthesis.

737.06 **X. Wang:** A. Employment/Salary (full or part-time):; Qualcomm Research.

ABSTRACT NUMBER | STATEMENT

738.21 **V.H. Chan:** A. Employment/Salary (full or part-time):; Qualcomm Research. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Qualcomm, Inc.

739.23 **J.J. Janik:** A. Employment/Salary (full or part-time):; Stryker Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stryker Corporation.

739.24 **Y. Guan:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **Y. Cheong:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **S.N. Raja:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **P.W. Wacnik:** A. Employment/Salary (full or part-time):; Medtronic Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Medtronic Inc.

740.09 **B. Hasse:** A. Employment/Salary (full or part-time):; Algiax Pharmaceuticals GmbH. **G. Koopmans:** A. Employment/Salary (full or part-time):; Algiax Pharmaceuticals GmbH.

ABSTRACT NUMBER STATEMENT

740.13 **S.G. Lehto:** A. Employment/Salary (full or part-time):; Amgen, INC. **B.D. Youngblood:** A. Employment/Salary (full or part-time):; Amgen, INC. **M. Zhang:** A. Employment/Salary (full or part-time):; Amgen, INC. **A.D. Weyer:** A. Employment/Salary (full or part-time):; Medical College of Wisconsin. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Amgen, INC. **D.X.D. Zhu:** A. Employment/Salary (full or part-time):; Amgen, INC. **L. Schenkel:** A. Employment/Salary (full or part-time):; Amgen, INC. **A.A. Boezio:** A. Employment/Salary (full or part-time):; Amgen, INC. **E. Cheung:** A. Employment/Salary (full or part-time):; Amgen, INC. **M. Cooke:** A. Employment/Salary (full or part-time):; Amgen, INC. **K. Copeland:** A. Employment/Salary (full or part-time):; Amgen, INC. **H. Deak:** A. Employment/Salary (full or part-time):; Amgen, INC. **R. Emkey:** A. Employment/Salary (full or part-time):; Amgen, INC. **R. Graceffa:** A. Employment/Salary (full or part-time):; Amgen, INC. **P. Olivieri:** A. Employment/Salary (full or part-time):; Amgen, INC. **H. Gunaydin:** A. Employment/Salary (full or part-time):; Amgen, INC. **J. Lee:** A. Employment/Salary (full or part-time):; Amgen, INC. **S. Rao:** A. Employment/Salary (full or part-time):; Amgen, INC. **W. Wang:** A. Employment/Salary (full or part-time):; Amgen, INC. **M. Wells:** A. Employment/Salary (full or part-time):; Amgen, INC. **R. Yin:** A. Employment/Salary (full or part-time):; Amgen, INC. **V. Yu:** A. Employment/Salary (full or part-time):; Amgen, INC. **Y. Teffera:** A. Employment/Salary (full or part-time):; Amgen, INC. **C.L. Stucky:** A. Employment/Salary (full or part-time):; Medical College of Wisconsin. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Amgen, INC. **B.D. Moyer:** A. Employment/Salary (full or part-time):; Amgen, INC. **S. Geuns-Meyer:** A. Employment/Salary (full or part-time):; Amgen, INC. **K.D. Wild:** A. Employment/Salary (full or part-time):; Amgen, INC. **N.R. Gavva:** A. Employment/Salary (full or part-time):; Amgen, INC.

741.10 **D. Roggenkamp:** A. Employment/Salary (full or part-time):; Beiersdorf AG. **S. Köpnick:** A. Employment/Salary (full or part-time):; Beiersdorf AG. **F. Stäb:** A. Employment/Salary (full or part-time):; Beiersdorf AG. **H. Wenck:** A. Employment/Salary (full or part-time):; Beiersdorf AG. **M. Schmelz:** A. Employment/Salary (full or part-time):; Beiersdorf AG. **G. Neufang:** A. Employment/Salary (full or part-time):; Beiersdorf AG.

741.14 **Y. Liu:** A. Employment/Salary (full or part-time):; National Cheng-Kung 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.; NCKUH-10201002. **J.Y. Chan:** A. Employment/Salary (full or part-time):; Kaohsiung Chang Gung Memorial Hospital. **Y. Tsai:** A. Employment/Salary (full or part-time):; National Cheng-Kung University. **S. Wu:** A. Employment/Salary (full or part-time):; National Cheng-Kung University.

742.04 **I. Birznieks:** A. Employment/Salary (full or part-time):; School of Biomedical and Health Sciences, University of Western Sydney, Sydney, Australia. **V. Macefield:** A. Employment/Salary (full or part-time):; School of Medicine, University of Western Sydney, Sydney, Australia.

ABSTRACT NUMBER STATEMENT

742.12 **K. Yamauchi:** A. Employment/Salary (full or part-time):; Chiba University. **Y. Tamura:** A. Employment/Salary (full or part-time):; Chiba University. **S. Orita:** A. Employment/Salary (full or part-time):; Chiba University. **A. Suganami:** A. Employment/Salary (full or part-time):; Chiba University. **K. Takahashi:** A. Employment/Salary (full or part-time):; Chiba University. **S. Ohtori:** A. Employment/Salary (full or part-time):; Chiba University.

743.09 **S.J. Smith:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aratome, LLC.

745.04 **G.P. Siegmund:** A. Employment/Salary (full or part-time):; MEA Forensic Engineers & Scientists.

746.07 **D.E. Stevens:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NSERC, OGS. **B. Harwood:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **G.A. Power:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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, CIHR, AIHS, MSFHR. **C.L. Rice:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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.

747.06 **C.J. Woolf:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GlaxoSmithKline LLC.

749.11 **M.-. Bilodeau:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Canada Foundation for Innovation.

750.20 **J.P. Donoghue:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cyberkinetics.

750.23 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies.

753.13 **C.A. Lowry:** F. Consulting Fees (e.g., advisory boards); consultant for Enlight Biosciences the previous two years.

753.18 **S. Haq:** A. Employment/Salary (full or part-time):; Clinical and Scientific Director, Daval International Ltd. **D. McIntosh:** F. Consulting Fees (e.g., advisory boards); Consultant, Daval International Ltd. **C. Moore:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Shareholder, Daval International Ltd. **M. Haq:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Shareholder, Daval International Ltd.

756.06 **A. Maggi:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pfizer.

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758.09 **D.A. Lovejoy:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Protagenic Therapeutics, Inc.

759.06 **M.C. Mostallino:** A. Employment/Salary (full or part-time):; National Research Council, Institute of Neuroscienze. **P.P. Secci:** A. Employment/Salary (full or part-time):; University of Cagliari. **V.M. Melis:** A. Employment/Salary (full or part-time):; University of Cagliari. **J. Di Lucente:** A. Employment/Salary (full or part-time):; University of Cagliari. **G. Talani:** A. Employment/Salary (full or part-time):; National Research Council. **G. Biggio:** A. Employment/Salary (full or part-time):; University of Cagliari.

760.07 **P. Körtvelyessy:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Hertie Institute for clinical brain research.

760.28 **Y. Sawahata:** A. Employment/Salary (full or part-time):; NHK (Japan Broadcasting Corporation). **K. Komine:** A. Employment/Salary (full or part-time):; NHK (Japan Broadcasting Corporation). **N. Hiruma:** A. Employment/Salary (full or part-time):; NHK (Japan Broadcasting Corporation).

762.15 **P. Chen:** A. Employment/Salary (full or part-time):; Kessler Foundation, University of Medicine and Dentistry of New Jersey. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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.

764.02 **B.J. Sahakian:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Johnson & Johnson. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition. **T.W. Robbins:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lilly, Lundbeck and GlaxoSmithKline. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, Lilly, Lundbeck, Merck, Sharpe and Dohme, Shire Pharmaceuticals, Teva and Chempartners.

766.07 **H. Kauser:** A. Employment/Salary (full or part-time):; Defence Institute of Physiology and Allied Sciences, India. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Department of Science and Technology, India. **S. Sahu:** A. Employment/Salary (full or part-time):; Defence Institute of Physiology and Allied Sciences. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Defence Research and Development Organization. **S. Kumar:** A. Employment/Salary (full or part-time):; Defence Institute of Physiology and Allied Sciences. **U. Panjwani:** A. Employment/Salary (full or part-time):; Defence Institute of Physiology and Allied Sciences, India. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Defence Research and Development Organization.

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768.06 **A. Asaba:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; JSPS Research Fellow. **S. Okabe:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; JSPS Research Fellow. **K. Mogi:** A. Employment/Salary (full or part-time):; Associate professor. **T. Kikusui:** A. Employment/Salary (full or part-time):; Professor.

769.14 **I.U. Kruge:** A. Employment/Salary (full or part-time):; Research Council of Norway, European Research Council, Kavli Foundation. **T. Wernle:** A. Employment/Salary (full or part-time):; Research Council of Norway, European Research Council, Kavli Foundation. **E.I. Moser:** A. Employment/Salary (full or part-time):; Research Council of Norway, European Research Council, Kavli Foundation. **M. Moser:** A. Employment/Salary (full or part-time):; Research Council of Norway, European Research Council, Kavli Foundation.

770.10 **Y. Hayashi:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Fujitsu and Takeda.

770.12 **D.L. Turner:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Michigan.

773.01 **L.L. Legette:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Hopsteiner, Inc. **J.F. Stevens:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Hopsteiner, Inc.

773.07 **J.C. Lauterborn:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-author on patent. **C.M. Gall:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-author on patent. **G. Lynch:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-author on patent.

777.04 **N. Suto:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; DA033533. **F. 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.; DA008467.

780.13 **D.M. Arble:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ethicon Endo-Surgery. **D.A. Sandoval:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ethicon Endo-Surgery. **S.C. Woods:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ethicon Endo-Surgery. **R.J. Seeley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ethicon Endo-Surgery.

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782.10 **I. Yazawa:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; KAKENHI (24500612). **K. Nakayama:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; KAKENHI (25350622).

782.28 **W. Denk:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); License income from SBEM technology.

783.20 **L. Gerashchenko:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurotargeting Systems Inc. **D. Gerashchenko:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurotargeting Systems Inc.

783.21 **P. Ledochowitsch:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Peter Ledochowitsch has commercial interest in Cortera Neurotechnologies. **R. Muller:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Rikky Muller has commercial interest in Cortera Neurotechnologies. **S. Gambini:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Simone Gambini has commercial interest in Cortera Neurotechnologies. **J.M. Carmena:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Jose M. Carmena has commercial interest in Cortera Neurotechnologies. **M.M. Maharbiz:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Michel M. Maharbiz has commercial interest in Cortera Neurotechnologies. **J. Rabaey:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Jan Rabaey has commercial interest in Cortera Neurotechnologies.

783.23 **J. Schouenborg:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Jens Schouenborg.

783.24 **S. Musa:** A. Employment/Salary (full or part-time):; Imec. **M. Welkenhuysen:** A. Employment/Salary (full or part-time):; Imec. **C.M. Lopez:** A. Employment/Salary (full or part-time):; Imec. **A. Andrei:** A. Employment/Salary (full or part-time):; Imec. **D. Prodanov:** A. Employment/Salary (full or part-time):; Imec.

784.07 **W. Tyler:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); WJT has multiple patent applications on noninvasive brain stimulation and owns shares in Neurotrek, Inc.

784.17 **F. Solzbacher:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Florian Solzbacher has commercial interest in Blackrock Microsystems.

784.19 **M.D. Keller:** A. Employment/Salary (full or part-time):; Full-time employee of Lockheed Martin Aculight.

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787.06 **K. Rutten:** A. Employment/Salary (full or part-time):; full-time employment at Grünenthal, GmbH.

790.07 **Y. Ziv:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix, Inc. F. Consulting Fees (e.g., advisory boards); Inscopix, Inc.

792.02 **K. Leuner:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; W.K.L. received research grants from Dr. Wilmar Schwabe. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Silexan was kindly provided by Dr. Wilmar Schwabe, Karlsruhe, Germany. **M. Nöldner:** A. Employment/ Salary (full or part-time):; M.N. is an employee of Dr. Wilmar Schwabe. **W.E. Müller:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; W.E.M. received research grants from Dr. Wilmar Schwabe.

792.03 **M.S. Brennan:** A. Employment/Salary (full or part-time):; Biogen Idec. **H. Patel:** A. Employment/Salary (full or part-time):; Biogen Idec. **S. Ryan:** A. Employment/Salary (full or part-time):; Biogen Idec. **M. Lukashev:** A. Employment/ Salary (full or part-time):; Biogen Idec. **P. Bista:** A. Employment/Salary (full or part-time):; Biogen Idec. **S. Glass:** 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.

792.04 **S.M. Poli:** A. Employment/Salary (full or part-time):; Addex Therapeutics. **H. Haddouk:** A. Employment/Salary (full or part-time):; Addex therapeutics. **G. Dixon:** A. Employment/ Salary (full or part-time):; Addex therapeutics. **E. Bézard:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; MOTAC Neuroscience. **A. Tavares:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; MNI. **D. Alagille:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; MNI. **O. Barret:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; MNI. **G. Tamagnan:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; MNI.

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792.07 **L. Aluisio:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC. **I. Fraser:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC. **T. Berdyyeva:** A. Employment/Salary (full or part-time):; Janssen R7D, LLC. **C. Dugovic:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC. **B. Shireman:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC. **J. Shoblock:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC. **N. Carruthers:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC. **T. Lovenberg:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC. **P. Bonaventure:** A. Employment/Salary (full or part-time):; Janssen R&D, LLC.

792.08 **T.M. Wyckhuys:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Janssen Pharmaceutica NV. **L. wyffels:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Janssen Pharmaceutica NV. **X. Ianglois:** A. Employment/Salary (full or part-time):; Janssen Pharmaceutica NV. **M. schmidt:** A. Employment/Salary (full or part-time):; Janssen Pharmaceutica NV.

792.09 **D. Hoyer:** A. Employment/Salary (full or part-time):; Novartis Pharma. **D. Abramowski:** A. Employment/Salary (full or part-time):; Novartis Pharma. **S. Immobersteg:** A. Employment/Salary (full or part-time):; Novartis Pharma. **E. Schuepbach:** A. Employment/Salary (full or part-time):; novartis Pharma. **H. Buerki:** A. Employment/Salary (full or part-time):; novartis Pharma. **T. Duerst:** A. Employment/Salary (full or part-time):; Novartis Pharma. **D. Behnke:** A. Employment/Salary (full or part-time):; novartis Pharma. **S. Cotesta:** A. Employment/Salary (full or part-time):; Novartis Pharma. **G. Laue:** A. Employment/Salary (full or part-time):; novartis Pharma. **S. Ofner:** A. Employment/Salary (full or part-time):; Novartis Pharma. **J. Wagner:** A. Employment/Salary (full or part-time):; Novartis Pharma. **S. Hintermann:** A. Employment/Salary (full or part-time):; Novartis Pharma. **C. Betschart:** A. Employment/Salary (full or part-time):; novartis Pharma.

794.21 **T. Kido:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Author is an owner of Stem Cell Medicine, LLC.

797.02 **F.C. Zhou:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Supported by AA016698 and P50 AA07611 to FCZ, and by the M. W. Keck Foundation to JI and FCZ. **J. Irudayaraj:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; M. W. Keck Foundation to JI and FCZ.

798.01 **M.M. Rasenick:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Eli Lilly. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lundbeck, Nordic Naturals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pax Neuroscience.

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798.02 **M.M. Rasenick:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Eli Lilly. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lundbeck, Nordic Naturals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pax Neuroscience.

800.12 **H. Hayakawa:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); KAKENHI 21120006. **T. Kamijo:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); KAKENHI 21120006. **Y. Yamazaki:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; 20500278 and 21120006. **T. Aihara:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); KAKENHI 21120006.

801.30 **Y. Terao:** A. Employment/Salary (full or part-time):; Takeda Company.

803.07 **L. Greenfield:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Upsher Smith, Eisai. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Royalties from Wolters Kluwer for.

803.12 **R. Kawahara:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Taisho Pharmaceutical Co., Ltd. **F. Soeda:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Taisho Pharmaceutical Co., Ltd. **K. Takahama:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Taisho Pharmaceutical Co., Ltd.

803.18 **J. Risinger:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; University of Minnesota Undergraduate Research Opportunity Program Grant. **A.M. Petzold:** A. Employment/Salary (full or part-time):; Univr. **R.L. Dunbar:** A. Employment/Salary (full or part-time):; University of Minnesota Rochester.

803.19 **R. Alves:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CAPES. **A. Vasconcelos:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; FAPESP.

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804.02 **H. Fukui:** A. Employment/Salary (full or part-time):; Evotec AG. **K. Kottig:** A. Employment/Salary (full or part-time):; Evotec AG. **N. Carty:** A. Employment/Salary (full or part-time):; Evotec AG. **A. von der Lippe:** A. Employment/Salary (full or part-time):; Evotec AG. **V. Mack:** A. Employment/Salary (full or part-time):; Evotec AG. **C. Gabrysiak:** A. Employment/Salary (full or part-time):; Evotec AG. **N. Berson:** A. Employment/Salary (full or part-time):; Evotec AG. **M. Heubl:** A. Employment/Salary (full or part-time):; Evotec AG. **R. Netzer:** A. Employment/Salary (full or part-time):; Evotec AG. **H. von der Kammer:** A. Employment/Salary (full or part-time):; Evotec AG.

804.09 **D.M. Barten:** 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. **L.B. DeCarr:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **G.W. Cadelina:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **L. Yang:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **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. **M.K. Ahlijanian:** 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. **A. Cacace:** 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.

805.07 **S.A. Lipton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); S.A. Lipton: patent related rights.

806.01 **K.S. Gannon:** A. Employment/Salary (full or part-time):; NeuroPhage Pharmaceuticals. **J.M. Levenson:** A. Employment/Salary (full or part-time):; NeuroPhage Pharmaceuticals employee. **E. Rockenstein:** F. Consulting Fees (e.g., advisory boards); NeuroPhage Pharmaceuticals paid consultant. **E. Masliah:** Other; NeuroPhage paid collaborator.

806.14 **J. Lujan:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Boston Scientific.

806.18 **P. LoGrasso:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); OPKO Health. F. Consulting Fees (e.g., advisory boards); OPKO Health.

806.20 **C.S. Voshavar:** A. Employment/Salary (full or part-time):; Wayne State University. **M. Shah:** A. Employment/Salary (full or part-time):; Wayne State University. **L. Xu:** A. Employment/Salary (full or part-time):; Wayne State University. **A.K. Dutta:** A. Employment/Salary (full or part-time):; Wayne State University.

806.22 **M.C. Carmona:** A. Employment/Salary (full or part-time):; n-Life Therapeutics, S.L. **M.I. Santos:** A. Employment/Salary (full or part-time):; n-Life Therapeutics, S.L. **S. Baena:** A. Employment/Salary (full or part-time):; n-Life Therapeutics, S.L. **M.R. Chica:** A. Employment/Salary (full or part-time):; n-Life Therapeutics, S.L. **A. Montefeltro:** A. Employment/Salary (full or part-time):; n-Life Therapeutics, S.L. **R. Revilla:** A. Employment/Salary (full or part-time):; n-Life Therapeutics, S.L.

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807.11 **S.N. Witt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent disclosure filed. **S. Wang:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent disclosure filed.

807.19 **T.A. Yacoubian:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NINDS grant. Other; I have US patent on the use of 14-3-3 proteins in neurodegeneration.

808.18 **W. Tahara:** A. Employment/Salary (full or part-time):; Nihon natural foods Co., Ltd. **R. Yamamoto:** A. Employment/Salary (full or part-time):; Nihon natural foods Co., Ltd.

809.16 **E. Frangos:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Cerbomed GmbH. **J. Ellrich:** A. Employment/Salary (full or part-time):; Cerbomed GmbH. **B.R. Komisaruk:** F. Consulting Fees (e.g., advisory boards); Cerbomed GmbH.

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847.06 **J.H. Krystal:** Other; JHK consults for several pharmaceutical and biotechnology companies with compensation less than $10 000 per year. All other authors declare that they have no conflict of interest.

848.11 **O. Parker Jones:** A. Employment/Salary (full or part-time):; Wellcome Trust Centre for Neuroimaging. **D.W. Green:** A. Employment/Salary (full or part-time):; UCL. **M.L. Seghier:** A. Employment/Salary (full or part-time):; Wellcome Trust Centre for Neuroimaging. **C.J. Price:** A. Employment/Salary (full or part-time):; Wellcome Trust Centre for Neuroimaging.

849.13 **V. Aluru:** A. Employment/Salary (full or part-time):; NYU School of Medicine. **T. Ashman:** A. Employment/Salary (full or part-time):; NYU School of Medicine. **B. Im:** A. Employment/Salary (full or part-time):; NYU Langone Medical Center. **P. Raghavan:** A. Employment/Salary (full or part-time):; NYU School of Medicine. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Community Collaborative Challenge Grant from the NYU Steinhardt School of Culture, Education and Human Development, Fultz Award from the American Music Therapy Association.

ABSTRACT NUMBER | STATEMENT

849.15 **T.L. Greer:** A. Employment/Salary (full or part-time):; University of Texas Southwestern Medical Center. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NARSAD. F. Consulting Fees (e.g., advisory boards); H Lundbeck A/S. **B.D. Grannemann:** A. Employment/Salary (full or part-time):; University of Texas Southwestern Medical Center. **F.D. Martinez:** A. Employment/Salary (full or part-time):; University of Texas Southwestern Medical Center. **M.H. Trivedi:** A. Employment/Salary (full or part-time):; University of Texas Southwestern Medical Center. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Agency for Healthcare Research and Quality, Corcept Therapeutics, Inc., Cyberonics, Inc., National Alliance for Research in Schizophrenia and Depression, National Institute of Mental Health, National Institute on Drug Abuse, Novartis, Pharmacia & Upjohn, Predix Pharmaceuticals (Epix), Solvay Pharmaceuticals, Inc., Targacept. F. Consulting Fees (e.g., advisory boards); Abbott Laboratories, Inc., Abdi Ibrahim, Akzo (Organon Pharmaceuticals Inc.), Alkermes, AstraZeneca, Axon Advisors, Bristol-Myers Squibb Company, Cephalon, Inc., Cerecor, Concert Pharmaceuticals, Inc., Eli Lilly & Company, Evotec, Fabre-Kramer Pharmaceuticals, Inc., Forest Pharmaceuticals, GlaxoSmithKline, Janssen Global Services, LLC, Janssen Pharmaceutica Products, LP, Johnson & Johnson PRD, Libby, Lundbeck, Meade Johnson, MedAvante, Medtronic, Merck, Naurex, Neuronetics, Otsuka Pharmaceuticals, Pamlab, Parke-Davis Pharmaceuticals, Inc., Pfizer, Inc., PgxHealth, Phoenix Marketing Solutions, Rexahn Pharmaceuticals, Ridge Diagnostics, Roche Products Ltd., Sepracor, SHIRE Development, Sierra, SK Life and Science, Sunovion, Takeda, Tal Medical/Puretech Venture, Transcept, VantagePoint, Vivus, Wyeth-Ayerst Laboratories.

849.21 **K. Katahira:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Advanced Technology R&D Center, Mitsubishi Electric Corporation. **N. Nagata:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Advanced Technology R&D Center, Mitsubishi Electric Corporation. **K. Miya:** A. Employment/Salary (full or part-time):; Advanced Technology R&D Center, Mitsubishi Electric Corporation. **S. Furukawa:** A. Employment/Salary (full or part-time):; Advanced Technology R&D Center, Mitsubishi Electric Corporation.

850.12 **K.L. Wheat:** A. Employment/Salary (full or part-time):; Maastricht University. **P.L. Cornelissen:** A. Employment/Salary (full or part-time):; Northumbria University. **T. Schuhmann:** A. Employment/Salary (full or part-time):; Maastricht University. **A.T. Sack:** A. Employment/Salary (full or part-time):; Maastricht University.

ABSTRACT NUMBER STATEMENT

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855.01 **T.W. Robbins:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lilly, Lundbeck, GlaxoSmithKline. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, Lilly, Lundbeck, Merck, Sharpe and Dohme, Shire Pharmaceuticals, Teva, Chempartners.

855.10 **L.R. Hammerslag:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. 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.

855.18 **J.A. McGaughy:** A. Employment/Salary (full or part-time):; University of New Hampshire. **E.M. Byrnes:** A. Employment/Salary (full or part-time):; Tufts University Cummings School of Veterinary Medicine.

858.21 **S. Amemori:** A. Employment/Salary (full or part-time):; MIT.

861.04 **J.A. Lecoq:** A. Employment/Salary (full or part-time):; Inscopix. **M.J. Schnitzer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix.

863.14 **T.C. Dumas:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cortex Pharmaceuticals.

865.04 **C.R. Zamberlam:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); FAPESP. **S. M. Cerutti:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); FAPESP.

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871.09 **R.E. Petroski:** A. Employment/Salary (full or part-time):; Dart Neuroscience. **J. Limberis:** A. Employment/Salary (full or part-time):; Dart Neuroscience. **K. Symons:** A. Employment/Salary (full or part-time):; Dart Neuroscience. **M.E. Massari:** A. Employment/Salary (full or part-time):; Dart Neuroscience.

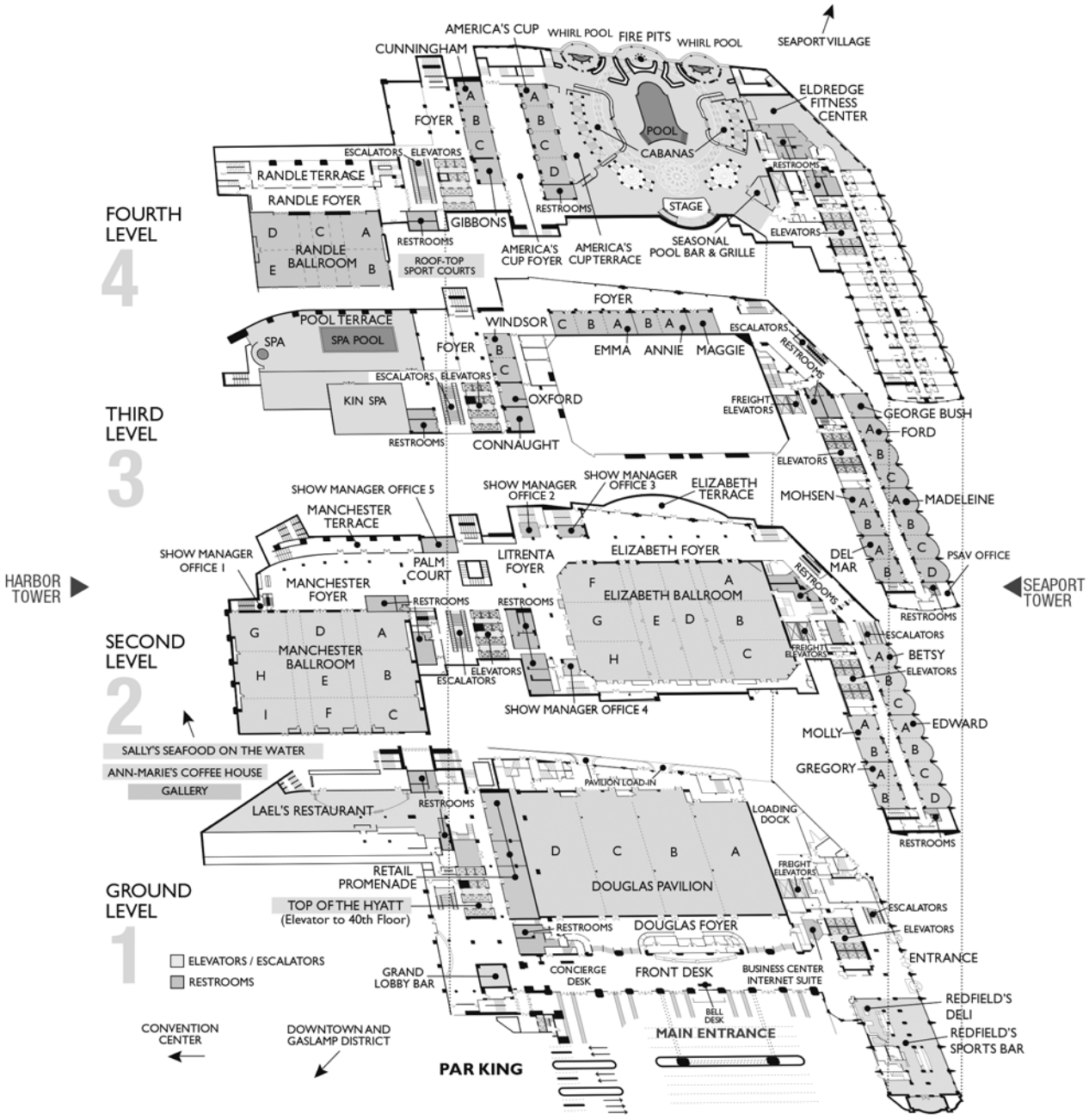
871.15 **M. Haruta:** A. Employment/Salary (full or part-time):; Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relation. **H. Takehara:** A. Employment/Salary (full or part-time):; Nara Institute of Science and Technology. **T. Noda:** A. Employment/Salary (full or part-time):; Contracted Research/Research Grant (principal investigator 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. **K. Sasagawa:** A. Employment/Salary (full or part-time):; Contracted Research/Research Grant (principal investigator 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. **T. Tokuda:** A. Employment/Salary (full or part-time):; Contracted Research/Research Grant (principal investigator 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. **J. Ohta:** A. Employment/Salary (full or part-time):; Contracted Research/Research Grant (principal investigator 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.

871.22 **M. Levoy:** A. Employment/Salary (full or part-time):; Google 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.; Google Inc., Intel Corp.

ABSTRACT NUMBER	STATEMENT
871.31	**K. Brennan:** F. Consulting Fees (e.g., advisory boards); MAP Pharmaceuticals, 2012 (unrelated).
871.32	**T.C. Marzullo:** A. Employment/Salary (full or part-time):; Backyard Brains, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Backyard Brains, Inc. **A. Hatch:** A. Employment/Salary (full or part-time):; Backyard Brains, Inc. **G. Gage:** A. Employment/Salary (full or part-time):; Backyard Brains, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Backyard Brains, Inc.
872.06	**V. Gradinaru:** Other; Co-founder Circuit Therapeutics.
872.08	**V. Gradinaru:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Circuit Therapeutics.
872.15	**K. Deisseroth:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; DARPA REPAIR, HHMI, NIH, NIH PIONEER, CIRM.
872.16	**G. Augustine:** A. Employment/Salary (full or part-time):; George Augustine.
872.25	**A. Ghosh:** A. Employment/Salary (full or part-time):; Hoffmann-La Roche.
873.07	**S.B. Kodandaramaiah:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuromatic Devices Inc. **C.R. Forest:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuromatic Devices Inc.
873.11	**S. Kodandaramiah:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuromatic Devices.
873.12	**S. Kodandaramiah:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuromatic Devices.
873.18	**L.B. Grand:** A. Employment/Salary (full or part-time):; Laszlo Grand is the Director of Research and Development of Microprobes for Life Sciences Inc. **M. Bak:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Martin Bak is the owner and CEO of Microprobes for Life Sciences Inc.

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Manchester Grand Hyatt

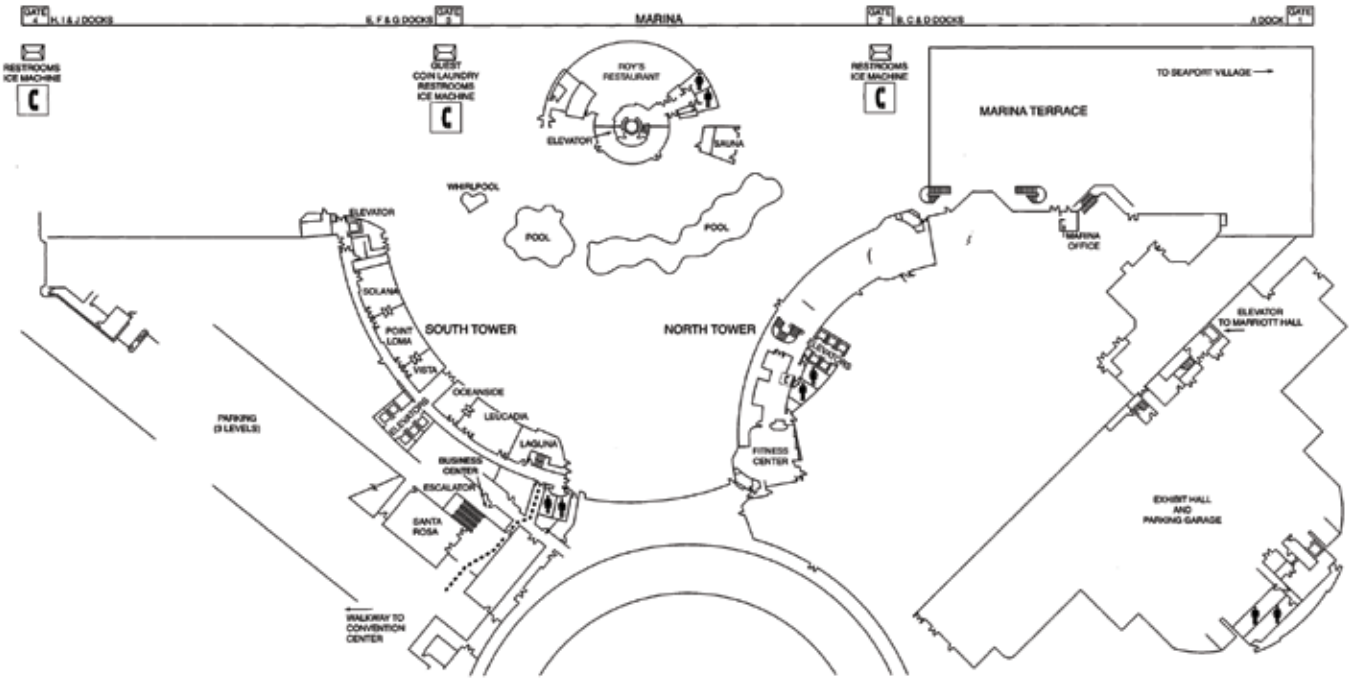


Marriott Marquis & Marina

South Tower

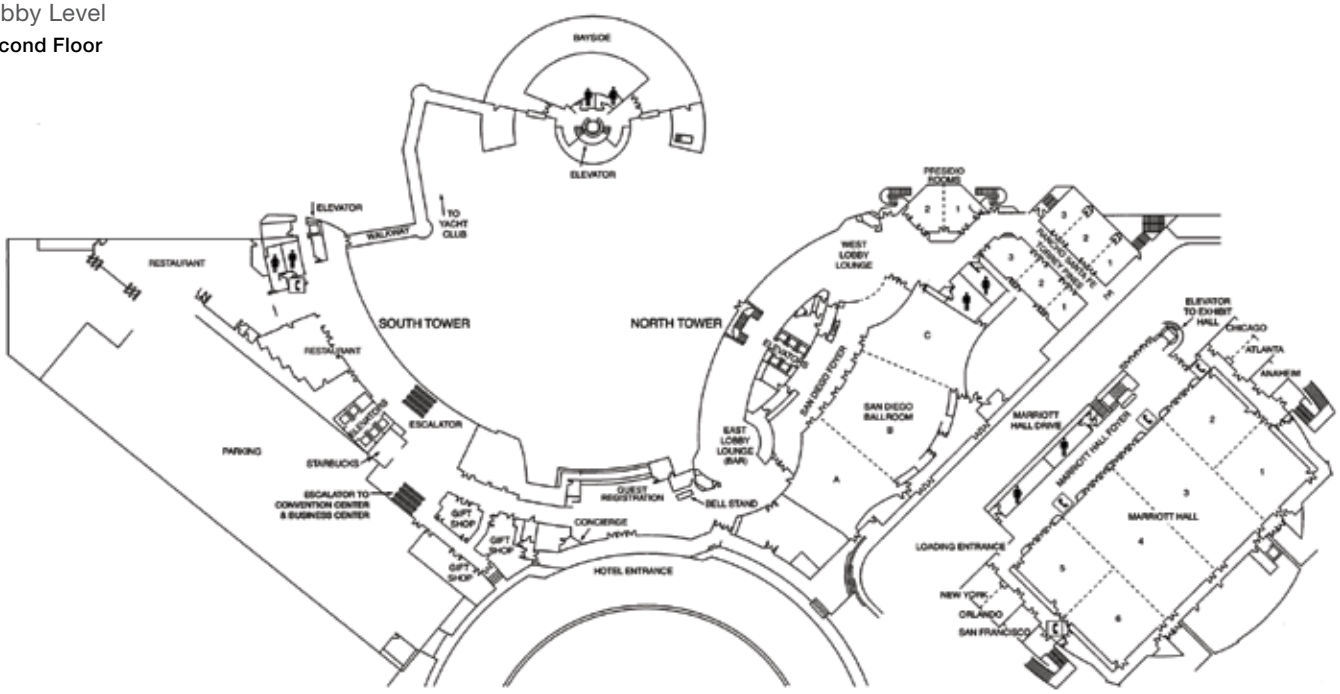
North Tower

Level 1



Lobby Level

Second Floor



Hotel Floor Plans

Marriott Marquis & Marina (continued)

South Tower

1st Floor
Laguna
Leucadia
Oceanside
Point Loma
Santa Rosa
Solana
Vista

2nd Floor
Bayside

3rd Floor
Balboa
Cardiff
Carlsbad
Del Mar
Encinitas
Marina Ballroom D–G
Miramar
Mission Hills
Palomar

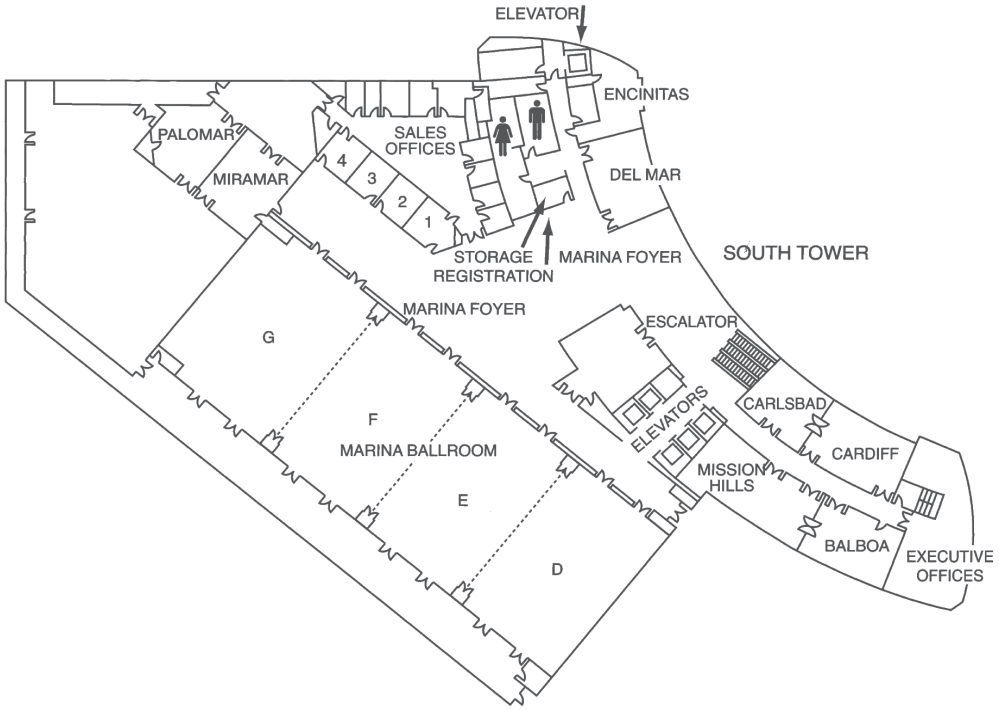
4th Floor
Catalina
Coronado
Dana Point
La Costa
La Jolla
La Mesa
Malibu
Newport Beach

North Tower

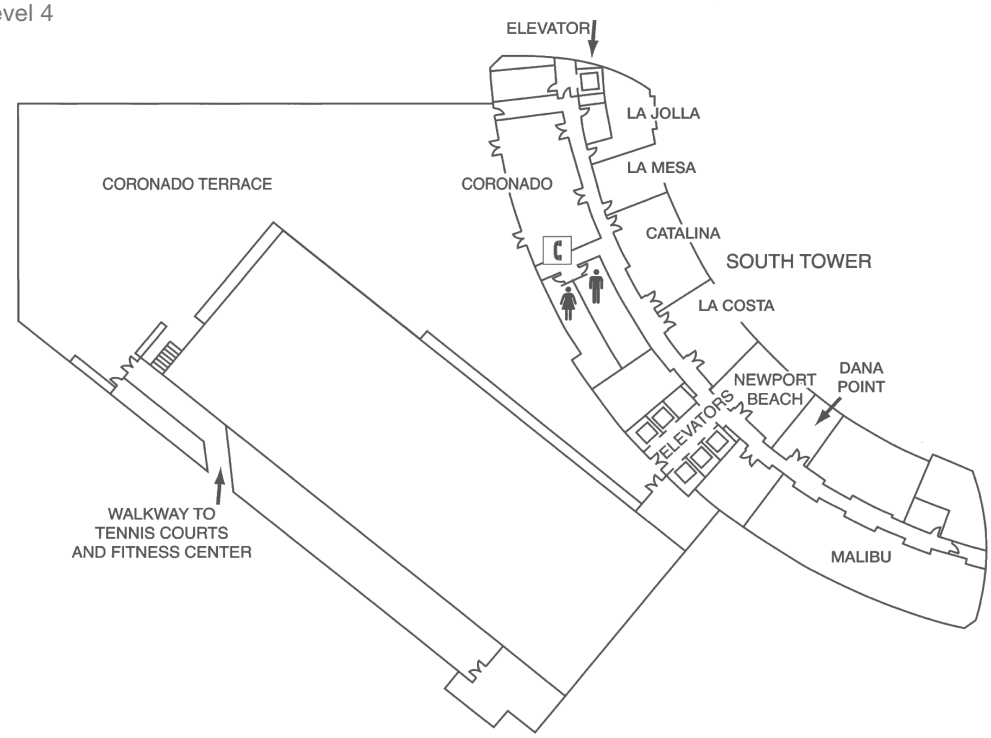
Lobby Level
Presidio 1–2
Rancho Santa Fe 1–3
San Diego Ballrooms A–C
Torrey Pines 1–3

Marriott Hall
Anaheim
Atlanta
Chicago
Marriott Hall 1–6
New York
Orlando
San Francisco

Level 3

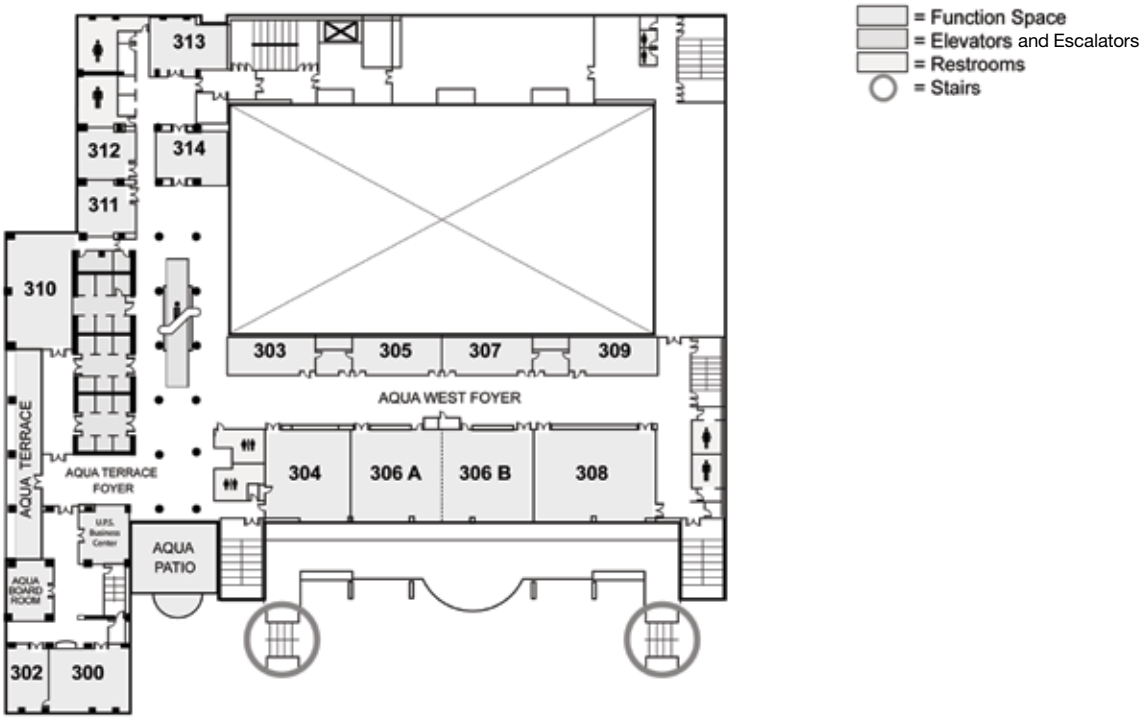


Level 4

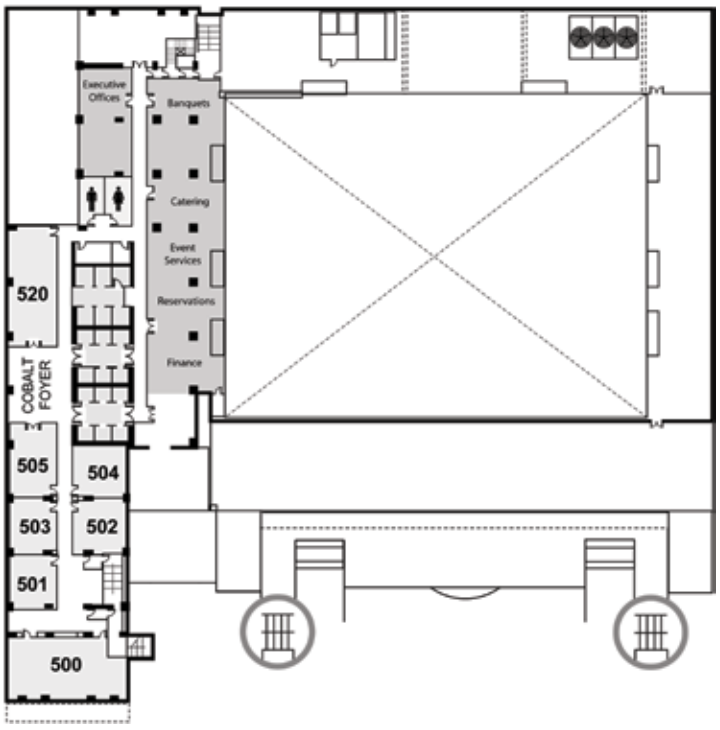


Hilton San Diego Bayfront

Aqua Level



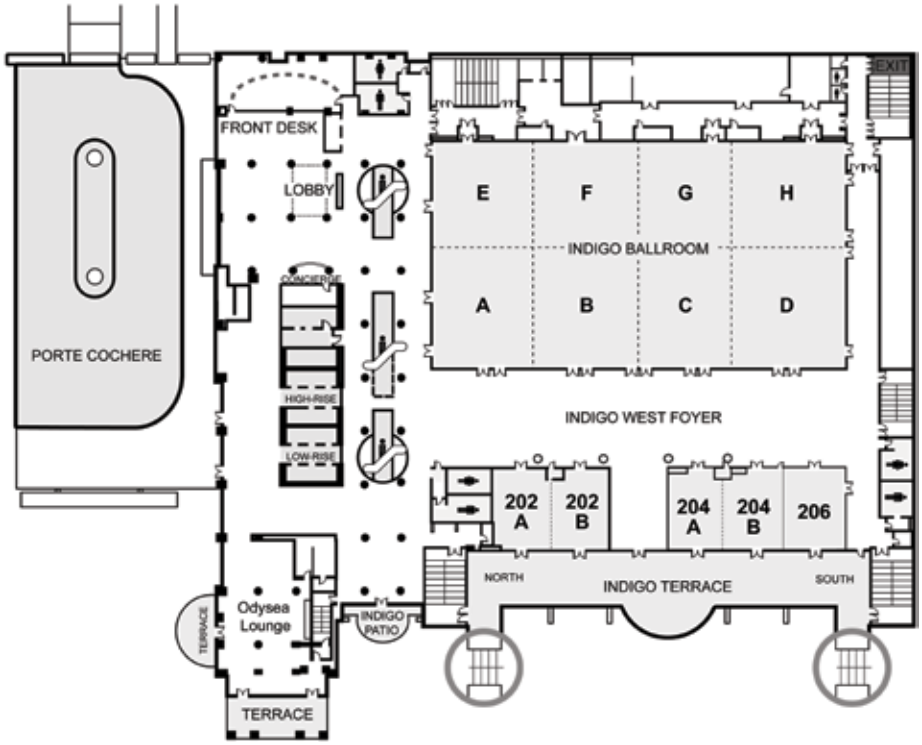
Cobalt Level



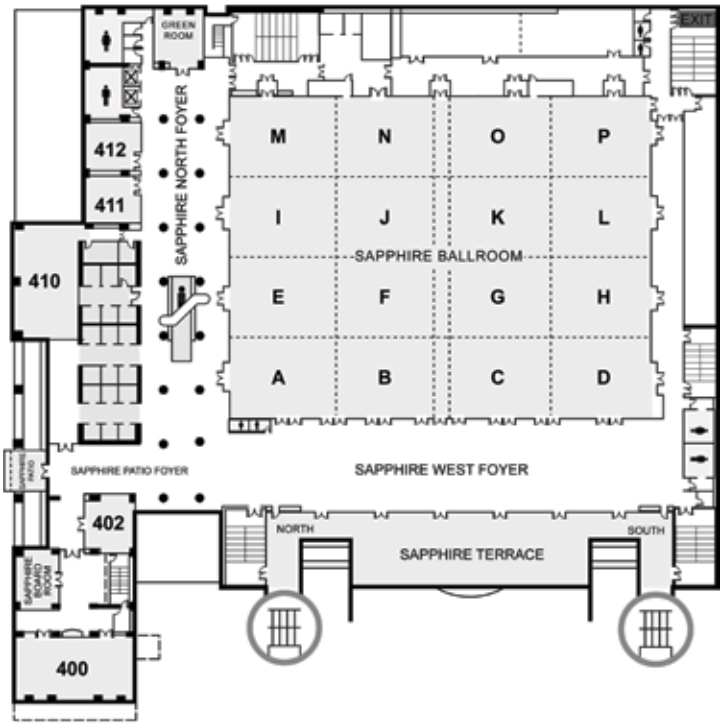
Hotel Floor Plans

Hilton Dan Diego Bayfront

Indigo Level



Sapphire Level



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= Restrooms
= Stairs

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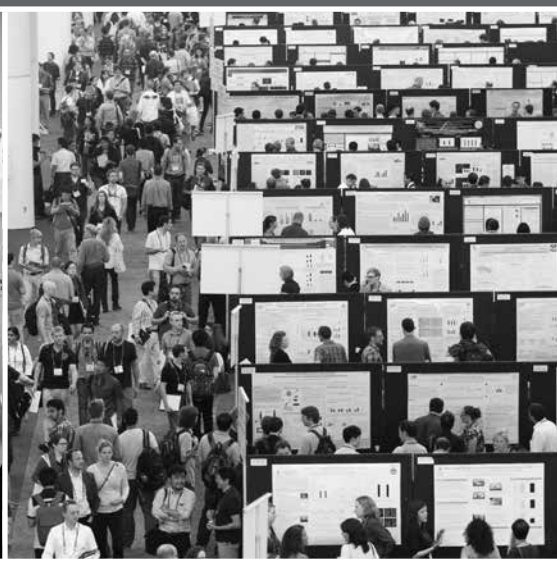
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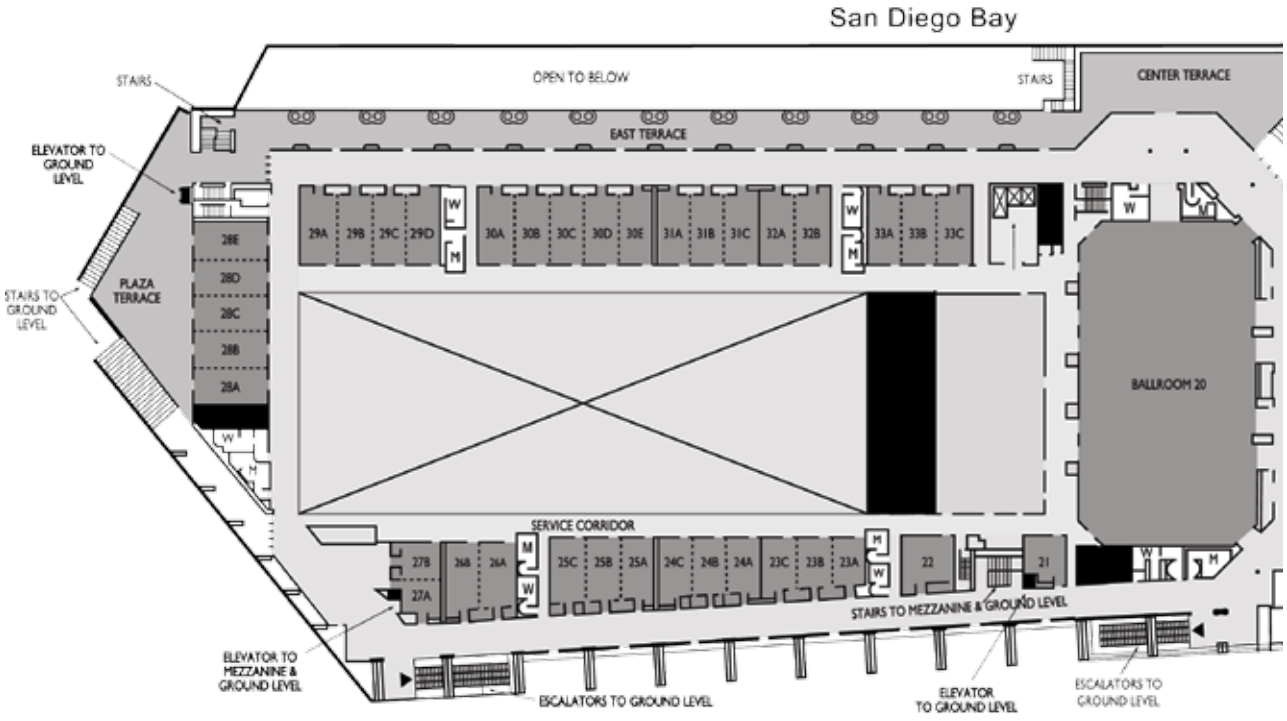




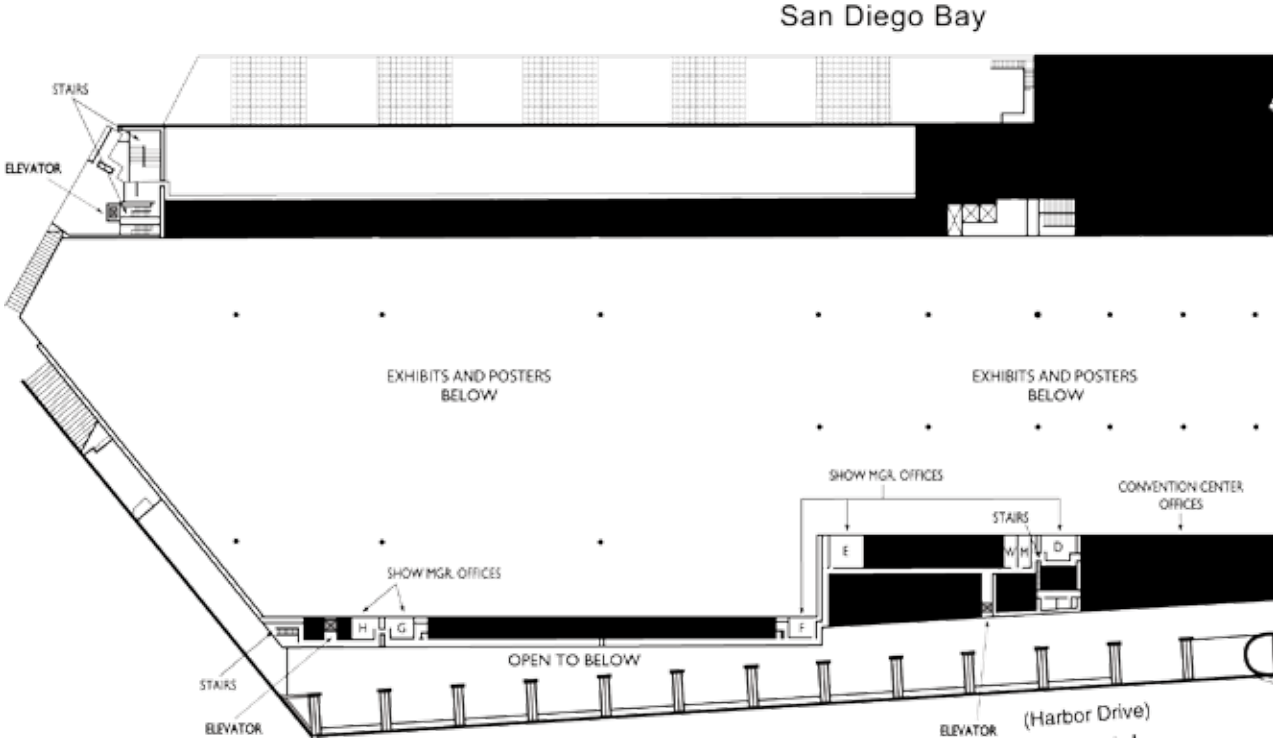
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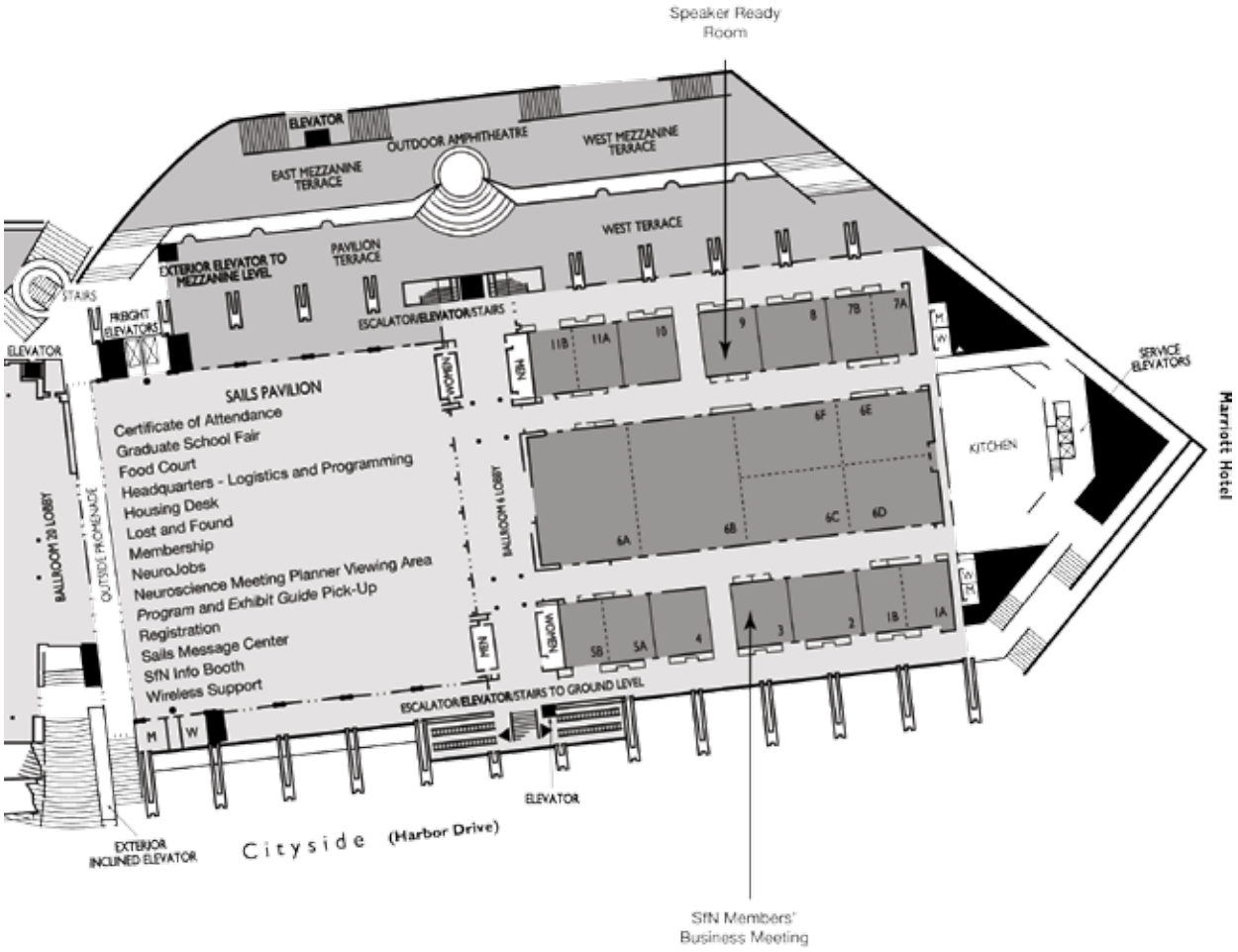
Convention Center Floor Plans

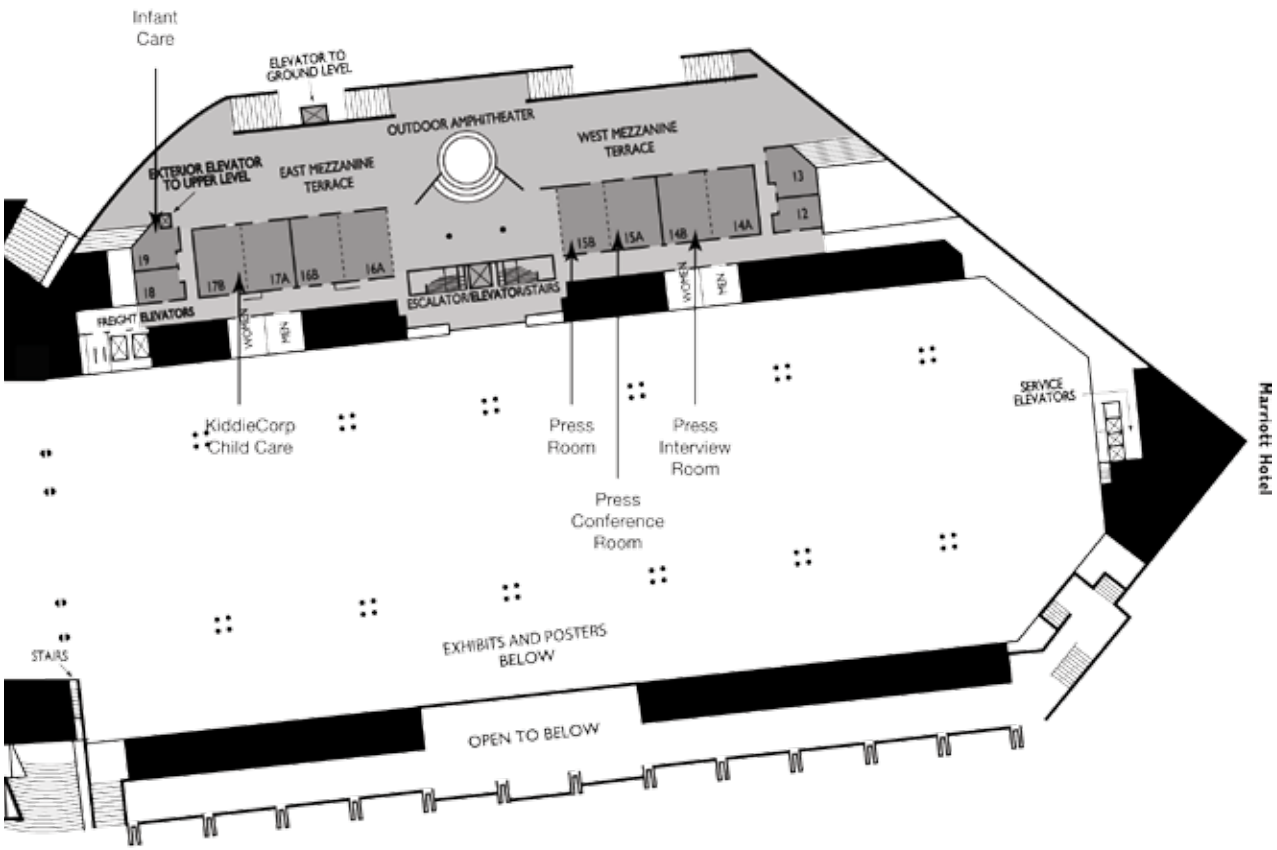
San Diego Convention Center Floor Plan, Upper Level



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
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FREIGHT ELEVATORS
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WOMEN
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Press Interview Room
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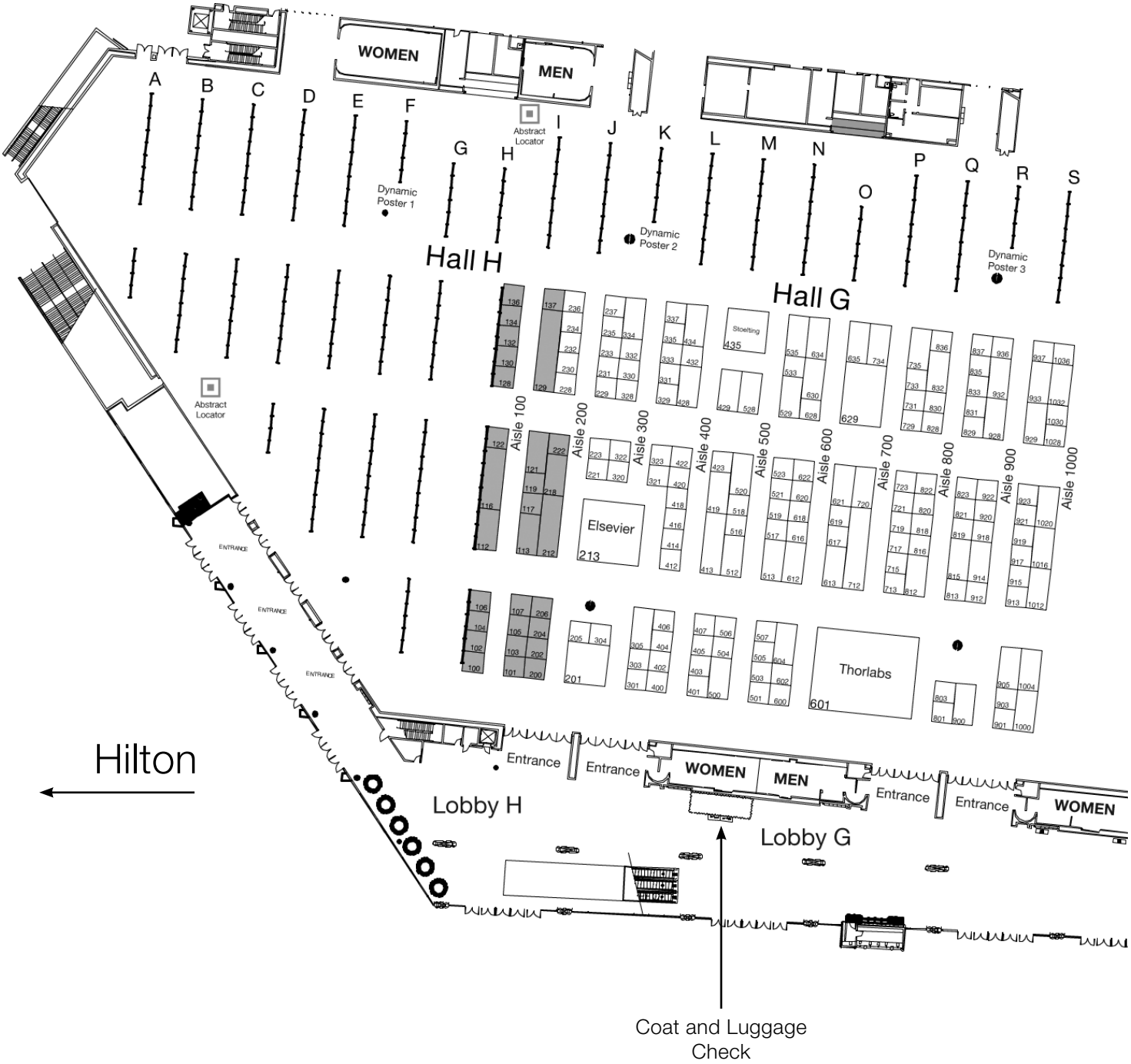
Convention Center Floor Plans

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

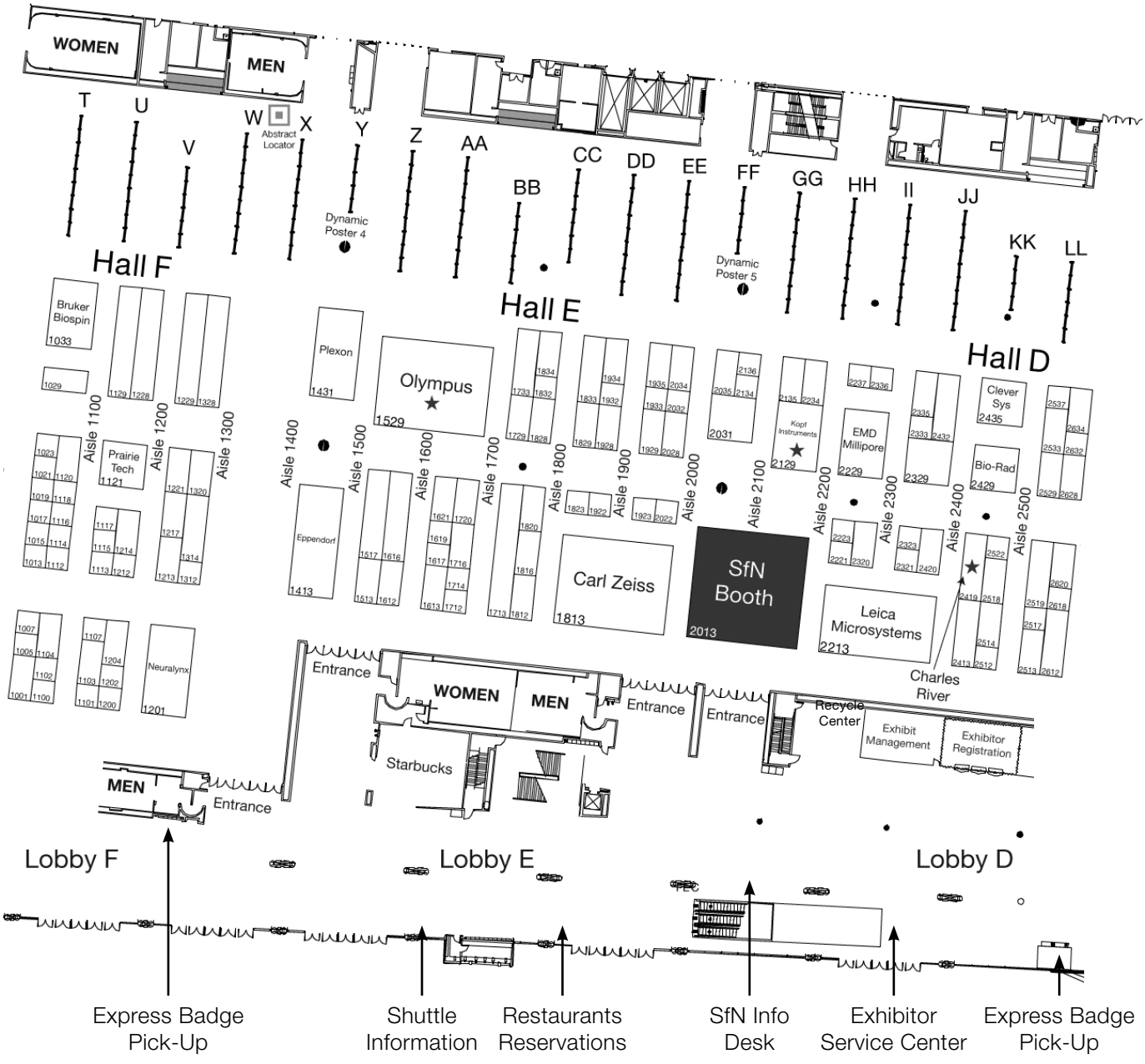
Hall entrances open at noon on Saturday, Nov. 9 and at 7 a.m. on Sunday, Nov. 10 to Wednesday, Nov. 13 for poster presenter setup. Poster sessions are open for all attendees at 1 p.m. on Saturday, Nov. 9 and 8 a.m. Sunday, Nov. 10 to Wednesday, Nov. 13.

NOTE: Floor plans subject to change. For current floor plan, visit SfN.org/exhibits.



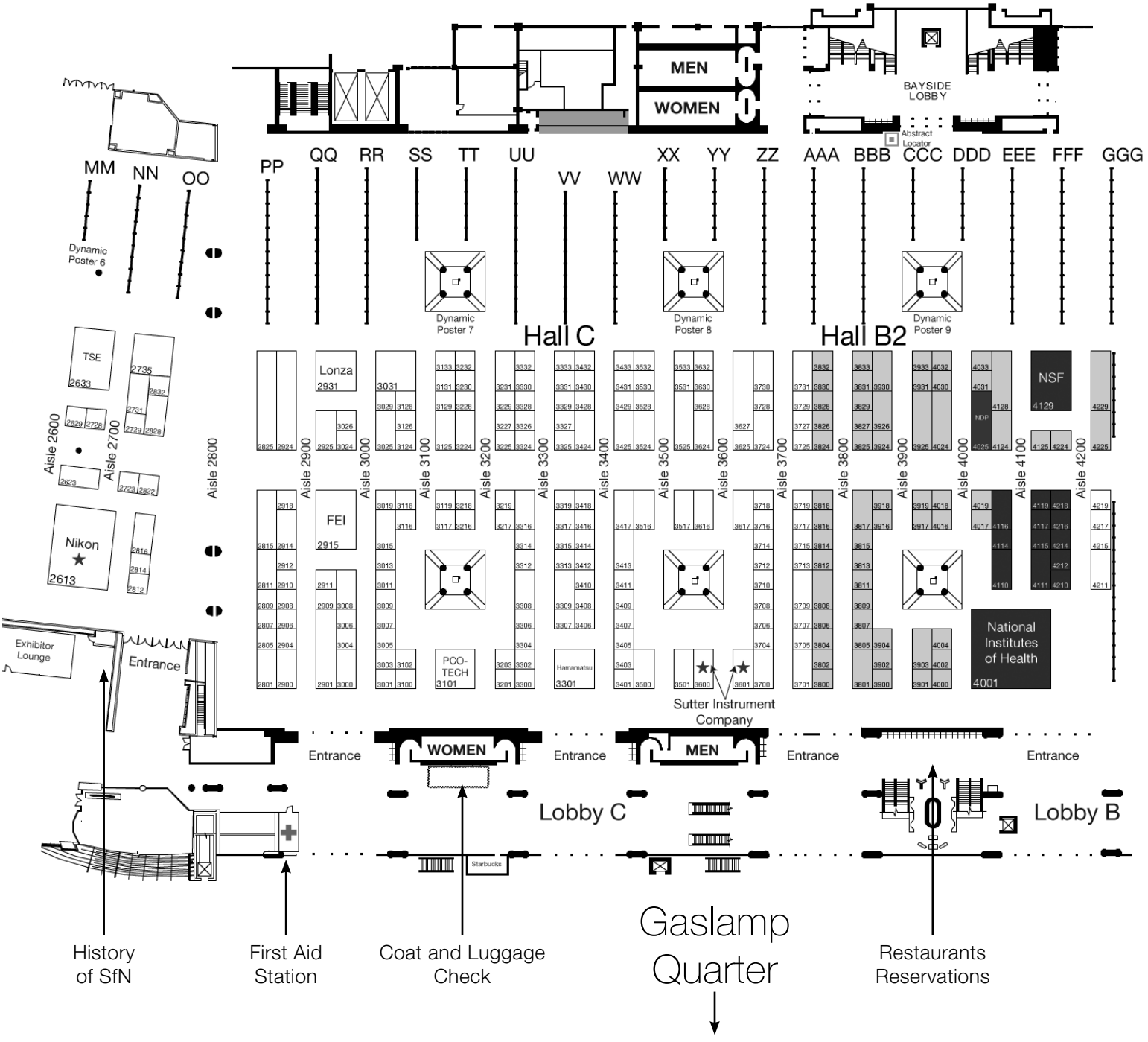
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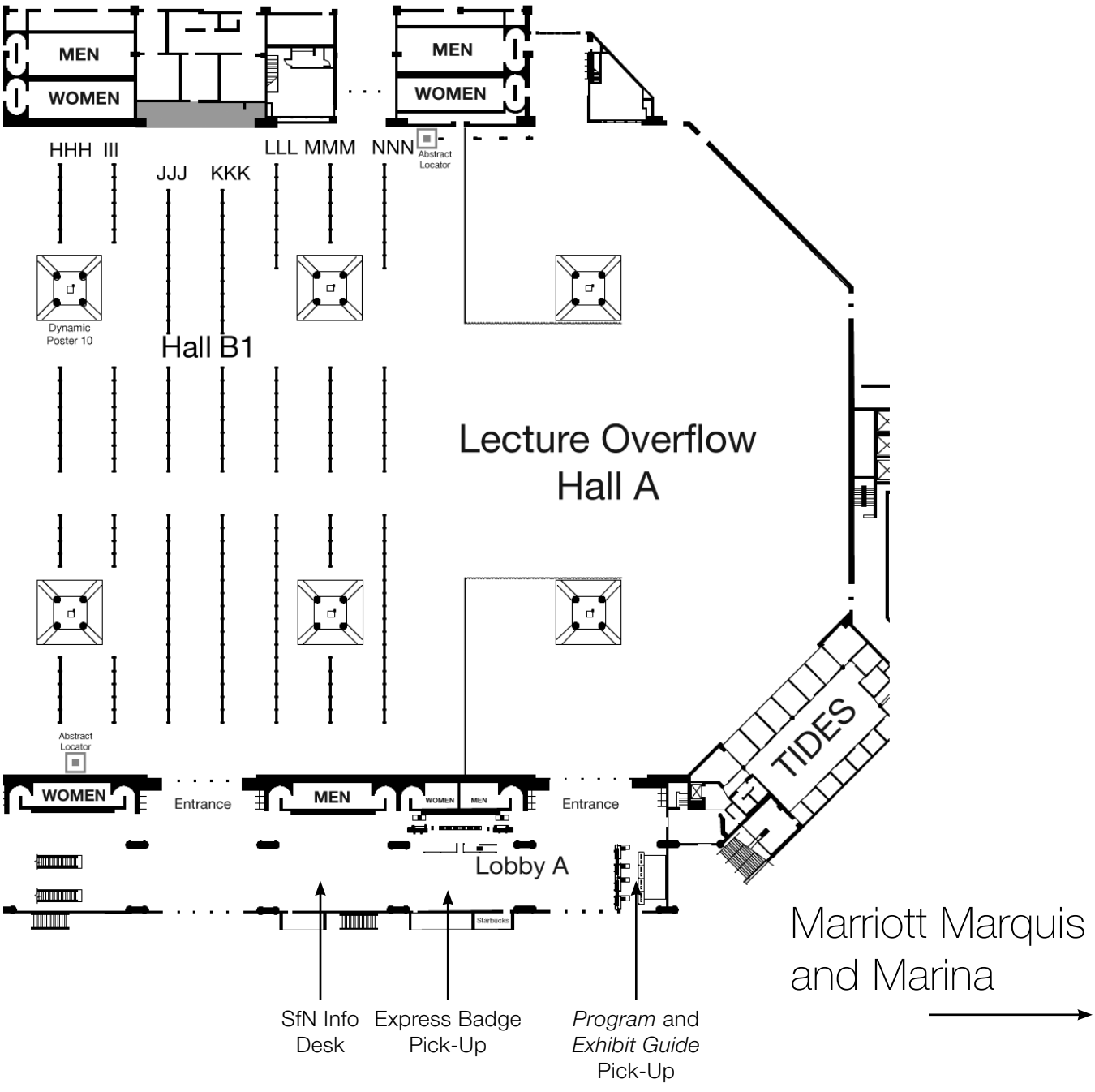
Convention Center Floor Plans

San Diego Convention Center Floor Plan, Exhibit Halls



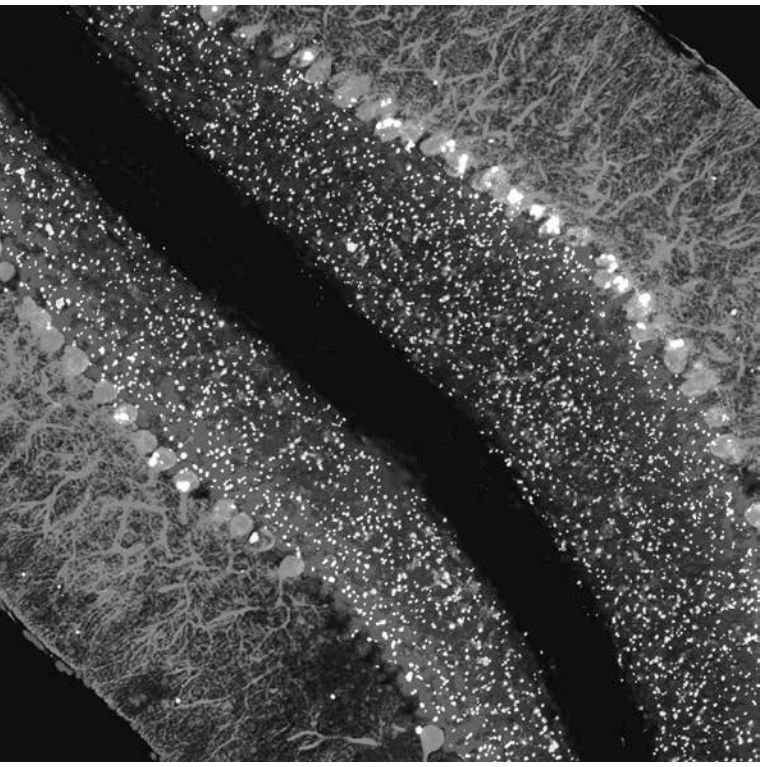
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