



NEUROSCIENCE
2023

WCC 103

SELECT U - M PRESENTATIONS

Saturday, November 11 | 1:30 - 2:30 p.m.



Eva Feldman

Meet-the-Clinician-Expert Session

*Somewhere Over the Rainbow:
The Dreams We Dare To Dream For ALS
Can Come True*





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Saturday, August 11 | 1-5:00 p.m.

WCC Halls A-C

Wei-Chih Chang - Poster #C58

Forecasting seizures using evoked response features in tetanus toxin induced epilepsy in rats

Katie Emery - Poster #I123

The role of extended amygdala CRF in incentive motivation and addiction

Princess Felix - Poster #I128

The effect of glucocorticoid receptor knockdown in a corticostriatal circuit on cue-motivated behaviors

Katherine Furman - Poster #HH20

Melanin-concentrating hormone neurons differentially regulate feeding and arousal as a function of downstream projection area

Megan Hagenauer - Poster #XX52

The Brain Data Alchemy Project: Teaching research reproducibility and discovery science while mining gold from archived genomics data





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Saturday, August 11 | 1-5:00 p.m.

WCC Halls A-C

Bhumsoo Kim - Poster #E29

Palmitate modulates neuroglial interaction through the extracellular vesicles: possible link between metabolic syndrome and Alzheimer's disease.

Liam Potter - Poster #HH19

Functional interactions between the melanin-concentrating hormone and mesolimbic dopamine systems during food consumption and appetitive learning.

Kristen Schuh - Poster #LL14

Regulation of stress and mood in a mouse model of oral contraceptives

Jacob Sellers - Poster #QQ21

Causal evidence for the role of lateral prefrontal cortex in the time course of interference resolution





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Omar Ahmed - Poster #SS14

Multiplexed interhemispheric information exchange in the retrosplenial cortex

Vinodh Balendran - Poster #C61

State-dependent regulation of hippocampal memory consolidation via somatostatin interneurons

Isaac Brooks - Poster #SS16

The retrosplenial transcriptome in mice, rats, and preclinical Alzheimer's disease

Joseph Costello - Poster #AA28

Balancing memorization and generalization in RNNs for high performance brain-machine interfaces

Luis Cubillos - Poster #BB1

A deep-learning-augmented Kalman filter for high-performance intracortical decoding





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Angeliz Soto Acevedo - Poster #VV21

Engineering genetically encoded integration sensors for whole-brain mapping of Gq-protein-coupled receptor ligands

Cortney Turner - Poster #II2

Stress, Genetics and Mood: Impact of COVID-19 on a College Freshman Sample

Alexis Vega Medina - Poster #C60

Bidirectional manipulation of orexinergic neurons show sexual dimorphism in learning and memory

Dylan Wallace - AA11

Regenerative Peripheral Nerve Interfaces (RPNI) and Implanted Electrodes Improve Online Control of Prosthesis for Hand and Wrist

Ayobami Ward - Poster #AA12

Non-human primate direct motor point fcs for dexterous hand movement





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Jiahui Ding - Poster #VV20

A genetically-encoded light-gated transcriptional reporter for detecting opioid peptides

Tyler Ekins - Poster #OO13

Psychedelic control of prefrontal cortex excitability

Garrett Fogo - Poster #M7

Characterization of the intramitochondrial proteostatic response in a primary neuron model of ischemia/reperfusion injury

Jeremiah Hartner - Poster #VV55

Custom Design and 3D Printed Skull Cap with Integrated Micro-drives for Multi-region Microelectrode Array Implantation for Rat Brain Recordings

Madison Kelberman - Poster #AA25

Compression or noise reduction: the role of dimensionality reduction methods in understanding the brain-muscle relationship





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Huzefa Khalil - Poster #115

The role of the HPA axis response to an acute social stressor in predicting resilience to anxiety and depression in college freshmen

Katherine McDonald - Poster #C59

The effect of post-learning sleep deprivation on neuronal activation, ensemble reactivation, and transcript expression in the mouse dentate gyrus

Delaney McKinstry - Poster #C62

Nrem-targeted activation of medial septal cholinergic input to hippocampus disrupts consolidation of multiple hippocampal-dependent memories

Chloe Rybicki-Kler - Poster #SS15

Cell-type-specific cholinergic control of retrosplenial cortex with implications for angular velocity coding across brain states





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 1-5:00 p.m.

WCC Halls A-C

James Brissenden - Poster #PP9

Differential causal roles of parietal cortex, frontal cortex and cerebellum in spatial working memory

Joseph Delusi - Poster #BB12

State-dependent effects of parietal intermittent theta burst stimulation on visuomotor control circuits

Iain DeWitt - Poster #CC8

Speech representation in Heschl's gyrus modified by visual input

Christopher Fields - Poster #C56

Intravenous administration of 2,5 Dimethoxy-4-iodoamphetamine, a serotonergic psychedelic, produces active emergence from propofol anesthesia and restoration of spectral power and functional connectivity





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 1-5:00 p.m.

WCC Halls A-C

Elana Goldenkoff - Poster #BB6

State-dependent effects of parietal stimulation on cortical plasticity and action control

Emma Huels - Poster #C55

Effect of intravenous salvinorin A, the primary psychoactive molecule in Salvia divinorum, on brain network dynamics in rat

Daniel Leventhal - Poster #DD26

Striatal dopamine dynamics regulate forelimb-digit coordination during rat skilled reaching

Areti Majumdar - Poster #CC2

Visual speech increases the decodability of phonemes in auditory cortex





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 1-5:00 p.m.

WCC Halls A-C

Ileana Morales - Poster #LL19

Optogenetic hedonic hotspots in orbitofrontal cortex, insula, ventral pallidum, and anterior cingulate cortex causally enhance liking and wanting for sweet food reward

Mikiko Nagashima - Poster #A6

Il10 signaling governs the proliferation of M&252;ller glia-derived progenitors via regulating inflammatory resolution of microglia during regeneration of photoreceptors in zebrafish

Hannah Oberle - Poster #X14

Auditory cortex differentially modulates inferior colliculus sub-circuits

Chrystian Phillips - Poster #GG14

Roles for hypothalamic astrocytes in neural circuits controlling reproduction





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Sunday, November 12 | 1-5:00 p.m.

WCC Halls A-C

Aiswarya Saravanan - Poster #C53

Alertness and Learning Interact to Produce Brief Periods of Optimal Cognition in Mice

Marina Silveira - Poster #X9

Neuropeptide Y signaling regulates recurrent excitation in the inferior colliculus.

Brian Silverstein - Poster #C57

Intravenous psilocybin disrupts theta-gamma coupling and enhances frontoparietal networks in rat

Joseph Starrett - Poster #GG20

Characterization of a central circuit controlling ovulation in mice





NEUROSCIENCE
2023

WCC Hall D

SELECT U - M PRESENTATIONS

Sunday, November 12 | 3:00 - 4:30 p.m.



Huda Akil

2023 Gruber Neuroscience Prize
Award Winner

*Peter and Patricia Gruber Lecture:
The Emotional Brain: Embracing the
Complexity*





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Monday, November 13 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Benjamin Clements - Poster #CC2

Allosteric Modulation of the μ -Opioid Receptor by Distinct Drug Classes Enhances Opioid Activity in vivo and in vitro

Jonathan Gould - Poster #XX13

Real-time prediction of latent neural trajectories and behavior

Francisco Torres-Torres - Poster #X9

A multi-disciplinary approach to interrogating the relationship between inflammasome signaling and mitochondrial dynamics during ischemia/reperfusion injury

Guan Xu - Poster #WW71

Photoacoustic imaging of cortical and subcortical responses to retinal photostimulation in mice





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Monday, November 13 | 8:00 a.m. - 12:00 p.m.

Wenjing Wang

Minisymposium (9:30 a.m., WCC Ballroom B)

Chemogenetic tools for manipulating endogenous GPCRs

Benjamin Singer

Basic-Translational-Clinical Roundtables (10:30 a.m., WCC 206)

Speaker

Joanna Spencer-Segal

Basic-Translational-Clinical Roundtables (10:30 a.m., WCC 206)

Chair

Tim Marzullo

Basic-Translational-Clinical Roundtables (12:00 p.m., WCC 206)

Chair





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Monday, November 13 | 1:00 - 5:00 p.m.

Rupsha Panda - Poster #O2

Causal evidence for the role of cognitive control networks in motor performance in Parkinson's Disease: A combined fMRI-TMS approach

Kaiwen Shi - Poster #AA16

Population coding of time-varying sounds in the non-lemniscal Inferior Colliculus

Guanhua Sun

Nanosymposium (1:15 p.m., WCC Halls A-C)

Neurowiz: a platform for large-scale neuron simulation





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Monday, November 13 | 1:00 - 5:00 p.m.

Adam Allouch - Poster #D1

Adipose tissue-derived extracellular vesicles; effects of aging and inflammation in obesity and prediabetes

Emily Bence - Poster #N7

Deep Brain Stimulation-Induced Local Evoked Potentials for Intraoperative Functional Mapping in Parkinson's Disease

Audrey Drotos - Poster #BB19

GluN2D-containing NMDA receptors enhance temporal integration in VIP neurons in the inferior colliculus

Brianna Gurdon - Poster #E34

Linking cognitive and pathological resilience using brain-wide immunohistochemistry in the AD-BXD panel





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Monday, November 13 | 1:00 - 5:00 p.m.

Hannah Hafner - Poster #S2

Sarm1 deficiency regulates neuron intrinsic and extrinsic mechanisms of axon regeneration in the injured mammalian PNS

Zirui Huang - Poster #QQ7

Reorganization of thalamocortical functional connectivity underlies loss of consciousness

Prabesh Kanel - Poster #L6

Topography of regional cerebral cholinergic vesicular transporter correlates of visual contrast sensitivity in Parkinson's disease: A [¹⁸F]-FEOBV PET study

Ekin Kaya - Poster #JJ23

Mnemonic and metabolic interactions across the hippocampal-hypothalamic circuit





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Tuesday, November 14 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Mariah Berchulski - Poster #G1

Apoe variant alters hyperexcitability associated with Alzheimer's disease in dentate granule neurons

Joseph Deluisi - Poster #EE21

Dsgrid: a dual-site tms grid-search targeting method for personalized functional stimulation of parietal-frontal circuits involved in actions

Katlynn Emaus - Poster #V15

Evaluation of Mitochondrial Cardiolipin Modification in Neonatal Hypoxic Ischemic Encephalopathy

Meng-Lin Hsieh - Poster #GG19

Novel electrostatic-assisted assembly method for high alignment accuracy of modular flexible neural probes for recording channel count scaling





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Tuesday, November 14 | 1:00 - 5:00 p.m.

WCC Halls A-C

Vivek Kumar - Poster #WW80

Assessment of multiplexed quantitative ability of in situ hybridization chain reaction based upon fluorescent intensity and mRNA grain count correlation

Joseph Letner - Poster #EE7

Efficient, rapid, and minimally invasive implantation of individual non-functional motes with penetrating subcellular-diameter carbon fiber electrodes

Ryan Neff - Poster #A14

Normalization of DSCAM in the Ts65Dn mouse model of Down Syndrome ameliorates dendritic phenotypes in the dentate gyrus of the hippocampus

Brianna Ramos - Poster #JJ11

High-resolution neurochemical characterization of the paraventricular nucleus of the thalamus





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Tuesday, November 14 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Zhongming Liu - Poster #WW37

Using Manganese Enhanced MRI to Trace and Assess Ascending Vagal Pathways

Lauren Madden - Poster #XX37

Electrical stimulation-induced action potential interactions lead to variations in peripheral neural output: an in vivo study

Pamela Maras - Poster #QQ4

Early Life Stress Responses in Selectively Bred Rats: How Genetic Temperament Determines Development of the HPA Axis





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Tuesday, November 14 | 1:00 - 5:00 p.m.

WCC Halls A-C

Cody Zhewei Cao - Poster #CC3

Visual Speech Differently Restores Temporal and Spectral Speech Information in the Auditory Cortex

Po-Ju Chen - Poster #I114

Perineal and rectal nerve recruitment order varies during pudendal neurostimulator implant surgery

Kate Giffin - Poster #D24

Sepsis increases complement pathway expression in the mouse and human brain and is associated with increased microglial synaptic pruning in amyloid-burdened mouse brains

Pangyu Joo - Poster #C34

Brain network hypersensitivity underlies pain crises in sickle cell disease





NEUROSCIENCE
2023

WCC 152A

SELECT U - M PRESENTATIONS

Tuesday, November 14 | 1:00 - 5:00 p.m.

Wenjing Wang

Nanosymposium Chair (8:00-10:30 a.m.)

Jennifer Sescil

Nanosymposium (8:00 a.m.)

Development of integrating reporters for detection of protein-protein interactions with enzymatic readout

Steven Havens

Nanosymposium (9:00 a.m.)

Development of a new version of SPOTIT for a permanent fluorescent read out of dopamine release with cellular-resolution





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Tuesday, November 14 | 1:00 - 5:00 p.m.

Thanh Hoang - (WCC 140)

Nanosymposium (1:45 p.m.)

Spinal Cord Injury, Neural Regeneration, and Repair





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Wednesday, November 15 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Aubrey Putansu - Poster #WW18

Genetically encoded sensor for epinephrine and norepinephrine detection

Ryan Singer - Poster #WW19

Designing sensors for α -melanocyte-stimulating hormone

Maria Waselus - Poster #WW2

Spatial transcriptomics reveal basal differences in nucleus accumbens gene profiles associated with temperament: studies in a rat model of emotional reactivity





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Wednesday, November 15 | 8:00 a.m. - 12:00 p.m.

WCC Halls A-C

Maria Varela - (WCC 150)
Nanosymposium (8:45 a.m.)

Migratory deficits in GABAergic interneurons associated with SLC6A1-related neurodevelopmental disorder

Hoi Kei (Amy) Choi - Poster #OO25

Covid-19-like immune challenge causes lasting memory deficits: Role of neuroimmune priming

Jack Lin - Poster #E5

Big Data approaches to characterize pathological High Frequency Oscillations in human intracranial EEG

Quynh Nguyen - Poster #II25

Dynamic causal roles of lateral prefrontal cortex and primary motor cortex in the expression of novice and expert motor skills





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Wednesday, November 15 | 1:00 - 5:00 p.m.

WCC Halls A-C

Blaine Fry - Poster #XX30

Cholinergic modulation of E/I balance and its effects on network dynamics

Deniz Kirca - Poster - UU3

The Circadian Dynamics of Neural Criticality in Mouse Hippocampus

David Krolewski - Poster #WW41

Cholecystinin and vasoactive intestinal peptide mRNA differences in the frontal pole cortex of schizophrenia and bipolar disorder subjects

Zahraa Nouredine - Poster #XX27

Cholinergic regulation of network activation mediates switching between different memory formation/consolidation modes during wake, NREM and REM sleep.





NEUROSCIENCE
2023

SELECT U - M PRESENTATIONS

Wednesday, November 15 | 1:00 - 5:00 p.m.

Logan Walker - Poster #XX56

Making neuron reconstruction more portable using video compression algorithms

Hank Paulson

Nanosymposium Chair

Mahar Fatima - WCC 152A

Nanosymposium (1:15 p.m.)

Identification of Specialized Tactual Sensory Apparatus for Mechanical Itch

Noam Gannot - WCC 152A

Nanosymposium (2:45 p.m.)

A neural control circuit for cough-like defensive behaviors in mice

