

NEUR Poster Presentations continued

- 26 Assessment of Human Mental Workload Dynamics During High and Low Demand Cognitive-motor Tasks**
Daniel Gross
- 27 Risk, Reward, and Punishment: Deciphering the Dynamics Among College Students**
Sasha Goyal, Michelle Yu
- 28 Quantifying the Effects of Gender-Affirming Hormone Therapy on Bone Density of Transgender Patients: Emerging Results of a Single-Center Study**
Osei Bonsu
- 29 Computational Modeling of Spinal Cord Stimulation for Restoring Somatosensation after Amputation**
Ashlyn N. Casp
- 30 Associations Between Infant Self-regulation and Socio-emotional Development**
Cansu Erkan
- 31 Exploring How the Length and Frequency of a Word Impacts Literacy Performance in High and Low Skill Readers**
Sabrina Chen, Asmita Brahme, Stuti Khanna, Nesochi Mere, Emma Martin
- 32 The Relationship Between Reading Skill and the Tendency to Produce Typical Spellings/Pronunciations for Pseudowords**
Sophia Hale, Stuti Khanna
- 33 Addressing Health Disparities in Neurorehabilitation: Aphasia Assessment for Spanish-English Bilingual Speakers**
Marcia Morales Contreras
- 34 Disfluency Timing in Speakers with Agrammatic Aphasia**
Victoria Aloba
- 35 Building a Growing Genomic Data Repository for Maternal and Fetal Health through the PING Consortium**
Clara Abdelmalek
- 36 Establishing an Efficient Analysis Pipeline for in vitro Single Cell Tracking through Cellpose and Trackmate**
Neha Chandra
- 37 Developing Virtual Experiential Neuroanatomy Educational Resources**
Hana Tujjar, Sophie Hale, Alexandra Tara Close
- 38 High Spatial & Temporal Resolution Brain Scan Using AI**
Cartor Hancock

NACS Research Day and NEUR Research Fair

April 26, 2024

Schedule

10:00am - 11:30am	Welcome & research talks by NACS students (1103 BRB)
11:00am - 1:00pm	NEUR poster session (BRB colonnade)
12:00pm - 1:00pm	Lunch (BRB colonnade)



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NACS Student Speakers

(10:00am-11:30am, 1103 BRB)

Zeynep Atak (advisors Tarik Haydar and Colenso Speer)

Disrupted Neurogenesis from Basal Intermediate Precursor Cells Leads to Altered Development of the Postnatal Neocortex in the TcMAC21 Humanized Mouse Model of Down Syndrome

Yash Kommula (advisor Carson Smith)

Acute Aerobic Exercise and Mental-Health-Related Brain Function

Anna Packy (advisor Rodolphe Gentili)

Cortical Correlates of Collaborative Human-Robot Team Environments

Xinchi Yu (advisor Ellen Lau)

Representing Objects and Structures in Human Working Memory

NEUR Poster Presentations

(11:00am-1:00pm, BRB Colonnade)

- 1 *Kif18a Function in a Genetically Engineering Mouse (GEM) Model of Glioblastoma with Whole Genome Duplication***
Sean Jameson
- 2 *Characterizing Retinal Inputs to the Suprachiasmatic Nucleus***
Natalie Yeager
- 3 *Elucidating the Interrelationship between Cadherins and Elp1 during Trigeminal Ganglion Assembly***
Trinity Obiorah
- 4 *Synapses Development in Mouse Purkinje Cell in P3 and P7 Cells***
Sanjana Chimaladinne
- 5 *Mitochondrial Morphology in Orbitofrontal Cortical Neurons During Incubation of Oxycodone Craving***
Xiang Luo
- 6 *Effects of Glia Cell Density in the Plasticity of Neuronal Astrocytic Co-cultures***
Noah Glaser
- 7 *Repeated Low-Level Blast Overpressure (BOP) Exposure's Effect on Astrocyte Reactivity in the Cortex in a Rat Model***
Asbah Qadri
- 8 *The Subcellular Localization of HDAC4 in Anterior Intralaminar Nucleus of Thalamus after Prolonged Abstinence from Methamphetamine Self-administration***
Julia Firlie
- 9 *A Novel Role of Submedius Thalamus in Incubation of Oxycodone Craving***
Jessica Strauch

NEUR Poster Presentations continued

- 10 *Pyrethrin and Lidocaine on Action Potential Properties of Medial and Lateral Giant Fibers in Earthworms***
Nada Abouelseoud, Lani Tran, Trinity Obiorah
- 11 *Effects of Eserine Exposure on the Cricket Cercal Sensory System***
Mahan Haghighatian, Hartley Carlson, Michail Siokis
- 12 *Social and Physical Environments Shape Alcohol Sensitivity in Crayfish***
Matthew M. Williams, Natalie C. Tai
- 13 *Orientation Selectivity in the Mammalian Retina is Dependent on Widefield Amacrine Cell Orientation in Space***
John Pisano
- 14 *Auditory Deprivation Leads to Shrinkage in Low Best Frequency Nucleus Magnocellularis but Not in High Best Frequency Regions***
Nada Abouelseoud
- 15 *The Role of Corticocollicular Neurons in Auditory Perceptual Learning***
Nicole Miko
- 16 *The Role of the 5-HT1b Receptor in Experience Dependent Critical Period Plasticity***
Jacob Epstein
- 17 *Understanding the Impact of Acute Alcohol Administration on Fear and Anxiety Circuitry: Study Overview and Preliminary Behavioral Results***
Gaby B. Castro
- 18 *Effect of Minocycline on Tonic and Phasic Craving in Individuals with Alcohol Use Disorder and Healthy Controls***
Natalia Rincon
- 19 *Sleep Quantification to Demonstrate Experience-dependent Sequence Plasticity in Mouse Primary Visual Cortex***
Adam M. Didouchevski
- 20 *Perception of Optogenetic Stimulation in Mouse Auditory Cortex***
Gabrielle Stephens
- 21 *RTK Inhibition and Photodynamic Therapy as Combinatorial Treatment for Glioblastoma Multiforme Brain Cancer***
Nada Fadul
- 22 *Observing How Race, Ethnicity, and Socioeconomic Status Affect Age of Autism Diagnosis at Children's National Hospital***
Clara Abdelmalek
- 23 *Exploring Sleep-Dependent Memory Consolidation in Preschoolers***
Cansu Erkan, Leah Freisinger, Anna Karan, Rishita Sharan
- 24 *The Association Between the P300 and Internalizing Behaviors during Adolescence***
Hailey Steier
- 25 *Comparing Gut Microbiome Diversity and Function Between Individuals with Alcohol Use Disorder and Healthy Controls***
Natalia Rincon