



Ohio Miami Valley Society for Neuroscience Annual Neuroscience Day May 30, 2025

University of Dayton
Kennedy Union Ballroom



KEYNOTE SPEAKER:

Jessica Weafer, Ph.D.
Associate Professor
The Ohio State University
Center for Cognitive and Behavioral
Brain Imaging

*Neurobiological Factors Underlying
Sex Differences in Addiction
Vulnerability*



Ohio Miami Valley Chapter of the Society for Neuroscience

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Webmaster: Jun-Ming Zhang; OMV-SfN logo: Steve Davidson

Poster Judges:

Miami University: Dawn Blitz, Anna Statsenko, Anna Radke

University of Dayton: Pothitos Pitychoutis, Aaron Sathyanesan, Tracy Griggs

Wright State University/AFRL: Keiichiro Susuki

University of Cincinnati: Nina Gross

Northern Kentucky University: Brittany Smith

MedPace: Sean Monroe

****Special thanks to our sponsors: the University of Dayton departments of Psychology & Biology. Also, thanks to Michelle Phares, Erin Pacheco, and Lennie Presock for administrative and facility support****

Annual Neuroscience Day Schedule:

9:30am-10:00am: Coffee and light snacks; check-in & hang posters in West Ballroom

10:00am – 11:00am: Scientific Research Keynote: Jessica Weafer, Ph.D.

Neurobiological Factors Underlying Sex Differences in Addiction Vulnerability

11:10am-12:10pm: Poster Session A – West Ballroom

12:10pm-1:10pm: Lunch - East Ballroom

1:10pm-2:10pm: Poster Session B – West Ballroom

2:20pm-3:20pm: Professional Development Panel – East Ballroom

Ryan Griggs, Ph.D., Myriad Genetics

Sean Monroe, Ph.D., MedPace

3:30pm-4:50pm: Invited Institutional Speakers

Mani Manivannan Subramanian, Ph.D., University of Dayton

Exploring the role of miRNAs in Craniofacial Syndromes: A Genome-wide approach in Drosophila models

Amanda Chisholm, Wright State University

Endoplasmic Reticulum Stress Mediates Axon Initial Segment Shortening: Implications for Diabetes-Related Cognitive Impairment

Sam Brown, Miami University

Tsc1 deletion in cerebellar Purkinje neurons disrupts excitability and the axon initial segment

Alek Taranov, University of Cincinnati

Multifaceted roles of the choroid plexus and CSF in aging and Alzheimer's disease

4:50pm: Poster Awards and Conclusion



Annual Neuroscience Day Posters:

Odd numbered posters will be in poster session A & even numbered posters will be in poster session B. The presenting author name is bolded.

1. Title: PTSD in Veterans and First Responders: Findings from ASL-MRI Following an Open-Label eTMS Study
Authors: **Kelsie Pyle**, Megan Hildreth
Institution: Wright State University
2. Title: Developing a Mouse Model of Peripheral Neuropathy Induced by Early Life Vincristine
Authors: **Kaladin White**, Elizabeth K. Serafin, Fady Eid, and Mark L. Baccei, Ph.D.
Institution: University of Cincinnati
3. Title: A CRISPR-based Zebrafish Model of NF1 that Provides Novel Insights into CNS Tumors
Authors: **Benjamin J Callaway**, Caiden Dusky, Diego Pareja
Institution: Miami University
4. Title: Müller Glia Potassium Ion Buffering Prevents Retinal Inflammation and Protects Retinal Ganglion Cells
Authors: **Joydip Barua**, Aiden Krann
Institution: Miami University
5. Title: Identifying Connectivity Deficits Between the Cerebellum and Thalamus in Down Syndrome
Authors: **Mir Abbas Raza**, Aaron Sathyanesan, Alaina Sharp
Institution: University of Dayton
6. Title: A Mouse Model of Mapk1-Related Rasopathy Recapitulates Several Features of the Human Syndrome
Authors: **Kassidy Grover**, Avery Volz, Diana Nardini, Kelly Smallwood, Nicole Weaver, Charles Vorhees, Michael Williams, Ronald Waclaw, and Elliott Robinson
Institution: University of Cincinnati
7. Title: Early Life Stress Modulates Neonatal Somatosensation and Somatostatin Expression in Immature Sensory Neurons
Authors: **Fady Eid**, Kyle Harbour, Mezani Muniz, Madailein Hayes, Elizabeth K. Serafin, Mark L. Baccei
Institution: University of Cincinnati
8. Title: Effect of Mu-Opioid Receptor Blockade on the Compulsive Activity of Anorexia Nervosa
Authors: **Lily Connolly**, Anna K. Radke
Institution: Miami University
9. Title: Effects of Orchiectomy on Binge-Like and Aversion-Resistant Drinking in Male C57 Mice
Authors: **Roman Zegarelli**, Delainey Lewis, Lindsey O'Alde, Mila Wolf, Caroline Scribner, Emalie Werkowski, Dr. Anna Radke
Institution: Miami University
10. Title: Loss of Tsc1 Disrupts AIS and Impairs Excitability in Mouse Purkinje Neurons
Authors: **Achintya Kumar Jena**, Samuel Brown, Joanna Osko, Joey Ransdell
Institution: Miami University

11. Title: Postnatal Choline as a Treatment to Mitigate Cognitive Effects of Prenatal Opioid Exposure in Mice
Authors: **Anna Makela**, Mindy Reichelt-Abell, Kyle Cosby, Chen Huang, Elena Vikentievna Romanova, Jonathan V. Sweedler, Brittany L. Smith
Institution: Northern Kentucky University
12. Title: Exploring Sex Differences in Intermittent Access Ethanol Drinking Using the Four Core Genotypes Mouse Model
Authors: **Delainey Lewis**, Brody Swinford, Jordan Krenz, Danny Carroll, Matthew Wittlich, Caroline Scribner, Anna Radke
Institution: Miami University
13. Title: Airway Inflammation and Fear: Elucidating the Role of the IL-1 Receptor
Authors: **Elizabeth Mancz**, Emily Allgire, Rebecca Ahlbrand, Ian Lewkowich, Renu Sah
Institution: University of Cincinnati
14. Title: Eye Growth and Refractive Error Development in Zebrafish
Authors: **Anna Statsenko**, Lucy Bailey, Elke Buschbeck, Mark Charlton-Perkins
Institution: Miami University
15. Title: Investigating RPB7-Mediated Suppression of ALS-associated TDP-43 Toxicity & Stress Granule Dynamics in the Yeast Model
Authors: **Rahul Shah**, Elliot Hayden, Cassidy Alspaugh, Quan Zhong, Shulin Ju
Institution: Wright State University
16. Title: Effects of Cortical Spreading Depolarization on the Neurovascular Unit Following Traumatic Brain Injury in Rats
Authors: **Jorge Robles**, Henry Beckett, Dr. Anthony DeSana, Allie Heineman, Tracy Hopkins, Dr. Faith Best, Dr. Laura Ngwenya
Institution: University of Cincinnati
17. Title: Exploring the Effects of Gprasp1 shRNA Knockdown in Alcohol Drinking Behaviors
Authors: **Lindsey O'Lalde**, Roman Zegarelli, Delainey Lewis, Mila Wolf, Matthew Wittlich, Emalie Werkowski, Caroline Scribner, and Anna K. Radke
Institution: Miami University
18. Title: Brain Changes of Mouse Offspring from Prenatal Morphine vs. Buprenorphine Exposure
Authors: **Noah Raleigh**, Boluwatife Osifalujo, Grace C. Winstel, Anna G. Makela, Dr. Brittany Smith
Institution: Northern Kentucky University
19. Title: Characterization of Iba1- Microglial Subtypes in the Subventricular Zone of Male and Female Rats
Authors: **Sarah Williams**, Adrian Corbett
Institution: Wright State University
20. Title: Exploring Neuronal Activity and Perineuronal Nets in Prenatal Opioid-Exposed Offspring
Authors: **Boluwatife Osifalujo**, Grace Winstel, Anna G. Makela, Brittany L. Smith, Ph.D.
Institution: Northern Kentucky University

21. Title: Microglial GR Depletion Alters Stress Effects on Synaptic Density and Behavior in a Sex-Dependent Manner
Authors: **Etienne Mueller**, Lauren L. Vollmer, Alexander M. Kuhn, Justin L. Bollinger, Rosa Maria Salazar Gonzalez, J. Elliot Robinson, and Eric S. Wohleb
Institution: University of Cincinnati
22. Title: Focal Post Natal Deletion of TSC2 Causes Epilepsy
Authors: **Lilian Jerow**, Carlie McCoy, Mary Dusing, Steve Danzer, & Candi LaSarge
Institution: University of Cincinnati
23. Title: Glial Activation and T Cell Infiltration Promote Neuroinflammation and Behavioral Deficits in a GRN Mouse Model of Frontotemporal Dementia
Authors: **Kristen Oshima**, Igal Ifergan, PhD
Institution: University of Cincinnati
24. Title: Behavioral Effects of Chronic SERCA Activation in a Pharmacological Mouse Model of Psychosis
Authors: **Hayden Ott**, Erin Flaherty, Pothitos M. Pitychoutis
Institution: University of Dayton
25. Title: A Novel Role of LIPIN1 in Regulating Cardiac Sarcolemma Integrity and Function
Authors: **John Karanja Kamau**
Institution: Wright State University
26. Title: Optogenetically Induced Spreading Depolarizations After Traumatic Brain Injury in Rats Cause Electrical and Behavioral Dysfunction
Authors: **Allie Heineman**, Anthony J DeSana, Faith Best, Tracy Hopkins, Laura B Ngwenya
Institution: University of Cincinnati
27. Title: ZFP36L1 Suppresses Human Coronavirus OC43 Replication Independent of Poly(A) Tail Deadenylation
Authors: **Tooba Momin**
Institution: University of Dayton
28. Title: Experiential and Inquiry-Based Learning in the Undergraduate Neurobiology Laboratory (BIO 415L) at the University of Dayton
Authors: **Aikaterini (Katerina) Tsouma**, Pothitos Pitychoutis
Institution: University of Dayton
29. Title: Automated and data-driven discovery of behavioral signatures in preclinical models of developmental disorders
Authors: **Henry Salisbury**, Gabriele Simonti, Javid Ghaemmaghami, Panagiotis Kratimenos, Aaron Sathyanesan
Institution: University of Dayton
30. Title: ZFP36L1 Negatively Regulates Autophagy to Suppress Murine Norovirus Replication
Authors: **Malabika Bhowmik**, Tooba Momin, Mrigendra Rajput
Institution: University of Dayton

31. Title: Stress, Saliva, and Spirits: The Effects of Acute Psychosocial Stress on Alcohol Craving, Motivation to Consume Alcohol, and Physiological Correlates
Authors: **Olivia Dobiesz**, Tracy R. Griggs
Institution: University of Dayton
32. Title: Investigating the Antiviral Efficacy of RNA-binding protein, ZFP36L2
Authors: **Mychaela Janzow**, Tooba Momin, Malabika Bhowmik, and Dr. Mrigendra Rajput
Institution: University of Dayton
33. Title: Identifying Mechanisms of Cerebellar Circuit Dysfunction in the Ts65Dn Mouse Model of Down Syndrome
Authors: **Ashlynn Prater**, Mir Abbas Raza, Amelia Moore, Ashlynn Prater, Alaina Sharp, Samantha Bailey, Vittorio Gallo, and Aaron Sathyanesan
Institution: University of Dayton
34. Title: Visualizing Gene Expression to Understand Lens Regeneration in the *Pleurodeles waltl*
Authors: **Sofia Rebull**, George Tsissios, Jared Tangeman, Erika Grajales Esquivel, Katia Del Rio-Tsonis
Institution: Miami University
35. Title: TBD
Authors: **Stacey Bendezu Sayas**,
Institution: Miami University
36. Title: Understanding RPE Cell Fate Restriction with ATAC + RNA-seq Multiomics Workflow
Authors: **Carlos Charris Dominguez**, Bendezu-Sayas S., Tangeman JA., Grajales Esquivel E., Del Rio-Tsonis, K
Institution: Miami University
37. Title: SCA27A-linked Mutation in FGF14 Drives Haploinsufficiency and Firing Deficits in Mouse Purkinje Neurons
Authors: **Sam Brown**, Joseph Ransdell
Institution: Miami University

Driving & Parking Directions to the University of Dayton

Use this address in your navigation app to get to the Visitor parking gate: C Lot, 2006 Founders Ln, Dayton, OH 45409 (I have confirmed that this works in Google Maps, Apple Maps, and Waze). The map below shows the C Lot where you'll find the C gate for visitors, and walking directions to the John F. Kennedy Memorial Union where our meeting will be held (the Ballroom, 2nd floor).

