

The Ohio Miami Valley Chapter of the Society for Neuroscience

22nd Annual Neuroscience Day

Friday, May 29, 2026

Wright State University



Keynote Address

Arthur Burghes, PhD

Professor

Department of Biological Chemistry and Pharmacology
The Ohio State University Wexner Medical Center

***“Development of Successful Gene Therapy for
SMA with Irreverent Critiques on Gene Therapy
in Neurological Disorders”***



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Acknowledgements

We gratefully acknowledge the generous support of our sponsors and partners, whose contributions made this conference possible.

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Chloe Mason (Office of Research Affairs, Boonshoft School of Medicine, Wright State University),
Ashley Hill-Mercer (Career Services, College of Science & Mathematics, Wright State University),
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Volunteers

Amanda Chisholm, Andy Elnathan Bomraspet, Widad El-Zein, Megha Manoj,
Christina Minassian, Shada Mohamed, Alex Petersen, Chinmayee Togi, Sonu Yadav

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2026 Neuroscience Day Local Organizing Committee

Adrian Corbett, David Ladle, Kei Susuki, Quan Zhong
Poster judge coordination: Anna Radke; Webmaster: Jun-Ming Zhang;
OMV-SfN logo: Steve Davidson

Poster Judges

University of Cincinnati: Nina Gross, Olga Liaudanskaya, Agnes Luo
University of Dayton: Loan Bui, Pothitos Pitychoutis, Aaron Sathyanesan, Katerina Tsouma
Miami University: Dawn Blitz, Dean Castillo, Mark Charlton-Perkins, Joey Ransdell
Wright State University: Maria H. H. Balch, David Ladle, John Miller, Kei Susuki, Quan Zhong
Fortic College-Centerville: Eric Reed

Driving & Parking Directions

Due to **ongoing construction near the visitor parking area**, standard navigation apps may direct you to closed roads. **Please follow the directions below instead.**

From the South

- Take I-75 North to I-675 North.
- Take Exit 17 (North Fairfield Road). Follow signs for North Fairfield Road (not WSU).
- Turn left onto North Fairfield Road heading north.

From the East or West

- Take I-70 to I-675 South.
- Take Exit 17 (North Fairfield Road).
- Turn right onto North Fairfield Road heading north.

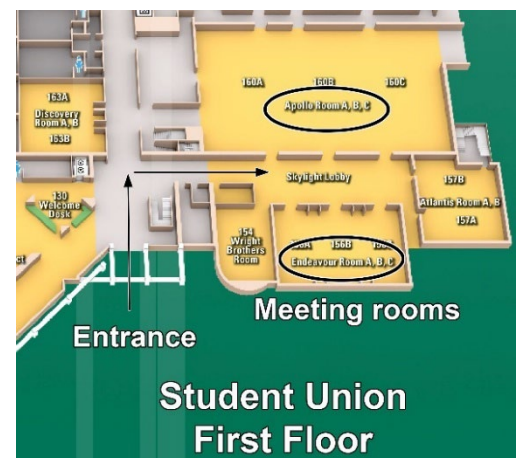
From the North

- Take I-75 South to I-70 East, then I-675 South.
- Take Exit 17 (North Fairfield Road).
- Turn right onto North Fairfield Road heading north.

After I-675 Exit 17 (all routes)

- Travel North Fairfield Road heading north about 0.3 miles to Colonel Glenn Highway.
- Turn left onto Colonel Glenn Highway.
- At the first traffic light, turn right onto Center Park Blvd. (see detour map below)
- At the first intersection, turn right onto Loop Rd.
- At the T-junction, turn left onto the University Blvd.
- Follow signs “Campus Visit Parking”.
- Park in Lot 2, the gated lot located in front of the Student Union. Additional parking is available in Lots 1, 1A, or 4. Parking is free from 7am to 6pm on May 29 in these lots (marked with circles on the map).

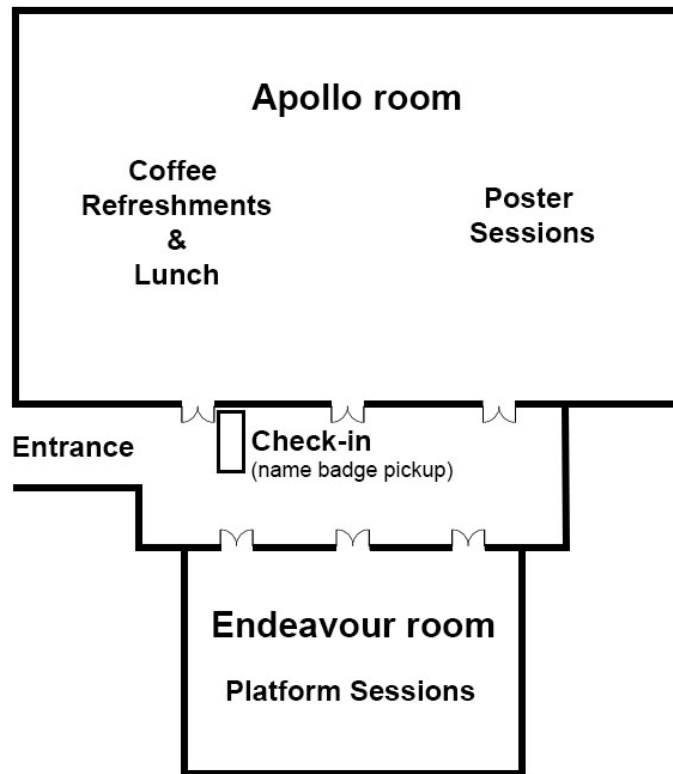
Neuroscience Day will be in the Endeavour Room and Apollo Room, Student Union (marked with circles).



2026 Neuroscience Day Schedule

- 9:00 – 9:30 am** **Check-in, Refreshments, Hang Posters (Apollo Room)**
- 9:30 – 9:40 am** **Welcome (Endeavour Room)**
- 9:40 – 10:40 am** **Professional Development Session (Endeavour Room)**
"Getting Hired in Today's Job Market: AI Helps and Obstacles"
Ashley Hill-Mercer, M.A.
Assistant Director/Career Consultant, Career Services | College of Science & Mathematics
Wright State University
- 10:50 am – 12:00 pm** **Poster Session A (Apollo Room)**
Odd numbered posters will be presented during session A
- 12:00 – 1:00 pm** **Lunch (Apollo Room)**
Catered lunch provided (sandwiches, beverages, fruit, cookies)
Vegetarian and gluten-free options will be available.
- 1:00 – 2:10 pm** **Poster Session B (Apollo Room)**
Even numbered posters will be presented during session B
- 2:20 – 3:20 pm** **Keynote Address (Endeavour Room)**
***"Development of Successful Gene Therapy for SMA with
Irreverent Critiques on Gene Therapy in Neurological Disorders"***
Arthur Burghes, PhD
Professor, Department of Biological Chemistry and Pharmacology
The Ohio State University Wexner Medical Center
- 3:30 – 4:50 pm** **Student Symposium (Endeavour Room)**
- 3:30 pm** "B cell contributions to pain behaviors and autoantibody accumulation following neuropathic injury"
Kat Propsom, University of Cincinnati College of Medicine
- 3:50 pm** "A Fly's Eye View: How chb/CLASP dysfunction weaves brain wiring and retinal developmental defects"
Sunanda Yogi, University of Dayton
- 4:10 pm** "Müller Glia Potassium Ion Buffering Prevents Retinal Inflammation and Protects Retinal Ganglion Cells"
Joydip Barua, Miami University
- 4:30 pm** "Strategies to mitigate C-fiber hyperexcitability after acute compression of mouse sciatic nerve"
Arian McNeil, Wright State University
- 4:50 – 5:00 pm** **Poster Awards Announcement and Conclusion (Endeavour Room)**

Floor Plan



Poster Presentation Instructions

Poster Installation

- **Poster board dimensions:** 60 inches (5 feet) wide x 48 inches (4 feet) high.
- **Orientation:** landscape.
- **Mounting:** Posters must be attached using push pins (provided).
- **Poster room:** Poster presentations will take place in the Apollo room.
- **Poster board assignment:** Assigned poster numbers are listed in the poster program below.
- **Poster board location:** Locate your assigned board by the poster number displayed on the board.
- **Setup:** Posters may be mounted starting 9:00am.
- **Removal:** Posters should be removed by 5:00pm. Any posters left after 5:00pm will be discarded.

Poster Sessions

- **Poster Session A** (10:50am - 12:00pm): Odd numbered posters.
- **Poster Session B** (1:00pm - 2:10pm): Even numbered posters.

Presenters are expected to be at their posters during the assigned session.

Poster Presentations

Odd numbered posters will present during poster session A (10:50am - 12:00pm) and even numbered posters will present during poster session B (1:00pm - 2:10pm).

Presenting Authors are bolded.

A) Cellular/Molecular

1. Title: Neurovascular expression pattern of LAT1 (Slc7a5) in dorsal root ganglia
Authors: **David T. Jones**, Wenrui Xie, Yasmin Sahlloul, Temugin Berta, Jun-Ming Zhang, Sascha R. A. Alles
Institution: University of Cincinnati
2. Title: ALS-Linked MATR3 Causes Cell Size Enlargement in Budding Yeast
Authors: **Widad El-Zein**, Rahul Shah, Fawaz Gouse, Abigail Chumley, Elliott Hayden, Shuzhen Chen, Quan Zhong, Shulin Ju
Institution: Wright State University
3. Title: Role of YPT1 in modulating alpha-synuclein toxicity
Authors: **Sonu Yadav**, Ishita Haider, Breonna Gillespie, Shulin Ju, Quan Zhong
Institution: Wright State University
4. Title: Investigating the Enhancer Effect of Membrane Trafficking Proteins on α -synuclein Toxicity in Yeast
Authors: **Christina Minassian**, Shuzhen Chen, Yali Chi, Ishita Haider, Elliott Hayden, Shulin Ju, Quan Zhong
Institution: Wright State University
5. Title: Lewy body-associated 14-3-3 proteins protect cells from alpha-synuclein cytotoxicity
Authors: **Breonna Gillespie**, Annabel V. Almazan, Ishita Haider, Rajalakshmi Santhanakrishnan, Roselle B. Almazan, Sonu Yadav, Kamalika Biswas, Shulin Ju, Quan Zhong
Institution: Wright State University
6. Title: Histological and Cellular Characterization of Early Tumor Microenvironments in a Zebrafish Model of NF1
Authors: **Sarah Alhilu**, Ben Callaway, Caiden Duskey, Mark Charlton-Perkins
Institution: Miami University
7. Title: A CRISPR-based Zebrafish Model of NF1 that Provides Novel Insights into CNS Tumors
Authors: **Benjamin Callaway**, Caiden Duskey, Isabella Klapwik, Diego Pareja, Aidan Kraan, Kwangmin Choi, Lisa Martin, Carlos Prada, Nancy Ratner, Mark Charlton-Perkins
Institution: Miami University
8. Title: miR-146a Overexpression Reduces Muscle Degeneration in Duchenne Muscular Dystrophy
Authors: **Olumide E. Oyebode**, Dema M. Herzallah, Hanna S. Rakhangi, Mariana Ramallo, Edana A. Ottney, Michael C. Ostrowski, Sudarshana M. Sharma, Jennifer M. Peterson
Institution: The University of Toledo
9. Title: Lipin1 as a potential therapeutic approach for the treatment of cardiac abnormalities in Duchenne Muscular Dystrophy
Authors: **John Karanja Kamau**, Hongmei Ren

Institution: Wright State University

10. Title: Patterns of Clock Gene Expression in the Mouse Retina Under Regular and Irregular Light Cycles
Authors: **Hafeezunnisa Mohammed**, Ethan D. Buhr, Diego C. Fernandez
Institution: Cincinnati Children's Hospital Medical Center
11. Title: Wingless and Yorkie Drive Tumor Growth Through JNK: Insights from Drosophila and Human Cancers
Authors: **Arushi Rai**, Amit Singh, Madhuri Kango-Singh
Institution: University of Dayton
12. Title: Sex-Specific Multi-Omics Signatures of the Infralimbic Cortex Following Single Prolonged Stress
Authors: **Lorena M. Ragonesi**, Andrew G. Koesters, Marissa Smail, Ronald R. Waclaw, Kenneth D. Greis, James P. Herman
Institution: University of Cincinnati
13. Title: Fatigue-induced weakness may be associated with reduced motor neuron persistent inward currents in aging, exacerbated with dynapenia
Authors: **Jordan Hamdan**, Sherif Elbasiouny
Institution: Wright State University
14. Title: Establishing baseline expression of X-chromosome inactivation candidate genes in the Four Core Genotypes mouse line
Authors: **Delainey Lewis**, Anna Radke
Institution: Miami University
15. Title: Neuronal Association of PDAC via Single-Cell Characterization
Authors: **Huy Bui**, **Bushra Hennaoui**, Thoa Tran, Loan Bui (two presenters)
Institution: University of Dayton
16. Title: Sustained Peripheral Nerve Injury in Military Relevant Operational Environment: Role of Mitochondria
Authors: **Delaney Grant**, Shane Cadwell, David Ladle
Institution: Wright State University
17. Title: Modulating microRNAs to Alter the Interleukin-17A Pathway in Maternal Immune Activation-Associated Autism
Authors: **Megan MacIver**, John Riccobono, Durgesh Tiwari, Christina Gross
Institution: University of Cincinnati & Cincinnati Children's Hospital

B) Development/Plasticity/Repair

18. Title: Uncovering the Epigenetic Factors Driving Chicken RPE Reprogramming
Authors: **Aidan Goodwin**, Erika Grajales-Esquivel, Stacy Bendezu Sayas, Katia Del Rio-Tsonis
Institution: Miami University
19. Title: Developmental and Regenerative Biology of the Vertebrate Eye
Authors: **Anela Hoops**, J Raul Perez-Estrada, Katia Del Rio-Tsonis
Institution: Miami University

20. Title: Dorsal-Ventral Axes: The Two Sides of Lens Regeneration
Authors: **Karla Akari Garcia**, Jose Raúl Perez-Estrada, Erika Grajales-Esquivel, Katia Del Rio-Tsonis
Institution: Miami University
21. Title: Eye development for myopia studies in zebrafish
Authors: **Anna Statsenko**, Amartya Mitra, Lucy Bailey, Itunu Adewoye, Dylan Ball, Caiden Duskey, Vishista Vulpala, Elke Buschbeck, Mark Charlton-Perkins
Institution: Miami University
22. Title: Evidence of Microglial Communication from the SubVentricular Zone Using Extracellular Vesicles which Respond to Low Dose Simvastatin
Authors: **Sarah D. Williams**, Adrian M. Corbett
Institution: Wright State University
23. Title: Exploring Mechanisms of Axon Initial Segment Plasticity in Diabetic Neurological Complications
Authors: **Amanda Chisholm**, Jennae Shelby, Ryan Griggs, Ricky Hsu, Nathan Sheriff, Keiichiro Susuki
Institution: Wright State University

C) System/Circuits

24. Title: Cellular Substrates Underlying Cortical Dysfunction in a Mouse Model of Allergic Asthma-PTSD
Authors: **Corey Foltz**, Emily Allgire, Kat McMurray, Rebecca Ahlbrand, Jayme McReynolds, Ian Lewkowich, Renu Sah
Institution: University of Cincinnati
25. Title: Examining the Influence of Testosterone and Sex Chromosome Complement on Voluntary Ethanol Consumption in Mice
Authors: **Roman Zegarelli**, Lindsey O'Lalde, Jordan Krenz, Caroline Scribner, Elizabeth Arnold, Anna K. Radke
Institution: Miami University
26. Title: The Thalamic Reticular Nucleus as a Node for Sensory and Circadian Integration
Authors: **Burgundy A. Walters**, Shane P. D'Souza, Diego C. Fernandez
Institution: University of Cincinnati
27. Title: Cerebellothalamic Circuit Activity during Locomotor Adaptation Task
Authors: **Sanjay Madala**, Mir Abbas Raza, Aaron Sathyanesan
Institution: University of Dayton
28. Title: Differences in genicular innervation patterns in mice with knee osteoarthritis injury
Authors: **Wren O. Nader**, Maxwell R. Bosse, Chelsie L. Brewer
Institution: University of Cincinnati College of Medicine

D) Behavioral/Cognitive

29. Title: Beyond MS-222: Evaluating Alternative Anesthetics for Stress and Recovery in American Bullfrog Tadpoles
Authors: **Togaa Khebreesh**, Cassandra Poeppelman, Lynn Hartzler
Institution: Wright State University
30. Title: Low-level Adolescent Lead Exposure Effect on Alcohol-drinking and Punishment Resistance in Mice
Authors: **Emilia Citoler**, Grace Koenig, Luke McMillen, Taylor Goorhouse, Anna Radke
Institution: Miami University
31. Title: Opioid Reward in the CMOR Mouse Line
Authors: **Molly Jacobson**, Anushri Shahane, Anna K. Radke
Institution: Miami University
32. Title: Identifying the Neuronal Basis of Motor Deficits caused by GNB1 Encephalopathy
Authors: **Max Adolay**, Mir Abbas Raza, Sanjay Madala, Aaron Sathyanesan
Institution: University of Dayton
33. Title: Modulation of fear behavior and neuroimmune alterations in a model of allergic asthma in female mice
Authors: **Taylor Peach**, Rebecca Alhbrand, Rama Alishami, Kylee Fears, Zaynab Idrees, Jackie McAlees, Ian Lewkowich, Renu Sah
Institution: University of Cincinnati
34. Title: Sex differences in Endocannabinoid Regulation of Stress-Cocaine Interactions in Rats
Authors: **Claire Lopez**, Andrew D. Gaulden, Erin A. Tepe, Sierra S. Rollins, Nicolas Wiles, Kristin Chase, Jayme R. McReynolds
Institution: University of Cincinnati
35. Title: Bridging the Gap in Dementia Care: Analyzing Socioeconomic Determinants and Policy Solutions
Authors: **Ishaan Ghosh**, Grace Lin, Saharsh Shetty, Aryaman Tripathi, Xochitl Morales, Busola Odubayo
Institution: Lakota West High School

E) Neurobiology of Disease

36. Title: Sex Difference in Behavior of Fibromyalgia Mouse Implicate Immune Signaling
Authors: **Yasmin Sahlloul**, Abhinaya Durairaj, Avinash Maun, Arthur Silveira Prudente, Temugin Berta
Institution: University of Cincinnati - College of Medicine
37. Title: Identifying Deficits in the Somatosensory Barrel Cortex in Mouse Models of Down Syndrome
Authors: **Ashlynn Prater**, Mir Abbas Raza, Aaron Sathyanesan
Institution: University of Dayton
38. Title: Identifying Mechanisms of Cerebellar Circuit Dysfunction in the Ts65Dn Mouse Model of Down syndrome

Authors: **Mir Abbas Raza**, Amelia Moore, Ayesha Sheikh, Sanjay Madala, Lucy Schrager, Vittorio Gallo, Aaron Sathyanesan
Institution: University of Dayton

39. Title: Unveiling the Role of the Activated Innate Immune Response in Drosophila Glioma Models
Authors: **Venkata Satya Devi Burugupalli**, Amit Singh, Madhuri Kango-Singh
Institution: University of Dayton
40. Title: Distinct Roles of mTORC1 and mTORC2 in Regulating Inhibitory Synaptic Input After Status Epilepticus
Authors: Christin M. Godale*, **Sarah Yaser***, Austin W. Drake, Kimberly L. Kraus, Natasha Mayer, Mary R. Dusing, Candi L. LaSarge, Christina Gross, Steve C. Danzer (*denotes equal contribution)
Institution: University of Cincinnati
41. Title: Injury Intensity-Dependent Calpain Activation Drives Cytoskeletal Pathology and Axonal Disruption in a Human 3D Brain Triculture Model
Authors: **Olusola Olatona**, Haiden Roberts, Christine Moore, Volha Liaudanskaya
Institution: University of Cincinnati
42. Title: Decoding Cellular Drivers of Glioblastoma Onset and Invasion Using Next-Gen Human Brain Model
Authors: **Mitchell Thielen**, Volha Liaudanskaya
Institution: University of Cincinnati
43. Title: Establishing Temporal Profiles of Neuroinflammation Progression Following Blunt Traumatic Brain Injury
Authors: **Ilya Whitaker**, Charitha Anamala, Sahan Kansakar, Colleen Arrasmith, Shola Olatona, Sung Jun, Olga Liaudanskaya
Institution: University of Cincinnati
44. Title: A Human In Vitro Model of Diffuse Axonal Injury Using Controlled Rotational Loading
Authors: **Colleen Arrasmith**, Eric Nauman, Olga Liaudanskaya
Institution: University of Cincinnati
45. Title: Synergistic Inhibition of Tunneling Nanotube-associated Pathways Restores Neuronal Bioenergetics Following Traumatic Brain Injury in a 3D Human Triculture Model
Authors: **Brannen Dyer**, Sydney Sterben, Sahan Kansakar, Volha Liaudanskaya
Institution: University of Cincinnati
46. Title: Intercellular Mitochondrial Transfer as a Driver of Neurodegenerative Propagation Following Traumatic Brain Injury
Authors: **Haiden Roberts**, Sahan Kansakar, Charitha Anamala, Brannen Dyer, Olga Liaudanskaya
Institution: University of Cincinnati
47. Title: Identification and Functional Characterization of Modifier Genes Contributing to Phenotypic Variability in Neurofibromatosis Type 1
Authors: **Caiden Duskey**, Benjamin Callaway, Kwangmin Choi, Lisa Martin, Carlos Prada, Nancy Ratner, Mark Charlton-Perkins
Institution: Miami University

48. Title: Glucocorticoid dynamics predict susceptibility and resilience to traumatic stress in male and female rats
Authors: **Devine EA**, Chambers J, Dunn T, Musarra A, Porter S, Moore C, Packard B, Herman JP
Institution: University of Cincinnati
49. Title: Assessing Expression and Outcomes of PTN & Receptors in Glioma Using Omics Resources
Authors: **Janna Azzam, Jemly Ambrocio Perez**, Loan Bui (two presenters)
Institution: University of Dayton
50. Title: Airway Inflammation and Fear: Connecting the Dots through Interleukin-1
Authors: **Elizabeth Mancz**, Angela Cannata, Rebecca Ahlbrand, Zaynab Idrees, Ian Lewkowich, Renu Sah
Institution: University of Cincinnati
51. Title: Microglial TGF- β 1 Deletion alters glial clustering and increases A β burden, but improves cognition in an Alzheimer's Disease Model
Authors: **Jacob Yazell**, Aleks Taranov, Lucas McClain, Agnes Luo
Institution: University of Cincinnati
52. Title: Investigating the role of dopamine and glutamate transporters in an animal model of antipsychotic treatment resistance
Authors: **Koorndyk, N.**, Wittenkeller, L., Angelis, A., Kruyer A., Amato, D
Institution: University of Cincinnati

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