



Western's 8th Annual

NEUROSCIENCE RESEARCH DAY

February 19th & 20th, 2026

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Note from the organizers

Neuroscience is a research strength and priority at Western, and Neuroscience Research Day (NRD) is a trainee-organized conference that aims to bring Western's neuroscience community together to share resources and skills, and seed new collaborations.

Western's diverse neuroscience community is spread across different buildings, programs and campuses, which means we don't always get an opportunity to gather and learn about the exciting work of our colleagues.

We are thrilled to present to you the **7th annual Neuroscience Research Day** and hope you enjoy it as much as we enjoyed organizing it!





MEETING ROOMS & PARKING

Ronald D. Schmeichel Building for Entrepreneurship and Innovation (SEI)

Rm 1110

Main location of the conference. All events will occur here unless specified.

Rm 4109 & 4110

Rooms used for trainee data blitz presentations on February 20th

Parking

For the February 19th community event, **complimentary parking** will be available across the street at the Springett parking lot. The first 70 guests can access free parking by using the code NRD2026 on the HONK mobile app.

Guests with student parking passes should park in the green section, while staff parking passes are valid in any non-reserved area of the lot. Please avoid parking in any spaces marked as reserved.





SPONSORS



Western

Institute for Neuroscience

Western Institute for Neuroscience Staff



Sarah O'Flanagan
Administrative Officer for
Western Institute for
Neuroscience



Shawn Whitehead, PhD
Director of Western
Institute for Neuroscience



Christine Moreau, PhD
Open Science Research
Specialist

Thank you so much for all the support that makes NRD
possible every year!





COMMUNITY ORGANIZATIONS

Third Age Outreach

<https://www.sjhc.london.on.ca/areas-of-care/third-age-outreach>



Parkinson's Society Southwestern Ontario

<https://pssso.ca>

Alzheimer's Society Southwest Partners

<https://alzswp.ca>



Defeat Duchenne Canada

<https://defeatduchenne.ca>





PLANNING COMMITTEE

Society of Neuroscience Graduate Students (SONGS)



Alice Tan
President



Abdul Naqvi
Vice President



Ali Ghavampour
Co-Head Executive of NRD, Academic Coordinator



Nima Zargarneshad
Co-Head Executive of NRD



Timothy Pong
Media Coordinator



Cadence Opoka
Administrative Lead



Hannah Grey
EDI Representative



Ella Baker
Social Coordinator



Laura Camejo
Treasurer

Neuroscience Graduate Program, UWO Staff, and Faculty



Paul Gribble, PhD
Neuroscience Graduate Program Director



Susan Simpson
Neuroscience Graduate Program Coordinator



Lara Staecker
Neuroscience Program Administrative Assistant



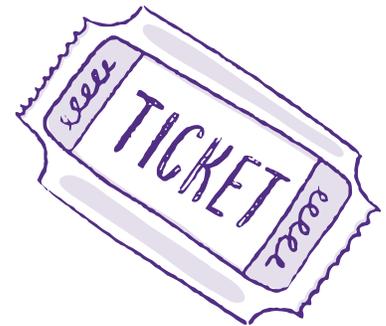
Dami Solaja
Neuroscience Graduate Program Student Rep





NRD RAFFLES

SONGS is happy to announce that we will be hosting **raffles** at various events during NRD! At each session, SONGS Executives will be handing out raffle tickets, and we will draw for winners at random sessions throughout the conference. Raffle winners must be present at the time of the draw to claim their prizes.



You could win a Western sweater of your choosing, neuroscience merch bags, and many other exciting prizes!

Make sure to attend as many events as possible to have the best chance at winning!



A big thank you to our

Judges

Anna Tinnemore
Ashley Lowndes
Christine Moreau
Faraj Haddad
Laura Brunton
Manoj Reddy Medapati
Marco Emanuele
Mehrdad Kashefi
Paul Gribble
Rohit Lodhi
Sean Cregan
Wataru Inoue

Volunteers

Danielle Hart
Sarah Odera
Seneca Bao
Van Le

**Thank you for your
time and dedication
towards making this
event possible!**



SCHEDULE

Day 1

Thursday, Feb. 19th, 5:00 pm – 7:30 pm

Room

5:00 – 6:00 pm

Poster Session, Art Exhibit, Community Booths, Networking

SEI 1110

6:10 – 6:15 pm

Opening Remarks from SONGS and WIN

SEI 1110

6:15 – 7:15 pm

Keynote Lecture: Dr. Jonathan Lau

SEI 1110

7:20 – 7:30 pm

Award Ceremony & Closing Remarks by SONGS

SEI 1110

Day 2

Friday, Feb. 20st, 9:30 am – 5:00 pm

9:00 – 10:00 am

COFFEE AND BREAKFAST

SEI 1110

10:00 – 10:15 am

Opening remarks by Dr. Paul Gribble & SONGS

SEI 1110

10:15 – 11:15 am

Morning Keynote Lecture: Dr. Sergey Stavisky

SEI 1110

11:15 – 11:30 am

BREAK

SEI 1110

11:30 – 12:30 pm

Concurrent Trainee Data Blitz Presentations

SEI 4109 & SEI 4110

12:30 – 2:30 pm

Lunch and Great Debate: *Individual Neurons vs. Neural Populations: Where is the Code?*

SEI 1110

2:30 – 3:00 pm

BREAK

SEI 1110

3:00 – 4:00 pm

Afternoon Keynote Lecture: Dr. Jonathan Michaels

SEI 1110

4:00 – 4:30 pm

Closing Remarks

SEI 1110





Thursday, February 19th, 2026; 6:15 – 7:15 pm

KEYNOTE SPEAKERS

Dr. Jonathan Lau, MD, PhD, FRCSC

*Assistant Professor, Division of
Neurosurgery, Department of Clinical
Neurological Sciences*

Keynote:

Imaging informatics applied to the clinical neurological sciences

Jonathan Lau is an MD and PhD trained neurosurgeon and researcher in the Department of Clinical Neurological Sciences at Western University with cross-appointments to Biomedical Engineering and Neuroscience. He runs the AIMS lab at Western University focussed on using anatomy and informatics approaches to improve modulation and surgery in the clinical neurosciences. He is a certified Fellow of the Royal College of Surgeons of Canada (FRCSC) and received the Royal College Detweiler traveling scholarship to complete further subspecialty training at Emory University in epilepsy as well as stereotactic and functional neurosurgery. His research focuses on acquiring and leveraging multimodal datasets (imaging and electrophysiology), with the goal of offering increasingly focal treatment options that maximize benefit while minimizing side effects.



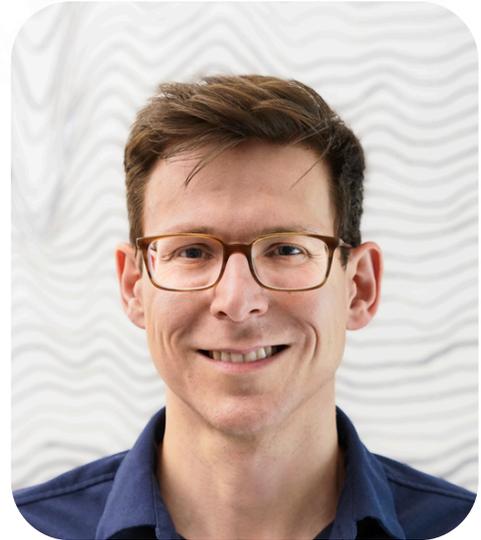


Friday, February 20th, 2026; 10:15 – 11:15 am

KEYNOTE SPEAKERS

Dr. Sergey Stavisky, PhD

*Assistant Professor of Neurological
Surgery, University of California, Davis*



Keynote:

A multi-modal brain-computer interface for restoring human communication

Sergey Stavisky received his Sc.B. in Neuroscience from Brown University in 2008, after which he worked as a research engineer in the BrainGate group for two years. He completed his PhD in neurosciences at Stanford University in 2016, where he studied the motor cortex's role in the sensorimotor control of reaching and developed brain-computer interfaces in a preclinical monkey model in the lab of Prof. Krishna Shenoy. His postdoctoral training was in the Stanford Neural Prosthetics Translational Laboratory, mentored by Profs. Jaimie Henderson and Shenoy. There he built BCIs to restore the ability of clinical trial participants with paralysis to control a robotic arm and started to study the single neuron correlates of speech. In 2021 Sergey started his independent lab in the Department of Neurological Surgery at the University of California, Davis. His group is currently focused on understanding and restoring speech and language production and bringing next-generation neural interfaces to human use.

Sergey's recognitions include the Regeneron Prize for Creative Innovation, the NIH Director's New Innovator Award, Searle Scholars Program, the inaugural MIND Prize, 1st place in the International Annual BCI Award in 2025, 2023 and 2019, the Sean M. Healey International Prize for Innovation in ALS, the International BCI Society Early Career Award, and the McKnight Scholar award.





Friday, February 20th, 2026; 3:00 – 4:00 pm

KEYNOTE SPEAKERS

Dr. Jonathan Michaels, PhD

Assistant Professor, School of Kinesiology & Health Science, Faculty of Health; Associate Member, Department of Electrical Engineering and Computer Science, Lassonde School of Engineering; Associate Member, Department of Biology, Faculty of Science



Keynote:

Sensory expectations shape neural population dynamics in motor circuits

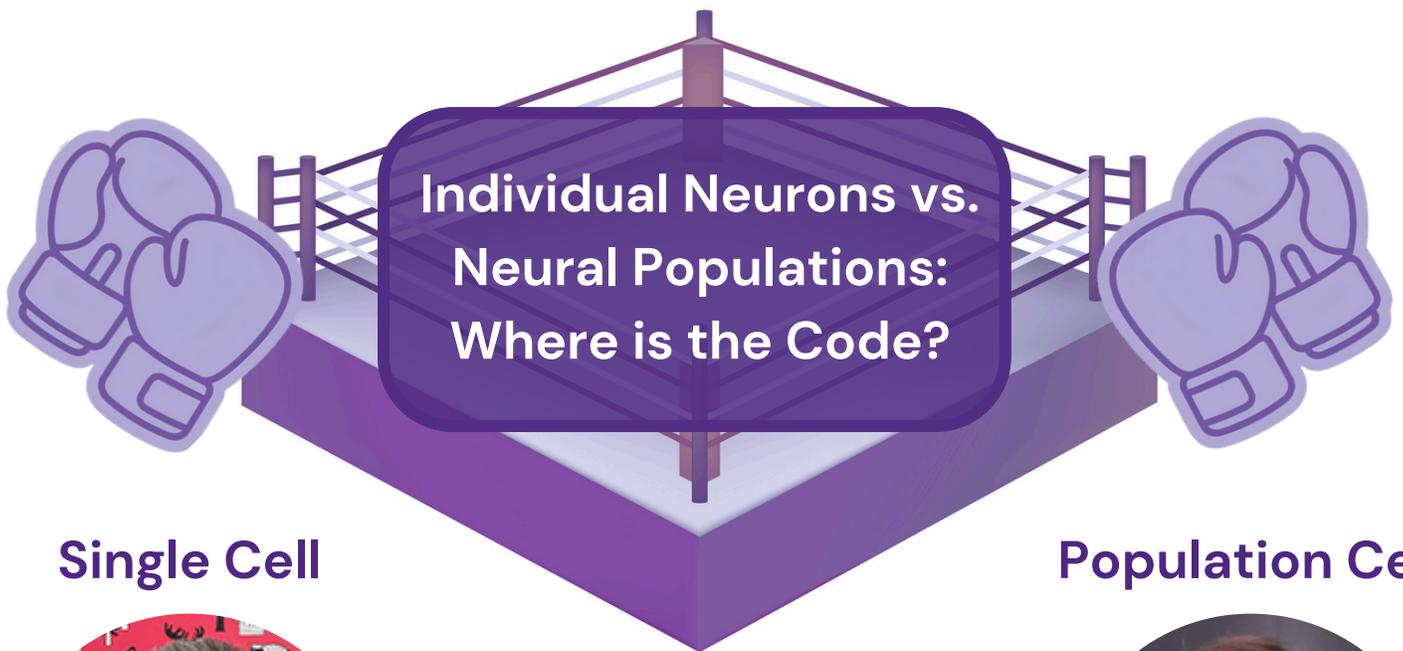
Jonathan Michaels is a neuroscientist and Assistant Professor in the School of Kinesiology and Health Sciences at York University. His goal is to understand how the brain controls movement, from simple everyday behaviours like opening a door, to complex feats like playing piano. He is working to accomplish this goal through a combination of research in human behaviour, primate electrophysiology, computational modelling, and by building artificial systems that help us understand skilled human behaviour and learning. He did his PhD at the University of Göttingen with Hans Scherberger, followed by a postdoc at Stanford University with Krishna Shenoy, and a second postdoc at Western University with Andrew Pruszynski.





THE GREAT DEBATE

Back by popular demand, this year, three distinguished researchers will defend a side in a structured debate on a contentious neuroscience topic



Single Cell

Population Cell



Dr. Julio
Martinez-Trujillo

Devil's Advocate



Dr. Jörn Diedrichsen



Dr. Jonathan A
Michaels





NEUROSCIENCE ART EXHIBIT

Come by and see some neuroscience-themed art our students have made for NRD!

Submissions

The Rutted Trail

Stephanie Souliere

Seeing a Forest for its Neurons

Rae Hoepfner

Recalibration

Olivia Ipwanshek

The Optic River

Alice Tan

The Beauty of Noise

Shreeram Patkar, Evan Skorski



DATA BLITZ ORAL PRESENTATION SCHEDULE



Room A (4109)

Room B (4110)

A.1 Parjanya Parikh Lasting Effects of Shunt-Treated Infantile Hydrocephalus on the Working Memory Development of the Pediatric Population	11:32	B.1: Marwa Idrissi Investigating the Interaction Between Pre-Existing Anxiety Levels and Adolescent Nicotine Vapor Exposure on Behavioural and Neural Changes
A.2: Erfan Zarenia Developmental Changes in the Structure of Midbrain Dopaminergic Circuits During Adolescence	11:37	B.2: Kasha Mansour Spared Cognitive and Social Function Following Perinatal Ablation of ATRX Despite Transient Microglia Dysregulation
A.3: Kruti Joshi Investigating Cognitive Differences Across Awake and Anesthetized Mice Imaging Using rs-fMRI and CPT	11:42	B.3: Richard Zhang Identifying Cell Type- and Developmental Stage-Specific Gene Regulation Driving Schizophrenia Risk Using a Comprehensive Multi-Omics Approach
A.4: Ankit Bakshi Functional Near-Infrared Spectroscopy (fNIRS)-Derived Functional Connectivity in Paediatric Delirium	11:47	B.4: Judy M. Kurbaj Dosage-Sensitive Regulation of Social Behaviour and Lifespan by the Autism-Related Gene Neuroligin-3 in Drosophila Melanogaster
A.5: Shveta Suresh Relationship Between Quantitative EEG Metrics and Delirium in Critically Ill Children: a Prospective Observational Cohort Study	11:52	B.5: Kendra Loedige Cadm2 Genetic Variation Impacts Cue Approach Behaviour, Stimulus Discrimination and Phasic Dopamine Release in the Medial Prefrontal Cortex
A.6: Jack de Jeu Comparing Two Brain Imaging Methods to Measure Responses to Median Nerve Stimulation	11:57	B.6: Dami Solaja Investigation of Social Communication in Monogamous Prairie Voles Following Lesions to the Medial Prefrontal Cortex
A.7: Emily Moore Early Digital Cognitive Screening for Individuals Across the Dementia Continuum	12:02	B.7: Christi Tam A TMS Inhibitory Approach to the Posterior Inferior DLPFC: Effects on Acute Pain and Cognition
A.8: Shreeram Patkar Using Hybrid Neuroimaging to Detect Covert Consciousness and Communicate with Unresponsive Patients in the ICU	12:07	B.8: Thu Pham Using Combined TMS-EEG to Investigate Cortical Changes in Response to Acute Pain
A.9: Evan Skorski Predicting Outcome in Behaviorally Unresponsive Patients Using EEG in the ICU	12:12	B.9: Taylor Hilton Layer-Specific Recruitment of Dorsal Neck Muscles in the Macaque Using High-Density Myomatrix EMG
A.10: Daya Kumar Generalizable EEG Markers of Sleep-Deprivation Vulnerability Under Strict Subject-Level Evaluation	12:17	B.10: Alice Tan Long Latency Stretch Reflexes Are Modulated by Visual Illusions
A.11: Kushal Biswas The Impact of Combining Functional Electrical Stimulation Cycling and Repetitive Transcranial Magnetic Stimulation on Corticospinal Excitability in People with Motor Incomplete	12:22	B.11: Julia Cunningham The Role of the Auditory Cortex in Speech Motor Learning.

POSTER PRESENTATIONS

[1] Angdi Chu

Parametric Investigation of Attentional Modulation of Pain on Visual Working Memory and Individual Differences

[2] Jwan Saleem

Exploring Homeostatic Plasticity as a Mechanism Underpinning Chronic Pain

[3] Sarah Shahid

Identifying Early Neurophysiological Markers of Pain Chronification in Temporomandibular Disorders (TMD)

[4] Ayesha Hammad

Physical Activity, Default Mode Network Connectivity, and Cognitive Function in Mild Cognitive Impairment

[5] Alexandra Kitzan

The Impact of Brain Creatine Levels on Cognitive Function

[6] Heba Al-Samarai

Exercise-Induced Enhancement of Working Memory: A Comparison of Active and Passive Exercise

[7] Weijia Zhu

Preparing the brain for movement: How a single bout of exercise promotes motor skill acquisition

[8] Joy Jiang

Transcutaneous Auricular Vagus Nerve Stimulation (taVNS) as an anti-inflammatory strategy for the treatment of Depression Following Spinal Cord Injury

[9] Amanda C. Lee

ADHD and THC: Investigating the Genetics Behind ADHD-Related Behaviours

[10] Aisha Siddiqui

Unravelling the Genetic Components of ADHD-Like Behaviour: Effects of a CADM2 Recursive Splice Site Deletion on Neurobehavioural Traits in Rats

[11] Jasper Wu

Investigating how the ATRX gene regulates brain cell development

[12] Mahmoud Hanafy

How the CADM2 Gene Shapes Social Interaction and Brain Signalling

[13] Monica Zhang

Prefrontal Dopamine Dynamics During Stimulus-Reward Learning in Mice

[14] Barman Mirakbari

Depressive-like Behaviour In A Humanized Knock-in Mouse Model Of APOE, Amyloid, And Tau Is Sex- & APOE Allele-specific

[15] Francesca Caputo

Earlier Evolution of Sensorimotor Processing in the Superior Colliculus Versus FRONTAL Cortex in a Rapid Reaching Task

[16] Pruthvish Shah

A dissociation between perception and rapid visuomotor responses

[17] Mackenzie Enns

Neural activity in anterior cingulate area 32 during vocalizations in freely moving marmosets

[18] Yashvi Patel

Vocal communication during pair bond expression in prairie voles

[19] Claire Cheung

How Distraction Changes Brain Processing of Clear and Distorted Speech

[20] Rafaela Platkin

Physiological Assessment of Narrative Engagement in Children

[21] Jade Shelp

The Impact of Emotional Salience on Sound localization in Realistic Virtual Environments

[22] Stephanie Souliere

What are the associations between perceived realism and subjective experiences of emotion?

[23] Sam Dabir

Investigating Deep Brain Stimulation Parameters for Drug Resistant Epilepsy Treatment: A Literature Review

[24] Ella Baker Lehen

Novel Rehabilitation Treatment Strategy for Incomplete Spinal Cord Injury For Lower Extremity Function

[25] Lillian Zheng

Can Edible Cannabis Protect the Aging Brain? Investigating the Effects of Chronic Low-Dose THC Oil Consumed Orally on Age-Related Cognitive Decline and Memory Loss in Mice

[26] Haseeb Mahmood

Investigating Prenatal Cannabinoid Exposure and Schizophrenia Vulnerability Via Lipidomic Alterations and Impaired Neurodevelopment

[27] Nicholas Hamati

Adolescent N-Acetylcysteine Intervention Reduces Neurobehavioral Deficits Following Prenatal THC Exposure

