



Undergraduate Research Conference 2026

Official Program

1. Opening Remarks &
Keynote Presentations
2. Poster Presenters
3. Oral Presenters
4. Selections Committee

Opening Ceremony - 12:30 PM

Official welcome to the 2026 Arts and Science Students' Union (ASSU) Undergraduate Research Conference by Co-Directors Quintina Liu and Dean Tessaro, and opening remarks delivered by Dean of the Faculty of Arts and Science, Stephen Wright.

Please arrive by **12:30 PM in Sidney Smith Hall, Room SS2108** on the second floor, as the ceremony will begin promptly.

Keynote Presentation - 12:45 PM

Following the Opening Ceremony, Professor Ken Derry will host a Keynote Presentation.

Biography



Dr. Ken Derry

Professor, Department of Historical Studies

Dr. Derry's academic focus is on the ways in which modern cultural products relate to more "traditional" religious beliefs and practices. What might the Bible tell us about Iron Man, for example – and vice versa? Dr. Derry's Ph.D. thesis examines issues of religion and violence in modern Canadian Native writings, and is the first full Religion and Literature monograph to consider the works of North American Indigenous authors. He currently serves on the editorial board of the Journal of Religion & Film and is the pedagogy editor for Religious Studies Review.

Poster Presenters - 11:00 AM - 12:30 PM

Humanities

Karin Wu: Translating Housing Insecurity Research into Action: Community-Based Knowledge Translation with Latine Migrants in Toronto

Vivian Zhi: Let There Be Light: Staging Outdoor Lighting in the York Plays

Miran Tsay: Barefoot Gen: Keiji Nakazawa's Auto-biographical and Collective Memory of Hiroshima

Jade Parks: Revenge Pornography: A Form of Hate Speech Against Women

Social Sciences

Lesley Pan: Student Perceptions of Inclusive Syllabus Design and Classroom Policies: Quantitative Insights from a Mixed-Methods Study

Morgan Neundorf & Gracie Haffey-Sherman: Digital Belonging: How Hong Kong Emigrants in North America Use Facebook to Navigate Identity

Sciences

Jiani Wu: Characterization of Changes in Aperiodic and Periodic Components of Longitudinal EEG Power Spectra from Mild Cognitive Impairment Patients and Healthy Controls

Nicole Jarosz: Evaluating Placental Growth Factor as a Biomarker for Differentiating Fetal-Intrinsic and Placental-Mediated Fetal Growth Restriction

Casey Moran: Characterization of TGF β -induced regulatory phenotype in NK cells

Francesca Chernous: Structural and functional studies of the Interferon lambda (IFN λ) cytokine complexes

Thinuri Welithotage & Jessica Zhu: Machine Learning Driven Discovery of MRI-based Alzheimer's Biomarkers

Poster Presenters - 11:00 AM - 12:30 PM

Aayan Jain Singal: Quantum Levitation-Based Stabilization for Deep-Space Telescopes

Devon McCarthy: Proteins produced by astrocyte cells may promote microglial integration into brain tissue

Zaina Etoom: Evolving Feeding Challenges in Preterm-Born Children: Early Detection, Family Impact, and Developmental Trajectories

Nikita Yang: Linking Medial Prefrontal-Medial Temporal Theta Phase Coupling to Spatial Memory Deficits in Pediatric Brain Tumour Survivors

Matthew Scherbaty: Novel Pathway for the Synthesis of Threo-Nucleic Acid Derivatives from 1,2-O-Isopropylidene- α -D-xylofuranose

Sabrina Isabelle McLennon: The 'entourage effect' of β -caryophyllene and CBD in a mouse model of Dravet Syndrome

Oral Presenters - 1:00 - 3:00 PM

SS1074

1:10 PM - 2:10 PM: Policy, Law, Violence

Marriah Ramadan

- Clinical Applications of Artificial Intelligence within Violence Risk Assessment Tools: A Grey Literature Review

Maggie Hung

- Utility, Affinity, and the Making of Counterterrorism Law: Explaining State Responses to UN Resolution 1373

Irene Wu & Maria Saqqur

- Not Just Survivors, but Architects of Justice: Vida en Resistencia [Living in Resistance] and Reimagining Transitional Justice in Colombia

Iva Zivaljevic

- Procedural Justice in the Law's Shadow: Plea Bargaining in the U.S. Criminal Justice System

2:10 PM - 3:10 PM: Global Equity

Nora Kuo

- Global Chain of Industrialization

Chloe Gergi

- From Help to Hazard? Governing AI Mental-Health Tools Through Safety, Privacy, Equity, and Accountability

Breanna Lachmanen

- Who Defines Belonging? The Ongoing Colonial Dispossession of Indigenous Youth Through Child Welfare and the Erasure of Cultural Identity

Madelyn Stanley

- Indigenous Food Sovereignty Within Toronto's Food Insecurity Crisis

Oral Presenters - 1:00 - 3:00 PM

SS1073

1:10 PM - 2:10 PM: Ideology & Rhetoric

Alexandra Owens

- “Fun is a Medicinal Bath”: The Pleasure Industry as Mass Deception

Luna Liu

- From Textbooks to Red Tourism: Investigating the CCP’s Educational Strategies for Ideological Governance

Chris J. Arrabito

- Determining the threshold of curvature in architectural spaces

Ming Yang

- Eloquence in Stone: Margaret of Austria’s Monastery of Brou as Rhetorical Hybridity

2:10 PM - 3:10 PM: Identity & Intersectionality

Kitty He

- Queer Bodies and Binding Binaries: A Journey to Radical Queer Self-Acceptance in Hedwig and the Angry Inch

Aneri Patel

- Calm Amidst the Chaos: A Look Inside Downtown Toronto’s Zen Buddhist Temple

Nghi Nguyen

- How Nature Provides a Return to Virginal Fertility in Hildegard’s Symphonia

Liana Tang

- Adolescence as a Class Aesthetic: How Transnational Youth Fiction Constructs Middle-Class Morality

Oral Presenters - 1:00 - 3:00 PM

SS1085

1:10 PM - 2:10 PM: Medical Biology

Gabriel Pascual

- Investigating Seizure Susceptibility in Interneurons and Pyramidal Neurons via Neurofibromin Mutations

Krish Govardhan Chadha

- Understanding the Current Research of GSK-126 on Beta Cell Regeneration for Type 1 Diabetes

Abdulkadir Duble

- Generating an Inducible Oligodendrocyte Line to Investigate the Acute Effects of Human Herpesvirus 6 on Central Nervous System Myelination

Alice Narushevich

- Determining how the phase separation of β -parvin affects cardiac fibrosis

2:10 PM - 3:10 PM: Treatment in the Lab

Rachel Chu

- A Novel Nasal Formulation Effectively Blocks Pollen Entry to Alleviate Symptoms of Pollen Allergy

Chujing Wu

- CL-Methylation: Bacteria Lysate as an Enzyme Pool for In-vitro acquisition of Host-Compatible DNA methylation

Tanish Bhatt

- Targeted immunotherapy for the elimination of allergy-inducing IgE+ plasma cells

Arpita Debroy

- Why the Brain Works Harder After Concussion: Prefrontal Activation and Hidden Cognitive Costs in mTBI

Oral Presenters - 1:00 - 3:00 PM

SS1087

1:10 PM - 2:10 PM: Differential Health Outcomes

Yupeng Yao

- Equity Modifiers of Post-Traumatic Brain Injury Mental Health Outcomes: A PROGRESS-Plus Guided Systematic Review and Meta-Analysis

Fatemeh Kheiry, Zarish Khan, Alisa Shargorodsky & Afifa Akram

- The Reproductive Penalty: A Systematic Review of Exclusion Criteria and Enrollment Parity in Canadian Multiple Sclerosis Clinical Trials (2020–2025)

Anna Cui

- Correlation Between HIV Incidence and Cervical Cancer Rates in High and Low-Income Countries from 2000 to 2021

Ibrahim Conteh

- Etiology Matter: Characterizing Optic Pathway Gliomas in the Kids Eye Biobank

2:10 PM - 3:10 PM: Subject Medicine

Hannah Corinne Wan

- The Neurocognitive Bottleneck: Cognitive Inflexibility as the Nexus of Autism and Depression

Mansi Bhatia and Afnan Said

- Preliminary analysis of cognitive engagement in people with dementia during tablet play.

Laiba Irfan Butt

- Neuroimaging Insights on Sleep Disturbances and Risk for Major Depressive Disorder in Youth: A Systematic Review

John Hou & Andrew Janssen

- Machine-Learning Analysis of Behavioural Patterns in GRIN1 Disorder Mouse Models

Oral Presenters - 1:00 - 3:00 PM

SS2108

2:10 PM - 3:10 PM: Science in the Natural World

Abdul Rahman

- Increased GABA-A Receptor Currents in Pyramidal Neurons of the Red Eared Slider Turtle (*Trachemys scripta elegans*) in Response to an Anoxic Mimic Solution

Sasha Joyce Maniaci

- Minimal descriptors for accurate and efficient learning of molecular properties

Tomi Wang

- Metasurface-Engineered Blazed UV Diffraction Grating for Enhanced +1-Order Efficiency: A Broadband Finite-Difference Time-Domain Study

William Unal Ferreira Da Silva

- The Social Brain: Investigating the Neural Circuits of Social Interaction in Mice

A Heartfelt Thank You to Our Selections

Committees:

Humanities

Faculty Head: **Dr. Amy Ratelle**
*Strategic Research Development Officer, Jackman
Humanities Institute*

Student Members: **Biew Biew Sakulwannadee** **Mai To**
Victoria Gotcheva **Luna (Mingjingzi) Liu**

Social Sciences

Faculty Head: **Prof. Sabrien Amrov**
Sessional Lecturer, Department of Geography

Student Members: **Alia Eiras** **Zara Daudjee**
Nikita Yang **Gahee Lee**

Sciences

Faculty Head: **Dr. Kenneth Yip**
Assistant Professor, Department of Cell & Systems Biology

Student Members: **Asmi Khanna** **Hetvi Soni**
Diane Lee **Shivangi Roy**
Rishit Pal **Cindy Yang**