

2021 UNDERGRADUATE RESEARCH CONFERENCE

DAY PROGRAM



Brought to you by the Arts and Science Students'
Union (ASSU)

At the University of Toronto

January 29th, 2021

#URC2021



2021 Undergraduate Research Conference

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2021 Undergraduate Research Conference

Letter from the Conference Directors

We are delighted to have you join us today at the fourth annual (and first ever virtual) ASSU Undergraduate Research Conference!

This project has been in the works for many months and we have dedicated numerous hours to organizing this event. An event like this is a team effort and we would like to thank all the student presenters, volunteers, faculty members, programs, departments, and Course Unions who supported us along the way. We would especially like to thank the students of our Selections Committee, along with Professors Rivanne Sandler, Lynette Ong, and Ashley Bruce.

Our goal is to showcase the dynamic research that is being undertaken by undergraduate students from a multitude of academic fields within the Faculty of Arts and Science. Presenters will have the opportunity to pose their research to a wide audience; such opportunities are often few and far between for undergraduates. Audience members will have the opportunity to witness some of the amazing research that is being done at U of T, engage with students, and think critically about the knowledge that is being shared.

Though times are different this year, we wanted to ensure that the conference was still able to go on. We believe that now more than ever, students can benefit from learning from and supporting their peers and appreciate that accomplishments continue to be made despite barriers. We truly are inspired by the resilience, resolve, and ingenuity of our students. Today's presentations will illuminate the work that our students continue to do and, most importantly, highlight their dedication to learning, finding solutions, and helping to initiate world change.

We hope that you enjoy today's experience, and we cannot thank you enough for supporting our Arts and Science community. Now, onto Zoom!

Sincerely,

Victoria Chen
Cell & Molecular Biology | Psychology
Treasurer, Arts & Science Students' Union

Ikran Jama
Criminology & Sociolegal Studies | International Relations | African Studies
President, Arts & Science Students' Union

Arts & Science Students' Union | University of Toronto | Room 1068, 100 St George Street, Toronto | 416-978-4903 | assu.ca

The University of Toronto is situated on the territory of the Huron-Wendat and Petun First Nations, the Seneca, and most recently, the Mississaugas of the Credit River.



Keynote Address

Stop Saving the World? Biblical Apocalypses and Colonialism in Superhero Films

Apocalypses are not what they used to be. Instead of God destroying the forces of evil in a climactic battle, superheroes do this now. But superhero films have nevertheless kept many features of the biblical apocalypse. Aside from the fight between good and evil, many heroes are presented as messianic warriors. Their stories also sometimes feature a guide to an otherworldly realm. And perhaps most intriguingly, they are often focused on colonialism, a critical but often forgotten aspect of apocalypses in the Bible. What might some of these similarities AND differences mean? In his talk, Professor Derry offers a few thoughts on the answer to this question.

About the Keynote Speaker

Ken Derry is Associate Professor of Religion (Teaching Stream) in the Department of Historical Studies at UTM. His teaching and research focus is on the ways in which modern culture relates to more “traditional” religious beliefs and practices. He is particularly interested in the connections between religion and violence in Indigenous literature and film, as well as in popular culture. He has also written about teaching and learning in relation to grading, course design, and humour. Ken received his PhD from the University of Toronto and is the recipient of the 2013 UTM Teaching Excellence Award. He is married, has three cats, and continues to be surprised by how emotional some episodes of *The Great British Bake Off* can be.





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Selections Committees

HUMANITIES SELECTIONS COMMITTEE

- Academic Chair: **Dr. Rivanne Sandler**
Associate Professor Emerita | Near and Middle Eastern Studies
- Student Members: **Psalm Tesalona**
Criminology & Sociological Studies | Women & Gender Studies
- Juan Ignacio Murillo Vargas**
Philosophy | Linguistics
- Nicole Vucemilo**
Ethics, Society and Law | History

SOCIAL SCIENCES SELECTIONS COMMITTEE

- Academic Chair: **Dr. Lynette Ong**
Associate Professor | Political Science | Munk School of Global Affairs
and Public Policy
- Student Members: **Xiyuan Gu**
Economics | Statistics
- Grace Liang**
Economics
- Arjun Singh**
Political Science | International Relations | American Studies

SCIENCES SELECTIONS COMMITTEE

- Academic Chair: **Dr. Ashley Bruce**
Associate Professor | Cell & Systems Biology
- Student Members: **Sabine El-Halabi**
Human Biology | Immunology
- Wenyuan (Kevin) He**
Molecular Genetics and Microbiology



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Day Schedule

Friday, January 29, 2021

Time	Location (within Zoom)	Item
10:00 AM – 10:20 AM EST	Main Room	Opening Remarks
10:30 AM – 11:30 AM EST	Various Breakout Rooms	Morning Session
11:30 AM – 12:00 PM EST	--	BREAK
12:00 PM – 12:30 PM EST	Main Room	Keynote Address
12:30 PM – 1:15 PM EST	Various Breakout Rooms	Afternoon Session
1:20 PM – 2:00 PM EST	Various Breakout Rooms	Poster Presentations
2:00 PM – 2:10 PM EST	Main Room	Closing Remarks

Zoom Link: <https://utoronto.zoom.us/j/82570358361>

Detailed Itinerary

10:00 AM – 10:20 AM	Opening Remarks <i>Melanie Woodin, Dean of the Faculty of Arts & Science</i> <i>Conference Directors</i>
10:30 AM – 11:30 AM	Morning Session <i>Room I: Democracy, War & Foreign Policy</i> <i>Room II: Psychology & Neuroscience</i> <i>Room III: Narratives & Thought</i>
11:30 AM – 12:00 PM	BREAK
12:00 PM – 12:30 PM	Keynote Address
12:30 PM – 1:15 PM	Afternoon Session <i>Room IV: Displacement</i> <i>Room V: In the Digital Age</i> <i>Room VI: Cell Biology & Ecology</i>
1:20 PM – 2:00 PM	Poster Presentations
2:00 PM – 2:10 PM	Closing Remarks



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Morning Session: 10:30 AM – 11:30 AM

Room I: Democracy, War & Foreign Policy

Room Moderator: Emma Davy

10:30 AM

An "Internationalized" Civil War: Dissecting the role of external Actors in Biafra
Korede Akinkunmi, African Studies | International Relations | Political Science

10:45 AM

Correlational, Bargaining, and Contentious Politics: Theoretical Inquiry into the Onset of the Second Sudanese Civil War
Diego Vásquez, Peace, Conflict & Justice | Political Science

11:00 AM

Evaluating Development Assistance: Comparing the Goals and Effectiveness of the Foreign Aid Policies of Japan to Asia and the EU to Sub-Saharan Africa
Iman Ahmed, International Relations | Political Science

11:15 AM

Democracy, Constitution, and Islam: re-discovery of modernity through Islamic theology by Mirza Hussain Naini (1860-1936)
Zoheir Asnaashary, Political Science | Near and Middle Eastern Civilizations

Room II: Psychology & Neuroscience

Room Moderator: Martha Taylor

10:30 AM

Searching for Belonging: Sense of belonging as a protective factor against Depression, PTSD, and distress amongst Uyghur refugees
Hala Bucheeri, Psychology | Neuroscience
Shahd F. Khan, Psychology | Neuroscience

10:45 AM

From a novel campus tour to better memory: Replaying spatial routes improves real-world navigation in older adults
Miranda Chang, Psychology | Neuroscience

11:00 AM

Factors predicting Non-Response to Stress Management Training in Cardiac Rehabilitation
Isham Umair, Neuroscience | Psychology | Buddhism, Psychology and Mental Health

11:15 AM

Designing the future: an invasive neurological therapeutic device
Zhiwei Xue, Biochemistry | Physiology



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Room III: Narratives & Thought

Room Moderator: Fatemeh Nami

10:30 AM

Visiting Scratched Out Narratives: Gender and Contemporary Islamic Law
Zara Lal, International Relations | Near and Middle Eastern Civilizations

10:45 AM

From Fear to Laughter: A Rhetorical Analysis of Margaret Cho's PsyCho
Ernest Leung, English

11:00 AM

Hominin capacity for religious thought
Arman Behrooz, Sociology | Human Geography | Near and Middle Eastern Civilizations

Afternoon Session: 12:30 PM – 1:15 PM

Room IV: Displacement

Room Moderator: Foti Vito

12:30 PM

From Benevolence to Harsh Refoulement: Access to Legal Rights for Refugee Populations in India
Vamika Jain, International Relations | Contemporary Asian Studies | Political Science

12:45 PM

Building the Bridge from Downstream to Upstream: Housing First and Homelessness Prevention Initiatives in an International Context
Lucy Stark, History | Economics

1:00 PM

The Opioid Epidemic That's Killing Ottawa Youth: Trapped by Stigma, an Unforgiving System, and an Oppressive Socio-Cultural Environment
Kiera Farrell-Beaulieu, Political Science

Room V: In the Digital Age

Room Moderator: Lina Maragha

12:30 PM

Imagine all the people: characterizing social music sharing on Reddit
Veniamin Veselovsky, Math | International Relations



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12:45 PM

Can E-Learning Succeed in Ontario?

Caitlin Stange, English | History | Digital Humanities

1:00 PM

Smartphone Scriptures: Authority and Communal Identity through the Vachanamrut Study

Mukti Patel, Religion | Writing & Rhetoric

Room VI: Cell Biology & Ecology

Room Moderator: Lydia Angarso

12:30 PM

BEHST: Functional enrichment analysis of non-coding sequences

Zhiyuan Lu, Computer Science

12:45 PM

A decline of 73% in amphibian abundance inferred from 16 years of on-road surveys

Claudia Lacroix, Environmental Science | Biodiversity and Conservation Biology

1:00 PM

LncRNAs AC114803.3 and CTC-297N7.5 significantly expressed in hepatocellular carcinoma cell lines; AC114803.3 associated with worse prognosis

Shruti Misra, Neuroscience | Psychology

Poster Session: 1:20 PM – 2:00 PM

[Breakout Room 1]

Wipe the Slate Clean: Replicating the Connection Between Physical and Psychological Cleansing

Isabella Giancola, Economics

[Breakout Room 2]

17 β -Estradiol and BDNF Val66Met and COMT Val158Met Genetic Polymorphisms Interact to Influence Memory and Executive Function in Women with Bilateral-Salpingo Oophorectomy

Aanya Bahl, Ecology & Evolutionary Biology | Physiology | Spanish