

AUGUST 16 • 2022 • 8:30AM-2:00PM • UTM CAMPUS



THE OFFICE OF THE VICE-PRINCIPAL, RESEARCH

SURF 2022 PROGRAM

#SURF2022



UNIVERSITY OF
TORONTO
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Office of the Vice-Principal,
Research



Event Agenda



Introductory Remarks - 9:00-9:05 AM

Kent Moore, Vice-Principal, Research & Professor of Physics



Session One - 9:05-10:00 AM

Moderated by Payam Zahedi, Director, OVPR

Keynote Speaker: Iva Zovkic, Associate Professor, Department of Psychology

Epigenetic basis of learning and memory



Iva Zovkic is a neuroscientist whose research is focused on epigenetic mechanisms of memory formation across the lifespan. She is specifically interested in histone variants, based on the observation that histone variants are replication-independent, which makes them the primary source of histones in the adult brain. Her team found that H2A.Z is a negative regulator of memory, and they are now actively pursuing the hypothesis that H2A.Z accumulation over the life span is an active contributor to dementia and age-related cognitive decline. To this end, the lab published work demonstrating genome-wide accumulation of histone H2A.Z in aged

mice and is investigating its role in Alzheimer's disease, with the ultimate goal of developing new therapeutics for memory decline. However, H2A.Z is just one of many histone variants, and the especially diverse group of H2A variants are excellent targets for memory regulation. The Zovkic lab is interested in understanding how individual H2A variants contribute to memory and gene regulation, and the way that histone switching and chromatin reorganization supports memory formation and memory decline.

Student Rapid Talks

Understanding the social benefits of urban trees

Ximena Bailly

Faculty Supervisor: Tenley Conway

Disseminating Undergraduate Research at UofT: A Qualitative Study

Paige France

Faculty Supervisor: Christopher Eaton

Spatial non-stationary effect of the unhealthy food environment and green spaces for diabetes in Toronto

Haoxuan (Peter) Ge

Faculty Supervisor: Jue Wang

Investigating the Effect of Content-Based Songs on Learning Math

Vashti Kamassah

Faculty Supervisor: Christina der Nederlanden

Brighter, Longer, Better: Antibleach Cocktails to Extend the Lifetime of Single Emitters

Shrivardhan Mishra

Faculty Supervisor: Claudiu Gradinaru

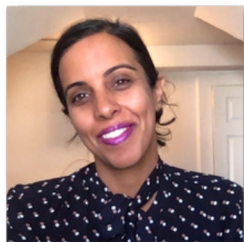
Wellness Break - 10:00-10:15 AM

Session Two - 10:15-11:05 AM

Moderated by Payam Zahedi, Director, OVPR

Keynote Speaker: Negin Dahya, Assistant Professor, ICCIT

Teaching & Learning Technology: A Study in Dzaleka Refugee Camp



Negin Dahya is an Assistant Professor at U of T's Institute for Communication, Culture, Information & Technology (ICCIT). Dahya's research engages feminist and postcolonial theories in the context of science and technology studies. As a social scientist, Dahya conducts qualitative research informed by ethnographic and visual methodologies. These primarily include interviews, observations, and visual documentation and analysis of participant made media like digital video or photographs. Her research contributes to the domains of critical media education and refugee education and technology. Her work

has evolved to include research on VR concept art design in a juvenile rehabilitation facility in the USA and refugee communities in camps and resettlements. She explores the role and relationships between education and technology within the constraints of refugee camps, or, in relation to the systemic socio-technical factors that influence migration and resettlement in North America. Her work focuses on girls and women as well as people of colour and the ways their own engagements with media and technology serve and support them; her work also identifies systemic structures of power, privilege and oppression that influence these realities and are entangled in pedagogy, curriculum, media, and technology.

Student Rapid Talks

Algardi's Bronzes by the Numbers: How Organizing a Sculptor's Bronze Oeuvre Can Help Us Understand Bronze Production in Seventeenth-Century Rome

Elizabeth Provost

Faculty Supervisor: Evonne Levy

Understanding the Role of University in the Personality Development and Well-Being of Racialized Students

Jaiditya Sharma

Faculty Supervisor: Joanne Chung

Determining Labelling Efficiency of Fluorotryptophan-Enriched Fluoroacetate Dehalogenase Using Fluoroanthranilic Acid Derivatives

Lauren Tabunar

Faculty Supervisor: Scott Prosser

Do Students Read Instructor Emails? A Case Study of Measuring Student Engagement to Email Reminders

Elexandra Tran

Faculty Co-supervisors: Joseph Williams & Andrew Petersen

Single-cell Segmentation Analysis on Dynamic Bacterial Micro-colonies

Sandra Zhitkova

Faculty Supervisor: Joshua Milstein

Poster Presentations* - 11:05 AM-12:00 PM

Students will be at their posters to explain their research and answer questions.

Lunch - 12:00-1:30 PM

While you enjoy a delicious lunch, please continue to wander and view student posters. Please note that students may not be at their posters at this time.

Closing Ceremony & Awards - 1:30-2:00 PM

Poster Presentations

POSTER NUMBER

Marim Adel & Feyza Lafci

Poster 01

The Personality Expression of Racialized Undergraduate Students in Everyday Life

Bailey Agard

Poster 02

Where's the Bingleduff? How speaker accent shapes children's linguistic processing

Abdul Rahman Al Kos

Poster 03

Exploring a novel channel in trichoplax: the half- Cav channel

Ali Al-Hasnawi

Poster 04

Methods for modelling urban tree canopies using LiDAR data

Ryan Alexander & Rachel Mander

Poster 05

Hyporheic Flow In Mullet Creek



- Irtaqa Arif** **Poster 06**
Effect of air pollution on plant health and mutations
- Keerath Bhachu** **Poster 07**
*Tissue-specific expression of HCN and its metabolic precursors in *Trifolium repens**
- Giang Bui** **Poster 08**
Prior Experience in Programming: Are experienced students more likely to succeed in CS1 and CS2?
- Thalia Burden, Ayesha Bhardwaj & Rohan Revoori** **Poster 09**
Do coyotes in Vaughan prefer the nightlife? A comparative analysis of coyote activity between an urban and rural environment
- Meyha Chhatwal** **Poster 10**
Spontaneous Synchronization to Speech and its Effects on Music and Language Perception
- Julianna Corbett & Sarun Balakrishnan** **Poster 11**
A Magnetic Resonance Imaging Study on the Association between Age and Cortical Thickness Among Regions in the Frontal Lobe
- Josie Davies** **Poster 12**
Does the accent of the experimenter influence children's language biases?
- Yi-Ting Deng & Hafza Nuh** **Poster 13**
The perception and production towards imitating aspirated voiceless consonants and /u/ vowel

Sherry Du	Poster 14
<i>Road salt pollution increases sex-bias in emerging mosquito populations</i>	
Pai Du	Poster 15
<i>The Future Changes of Chill Portions in Ontario Under Climate Change</i>	
Lilly Duman & Nicole Twum-Ampofo	Poster 16
<i>Sex Differences in Fractional Anisotropy of White Matter Using Tract Based Spatial Statistics: A Diffusion Tensor Imaging Study</i>	
Maya Eid	Poster 17
<i>The second nucleotide-binding domain (NBD2) of the Sulfonylurea receptor (SUR) in ATP-sensitive potassium channels</i>	
Mishaal Farooq & Sarah Mansoor	Poster 18
<i>Statistics students' perception of including a course project on their attitudes toward statistics</i>	
Scott Ford	Poster 19
<i>Effects of urbanization on Chlamydomonas algae</i>	
Roysdale Forde	Poster 20
<i>Employing Community Network Analysis to Investigate Protein Allostery</i>	
Anya Franks	Poster 21
<i>A multiproduct prenyltransferase supplies geranyl diphosphate for cytosolic monoterpene biosynthesis in rose scented geranium</i>	

- Lewei Gao & Hefan Zhang** **Poster 22**
From Supermarket to Family: Accessibility of Fresh Food in Mississauga
- Christine Gairan** **Poster 23**
Development of an Impedance Bioresistor for the Quantification of SARS-CoV-2 S1 Protein
- Gianna Giovio Canavesi** **Poster 24**
The grammatical role of tone in Keiyo (Kalenjin)
- Michael Goldenitz & Sarah Rorwick** **Poster 25**
Investigating the relationship between myelin and brain lateralization by assessing radial diffusivity and handedness
- Katya Golubeva** **Poster 26**
The Relation Between Health, Mental Health and Satisfaction with Oneself Among Canadian Youth
- Shriya Gulati** **Poster 27**
Quantifying the Activity of Enzymes Using a CuBpy-MOF-Based Impedance Bioresistor
- Kaitlyn Harris** **Poster 28**
Who saves the day? Challenging children's linguistic biases through exposure to foreign-accented cartoon heroes
- Alexandra Hawse** **Poster 29**
Who Said That? Exploring The Other Accent Effect in Children

Jessica Hira <i>Toddler Vocabulary Growth in a Linguistically-Diverse Community</i>	Poster 30
Areesha Intisar, Muhammad Ahmad, Sara Nguyen & Jack Hamilton <i>Surveying and Documenting Botanical Diversity at UTM for Nature Trail App</i>	Poster 31
Benji Jacob & Jawahir Mohamed <i>Giving Voice: Understanding the Intersections of Identity, Emotion, and Well-Being of Racialized Undergraduate Students at UTM</i>	Poster 32
Liaba Jat & Maripaz Gonzalez <i>Are Foreign Accents Villainous?</i>	Poster 33
Celina Micaela Javier & Simran Kaul <i>Cortical Thickness in Relation to Biological Sex in A Thai Sample: A Magnetic Resonance Imaging (MRI) Study</i>	Poster 34
Jackson Jung <i>Urban Forest Management Plans</i>	Poster 35
Camile Jutard & Rama Edaibis <i>Rational and Non-Rational Design of Franken-Protein HinZip</i>	Poster 36
Kareena Kailass <i>Exploring Effective Avenues of Student Engagement for Test Preparation in Large University Courses</i>	Poster 37
Chloe Kapanen <i>Industry Norms and the Plastic Crisis</i>	Poster 38

Anika Kisana	Poster 39
<i>The male reproductive system of the kissing bug, <i>Rhodnius prolixus</i>: arrangements of muscles and effect on neuropeptides</i>	
Hugo Li	Poster 40
<i>Dragonfly body temperature as a function of different levels of wing melanin</i>	
Nikole Lupoi	Poster 41
<i>Review and development of juvenile sexual offender typologies</i>	
Tabassom Madayen & Ziyad Ali	Poster 42
<i>Characterizing Nearby Binary Systems with Imaging and Radial Velocity Data</i>	
Hala Nayef, Aysha Qureshi & Pamela Sleightholm	Poster 43
<i>Agroecology: UTM's Food Forest as a Living Lab</i>	
Matthew Noonan, Agnieszka Nowakowski & Daniel Arceo	Poster 44
<i>Analyzing the Effects of Drought Stress on Various Crop Species using Multispectral and Thermal Remote Sensing</i>	
Danyel Ore	Poster 45
<i>Parents' Influence on the Development of how Boys and Girls Talk</i>	
Grace Otto	Poster 46
<i>Attention Responses to Different Emotions in Speech Stimuli</i>	
Meghna Patil	Poster 47
<i>When should you alert the driver? The effect of auditory alert timing on road hazard detection.</i>	

- Gabriel Philippe & Jana Alfaras** **Poster 48**
Investigating the species composition and sex ratios of mosquito populations on the UTM campus
- Emily Prete** **Poster 49**
Discriminating Speech and Song Based on Pitch Variability
- Ruoxi Qian, Yujiao Jiang & Yichen Qian** **Poster 50**
The connection between mental health, physical activity, sleep quality, and daily consumption of vegetable among Canadian youth
- Elise Quadri** **Poster 51**
Exploring the molecular foundations of heterochromatin assembly by examining nuclear protein-chromatin interactions in vitro
- Leah Rudmik** **Poster 52**
Cartoons creating bias: depictions of linguistic stereotyping in children's media
- Fatima Saleem** **Poster 53**
Aquatic-terrestrial connections at stormwater ponds: Investigating links between insectivore diversity and aquatic insect diversity
- Riya Shah, Moxuan Huang & Carson Cornelisse** **Poster 54**
Spatial refining of food deserts: identifying socioeconomically disadvantaged neighbourhoods

Shayla Shewchuk

Poster 55

Liminal Spaces Facilitate Recovery Experiences

Arub Siddiqui

Poster 56

Development of Activatable Photosensitizers based on Nitroreductase for Selective Cell Ablation in Zebrafish

Ammar Sidhu

Poster 57

Automating Landcover Classification with Machine Learning for the TRCA

Dyllan Simpson

Poster 58

Do you look where I look? Individual differences in eye movements when perceiving groups of objects

Shakeeb Tahir

Poster 59

Automatic Land Use Classification using CCDC Algorithm

Evelina Tronina

Poster 60

Vascular Potassium Channels: ATP Binding, Stability, and States

Victoria Valeeva

Poster 61

Decoding Protein Dynamics with Machine Learning

Isabella Vessio

Poster 62

*Changes in herbivory and evolution of antiherbivore defences in *Trifolium repens* along an urban-rural gradient in Toronto*

Jonathan Waugh

Poster 63

Chlorophyll a Dynamics in the UTM Stormwater Pond

Yijia Wu

Poster 64

Longitudinal Data Analysis with Irregular Outcome-dependent Follow-up

Jessica Jia-Ni Xu & Giang Bui

Poster 65

Does the medium matter? Investigating Voice and Text Reflections in a Databases Course

Tianheng Zhang

Poster 66

The effect of ethnic and host identity in immigrants

Fei Zhengyang, David Cobo & Trong Anh Doan

Poster 67

Correlation Between Perceived Mental Health and prosocial indicators among Canadian Youths (2017-2018)

Xiong Zhenni

Poster 68

Impact of International Migration on the Well-being of Non-immigrants

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