



TEMERTY FACULTY OF MEDICINE
UNIVERSITY OF TORONTO

RESEARCH SHOWCASE

Friday, July 7, 2023

9:30 AM - 5 PM

Bahen Centre for Information Technology



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MESSAGES FROM THE FACULTY

Justin Nodwell, PhD

Vice Dean, Research & Health Science Education

I would like to invite and welcome you all to the Temerty Faculty of Medicine Research Showcase. This student-led event is at the core of our mission to provide an outstanding education in this research-intensive environment. It's been said many times, but it is worth repeating: science does not take place in a vacuum. The most innovative ideas often occur in the interfaces between disciplines and involve many investigators working collaboratively. This showcase, which features opportunities to share ideas, is an outstanding opportunity to foster this spirit of discovery. It will also be a terrific opportunity for students to gather information and advice about possible careers once they finish up at university.



Antonio Strafella, MD PhD

Director of Clinical Research and Translation



The inaugural Temerty Faculty of Research Showcase is a unique event which has been conceived, planned, fundraised and organized entirely by graduate students. This research day emphasizes interdisciplinary and translational research across Temerty Medicine. This first event of its kind will allow graduate students, postdoctoral fellows & faculty to connect across disciplines and learn about research breakthroughs outside their own departments.

PROGRAM AT A GLANCE

9:30 AM - 10:00 AM	Registration		
10:00 AM - 10:45 AM	Welcome Remarks & Keynote Presentation (room 1160)		
10:45 AM - 11:00 AM	Coffee Break		
11:00 AM - 11:50 AM	Research Forums room 2165	Research Forums room 2175	Career Coffee Chats rooms 2145 & 2155
	Tools for Improving Inclusivity, Equity, and Patient Engagement	Improving Animal Research & Behavioural Assays	
	Research Forums room 2185	Research Forums room 2195	
	3D Imaging & Mitochondrial Genomics	New Technologies in Imaging & Microscopy	
12:00 PM - 12:50 PM	Research Symposium room 1190	Research Symposium room 1200	
	New Targets & Treatments in Depression	Pathophysiology of Neurological Disease	
	Research Symposium room 1210	Research Symposium room 1220	
	Frontiers in Personalized Medicine	Cancer Targets & Therapeutics	
12:50 PM - 2:00 PM	Lunch (outdoor patio & room 1160)		
2:00 PM - 2:50 PM	Research Forums room 2165	Research Forums room 2175	Career Coffee Chats rooms 2145 & 2155
	Sequencing & RNA Biology	Flow Cytometry & Extracellular Vesicles	
	Research Forums room 2185	Research Forums room 2195	
	Open Science & Biobanking	Project Management & Health Resource Allocation	
3:00 PM - 3:50 PM	Research Symposium room 1190	Research Symposium room 1200	
	Patient Engagement, Care, and Equity in Healthcare	Cancer Diagnostic & Prognostic Research	
	Research Symposium room 1210	Research Symposium room 1220	
	Circulatory Physiology Research	Biotechnology in Neuroscience	
4:00 PM - 5:00 PM	Endnote Presentation & Closing Remarks (room 1160)		



SESSION DESCRIPTIONS

KEYNOTE & ENDNOTE PRESENTATIONS

During the keynote and endnote presentations, the invited speakers will present their work and/or current hot topics in the field. This is an exciting session that is meant to spark interest in the current state of the field and provide attendees with the opportunity to learn about research outside of their work. The presentations are 35 minutes long, followed by 10 minute Q&A segments.

RESEARCH FORUMS

In this session, a method or technique that may be useful for a wide range of researchers within Temerty Medicine will be showcased. The forum can be 1) the basics of a method and its application, 2) how to set up an experiment or analysis and how to troubleshoot, or 3) a panel discussion about a hot topic.

The session will consist of two forums about 15 minutes long, with time for questions and/or discussion during the session and additional discussion time at the end. Ultimately, the goal of this session is to foster discussions and collaborations within the Faculty and allow attendees to discuss their research, challenges, and tips with each other.

RESEARCH SYMPOSIA

In this session, four presentations will be given by trainees or postdoctoral fellows from different departments within the Temerty Faculty of Medicine. This is an excellent opportunity for undergraduate, graduate, medical, and postdoctoral trainees to present their research to an audience of experts and non-experts.

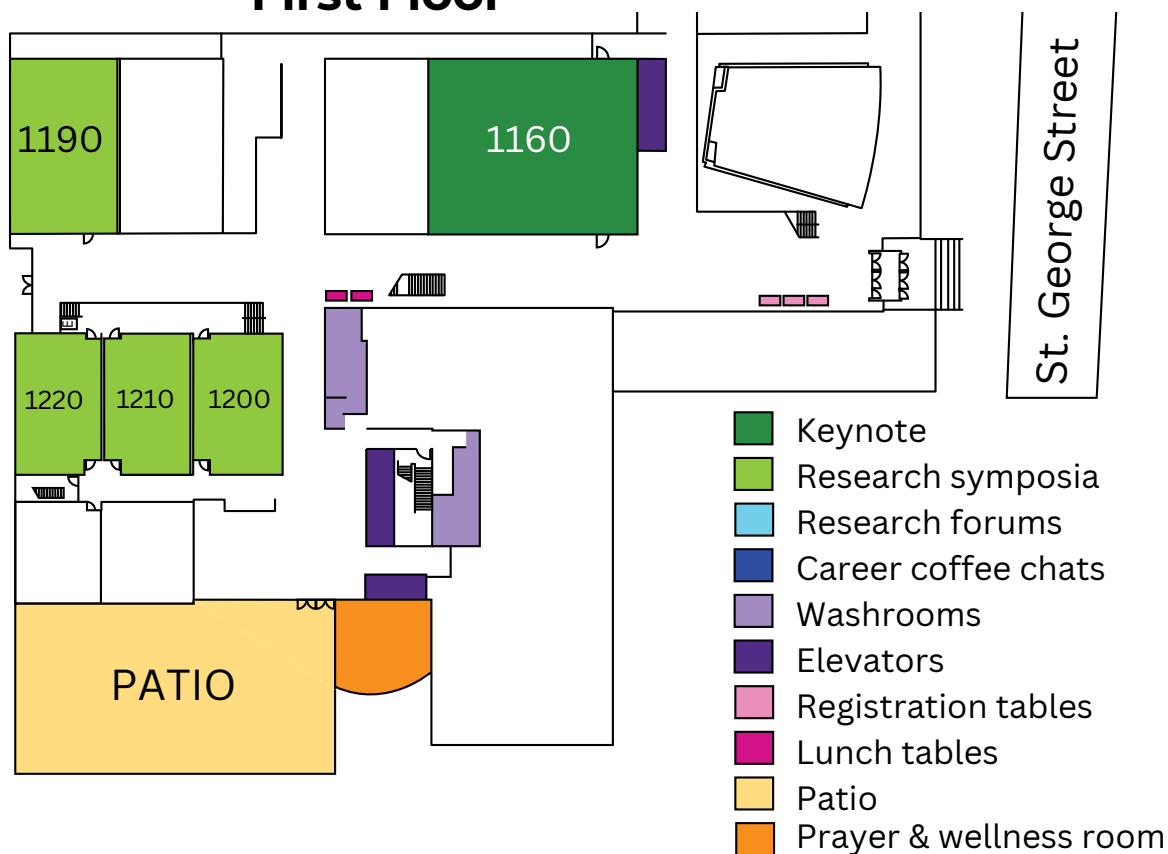
Each presentation will be 8 minutes long, followed by a 2 minute Q&A session. At the end of all presentations, the moderator will open up the floor for additional questions to all presenters in a panel style.

CAREER COFFEE CHATS

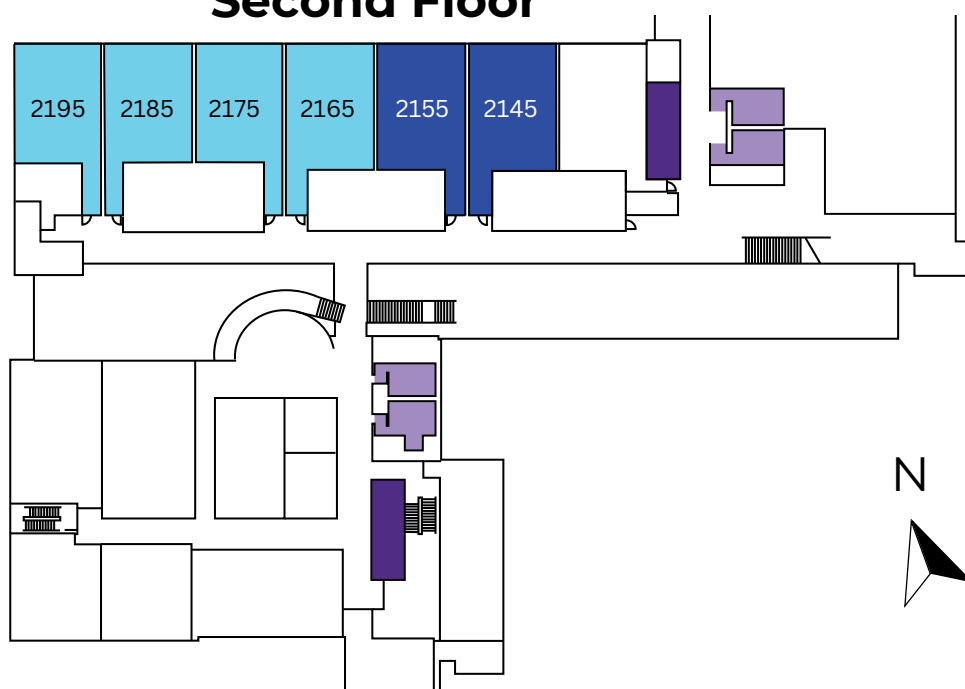
This session provides an opportunity for trainees and postdoctoral fellows to interact with academic and industry professionals, gaining insights into potential future careers and building meaningful relationships. Interested trainees who registered early have already been contacted with their assigned session time; this session is not open to all attendees. Limited spots are available to ensure meaningful conversations. The session follows a "speed dating" format, with 3 x 15-minute networking rounds where each professional engages with 4-5 attendees. Attendees can review professionals' bios and LinkedIn profiles provided on the corresponding pages below but cannot reserve spots with professionals in advance. Connecting with professionals outside the session is encouraged for further conversation.

MAP OF THE BAHEN CENTRE

First Floor



Second Floor



KEYNOTE PRESENTATION

10:00 AM - 10:45 AM

Reaching the finish line: Implementation science's role in closing the gap for evidence-based practices

Nadia Minian, PhD, is an Independent Scientist at CAMH. She is also an Assistant Professor at the Department of Family and Community Medicine, and at the Department of Pharmacology and Toxicology and an Associate Member at the Institute of Medical Science at the University of Toronto. Dr. Minian's research makes use of insights from implementation science and behavioral health to facilitate the adoption of best practices by clinicians, leaders, organizations, and patients, with the aim of improving the quality and equity of care and enhancing health outcomes. Her work spans various areas within including mental health, and addictions and collaborates closely with key stakeholders, including patients, clinicians, health system leaders, and policymakers. She is currently leading two CIHR grants. Dr. Minian holds a bachelor's degree from Clark University and a doctorate of philosophy in psychology from The Graduate Center, CUNY, in New York City.



**Nadia Minian,
PhD**

Affiliations

Scientist, Centre for Addiction and Mental Health (CAMH) Assistant Professor, Department of Family and Community Medicine, University of Toronto Assistant Professor, Department of Pharmacology & Toxicology, University of Toronto Associate Member, Institute of Medical Science, University of Toronto

ENDNOTE PRESENTATION

4:00 PM - 4:45 PM

The intersection of ontogeny, pharmacogenetics and drug safety in the NICU



**Tamorah Lewis,
MD PhD**

Affiliations

Associate Professor, Temerty Faculty of Medicine
Division Head, Clinical Pharmacology & Toxicology
SickKids Staff Neonatologist, SickKids
Senior Associate Scientist, SickKids Research Institute

Tamorah Lewis, MD PhD, is a physician scientist, and was recently appointed as the Division Head for Clinical Pharmacology and Toxicology at SickKids. Prior to this, she worked as an attending at the Children's Mercy Kansas City in the Divisions of Neonatology and Pediatric Clinical Pharmacology for 7 years, where she led translational/clinical research in neonatal pharmacology.

Dr. Lewis' research interests include PBPK and population pharmacokinetic and pharmacodynamic investigations in neonates and children, pertaining to both drugs in common use and drugs under development. Currently, Dr. Lewis is striding to advance the hospital-wide vision for Precision Child Health, and collaborates with multiple clinical Divisions to research and implement precision therapeutics, while continuing to provide clinical care in the level IV NICU at SickKids.



RESEARCH FORUMS

11:00 AM - 11:50 AM

Room 2165: *Tools for Improving Inclusivity, Equity, and Patient Engagement*

[Link to abstracts](#)

Sherald Sanchez

PhD Candidate

Institute of Medical Sciences

Patient-oriented research: Advancing the science of engagement

Insiya Bhalloo

PhD Candidate

*Rehabilitation Sciences
Institute*

Equity in research practice: Considerations for multilingual populations

Room 2175: *Improving Animal Research & Behavioural Assays*

[Link to abstracts](#)

Kristyn Fournier

Animal Research Ethics
Specialist, CAMH

Animal welfare

Dr. Ravinder Naik Dharavath

Postdoctoral Fellow

Psychiatry & Pharmacology

5-CSRTT assay for capturing impulsivity

Room 2185: *3D Imaging & Mitochondrial Genomics*

[Link to abstracts](#)

Dr. Alexandre Hardy

Staff Member

*Department of Physiology &
3D: Animal to Cell Imaging
Facility*

Core facility: 3D imaging facility services with various instrument capabilities

Dr. Vanessa Gonçalves

Faculty

*CAMH, Departments of
Psychiatry & Pharmacology
& Toxicology*

Genetics, mitochondrial genetics/genomics

Room 2195: *New Technologies in Imaging & Microscopy*

[Link to abstracts](#)

Lindsey Fiddes

Staff Member

Microscopy Imaging Lab

Core facility: Microscopy imaging lab

Dr. Edward James

Postdoctoral Fellow
Molecular Genetics

Automated image analysis



RESEARCH FORUMS

2:00 PM - 2:50 PM

Room 2165: Sequencing & RNA Biology

[Link to abstracts](#)

Sherin Mohammed Shibin

Manager/Coordinator
Donnelly Sequencing Centre

Core facility: Next generation sequencing

Aleksandra Marakhovskaia

PhD Candidate
Pharmacology & Toxicology

RNA biology

Room 2175: Flow Cytometry & Extracellular Vesicles

[Link to abstracts](#)

Nathalie Simard

Staff Member
Immunology & Flow
Cytometry Facility

Core facility: Flow cytometry

Boyang Su

PhD Candidate
Medical Biophysics

Extracellular vesicles

Room 2185: Open Science & Biobanking

[Link to abstracts](#)

Dr. Benjamin Haibe-Kains

Faculty
Medical Biophysics

Open science: Research transparency, reproducibility, and reusability

Dr. Dianne Chadwick

Faculty
Laboratory Medicine
& Pathobiology

Biobanking

Room 2195: Project Management & Health Resource Allocation

[Link to abstracts](#)

Dr. Arrani Senthinathan

Postdoctoral Fellow
Pharmaceutical Sciences

Project management tools, techniques and strategies applied to medicine and health research

Kimberly Crasta

MHSc Candidate
Laboratory Medicine
& Pathobiology

Translational research strategy to health resource allocation



RESEARCH SYMPOSIA

12:00 PM - 12:50 PM

Room 1190: *New Targets & Treatments in Depression*

[Link to abstracts](#)

Danica Johnson

MSc Candidate

Institute of Medical Sciences

Assessing the antidepressant efficacy of ketamine for treatment-resistant depression with comorbid post-traumatic stress disorder

Sipan Haikazian

MSc Candidate

Institute of Medical Sciences

Maintenance ketamine infusions demonstrate sustained antidepressant efficacy in a sample of real-world TRD and TRBD patients

Micaela Wiseman

PhD Candidate

Institute of Medical Sciences

Investigating the use of a speech-based biomarker for identifying patients with treatment-resistant depression

Frank Mazza

PhD Candidate

Physiology

Electroencephalographic (EEG) biomarkers of reduced somatostatin-expressing (SST) interneuron inhibition in human cortical microcircuit models of depression

Room 1200: *Pathophysiology of Neurological Disease*

[Link to abstracts](#)

Ella Bing Xin Song

PhD Candidate

Pharmacology & Toxicology

Circulating cell-free mitochondrial DNA (ccf-mtDNA) and memory in mild cognitive impairment (MCI) and early Alzheimer's disease (AD)

Dr. Catharine Mielnik

Postdoctoral Fellow

Pharmacology & Toxicology

The bidirectional effect of 2-AG on hyperdopaminergic states: Implications for therapeutic 2-AG modulation in psychosis

Shehab Eid

PhD Candidate

Laboratory Medicine & Pathobiology

Targeting the sodium potassium pump for treatment of prion diseases and Alzheimer's disease

Earvin Tio

PhD Candidate

Institute of Medical Sciences

Exploration of the Biopsychosocial Mechanisms Underlying Suicidal Ideation Using a Whole-Person Approach



RESEARCH SYMPOSIA

12:00 PM - 12:50 PM

Room 1210: *Frontiers in Personalized Medicine*

[Link to abstracts](#)

Suraj Bansal

Undergraduate Student
Molecular Genetics

ATLAS-AML: An automated bioinformatics pipeline to advance precision medicine in acute myeloid leukemia

Haidy Giratallah

PhD Candidate
Pharmacology & Toxicology

A PheWAS-MR study in the UK biobank reveals associations for CYP2A6 activity with lung cancers, obstructive respiratory diseases, and earlier diagnosis

Ryan Marks

PhD Candidate
Molecular Genetics

CRISPR-mediated correction of small duplications/deletions in DMD using an engineered Cas9

Meena Fatah

PhD Candidate
Institute of Medical Sciences

Machine learning in pediatric Brugada Syndrome: Can electrocardiographic parameters diagnostically discriminate in children?

Room 1220: *Cancer Targets & Therapeutics*

[Link to abstracts](#)

Emma Collier

MSc Candidate
Medical Biophysics

Unveiling human papillomavirus in cervical cancer through liquid biopsy

Kaviya Devaraja

MSc Candidate
Institute of Medical Sciences

The role of ICAM1 in glioblastoma tumorigenesis under hypoxic conditions

Aarushi Gupta

Undergraduate Student
Medical Biophysics

Evaluating the potential therapeutic effect of targeting polyamine metabolism in acute myeloid leukemia in combination with venetoclax

Tianning Yu

PhD Candidate
Immunology

STING agonists drive intrinsic type I interferon responses in monocytes for optimal anti-tumor immunity



RESEARCH SYMPOSIA

3:00 PM - 3:50 PM

Room 1190: *Patient Engagement, Care, and Equity in Healthcare*

[Link to abstracts](#)

Samira Adus

MD Candidate

Family & Community Medicine

Exploring patient perspectives on how they can and should be engaged in the development of artificial intelligence (AI) applications in health care

Susan Zahir

MSc Candidate

Rehabilitation Sciences

Exploring electrical injury survivors and caregivers' experiences with social support: A qualitative study

Dr. Yiyan Li

Postdoctoral Fellow

Bloorview Research Institute

Exploring the experiences of ableism among Asian children and youth with disabilities and their families: A systematic review of qualitative studies

Dr. Samira Omar

Postdoctoral Fellow

Rehabilitation Sciences

Confronting and addressing institutionalized racism in rehabilitation research and practice for black people with traumatic brain injury: A critical race perspective

Room 1200: *Cancer Diagnostic & Prognostic Research*

[Link to abstracts](#)

Martin Rotbauer

MSc Candidate

*Laboratory Medicine
& Pathobiology*

Exploring the role of circulating tumour cell-associated genes in estrogen receptor-positive breast cancer recurrence

Kseniia Tumanova

PhD Candidate

Medical Biophysics

Polarized light microscopy for quantitative assessment of colorectal cancer: can we predict local recurrence?

Douglas Chung

PhD Candidate

Immunology

A novel population of CD103-expressing CD56+ regulatory ILCs suppresses intratumoural T cells and are associated with poor prognosis in patients with ovarian carcinoma

Aaron Dou

MD Candidate

Medicine

Risk factors for unplanned acute care use in gynecologic oncology patients receiving radiotherapy



RESEARCH SYMPOSIA

3:00 PM - 3:50 PM

Room 1210: Circulatory Physiology Research

[Link to abstracts](#)

Zi Qi Lin

MSc Candidate
Physiology

Molecular mechanisms driving maternal cardiac hypertrophy in pregnancy

Zeyu Yang

PhD Candidate
Nutritional Sciences

Micronutrients in high-fat diet modify insulin resistance and its regulatory genes in adult male mice

Homaira Hamidzada

PhD Candidate
Immunology

Primitive macrophages enhance the function of bioengineered human cardiac microtissues

Joshua Tuazon

MD Candidate
Surgery

A novel kidney stone fragment extraction device

Room 1220: Biotechnology in Neuroscience

[Link to abstracts](#)

Danielle Downie

MSc Candidate
Clinical Psychology

Computer based training for cognitive behavioural therapy: Improvements in positive indicators of health

Laura Wheeler

MASc Candidate
Institute of Biomedical Engineering

In-ear EEG device for auditory brain-computer interface communication

Dr. Leif Simmatis

Postdoctoral Fellow
Speech-Language Pathology

Multimodal assessment of bulbar amyotrophic lateral sclerosis (ALS) using a novel remote speech assessment app

Sowsan Hafuth

MSc Candidate
Institute of Medical Sciences

Building a healthbot to help patients adhere to their varenicline prescriptions

CAREER COFFEE CHAT PROFESSIONALS

11:00 AM - 11:50 AM | Room 2145



Table 1

**Mehrab
Ali**

Research Program
Manager, *CAMH*



Table 5

**Dr. Zainab
Mya Motala**

Medical Editor &
Sessional Lecturer,
*Klick Inc. & Seneca
College*



Table 2

**Dr. Claudia
Hui**

VP, Investment
Banking, *Bloom
Burton & Co.*



Table 6

**Deanna
Rath**

Research Technician I,
UHN



Table 3

**Dr. Srijit
Khan**

Scientist, *Sanofi*



Table 7

**Dr. David
Sealey**

Director, Regulatory
Affairs (Oncology),
AstraZeneca



Table 4

**Dr. Tracy
Moreira-Lucas**

Field Medical Affairs
Scientist, *Pfizer
Oncology*



Table 8

**Richard
Yao**

Technical Sales
Consultant, *Miltenyi
Biotec*



CAREER COFFEE CHAT PROFESSIONALS

11:00 AM - 11:50 AM | Room 2155



Table 1

**Dr. Meghan
Chenoweth**

Project Scientist &
Assistant Professor,
*CAMH & University of
Toronto*



Table 5

**Fatma
Faiez**

Regulatory Affairs
Specialist, *Sanofi*



Table 2

**Ben
Dickson**

Senior Medical
Communications
Manager, *SixSense
Strategy Group*



Table 6

**Ido
Kaminsky**

Director, Portfolio
Performance
Solutions,
BenchSci

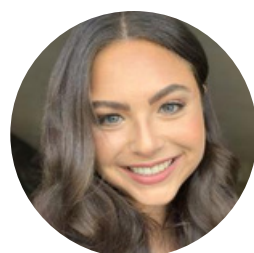


Table 3

**Christina
Ditlof**

Web &
Communications
Assistant,
SickKids



Table 7

**Dr. Raza
Mirza**

Director, National Partnerships
and Knowledge Mobilization &
Assistant Professor, *AgeHelp
Canada & University of
Toronto*



Table 4

**Dr. Michelle
Dubinsky**

Medical Science
Liaison, *Boehringer
Ingelheim*



Table 8

**Dr. Morgane
Morabito**

Senior Manager,
Research Program,
*Canadian Cancer
Society*



CAREER COFFEE CHAT PROFESSIONALS

2:00 PM - 2:50 PM | Room 2145



Table 1

**Colin
Arrowsmith**



Data Scientist,
Edge Analytics



Table 5

**Dr. Michelle
Ly**



Life Sciences Strategy
Consultant,
Shift Health



Table 2

**Dr. Ahmed
Elharram**



Scientific Advisor,
GSK



Table 6

**Dr. Thomas
Prevot**



Director of Operations &
Project Scientist &
Assistant Professor,
*Damona Pharmaceuticals
& CAMH & University of Toronto*



Table 3

**Dr. Gabriella
Chan**



Lawyer,
Yocto Law PC



Table 7

**Brandon
Rufino**



Computational
Scientist, Lead,
Sanofi Digital RnD



Table 4

**Hamza
Farooq**



Chief Technology
Officer,
BioBox Analytics Inc.



Table 8

**Jack
Zhang**



Senior Project
Manager,
University of Toronto

CAREER COFFEE CHAT PROFESSIONALS

2:00 PM - 2:50 PM | Room 2155



Table 1

Dr. Christopher Ing 

Chief Scientific Officer, *ProteinQure Inc.*



Table 5

Dr. Ryan Smith 

Senior Business Analyst, *Lifescience Dynamics*



Table 2

Connie Putterman 

Family Engagement in Research Coordinator, *CAMH*



Table 6

Raul Suarez 

Forensic Biologist, *The Centre of Forensic Sciences*



Table 3

Dr. Nil Sahin 

Data Scientist, *Recursion*



Table 7

Aylin Visram 

Clinical Study Associate, *GSK*



Table 4

Dr. Helen Sarantis 

Deputy Director, QC Analytical Excellence, *Sanofi*



Table 8

Allan Brugel 

Vaccines Supply Chain Manager, *Sanofi*

THE ORGANIZING COMMITTEE



SIERRA CODE LUPPI

PHD CANDIDATE

PHARMACOLOGY & TOXICOLOGY



ALAA ALSAAFIN

PHD

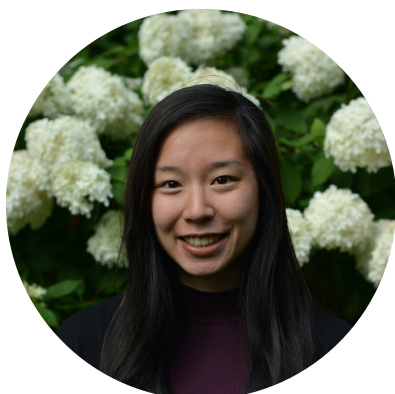
PHARMACOLOGY



NIDHI KULKARNI

PHD CANDIDATE

PHARMACOLOGY & TOXICOLOGY



ALISON JEE

PHD CANDIDATE

PHARMACOLOGY & TOXICOLOGY



EVIANNE ROVERS

PHD CANDIDATE

PHARMACOLOGY & TOXICOLOGY



EHAB BAKBAK

PHD CANDIDATE

PHARMACOLOGY & TOXICOLOGY



MESSAGE FROM THE ORGANIZING COMMITTEE

Welcome to the first-ever Temerty Faculty of Medicine Research Showcase!

During our time as graduate students, we became immersed in a community teeming with remarkable research and extraordinary people - a diverse blend of trainees, faculty, and staff from all corners of our Pharmacology & Toxicology Department. Our departmental research day was always an exciting time where we could learn about the diversity of research by our colleagues. We realized, however, that most of us wanted to learn about the research that takes place in the other departments within Temerty Medicine. We sought to create a platform where we could come together at the Faculty level and create new connections, exchange ideas, and forge new collaborations.

This is not just about showcasing research - it is about uniting us all, sharing our passions, learning from each other, and growing stronger as a community. It is about how we, together, are the heartbeat of the Temerty Faculty of Medicine. One Faculty.

Thank you for being a part of this day. We hope that this is the start of a wonderful tradition for years to come.

- The Temerty Faculty of Medicine Organizing Committee

OUR VOLUNTEERS



BRADY PARK

PHD CANDIDATE
PHARMACOLOGY & TOXICOLOGY



DAVID PRZELICKI

PHD CANDIDATE
*LABORATORY MEDICINE
& PATHOBIOLOGY*



MOUZHAN VARSHOUEITABRIZI

MASC CANDIDATE
*LABORATORY MEDICINE
& PATHOBIOLOGY*



JASHAN DHILLON

UNDERGRADUATE STUDENT
HUMAN BIOLOGY



GIOVANNA MELLO

UNDERGRADUATE STUDENT
HUMAN BIOLOGY



AIKO HASHIMOTO REIS

UNDERGRADUATE STUDENT
HUMAN BIOLOGY



ABIGAELLE MATONDO

UNDERGRADUATE STUDENT
HUMAN BIOLOGY



BRIANNA MCDONNELL

MSC CANDIDATE
MEDICAL BIOPHYSICS



YUEXIN (CINDY) LI

UNDERGRADUATE STUDENT
HUMAN BIOLOGY



ALICE SHAN

PHD CANDIDATE
INSTITUTE OF MEDICAL SCIENCES



ALEXANDRA MOFFAT

MSC CANDIDATE
*LABORATORY MEDICINE
& PATHOBIOLOGY*



FUNDING & ACKNOWLEDGMENTS

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Temerty Medicine



UNIVERSITY OF TORONTO
SCHOOL OF GRADUATE STUDIES



We would also like to acknowledge Heba Bahnassy, David Carinci, Sarah McMahon, Dr. Peter McPherson, Dr. Justin Nodwell, and all of our amplification partners from the different Temerty Medicine departments/institutes for supporting our event and contributing to its success. Special thank you to our volunteers, keynote presenters, professional guests, symposium presenters, forum facilitators, custodial and catering staff, and attendees for making this event a reality.



Scan or click to access our
feedback form - let us know what
you think, and enter for a chance
to win a gift card!