

**FOR INFORMATION**

**PUBLIC**

**OPEN SESSION**

<b>TO:</b>	Academic Affairs Committee
<b>SPONSOR: CONTACT INFO:</b>	Alison Mountz, Acting Vice Principal Research and Innovation, Office of the Vice Principal Research and Innovation 416-948-7298, alison.mountz@utoronto.ca
<b>PRESENTER: CONTACT INFO:</b>	See above
<b>DATE:</b>	October 8, 2024 for Oct 15, 2024
<b>AGENDA ITEM:</b>	4

**ITEM IDENTIFICATION:**

Annual Report: Office of the Vice Principal Research and Innovation, 2023-24

**JURISDICTIONAL INFORMATION:**

Under section 5.7 of the UTSC Academic Affairs Committee Terms of Reference, the *“Committee receives annually, from the appropriate administrators, reports on services within its areas of responsibility, including research.”*

**GOVERNANCE PATH:**

1. **UTSC Academic Affairs Committee [For Information] (October 15, 2024)**
2. UTSC Campus Council [For Information] (November 12, 2024)

**PREVIOUS ACTION TAKEN:**

n/a

**HIGHLIGHTS:**

This annual presentation from the Office of the Vice-Principal Research and Innovation (OVPRI) provides an overview of the OVPRI Annual Report (2023-24). This year’s approach was ‘engagement’ which includes supporting researchers at UTSC, developing and creating better systems to sustain engagement with researchers and our broader community.

**FINANCIAL IMPLICATIONS:**

n/a

**RECOMMENDATION:**

The item is presented for information only.

**DOCUMENTATION PROVIDED:**

1. Office of the Vice Principal Research and Innovation Annual Report
2. Presentation slides: Alison Mountz, Interim Vice Principal Research & Innovation



OFFICE OF THE VICE-PRINCIPAL  
RESEARCH & INNOVATION

# Engage

Building research connections and communities

2023-2024  
Annual Report

LAND ACKNOWLEDGEMENT

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca and, most recently, the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.



→  
(From left) **Lindy Kinoshameg**, **Jillian Sutherland** and **Leslie McCue** from the dance group Odawa Wiingushk performed at an opening ceremony for the Indigenous Entrepreneurship and Garden Project.

# Expanding Possibility

Engagement weaves together the creative collaborative endeavours of U of T Scarborough researchers, the dynamic team at the OVPRI, and our many important partners at U of T Scarborough and beyond. The stories on each page of this report bring to life the importance of the research carried out by our campus, and the work that we do to nourish, support and expand research at U of T Scarborough and its mobilization to wider communities.

**This has been an exciting year and a time of transition for the Office of the Vice-Principal Research & Innovation (OVPRI), as we evolve and grow to best serve our research community and the strategic priorities of our campus.**

This year, we expanded our approaches to internal and external engagement. We spent time sharing ideas and listening, to learn how we can best support great research at U of T Scarborough. We convened committees and communities of practice of research leaders on campus. We discussed principles guiding resource allocation to support research from every discipline and department on campus.

The OVPRI operates in two parts supporting internal and external engagement, led by two Associate Vice-Principals. Staff working on Research Facilitation and Infrastructure support external funding

and allocate internal resources to support our diverse and vibrant research community. Staff working on Strategic Initiatives and Partnerships build networks and collaborations that fuel better research with anchor institutions and other key partners.

As the OVPRI expands to support researchers at U of T Scarborough, we develop better systems to sustain engagement. This involves efficient facilitation and adjudication of internal awards, supporting ten Canada Research Chairs and our first Canada Excellence Research Chair, new interdisciplinary clusters, high-quality research centres and institutes, and the many faculty who lead research across campus.

The OVPRI supported extensive external engagement this year through strategic initiatives and partnerships. Whether local, regional or international, engagement is written into the fabric of U of T Scarborough, from our Clusters of Scholarly Prominence Program that brings researchers together across disciplinary boundaries to the Earth District's consortium of five collaborating institutions in the eastern GTA and the Sam Ibrahim Centre for Inclusive Excellence in Entrepreneurship, Innovation and Leadership (SICIEEIL).



**The OVPRI works to support and catalyze research leadership at U of T Scarborough. The best measure of our success is the success of our research community. Excellent research requires creative engagement. We are grateful for a year of intense creative engagement with researchers and the many communities where we work and live.**

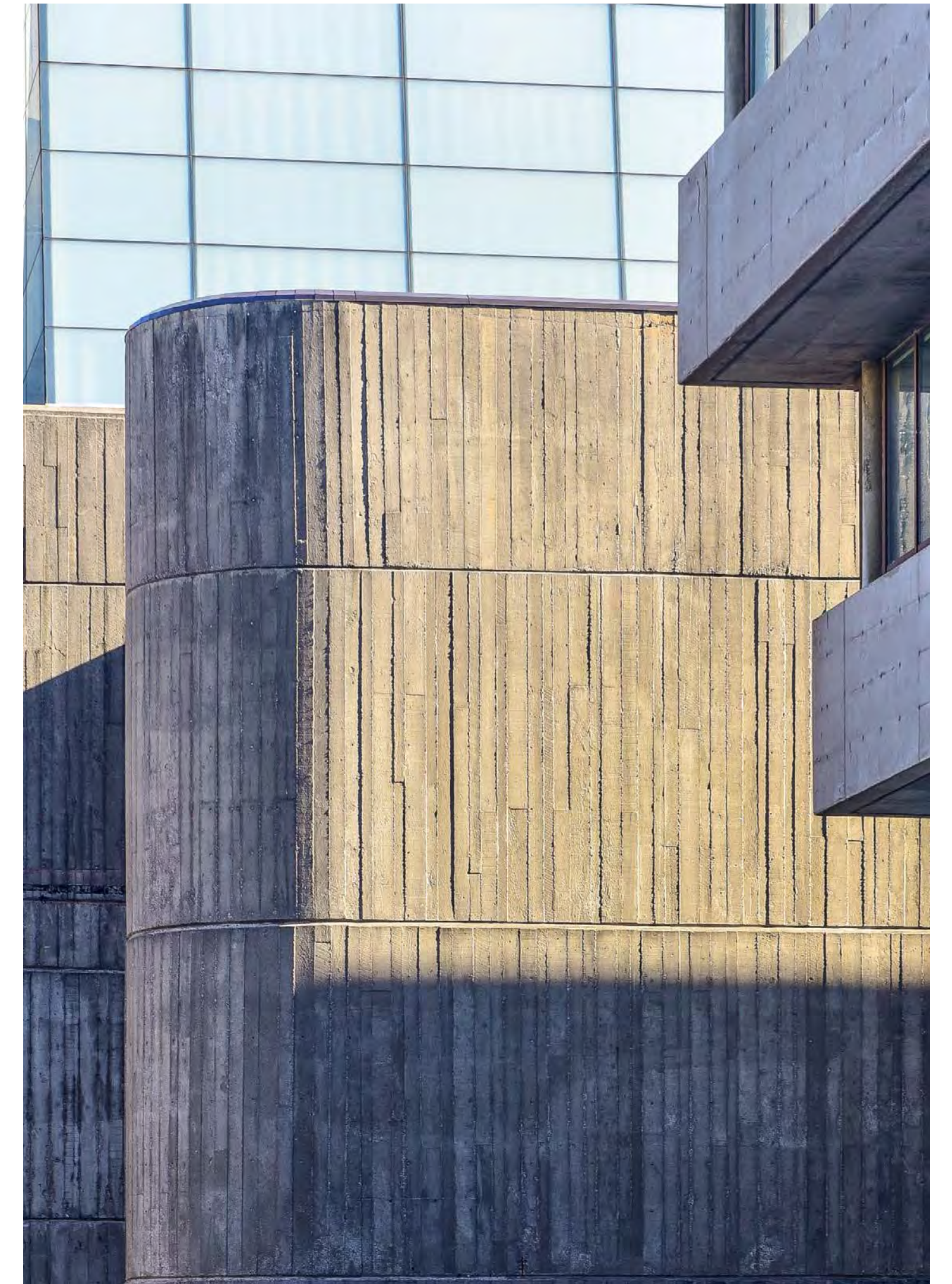
**Alison Mountz, PhD**  
Acting Vice-Principal  
Research & Innovation

# Impact by Numbers

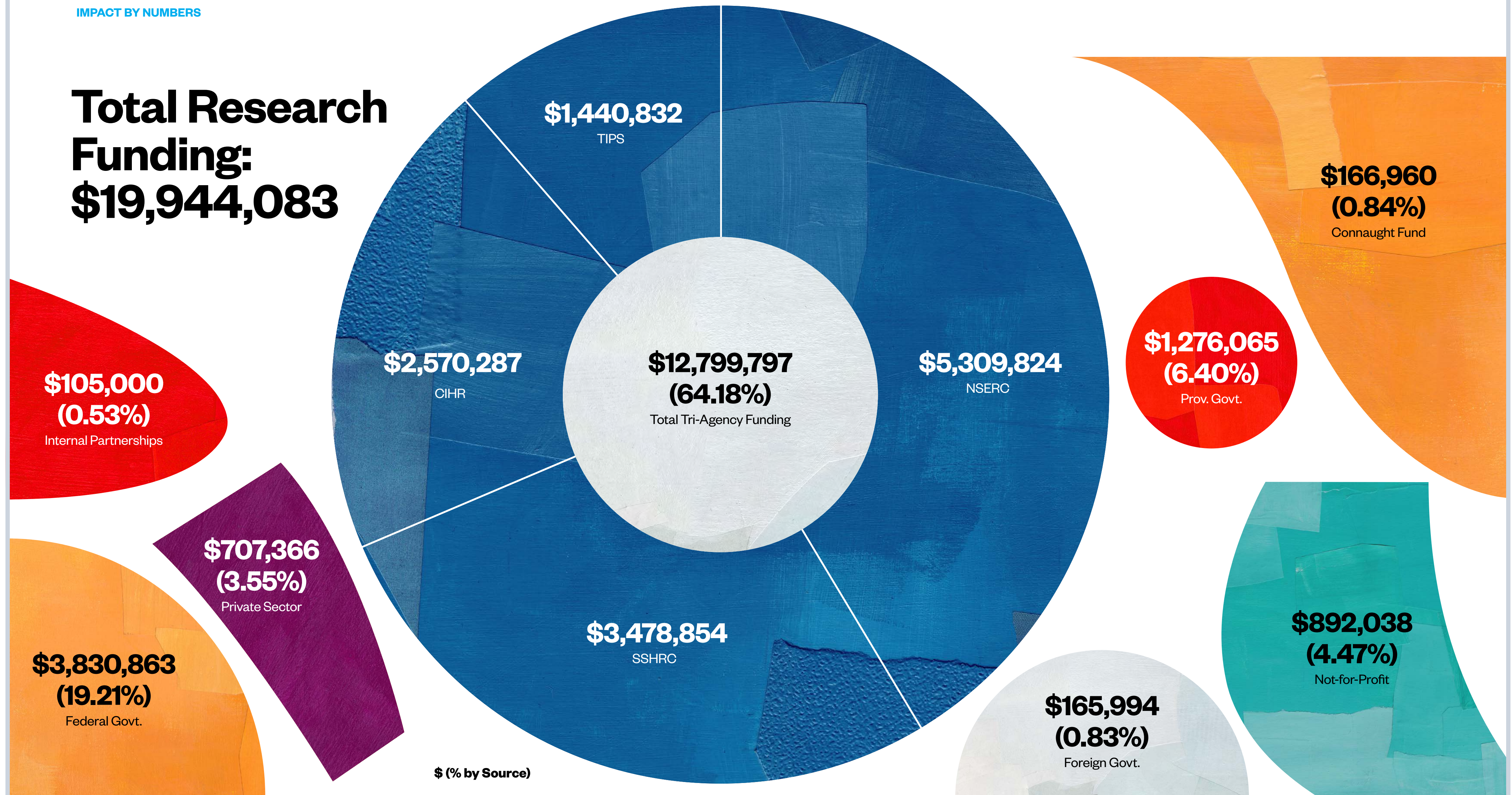
Highlighting the impact of our research

# Summary Statistics

	2023-24
Research Funds (Number of Grants and Contracts)	<b>327</b>
Funding Applications	<b>306</b>
Total Funding Sponsors	<b>58</b>
Total Private Sector Partners	<b>6</b>
Total Number of Funding Programs	<b>85</b>



# Total Research Funding: \$19,944,083

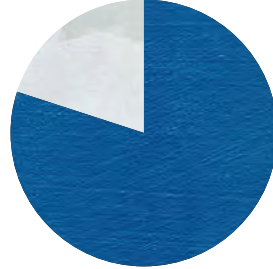
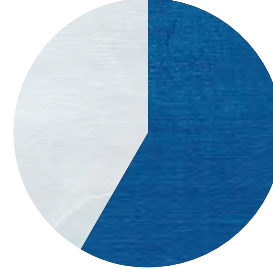

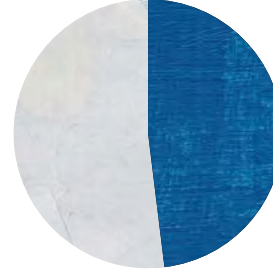

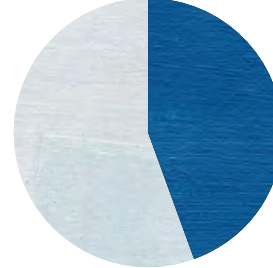
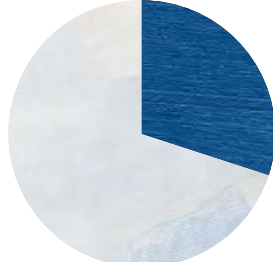
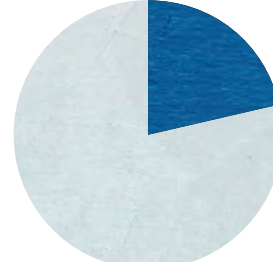


\$ (% by Source)



# Grant Success


Funding rates for the most competitive Tri-Agency grants from the federal government

2023-24 TOTALS	U OF T SCARBOROUGH	NATIONAL
NSERC Discovery Grant	80% 	58.40% 
SSHRC Insight Development Grant	60.20% 	48.10% 
SSHRC Insight Grant	33.30% 	44.50% 
CIHR Project Grant	30% 	21.50% 

2023-24 TOTALS

Supervisions by U of T Scarborough Faculty

**1,009**



- 119 Master's Students
- 643 Doctoral Students
- 175 Postdoctoral Fellows

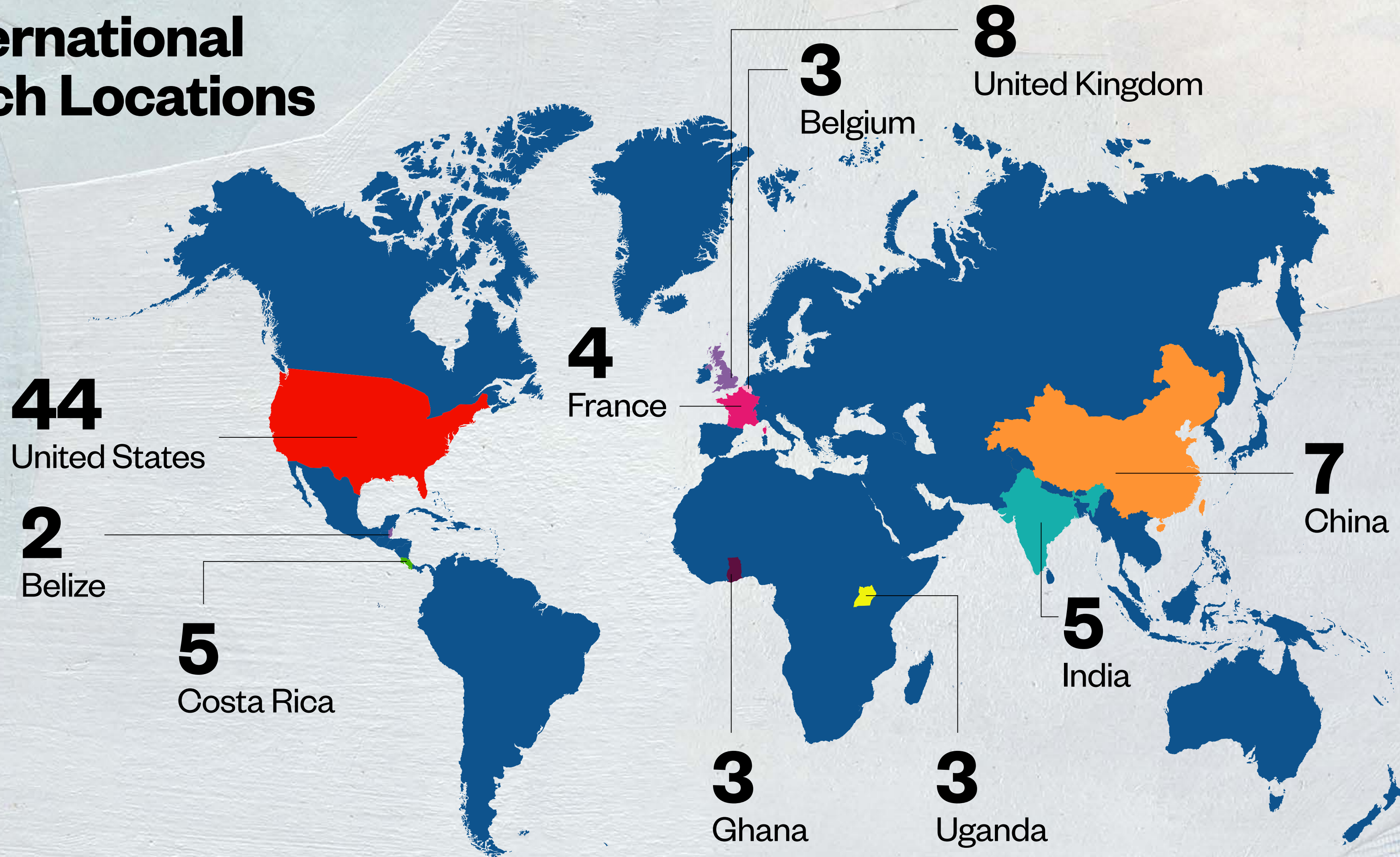
Research Faculty

**321**

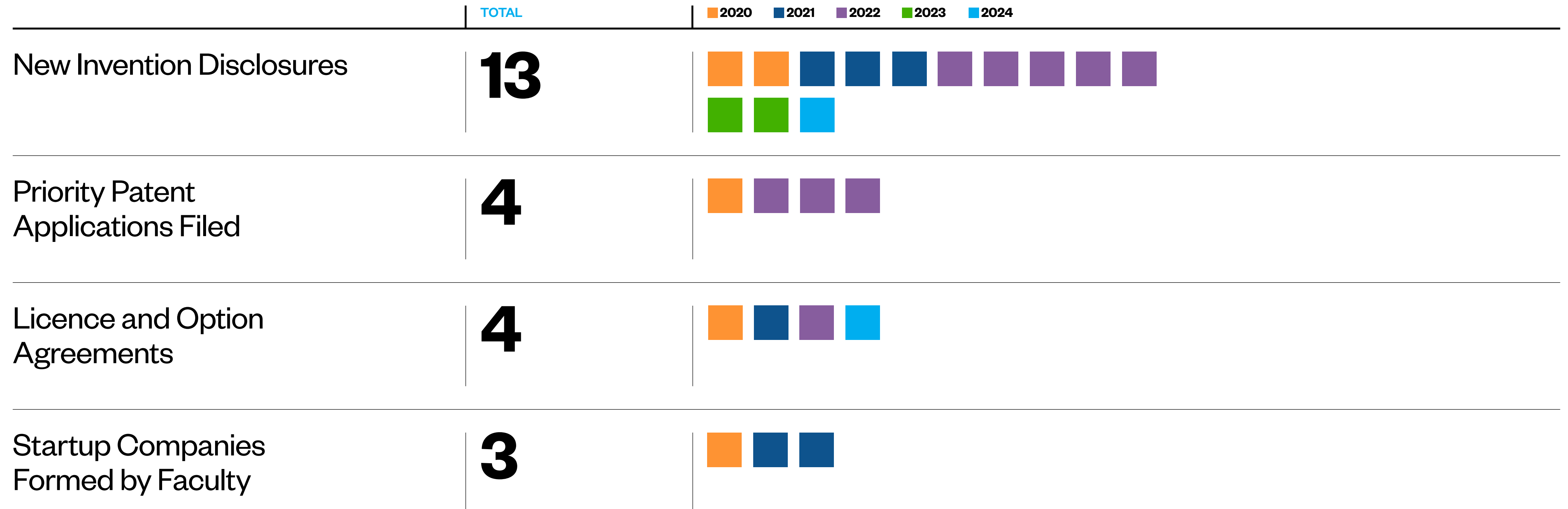
Published Journal Articles

**456**

# Top International Research Locations



# Commercialization



# Initiatives & Partnerships

Advancing areas of importance and long-term goals

# Research centers and institutes grow at UTSC

U of T Scarborough is the proud home of several cutting-edge interdisciplinary research centres, institutes and extradepartmental units. These include, for example, the Centre for Global Disability Studies, Culinaria Research Centre, and SoundLife Scarborough, representing initiatives across the arts, humanities, social sciences and sciences. This past year saw three new institutes added to this rich and exciting network of innovative research and scholarship.

## The Institute for Environment, Conservation and Sustainability

The Institute for Environment, Conservation and Sustainability (IECS), led by inaugural Director Professor **Imre Szeman**, from the Department of Human Geography at U of T Scarborough, is dedicated to exploring the complexities of the living world and human interactions with the environment, both past and present. The institute's mission is to innovate in addressing the challenges of the Anthropocene, including climate change, by developing actionable, just and equitable solutions. The IECS focuses on sustainable transitions in energy, transportation and labour; addressing environmental challenges; and improving climate communication to inform public policy. During the past year, one of its flagship initiatives, "Earth Switch," engaged over 4,200 high school and university students with Ontario's electric vehicle and mobility sector through events, internships and industry tours. This program exceeded targets, with more than 75% of participants coming from equity-deserving groups. The IECS actively collaborates across multiple departments at U of T Scarborough campus, and partners with a wide range of organizations, including the

United Nations, IKEA Canada, Toronto District School Board, Fulbright Canada and Toyota Canada, among others. These partnerships enable the IECS to foster research and training that contribute to a sustainable future for human and non-human communities alike.

During the past year, as part of its outreach activities, the IECS co-sponsored a bilingual catalogue publication and workshop event on the work of the Mexican visual artist Roberto de la Torre. De la Torre's work investigates and creates awareness of the social and political consequences of resource extraction, focusing on the impact on individuals and communities located near sites of extraction. Professor Szeman contributed a chapter on de la Torre's artistic investigation of waste in India in the book *Roberto de la Torre. Art, Violence, and Extraction. Mexico City—Miami—Mumbai—Toronto*. The IECS also organized public lectures, including one by Duke University researcher Dr. Michael Hardt on the legacy of political movements born in the 1970s.



The mandate of the IECS includes training of junior researchers. Dr. Sarandha Jain is the first IECS Postdoctoral Fellow. Dr. Jain is a socio-cultural and political anthropologist, who completed her PhD at Columbia University in 2022, and a postdoctoral fellowship at the India-China Institute, The New School, in 2023. Dr. Jain studies how petroleum is made, distributed and used in India, and how it shapes the country's government and society. She looks at the role of oil in people's daily lives, examining how it influences government actions, social connections and power dynamics. She explores how oil helps the government reach into citizens' lives but also how it can slip out of government control, creating unexpected connections and new forms of power. Dr. Jain will be joined by two new IECS postdoctoral fellows and four doctoral fellows this academic year.

## Research centers and institutes grow at U of T Scarborough (continued)

### The Institute for Inclusive Economies and Sustainable Livelihoods

The Institute for Inclusive Economies and Sustainable Livelihoods (IIESL), led by Professor **Sergio Montero** and previously by Professor **Caroline Hossein** as interim director (January 1–June 30, 2023), serves as a platform for reimagining economic development with a focus on sustainable livelihoods. The institute emphasizes place-based, inclusive approaches that address the needs of marginalized populations and peripheral territories across both the Global North and Global South.

Over the past year, the IIESL has been active in various significant initiatives. During Caroline Hossein’s interim leadership, the institute organized the First Africana Feminist Economics Symposium and the Worlding Feminist Political Economy Lecture Series, both of which brought diverse economic perspectives to the forefront. At the University of Toronto, the IIESL sponsored and organized several impactful events, including the launch of the book *Community Economies in the Global South* on November 23, 2023, which featured six speakers and drew about 50 attendees.

In 2024, the institute hosted the Green Growth vs De-growth Debate on February 26, in collaboration with the U of T Graduate Environmental Students’ Association and the Munk Students’ Environmental Working Group, attracting another 50 participants. On April 18, the IIESL held an Author Meet Readers session with

Jennifer Tucker, where her book *Outlaw Capital* was discussed by five presenters before an audience of around 30 attendees. The launch of Jamie Peck’s new book *Variiegated Economies* on May 2, 2024, marked another highlight, attracting 70 attendees and including a post-talk dinner and a lunch discussion with scholars and graduate students from U of T and York University.

Internationally, the IIESL has expanded its reach through collaborations in Europe and Colombia. The Summer Institute for Inclusive Economies for a Just and Sustainable Planet (June 5–8, 2024) in Bogotá, Colombia, brought together 42 participants, including 25 early-career scholars, to discuss themes such as Architecture and Inequality, Nurturing the Commons, Measuring Inequality, and Feminist Approaches to Economics. Later that month, the Global Studio, Planning the Inclusive City (June 11–21, 2024), involved 10 U of T Scarborough undergraduate students in an interdisciplinary course in Bogotá, in collaboration with the University of Amsterdam and the University of the Andes. Five faculty and 60 students from the three universities participated.



Starting on July 1, 2024, Kumsa Baker began a residency at the IIESL, exploring collaborations with community groups focused on inclusive economic strategies related to the potential repurposing of Scarborough’s decommissioned rapid transit infrastructure. In October 2024, the IIESL will launch its website and welcome its first postdoctoral fellow, who will work at the intersection of economic geography, labour, and inclusive economies. Under Sergio Montero’s leadership, the IIESL is emerging as a dynamic centre for research, teaching, and imagining inclusive and sustainable economic futures at U of T and globally.

## Research centers and institutes grow at U of T Scarborough (continued)

### The Institute for Inclusive Health and Well-Being

The Institute for Inclusive Health and Well-Being (IIHW), under the leadership of inaugural Director Professor **Charles Trick**, from the Department of Health and Society at the University of Toronto Scarborough, brings a new vision of equitable and inclusive community health. Its mission is to advance capacity and develop practices for inclusive health, generating positive change in local and national communities.

In October 2023, the IIHW supported the Building Communities through Inclusive Health conference, which offered panels, presentations and workshops with the participation of practitioners, researchers and community members. In addition to mobilizing knowledge, this event reinforced existing partnerships with Scarborough Health Network, Ontario Shores, Toronto Zoo, the University of Toronto's Temerty Faculty of Medicine and Lawrence Bloomberg Faculty of Nursing among others.

The IIHW and its partners are instrumental in shaping the future of healthcare education with the development of the Scarborough Academy of

Medicine and Integrated Health (SAMIH), planned to open in 2026. SAMIH will provide an inclusive hub for education and strengthen connections among healthcare providers in the region. It will extend the impact of U of T's health education programs including the Temerty Faculty of Medicine, Lawrence Bloomberg Faculty of Nursing, and Leslie Dan Faculty of Pharmacy, and quickly advance the region's clinical capacity across a range of disciplines. With Scarborough-based programs for nurse practitioners, physical therapists and physicians among others, SAMIH is ready to prepare the next generation of compassionate health professionals.

These and other partnerships were the basis of research proposals submitted in internal and external initiatives. Beyond the University of Toronto Scarborough campus community, during this period, the IIHW also sponsored collaboration with the Faculty of Information, the Dalla Lana School of Public Health, and the Centre for Addiction and Mental Health (CAMH). The project titled Care4Mind: A Cross-Institutional, Inclusive, and Sustainable



Mental Healthcare aims to develop an integrated and inclusive mental healthcare model from the ground up, leveraging the core and founding principles of U of T Scarborough's plans for their new medical school and health services. Some of its members attended The Times Higher Education Digital Health Summit (February 2024), held at Stanford University, which initiated partnership opportunities with Stanford's Center for Digital Health.

# The OVPRI is building a Scarborough-based Cultural Innovation District

Alongside other strategic initiatives, the OVPRI is working to establish a Cultural Innovation District. This district will be a multi-sited and mixed-use community–university clustering of innovation in the arts and culture rooted in U of T Scarborough and Scarborough spaces and places.

Too often, innovation districts are geared towards reterritorializing large, underused or marginalized geographic areas and turning them into creative hubs of research activity, entertainment and social life — which can contribute to gentrification. Yet when rooted in partnerships with existing local arts and culture communities, innovation districts can use placemaking as a form of reconciliation and design justice to advance social change along with scholarly innovation.

Our Cultural Innovation District will be grounded in the demographic portfolio of Scarborough and our student population, and the priorities outlined in [Answering the Call: Wecheehetowin](#). The mandate of relational accountability, reciprocity and participatory decision-making in the U of T Scarborough Strategic Plan will further guide the design of our Cultural Innovation District. This District will enhance our collaborative relationships with Scarborough-based community partners provide resources to big projects of social and scholarly significance.



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Soundlife Scarborough hosts steel pan music circle with staff and students.



**Innovation districts can use placemaking as a form of reconciliation and design justice to respond to systemic inequities to advance social change along with scholarly innovation.**



# Canada Excellence Research Chair for - Sustainability Transitions: Professor Patricia Romero-Lankao

The Canada Excellence Research Chair (CERC) program is one of Canada’s most prestigious research initiatives, designed to attract world-class researchers and position the country as a global leader in transformative scientific discovery and innovation. In 2023, U of T Scarborough proudly welcomed **Dr. Patricia Romero-Lankao**, a globally recognized scholar in equity in energy transitions. After holding a joint appointment with the National Renewable Energy Laboratory (NREL) and the University of Chicago’s Mansueto Institute for Urban Innovation, Dr. Romero-Lankao’s arrival marked a significant milestone for University of Toronto Scarborough, reinforcing its commitment to addressing climate change through research excellence. As director of the prestigious Canada Excellence Research Chair Network for Equity in Sustainability Transitions (CERC NEST), she is set to lead an \$8 million, eight-year research program dedicated to ensuring justice and equity as Canada transitions to renewable energy sources.

Dr. Romero-Lankao’s CERC NEST program is designed to co-produce actionable knowledge, contributing to equity in sustainable transition pathways, with communities and city actors in Canada and internationally. The program emphasizes engaging underserved, marginalized communities to ensure that the benefits and opportunities of the transition to net-zero carbon emissions by 2050 are equitably distributed. The program will pursue three essential research objectives: enabling communities’ self-determination in decision-making (procedural justice), addressing inequities in energy-related regulations and practices (recognition justice), and fostering equity in access to benefits and protection from harm (distributional justice).



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**Dr. Patricia Romero-Lankao**,  
 Department of Sociology, Canada  
 Excellence Research Chair (CERC)



In May 2024, Dr. Romero-Lankao introduced the CERC NEST through online events with national and international academics and potential civic partners. These introductory meetings laid the groundwork for the CERC NEST’s collaborative efforts. Employing a bottom-up approach through four working groups, the initiative aims to co-produce knowledge, integrate equity into urban sustainability governance, assess progress in terms of equity, and collaboratively develop an adaptive governance framework.

Future activities will involve international collaborations focused on equity-centered sustainability solutions to the climate crisis, including joint research projects, community outreach, and educational programming to foster equity in climate resilience.

Dr. Romero-Lankao’s work at University of Toronto Scarborough elevates the university’s academic reputation and reinforces its commitment to societal impact through innovative research on pressing global issues.

# SDGs@UofT: Committed creating an equitable and sustainable future



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Members of the SDGs@UofT Institutional Strategic Initiative

[The 2030 Agenda for Sustainable Development](#), adopted by all United Nations Member States in 2015, includes 17 Sustainable Development Goals (SDGs) that aim to “leave no one behind.” The SDGs@UofT is an Institutional Strategic Initiative (ISI) based at U of T Scarborough and developed to promote equitable and sustainable action on the SDGs, and to envision the post-2030 agenda.

“The SDGs focus on complex societal problems that can never be solved by one sector or one discipline alone,” says the SDGs@UofT’s inaugural Research Director, Professor **Erica Di Ruggiero**. “Many researchers see themselves working on one or two of them, but we can be that nexus at the university showing how to work on four or five together.”

In December 2023, the SDGs ISI launched its inaugural [Catalyst and Synthesis Grants competition](#). The grant program supports interdisciplinary teams of researchers to develop and test novel research questions that have the potential to advance the SDGs and inform future global goals. [Six projects](#) receiving a total of \$139,881 in funding over two years, will use a nexus approach to address the SDGs.

This year the SDGs@UofT launched its [SDGs Scholars Academy](#). The Academy is a think tank comprised of an interdisciplinary network of researchers who conduct research that is diverse, transdisciplinary and coordinated, with a shared goal of facilitating inclusive, equitable outcomes that influence future global goals, policy and action on the 17 SDGs. By acting as a think tank, fellows of the SDGs Scholars Academy will lead the catalysis and synthesis of novel ideas, methods, and evidence needed to advance the SDGs and inform future global goals.

## SDGs@UofT: Committed to creating an equitable and sustainable future (continued)

“The launch of the SDGs Scholars Academy reaffirms our commitment to advancing sustainable development and addressing global challenges,” says Principal of U of T Scarborough Linda Johnston. “This initiative aligns closely with our strategic priorities . . . The Academy will play a crucial role in fostering innovative solutions and expanding the horizons of knowledge . . . We look forward to the meaningful contributions our scholars will make in shaping a more sustainable future for all.”

The first call for nominations to identify the inaugural cohort of Fellows was released in September 2023. [Five nominees were selected](#) and endorsed by Principal Johnston and [three Founding Fellows](#) selected by the Vice Principal, Research and Innovation at U of T Scarborough and later endorsed by the Vice President and Principal of U of T Scarborough.

Currently, there are 66 affiliates which include U of T faculty and staff, along with postdoctoral, graduate and undergraduate students.

Students lead advancement of the SDGs. Nine students were selected as members of the initiative’s Student Advisory Committee for 2024-2025. This committee includes a diverse group of undergraduate and graduate students across the university’s three campuses and nine different U of T divisions. The student advisors are leading the development of a centralized, tri-campus student engagement and communications plan to build awareness of the SDGs and the initiative, curating student-led conferences and knowledge mobilization products, while centering

equity, diversity, inclusion and accessibility principles in student-led SDG initiatives.

Next steps for the initiative include the expansion of the SDGs Scholars Academy by recruiting a second cohort of Fellows and rigorously selecting Distinguished Fellows. The initiative will also be working diligently to offer a competitive Student Mobility Training Program. This will be a 12-week research program offered to U of T graduate students who will get to conduct transdisciplinary SDGs research under the supervision of an SDGs@UofT affiliate. This program will grant students opportunities for skill building and networking.

To promote dialogue on issues relevant to addressing the SDGs and shape the future of global development for



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SDGs@UofT Student Advisory Committee Members at their first in-person networking meeting.

equitable sustainability, a three-part series called Conversations that Matter will be launched to engage researchers and policy actors from national and international institutions in critical debate about actionable solutions to address the SDGs. The initiative will also be launching a Community of Practice for Transdisciplinary Knowledge Co-Production in SDGs research to bring together early-career researchers and community partners to foster relationships, enable knowledge sharing, and empower skill-building within the SDGs space.

The initiative is entering year two with strong momentum to continue showcasing the commitment to creating an equitable and sustainable future.

## SDGs@UofT: Committed to creating an equitable and sustainable future (continued)

### Publications by SDGs

U of T Scarborough researchers and scholars have published a wealth of work on the multitude of topics related to the UN’s Sustainable Development Goals — over 438 papers, studies, reports and articles. These publications are an important testament to the breadth of our community’s expertise.



**Goal 3:** Good Health and Well-Being



**Goal 11:** Sustainable Cities and Communities



**Goal 5:** Gender Equality



**Goal 7:** Affordable and Clean Energy



**Goal 6:** Clean Water and Sanitation



**Goal 15:** Life on Land



**Goal 14:** Life Below Water



**Goal 4:** Quality Education



**Goal 9:** Industry Innovation and Infrastructure



**Goal 10:** Reduced Inequality



**Goal 13:** Climate Action



**Goal 2:** Zero Hunger



**Goal 1:** No Poverty



**Goal 8:** Decent Work and Economic Growth



**Goal 16:** Peace, Justice and Strong Institutions

# The Environmental and Related Technologies Hub (EaRTH District)



**U of T Scarborough** has partnered with **Centennial College, Ontario Tech University, Fleming College** and **Trent University** to establish the Environmental and Related Technologies Hub (Earth District). The Earth District is committed to fostering a vibrant ecosystem of collaboration, research, education, and commercialization, aimed at driving sustainable technology sectors, prioritizing local community well-being, and catalyzing economic growth.

Earth District is forming strategic partnerships with industry, government and Indigenous communities to create a positive impact both locally and globally.

In March 2023, Earth District received [\\$500,000](#) from the Ontario Vehicle Innovation Network (OVIN) to develop the Earth Switch Program. This program involved 40 external partners and introduced more than 4,200 students — from grades 10–12 as well as post-secondary students in participating colleges and universities — to new career opportunities in the transportation and mobility sector, with a focus on vehicle innovation and electric vehicles.

Earth District signed its first joint memorandum of understanding with Alstom, a global leader in smart and sustainable mobility, on October 30th, 2023. The goal is to create new learning, research and work opportunities in the mobility sector. This partnership will help develop the talent Ontario and Canada need to deliver sustainable mobility solutions critical to tackling the climate crisis, such as the electrification of regional rail systems.

U of T Scarborough’s leadership in Earth District helps increase the visibility of the campus’s expertise in environmental research and offers to the campus research community new opportunities for collaborations across sectors.



**Through collaboration, research, education and commercialization, Earth District creates a positive impact both locally and globally, forming strategic partnerships with industry, government and Indigenous communities for shared economic prosperity.**

# The Heart innovation district, centered on building healthy communities



U of T Scarborough is leading the creation of an eastern GTA Health Innovation District — also known by the acronym HeART, for Health and Resilience Together — that will involve a consortium of academic institutions, hospitals, health providers and community organizations. These partners will work to drive changes to the healthcare system that aim to reduce long-standing health inequities within the region, with a particular focus on Scarborough’s priority neighbourhoods.

To create and further strengthen connections between these diverse stakeholders, U of T Scarborough and Scarborough Health Network hosted the Building Communities through Inclusive Health conference in October 2023. Over two days, hundreds of researchers, community members and health care workers from across the GTA gathered and presented creative approaches to bridging inequity. Through panel discussions and workshops, participants brainstormed practical next steps to overcome equity gaps and barriers. Some highlights included a keynote speech by Professor Patricia Houston, Vice Dean, Medical Education at the Temerty Faculty of Medicine on the urgent need to promote health equity and a panel session discussing paths towards inclusive health.

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Building Communities through Inclusive Health



**The Health Innovation District will drive changes to the healthcare system that will reduce the deep health inequities within the GTA.**

# Clusters of Scholarly Prominence Program (CSPP)

ABOUT

The Clusters of Scholarly Prominence Program (CSPP) is U of T Scarborough’s flagship program for fostering interdisciplinary and collaborative scholarship. Established in 2020, the program aims to enhance U of T Scarborough’s established and emerging areas of research excellence by creating self-sustaining faculty clusters that elevate the University of Toronto’s global standing through significant contributions to scholarship, creative activity and exceptional learning. Clusters funded in [previous competitions](#) have included, among others; The Clinical Research and Evaluation Cluster (CREC) The Centre for Environmental Research in the Anthropocene (CERA); Flourish: The Arts and Social Wellness Cluster; and Sustainable Food and Farming Futures Cluster.

2023 CLUSTER

The fourth competition, in 2023, awarded \$597,822 to the following cluster:

## Education and Training for the 21st Century Workforce (ET21)

The Education and Training for the 21st Century Workforce Cluster seeks to address growing labour inequalities and strengthen educational approaches, programs and services to help children and youth develop skills that align with the competencies needed to thrive in the new realities of the 21st-century economy. The cluster is led by Professor **Elizabeth Dhuey**, a leading economist housed in the Department of Management at U of T Scarborough. The objectives of ET21 include understanding the implications of changing workforce demands on skill needs, understanding skill formation and outcomes leading to positive trajectories and developing a sustainable research and knowledge-sharing network of academic and community partners.

CLUSTER LEADS



**Clusters of Scholarly Prominence drive impactful discoveries and address complex societal challenges through innovative, interdisciplinary research.**



**Elizabeth Dhuey**,  
Professor, Department of Management

# New joint facility at the Toronto Zoo will offer students, faculty more opportunities for hands-on learning and research

Thanks to a new partnership, U of T Scarborough will soon be able to host multiple classes in a dedicated teaching and research facility located at the Toronto Zoo. “This opens up so much potential for experiential learning,” says U of T Scarborough Professor **Julie Teichroeb**, an expert on primate behaviour whose research focuses on vervet monkeys and the [Angolan colobus](#). “Our students will be able to get hands-on learning opportunities at the zoo in disciplines such as anthropology, biology, environmental and conservation sciences.”

The partnership is part of the Toronto Zoo’s Community Conservation Centre, a new 2,600 sq. meter (28,000 sq. ft.) facility that includes a new welcome area and public entrance with multi-purpose event and education spaces. Plans for the facility include research and teaching labs, public classrooms and an otter habitat that will all be visible as guests walk up to the front entrance.



U of T Scarborough will have two dedicated research labs and priority access to the two teaching labs and four classrooms in the new facility.

U of T Scarborough already has deep ties to the zoo, including [joint research projects](#), [classroom learning opportunities](#), [student research programs](#) and [collaboration on the annual event Science Rendezvous](#), among others.

A group of faculty members from various departments as well as [campus architects](#) at U of T Scarborough collaborated with the zoo on the design of the research and teaching spaces.

Plans for the new joint facility include research and teaching labs, public classrooms — and an otter habitat.

**Cosima Porteus**, an Assistant Professor in the Department of Biological Sciences, says the department can use the labs for projects looking at improving animal health and welfare, and preventing biodiversity loss.

“We designed the labs to be flexible so they can accommodate diverse research needs and to easily change to support a variety of research programs,” says Porteus, [whose research looks at how aquatic animals interact with and respond to their environment](#). “We see this as a partnership that will benefit both institutions in advancing knowledge about both animal and plant health, reproduction and interactions with their environment.”



# Ontario Shores Centre for Mental Health Sciences



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Ontario Shores x The Hub Hackathon for Mental Health & Innovation, March 2023

As two leading anchor institutions in the eastern GTA, U of T Scarborough and the Ontario Shores Centre for Mental Health Sciences are working cooperatively to explore partnership opportunities to advance knowledge and treatment of mental health disorders. This partnership development has led to a range of joint activities, including research, participation in U of T Scarborough's Clusters of Scholarly Prominence, academic cross-appointments and support in organizing a hackathon.

These successful collaborations culminated in a dynamic joint session organized at the Building Communities through Inclusive Health conference in October 2023. Additionally, U of T Scarborough and Ontario Shores have committed to regular exchanges of research activity and shared participation, strengthening ongoing relationships with U of T Scarborough faculty in disciplines ranging from clinical psychology to student mental health.



Ontario Shores  
Centre for Mental Health Sciences

# Our Research

Impactful research drives deeper understanding

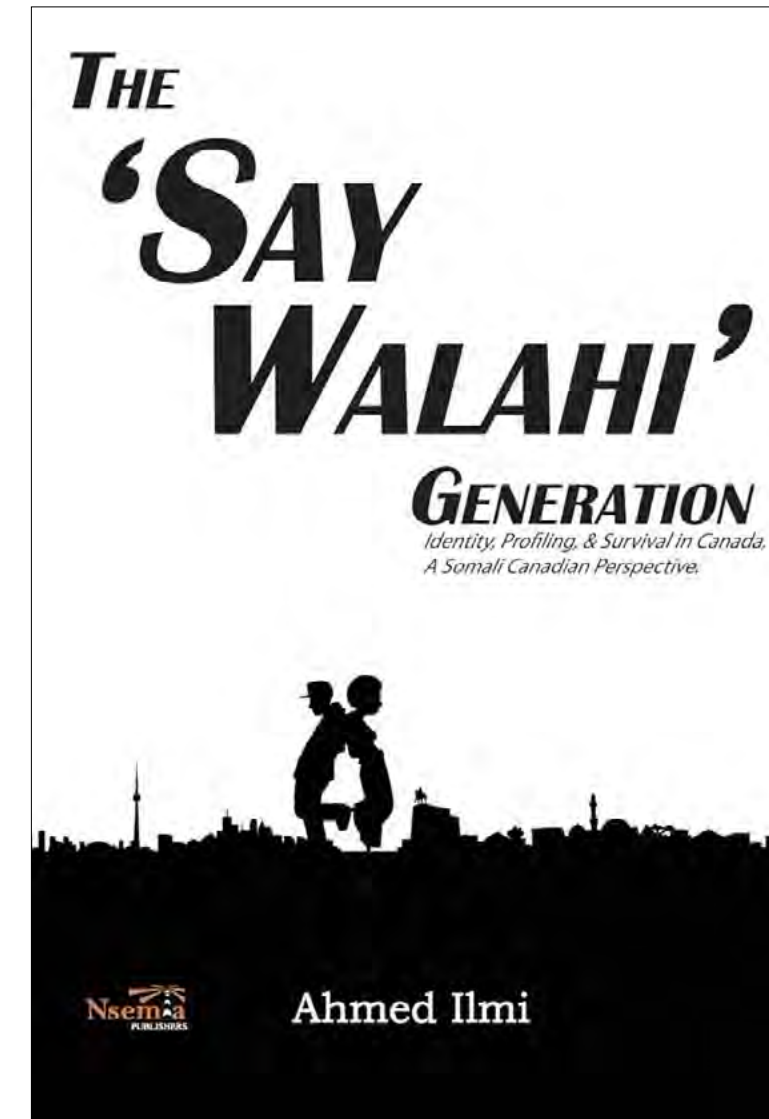
# “Say-Walahi”: Experiences of Canadian-born Somali youth in the GTA linked to social exclusion and identity



**There are also policy implications, such as creating more inclusive classrooms built around a multiplicity of identities. It also goes beyond how we fit in the overall Black Muslim African experience that is expressed only during specific times such as Black History Month.**

As a Black Muslim Canadian, Assistant Professor **Ahmed Ilmi** (Department of Global Development Studies), witnessed firsthand the lack of inclusion and support for Black Muslim youth in the classroom. His research was prompted by this personal history and explores the similar experiences of youth living in the GTA, including how early educational experiences can be linked to social exclusion and identity formation among Black Canadian youth.

For two years Ilmi conducted interviews with Canadian-born youth of Somali descent living in the Toronto neighbourhood of Rexdale, which is home to a large and



vibrant Somali diaspora community. These youth have coined the unique term “Say-Walahi”, a fusion of English and Somali that loosely translates to “swear to God.” The term signifies their multiple identities as Canadian and Muslim of Somali descent. Ilmi says the interviews highlight the anti-Black racism and Islamophobia this community experiences and reveals how this group has built their own unique identity that differs from previous generations. As he explains, “I hope this will inspire people to think about their own identity. I want educators to think about how they can reach and inspire these youth and believe in their potential [...] There are also policy implications, such as creating more inclusive classrooms built around a multiplicity of identities. It also goes beyond how we fit in the overall Black Muslim African experience that is expressed only during specific times such as Black History Month. It includes looking at ways to validate and uplift these voices consistently and how we can work with that knowledge to transform society.”



↑  
**Ahmed Ilmi,**  
Assistant Professor, Department of Global Development Studies

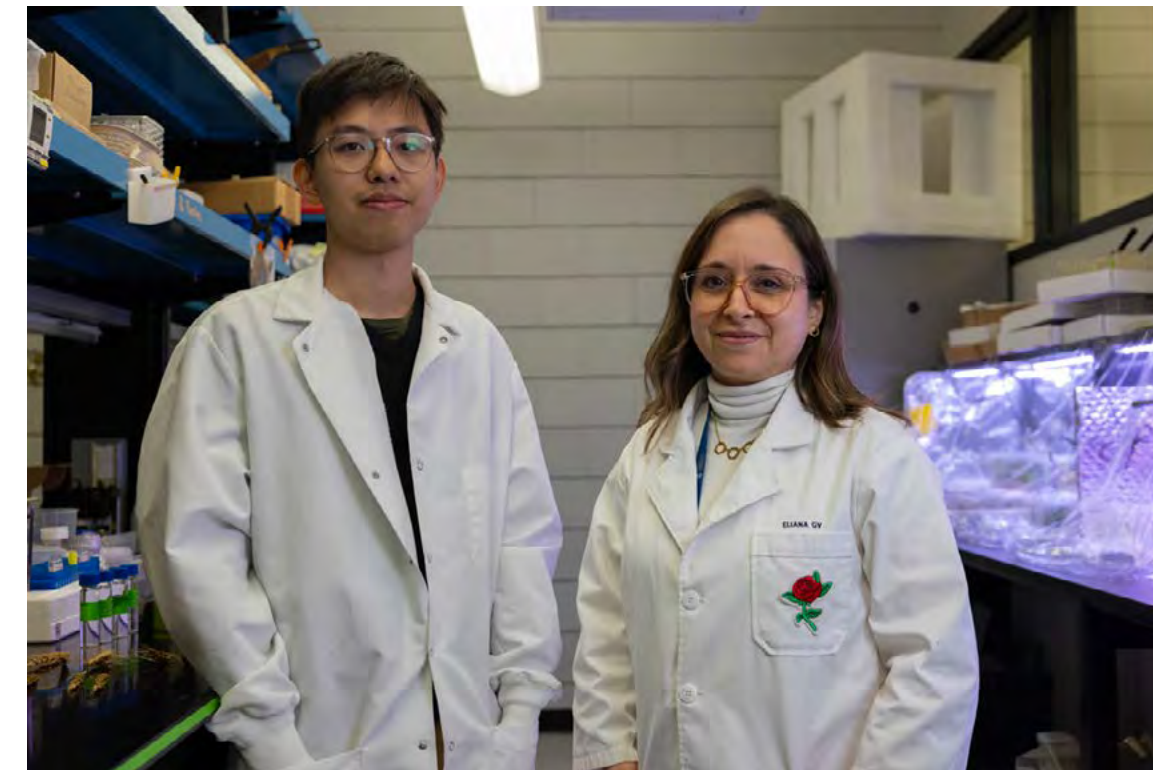
# Discovery about protective wax around plants may hold the key to developing stronger crops

A team of U of T Scarborough researchers have discovered that the waxy protective barrier around plants may play a role in sending chemical signals to other plants and insects.

The research, published in the journal [Proceedings of the National Academy of Science](#), may eventually be harnessed to develop stronger plants that can deal with challenging environmental conditions.

For the study, researchers looked at cuticular waxes, a thin layer that plants deposit on their surface to help protect them from losing water. “These waxes act as a physical defense,” says Assistant Professor **Eliana Gonzales-Vigil** (Department of Biological Sciences), who led the study. “If plants didn’t have this wax, they would dry out very quickly. It’s the reason you see water drops beading on the surface of leaves. Plants evolved this trait over time, when they moved from growing in water to growing on land.”

The waxes play a role in defending plants against ultraviolet radiation, fungus, bacteria, high and low temperatures, as well as insects. It was thought these waxes were stable, unreactive barriers, but the researchers found that some break down after being exposed to air and light, releasing other compounds in the process. This is an important finding, as these waxes might play a significant role in opening possibilities for helping to grow plants, including vital food crops, says Gonzales-Vigil.



**Eliana Gonzales-Vigil,**  
and student, **Jeff Chen**



**Eliana Gonzales-Vigil,**  
Assistant Professor,  
Department of Biological  
Sciences



# U of T Scarborough researcher discovers critically endangered bats living in two new locations

The Jamaican flower bat is so endangered, it was believed that only a small colony of roughly 500 existed, all living in a single cave. Until now.

An international team, including a PhD student from U of T Scarborough, recently made a groundbreaking discovery of two new habitats of the flower bat. The research, published in *Oryx—The International Journal of Conservation*, shows the bat living in Jamaica’s Green Grotto Caves and Rock Spring Caverns.

“It’s exciting that we found them in two new locations, but it doesn’t mean they still aren’t in danger of going extinct,” says **Phillip Oelbaum**, a PhD student in Professor **Ken Welch’s** lab in the Department of Biological Sciences and lead author of the study. “It also doesn’t mean they should be delisted as a critically endangered species. It just shows how little we know about them and that more research is needed.”

It’s unknown why there are so few Jamaican flower bats in existence. The bat is found only in Jamaica and its numbers may have always been low. It may also be threatened due to habitat disturbance from bauxite mining, predation from cats and guano harvesting. Guano (bat feces) is a highly sought after fertilizer because of its high nitrogen and phosphorus content.

The species was declared extinct until 2010, when a small colony was found in Stony Hill Cave. Finding these new breeding grounds raises hope for the bat’s survival and conservation, says Oelbaum.



↑ **Damion Whyte, Phillip Oelbaum, and Ronnie Hall** during recent field work in Jamaica.



↑  
Jamaican flower bat

Jamaican flower bats found in Stony Hill Cave, Jamaica.



↓

# Professor awarded \$8M in funding to make Canada's transition to clean energy more equitable



**Patricia Romero-Lankao**,  
Professor, Department of  
Sociology

Cities around the world are embarking on plans to phase out fossil fuels. [Los Angeles](#), for example, plans to power the entire city with clean electricity by 2035. Wealthy Californians have the socio-economical capacities to slash their carbon footprints and energy bills by buying electric vehicles and installing solar panels. New cars and roofs, however, are likely out of reach for the [16 per cent of the population](#) living below the poverty line.

“I think we are now in a watershed. We are moving more from the problem to the solution space,” says Professor **Patricia Romero-Lankao** (Department of Sociology) at U of T Scarborough. “We need to focus more on who pays for what, who benefits and who bears the negative impacts, so that it’s win-win.”

Romero-Lankao has spent the last year and a half leading the social and policy approaches for [LA100 Equity Strategies](#), Los Angeles’s project to determine how its clean energy transition can address equity issues rather than exacerbate them. [The project’s report](#) was published on the same day Romero-Lankao was named a [Canada Excellence Research Chair](#) in sustainable transitions, a position that awards her \$8 million in federal research funding over eight years to find ways clean energy transitions across Canada can similarly bolster equity. Her work as a Canada Excellence Research Chair will include centering communities in knowledge production and mobilization, as she builds a data repository and tool kits to help make Canada’s net-zero carbon transition equitable.

“I want to create a hub or a platform for us to connect our research with teaching, students, and learning from and with communities. I want to be very experimental and risk-seeking and ensure that we are known for doing amazing work in a couple of years,” she says.

# Professor's research on financial cooperatives in the Black diaspora contributes to new partnership

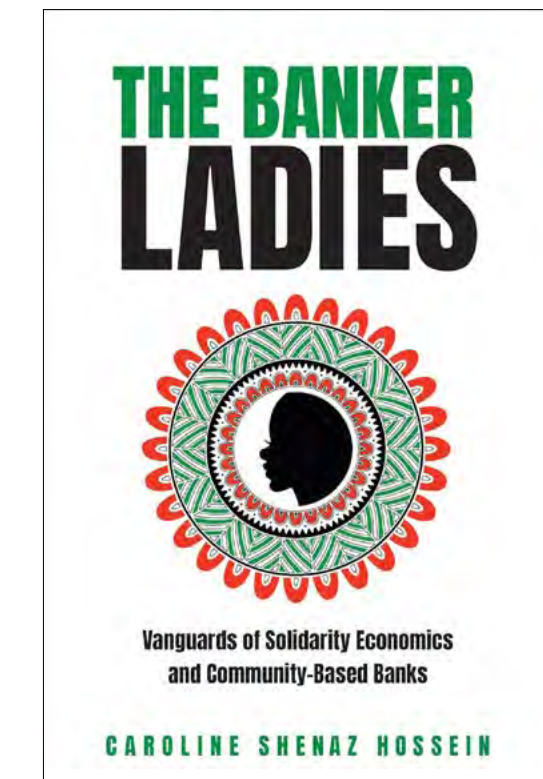


The Ontario Co-operative Association (OCA), Meridian Credit Union and The Banker Ladies Council have announced a new collaboration to promote Rotating Savings and Credit Associations (ROSCAs) in the Canadian economy by creating a ROSCA Network.

ROSCAs are a centuries-old mutual aid financial model recognized for empowering individuals. A group of people work together to save and, pool money, which in turn goes to members on a democratic, rotating basis.

U of T Scarborough Associate Professor **Caroline Shenaz Hossein** is Canada Research Chair (Tier 2) in Africana Development and Feminist Political Economy and has facilitated the development of The Banker Ladies Council. "It grew out of the long-standing relationships I formed with women leading these hidden co-op banking groups, as I researched the issue of financial exclusion and inequality," says Hossein. Her research has demonstrated the value of informal institutions and that ROSCAs are a viable option to mainstream banking, one that strengthens communities through democratically controlled banks.

← **Caroline Shenaz Hossein**, Associate Professor, Department of Political Science (second from right) with The Banker Ladies Council



Book cover for *The Banker Ladies* (2024)

Part of the partnership is a pledge from Meridian Credit Union, Ontario's largest credit union, of \$100,000 over multiple years to support The Banker Ladies Council's mission to develop a healthy ROSCA Network to promote financial empowerment and resilience for marginalized citizens, especially women. "Giving ROSCAs a more formal place within the Ontario Co-operative Association, backed by Meridian's financial and in-kind support, will enable this financial model to benefit more people in the Black community," says Wanita Fonseka, U of T Scarborough alum and Senior Vice President Retail and Operations at Meridian.

Hossein remains an advisor to the council, and her new book, *The Banker Ladies: Vanguard of Solidarity Economics and Community-Based Banks* features community-based research in several cities in Canada and the Caribbean.

# Study finds using the present tense makes people find your words significantly more believable and helpful

Using present tense verbs instead of past or future makes your audience find your words significantly more helpful and persuasive, [according to new research from U of T Scarborough](#). Though we may not realize it, when we communicate in the present tense, our messages seem more specific and concrete, which helps our audience better visualize our point and feel psychologically closer to us.

“The more vivid something is, the more real and true it seems. The past and the future aren’t as vivid as the present,” says **Sam Maglio**, co-author of the study and Professor of Marketing and Psychology at U of T Scarborough. “In the present tense, you as the reader take a journey with the speaker and you become immersed. We are experiencing it together.”

Maglio teamed up with recent U of T graduate **David Fang** to dissect millions of Amazon reviews for products in categories including fashion and beauty, to video games and automotive. They tabulated the number of past, present and future verbs in each review and

recorded how many upvotes they received (conveniently, Amazon’s upvote button just reads “Helpful”). Then they factored in other features of the review — such as pictures, how long it was up and its number of stars — to isolate the impact of verb tense.

“People might not even notice the difference between these verb tenses, but it doesn’t mean that they’re not impacting how we think,” Maglio says. “The secret ingredient to helpfulness is being immersed, and the present tense makes the reader more immersed. If you want to be persuasive, write in the present tense.”



Sam Maglio, Professor, Marketing and Psychology ↑



**The secret ingredient to helpfulness is being immersed, and the present tense makes the reader more immersed. If you want to be persuasive, write in the present tense.**



# An Impossible Perspective: This artist made her own AI, then tested its limits for an uncanny exhibit



**AI is a tool, just like any other tool. Even though it's called artificial intelligence, we shouldn't give it that merit of intelligence. It's a sorting mechanism, a very sophisticated, complex sorting tool.**

Look closely at the plant photos in Assistant Professor **Sanaz Mazinani's** (Department of Arts, Culture and Media) new art exhibit and you'll find something's not quite right.

Mazinani's collages cascade with pictures of flowers, cacti and other vegetation, but among them are dreamier plants, ones with smeared edges and neon hues. They're almost believable, but they radiate the subtle fuzzy glow people are beginning to recognize as the hallmark of AI-generated art.

"AI is a tool, just like any other tool. Even though it's called artificial intelligence, we shouldn't give it that merit of intelligence," she says. "It's a sorting mechanism, a very sophisticated, complex sorting tool."

To create [An Impossible Perspective](#), Mazinani and computer-science student **Millan Singh Khurana** developed their own AI and taught it a series of rules to distinguish real and AI-generated images. Mazinani snapped 12,000 photos of plants and made 5,000 fictional ones by feeding prompts to image generators DALL-E 2 and Midjourney. She also spent hundreds of hours printing thousands of images, cutting them into the shapes seamstresses use to make clothing, and fastening them to the canvases with more than 5,000 dressmaker pins. The exhibit is a love letter to human artistry and the domestic who shoulder much of the fallout from seismic shifts in technology.

# The American perspective dominates our understanding of the Vietnam War. Professor Thy Phu offers a glimpse from the other side

When Professor **Thy Phu** (Department of Arts, Culture and Media) was a young Vietnamese-born newcomer to Toronto in the 1980s, she liked to watch kids' shows on CBC. She often sat through the adult shows that came on in between, including a frequently aired documentary on the Vietnam War.

Repeatedly witnessing the shocking battleground footage, Phu was confused by how little this depiction looked like the Vietnam from her childhood memories and family stories. "I knew," she writes in her recent book *Warring Visions: Photography and Vietnam*, "as do so many Vietnamese, whether in Vietnam or overseas, that there was more to see."

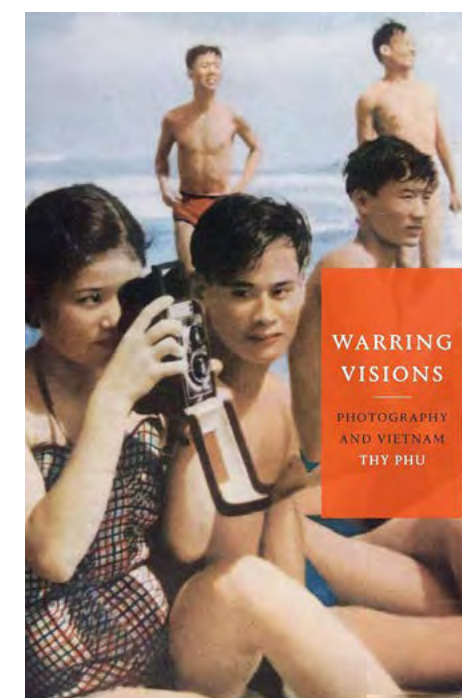
*Warring Visions* (2022) is the first scholarly book to explore works by Vietnamese photographers – both professional and amateur – during the war, filling a gap in the otherwise huge visual record generated by the Western press. "Growing up, the onslaught of images of destruction and carnage, and of poor, desperate refugees, seemed to cancel out or negate the images that I felt were part of my world," says Phu. The

dominant photos and film footage framed Vietnam not as a country, but as a war, which didn't reconcile with her memories of home as a place of swaying palm trees, family and ordinary life.

In effect, *Warring Visions* pushes against the boundaries of traditional notions of war photography. Phu says she hopes other scholars will pick up where she's left off in attempting to illuminate the wartime visual record created by Vietnamese people. "It's a story that's incomplete, but I've hopefully opened the door a tiny bit so that others may come through. Most of all, I hope that the book widens the picture of the subjects of war to more than just suffering victims whose stories need to be told for them."



Archival photos from *Warring Visions: Photography and Vietnam* ↑



↑  
Book cover for *Warring Visions: Photography and Vietnam*



↑  
**Thy Phu**,  
Professor, Department of Arts,  
Culture and Media

# Connaught project set to create a road map to eliminate anti-Black racism in health care

For the past three decades, **Notisha Massaquoi** has advocated for the health of Black communities across Canada. In March 2023, the renowned expert in health equity was awarded \$250,000 to advance this work, as the inaugural recipient of the Connaught Major Research Challenge for Black Researchers.

Massaquoi's project will utilize the expertise of a tri-campus team of researchers from across disciplines, and community partners in the GTA, to provide concrete solutions and roadmaps to eliminating anti-Black racism in health care.

"The project is helping us understand from the Black community what priorities they would like us to address as researchers," says Massaquoi, an Assistant Professor in the Department of Health and Society at U of T Scarborough.

"We want to look at the health disparities experienced by Black communities based on the impact of anti-Black racism. But we don't want to just name what those disparities are."

Established by the University of Toronto's Connaught Fund and developed in collaboration with the Black Research Network (BRN), the grant was created to strengthen the research capacity of the university's Black researchers.



Massaquoi's project is a cornerstone of the BRN's research theme, "Societal Impact in Black Health Outcomes." The research theme was developed to recognize the root causes of Black health inequities and eliminate challenges that researchers face when conducting such work.

"When we have situations such as COVID-19, where the Black community had the highest rates of COVID, but we

haven't given the Black community the highest number of resources to address this issue, then we have a problem," Massaquoi says,

"This Connaught grant is levelling that playing field in terms of creating opportunities for Black researchers to have significant funding so that we can actually make differences in our community."



**Notisha Massaquoi**, Assistant Professor, Department of Health and Society

# “An Itsy Bitsy Audience”: Babies find live music more engaging

A new study, “An Itsy Bitsy Audience,” suggests that babies prefer to listen to live music. When infants watched a live performance of a baby opera, their heart rates synchronized and they were significantly more engaged than babies who watched a recording of the same show — even though the recording was identical to the live version.

The findings suggest that even babies feel the impact of being at a live show, through both musicians’ interactions with an audience and the social experience of being in a crowd. This may offer insights into why humans are hardwired to consume music and attend live shows in the first place.

“If there’s something happening that we collectively are engaging with, we’re also connecting with each other. It speaks to the shared experience,” says Laura Cirelli, director of the [TEMPO Lab](#), which studies how infants and children respond to music.

It’s well established that socialization is crucial during early childhood development — an infant’s brain is laying the groundwork for future life skills and abilities as it grows. Cirelli says music can play a powerful part in making those important bonds. She points to



research finding infants are more likely to socialize with someone after hearing them [sing a familiar song](#) or dancing to music with them, and that infants have strong emotional reactions to music and song even before their first birthday.

“We consistently find that music can be a highly social and emotional context within which infants can foster connections to their caregivers, other family members and even new acquaintances,” she says. “This audience study shows that even in a community context, infants are engaging with the music and connecting to their fellow audience members.”



←  
**Laura Cirelli**,  
Director, The TEMPO Lab

# Afrosonic Innovation Lab provides a thriving space for music of the African diaspora

Launched in 2021, the Afrosonic Innovation Lab works to explore and experiment with Black music and sonic cultures from across the African diaspora. It is led by **Mark V. Campbell**, an Assistant Professor in the Department of Arts, Culture and Media.

“The mission around the lab is to be open and experimental around creating music, and working with soundscapes and sound in ways that can connect theory to practice,” Campbell says.

Situated in the Department of Arts, Culture and Media, the Afrosonic Innovation Lab encourages students to not only create music but conduct research to gain and mobilize knowledge about the role of music in the African diaspora. It also fosters a collaborative environment where researchers can think beyond the silos of disciplines.

The lab hosts a variety of events and programming in Scarborough and downtown Toronto throughout the academic year, including a speaker series and an artist residency. Programming in past years has brought new voices to Toronto through the musical world of the Spanish-speaking Caribbean and celebrated the foundations of sound system cultures in Toronto.

Guests from the speaker series in 2022 included Grammy-nominated artists Yosvany Terry and percussionist Magdelys Savigne — who are both from Cuba — as well as Welmo Romero-Joseph, an Afro-Puerto Rican poet and rap artist. Guests in 2023 included hip-hop scholar Dr. Shanté Paradigm Smalls and poet NourbeSe Philip.

Meanwhile, the lab’s 10-month artist residency program gives creatives an opportunity to experiment and challenge themselves by building a project that utilizes academic research and creation — which can range from performance to new music or archival research. The lab also takes up artist residencies to advance creative projects based on sound, music or performance in both local and international contexts.



**We also illuminate the very rich and multifold ways that sound and music have been critical to the sustenance, the survival and the thriving of populations of Africans forcibly displaced from the continent.**



**Mark V. Campbell,**  
Assistant Professor,  
Arts, Culture and Media



# A popular-to-eat crab is losing its sense of smell, and climate change may be the culprit



A new U of T Scarborough study found that ocean acidification is causing Dungeness crabs, a commercially significant marine crab, to physically sniff less, impacting their ability to detect food. “This is the first study to look at the physiological effects of ocean acidification on the sense of smell in crabs,” says **Cosima Porteus**, an Assistant Professor in the Department of Biological Sciences.



Ocean acidification may be causing marine crabs to lose their sense of smell, according to a new U of T Scarborough study.

Ocean acidification is the result of the Earth’s oceans becoming more acidic due to absorbing increasing amounts of carbon dioxide in the atmosphere. It’s a direct consequence of burning fossil fuels and carbon pollution, and several studies have shown it’s having an impact on the behaviour of marine wildlife.

Dungeness crabs are found along the Pacific coast from California to Alaska. They are one of the most popular crabs to eat and their fishery was valued at more than \$250 million in 2019.

Like most crabs, they have poor vision, so their sense of smell is crucial in finding food, mates and suitable habitats, as well as avoiding predators, explains Porteus. They sniff through a process known as flicking, where they flick their antennules (small antenna) through the water to detect odours. Tiny neurons responsible for smell are located inside these antennules, which send electrical signals to the brain.

There are a few potential reasons why ocean acidification seems to be impacting sense of smell in crabs. Porteus points to other research done at the University of Hull in the UK that showed ocean acidification disrupts odour molecules, which can impact how they bind to smell receptors in marine animals such as crabs.

The research was supported by the Natural Sciences and Engineering Research Council of Canada. Some of the analysis was performed at U of T’s Centre for the Neurobiology of Stress.



**This is the first study to look at the physiological effects of ocean acidification on the sense of smell in crabs.**



**Cosima Porteus**, Assistant Professor, Biological Sciences

# How well thinking abilities and functioning return after substance use is the focus of six-year study

A team of U of T Scarborough researchers have started a groundbreaking six-year study looking at the effect of addiction recovery on cognitive ability. The research will be done in collaboration with the Canadian Centre for Addictions (CCFA) and involves studying whether thinking abilities return to normal after abstaining from varied substance use, how long it takes, and whether rehabilitative strategies can help this process.

According to **Konstantine Zakzanis**, the project lead and Professor in the Department of Psychology at U of T Scarborough, the team is collecting and examining data at different points over a six-year span.

He says the research is also examining how other variables such as personality type, socioeconomic status, age, sex, gender, as well as the linguistic and cultural group of the participants may influence this relationship.

Zakzanis says that existing research focuses on the adverse effects substance use has on thinking ability — such as impaired memory, concentration, and decision-making — far less is known about how these abilities may or may not return to normal after people stop using drugs and/or alcohol over the long term.

The study, which is being supported by Mitacs, a Canadian-based not-for-profit organization that helps fund research and development projects, involves participants



at inpatient treatment facilities across southern Ontario.

Seth Fletcher, a certified addictions counselor and general manager at CCFA, says the partnership with the university reflects CCFA's commitment to medical training and research in better understanding addiction and healing.

“Providing rigorous research methodology regarding how an individual’s personal makeup contributes to their predilection for substance abuse or eschewing it helps addictions specialists create new and tailored services based on research,” he says. “Participating in this step forward in understanding addiction and treatment is groundbreaking and exciting for the CCFA.”



↑  
**Konstantine Zakzanis**,  
Professor, Psychology



**Providing rigorous research methodology regarding how an individual’s personal makeup contributes to their predilection for substance abuse or eschewing it helps addictions specialists create new and tailored services based on research.**

# Innovative tool to monitor mercury pollution earns U of T Scarborough researchers prestigious award

The Mercury Passive Air Sampler (MerPAS) was developed by a team including former U of T Scarborough grad student **David McLagan** along with Professors **Carl Mitchell** and **Frank Wania** of the Department of Physical and Environmental Sciences.

The team recently received a [Governor General's Innovation Award](#) which celebrates excellence in innovation across all sectors in Canada while having a meaningful impact on society.

Monitoring mercury is important because once emitted, it can last in the air for around a year and can be transported long distances. More importantly, it's a potential toxin that has been linked to a host of brain and nervous system disorders.

Unlike active air samplers that rely on electricity and a supply of gas to run, MerPAS uses the natural movement of air and a carbon material to capture airborne mercury. The design can be used with almost no training and can be deployed in remote locations around the world says Mitchell, who is an expert on pollution and mercury cycling in the environment.

The sampler has been commercialized and is being used in monitoring networks around the world. Installations range from artisanal gold-mining communities in rural Ghana and e-waste recycling sites in Pakistan, to even semi-clandestine monitoring of factories that make products containing



mercury such as fluorescent lights. The trio say they are most proud of MerPAS's global reach and impact.

Wania, whose research focuses on understanding the fate and behaviour of chemicals in the environment, says the sampler's design was deliberately simple.

"People often make the mistake of conflating simple with easy. But designing something as simple as possible without compromising on function is quite tough."



**David McLagan**,  
Grad Student, Physical and  
Environmental Sciences



# Faculty & Student Awards

Celebrating our achievements

# Current Canada Research Chairs at U of T Scarborough



**Daniel Bender**  
Historical and Cultural Studies, CRC in Global Culture, 2014-2028



**Cendri Hutcherson**  
Psychology, CRC in Decision Neuroscience, 2018-2028



**Brian Connelly**  
Management, CRC in Integrative Perspectives on Personality, 2016-2026



**Marney Isaac**  
Physical and Environmental Sciences, Centre for Critical Development Studies, CRC in Agroecosystems and Development, 2013-2024



**Bianca Schroeder**  
Computer and Mathematical Sciences, CRC in Data Centre Technologies, 2014-2024



**Myrna Simpson**  
Physical and Environmental Sciences, CRC in Molecular Biogeochemistry, 2019-2026



**Caroline Hossein**  
Global and Development Studies, CRC in Africana Development and Feminist Political Economy, 2022-2027



**Kagan Kerman**  
Physical and Environmental Sciences, CRC in the Bioelectrochemistry of Proteins, 2016-2026



**Bebhinn Treanor**  
Biological Sciences, CRC in Spatially Resolved Biochemistry, 2016-2026



**Hilary Brown**  
Health and Society, CRC in Disability and Reproductive Health, 2019-2026



# External Award Winners

- **Maydianne Andrade**, University Professor, Department of Biological Sciences, Exemplar Award, Centre for the Integrative Study of Animal Behavior, President Award for Societal Engagement, Canadian Society for Ecology and Evolution
- **Stefanos Aretakis**, Associate Professor, Department of Computer and Mathematical Sciences, Member of the College of New Scholars, Scientists and Artists, Royal Society of Canada
- **Anne-Emanuelle Birn**, Professor, Department of Global Development Studies, Arthur J. Viseltear Prize for Lifetime Achievement in Public Health History, American Public Health Association
- **Rudy Boonstra**, Professor Emeritus, Department of Biological Sciences, F.E.J. Fry Medal, Canadian Society of Zoologists
- **David Fleet**, Professor, Department of Computer and Mathematical Sciences, Lifetime Achievement Award, CS-CAN



- **Brett Ford**, Associate Professor, Department of Psychology, Early Career in Affective Science Award, Society for Affective Science
- **Vina Goghari**, Professor, Department of Psychology, College of Liberal Arts Alumni of Notable Achievement Award, University of Minnesota
- **Eliana Gonzales-Vigil**, Assistant Professor, Department of Biological Sciences, Arthur C. Neish Young Investigator Award, Phytochemistry Society of North America

- **Robert Haslhofer**, Professor, Department of Computer and Mathematical Sciences, Frontiers of Science Award, International Congress of Basic Science
- **Caroline Shenaz Hossein**, Associate Professor, Department of Global Development Studies, 100 Accomplished Black Canadian Women, 100ABC Women, Member of the College of New Scholars, Scientists and Artists, Royal Society of Canada

- **Michael Inzlicht**, Professor, Department of Psychology, Highly Cited Researcher 2023, Clarivate
- **Sander Kupers**, Assistant Professor, Department of Computer and Mathematical Sciences, André-Aisenstadt Prize, Centre des recherches mathématiques
- **Andrew Lee**, Assistant Professor, Department of Philosophy, Marc Sanders Prize in Metaphysics
- **Laura Risk**, Assistant Professor, Department of Arts, Culture and Media, Opus Prize, Album of the Year — Traditional Québécois Music
- **Balint Virág**, Professor, Department of Computer and Mathematical Sciences, Fellow, Royal Society of Canada, 2024 Cathleen Synge Morawetz Prize, Canadian Mathematical Society
- **Lucan Ahmad Way**, Distinguished Professor of Democracy, Department of Political Science, Fellow, Royal Society of Canada

# U of T Scarborough professors join Canada's prestigious national academy

Four U of T Scarborough professors were recognized with election to the Royal Society of Canada (RSC), whose distinguished Fellows and innovative College Members represent Canada's leading scholars, artists and scientists.



## Current College Members and Fellows of the Royal Society of Canada

- **Aisha Ahmad**, Associate Professor, Department of Political Science, College Member
- **Marc Cadotte**, Professor, Department of Biological Sciences, College Member
- **Irena Creed**, Professor, Department of Physical and Environmental Sciences, Fellow
- **John Friedlander**, University Professor Emeritus, Department of Computer and Mathematical Sciences, Fellow
- **Diana Fu**, Associate Professor, Department of Political Science, College Member
- **Marlene Goldman**, Professor, Department of English, Fellow
- **Lisa Jeffrey**, Professor, Department of Computer and Mathematical Sciences, Fellow
- **Bernie Kraatz**, Professor, Department of Physical and Environmental Sciences, Fellow
- **Michael Lambek**, Professor Emeritus, Department of Anthropology, Fellow
- **Katherine Larson**, Professor, Department of English, College Member
- **Natalie Rothman**, Professor, Department of Historical and Cultural Studies, College Member
- **William Seager**, Professor Emeritus, Department of Philosophy, Fellow
- **Imre Szeman**, Professor, Department of Human Geography, Fellow
- **Judith Teichman**, Professor, Department of Political Science, Fellow
- **Frank Wania**, Professor, Department of Physical and Environmental Sciences, Fellow

# New Fellows of the Royal Society of Canada



**Bálint Virág**, Professor in the Department of Computer and Mathematical Sciences

A world leader in probability theorem, specifically random walks and random matrices, Bálint Virág was also honoured this year with the Cathleen Synge Morawetz Prize from the Canadian Mathematical Society for a recent breakthrough in the field of probability studies, co-authored with Professor **Duncan Dauvergne** (UTM).



**Lucan Ahmad Way**, Professor in the Department of Political Science

Lucan Way is one of the world's foremost experts on democracy, particularly the relationship between democracy and its antithesis, dictatorship. He was also awarded the position of Distinguished Professor of Democracy at the University of Toronto this year in recognition of his extraordinary scholarly contributions.

# New Members of the RSC College of New Scholars, Artists and Scientists



**Stefanos Aretakis**, Associate Professor in the Department of Computer and Mathematical Sciences

Stefanos Aretakis is known for his work proving rigorous mathematical theorems that provide fundamental insights into the structure of the natural world. He pioneered a groundbreaking discovery of a novel instability of black holes, known as the *Aretakis instability*, which is now routinely studied by physicists and theoreticians of gravitational wave astronomy.



**Caroline Shenaz Hossein**, Associate Professor in the Department of Global Development Studies

Caroline Hossein is the founding member of the international Diverse Solidarity Economies Collective (DISE), a group of feminist political economists writing on people-led economies. Her work, including her latest book *The Banker Ladies*, highlights the need to amplify culturally diverse community economies to counter the systemic exclusion of marginalized populations.

# Ecologist Rudy Boonstra receives Fry Medal for lifetime of research

**Rudy Boonstra**, Professor Emeritus in the Department of Biological Sciences, has been awarded the 2024 F.E.J. Fry Medal. Presented annually by the Canadian Society of Zoologists, the award recognizes outstanding contributions to knowledge and understanding of an area in zoology.

Boonstra’s research looks at the factors that affect animal populations and how animals cope with stressful situations such as predation, lack of food, social interactions and climate. His work is particularly interested in the maternal effects of stress, especially when it comes to offspring inheriting certain traits from their stressed-out mothers, and has spanned the Canadian boreal forest, prairies, mountains, notably in the Yukon and the Arctic.

Professor Stephen Reid, a long-time colleague in the Department of Biological Sciences at U of T, says what stood out most about Boonstra was his relentless advocacy for climate change mitigation and prevention strategies. “Rudy was sounding the alarm at a time when many of us were really just coming to understand that climate change was real and that its effects would be planet-altering and devastating to humans and other animals,” says Reid.

“Being awarded the Fry Medal is a great honour,” says Boonstra, who recently retired after 40 years at U of T Scarborough but still remains active in his research.



**Rudy Boonstra**, Professor Emeritus,  
Department of Biological Sciences

He thanked colleagues from U of T for supporting his research and nurturing ideas, as well as collaborators at other universities in Canada, Australia and Europe, and the key contributions of his graduate students and post-doctoral fellows.

**Rudy was sounding the alarm at a time when many of us were really just coming to understand that climate change was real and that its effects would be planet-altering and devastating to humans and other animals.**

# Anne-Emanuelle Birn awarded the Arthur J. Viseltear Prize for work in public health history

**Anne-Emanuelle Birn**, Professor in the Department of Global Development Studies, has been awarded the Arthur J. Viseltear Prize for Lifetime Achievement in Public Health History by the Mailman School of Public Health (Columbia University) and the American Public Health Association.

Birn received the Viseltear Prize in recognition of her exceptional dedication and expertise in advancing understanding of the historical dimensions of public health.

The Viseltear Prize is presented annually at the American Public Health Association's meeting, and honours individuals for their remarkable contributions to the study of public health history. Established in memory of Arthur J. Viseltear, a former chair of the Medical Care Section and a historian at Yale University, the prize reflects a legacy of excellence in the field.

Birn's research explores the history, politics and political economy of global health, with particular interests in Latin American health and social justice movements, child health and rights, and philanthrocapitalism. Her recently published book, *Going Public: The Unmaking and Remaking of Universal Healthcare* (co-authored with Ramya Kumar), continues her distinguished career of analyzing public health in a global context, highlighting the pivotal role of corporate players in universal health coverage ideologies and implementation, and examining social innovation-driven approaches to expanding primary care in low-income settings.



↑ **Anne-Emanuelle Birn**, Professor, Department of Global Development Studies



**Birn received the Viseltear Prize in recognition of her exceptional dedication and expertise in advancing understanding of the historical dimensions of public health.**

# Laura Risk wins Opus Prize for album of traditional Québécois fiddle music

**Laura Risk**, Assistant Professor in the Department of Arts, Culture and Media, has won the Opus Prize for Album of the Year in the category of World music and traditional Québécois music.

The Opus Awards were created by the Quebec Council of Music in 1996 to celebrate exceptional concert music and musicians across Quebec.

Risk was honoured for her latest album, *Traverse*, which was praised for its nuance, sensitivity and technical precision. She combined her experience as a fiddler and researcher to create this 10-track exploration of traditional fiddle music, which draws on her extensive studies of traditional music from both Quebec and Scotland.

Risk's work on the discourses of traditional music in twenty-first century Quebec was also recognized by the 2023 Cambridge University Press Award from the Society for American Music.



**With this album, I hoped to capture something of the way that traditional music brings us together across time and place.**



↑ **Laura Risk**, Assistant Professor, Department of Arts, Culture and Media



# Andrew Lee recognized with Sanders Prize in Metaphysics

**Andrew Lee**, Assistant Professor in the Department of Philosophy, has won the Marc Sanders Prize in Metaphysics.

Winners of the prestigious, biennial essay competition are recognized with a cash prize and publication in the journal *Oxford Studies in Metaphysics*. Lee won the prize for his essay "A Puzzle about Sums," which offers a novel solution to a metaphysical puzzle.

The puzzle is associated with Riemann's Rearrangement Theorem, a mathematical theorem stating that the sum of an infinite series of numbers can sometimes depend on the order in which those numbers occur. Lee's essay delves into how to interpret the metaphysical significance of that theorem.

"I feel really grateful to receive recognition for my work," said Lee, who is best known for his work on the philosophy of consciousness but also explores other topics in contemporary analytic philosophy. "It can be hard to break into a literature outside of one's main area, so I'm glad that the ideas in this paper will receive attention."

Lee is already developing follow-up work on related topics to those explored in his award-winning essay.



↑  
**Andrew Lee**, Assistant Professor,  
Department of Philosophy



**I feel really grateful to receive recognition for my work.**

# Internal Faculty Awards



**Michael Best**  
Assistant Professor,  
Department of  
Psychology  
**New Scholar Award,  
Social Sciences**



**Mary Silcox**  
Professor,  
Department of  
Anthropology  
**Principal's Excellence  
Award for Research**



**Élyse Caron-Beaudoin**  
Assistant Professor,  
Department of Health  
and Society  
**New Scholar Award,  
Sciences**



**Nicholas Spence**  
Assistant Professor,  
Department of Health  
and Society  
**Principal's Impact  
Award**



**Rutsuko Ito**  
Associate Professor,  
Department of  
Psychology  
**Distinguished Scholar  
Award, Sciences**

# Connaught New Researcher Award Winners



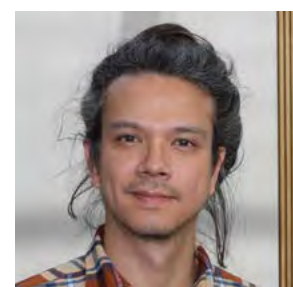
**Ina Anreiter**

Assistant Professor, Department of Biological Sciences  
*The Role of m6A mRNA Methylation in Food Choice, Metabolism, and Obesity*



**Roger Antabe**

Assistant Professor, Department of Health and Society  
*Improving Access to HIV/AIDS Services for Racialized Populations and Immigrants of Colour in Canada*



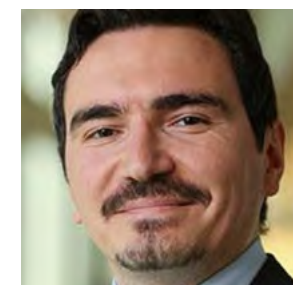
**Vinicius De Aguiar Furuie**

Assistant Professor, Department of Anthropology,  
*Collaborative Research in Amazonia*



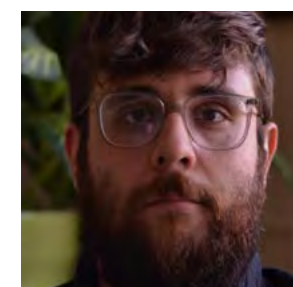
**Rafael Do Nascimento Grohmann**

Assistant Professor, Department of Arts, Culture and Media  
*Worker-Owned Platforms and Gender: Rider and Tech Co-ops in Brazil and Argentina*



**Suleyman Dost**

Assistant Professor, Department of Historical and Cultural Studies  
*Materializing Islamic Origins: Using Archaeology and Epigraphy for a Religious History of Arabia before Islam*



**Esmat Elhalaby**

Assistant Professor, Department of Historical and Cultural Studies  
*Parting Gifts of Empire: The Idea of Decolonization and the Making of the Global South*



**Lisa Janz**

Assistant Professor, Department of Anthropology  
*A Continuum of Human-Animal Relationships on the Mongolian Steppe*



**Yoshio Nozawa**

Associate Professor, Department of Management  
*The Effect of Trading Platforms on Bond Prices*



**Walter Tavares**

Assistant Professor, Department of Health and Society  
*Building Capacity in Community-Based Health Care and Social Services*



**Linbo Wang**

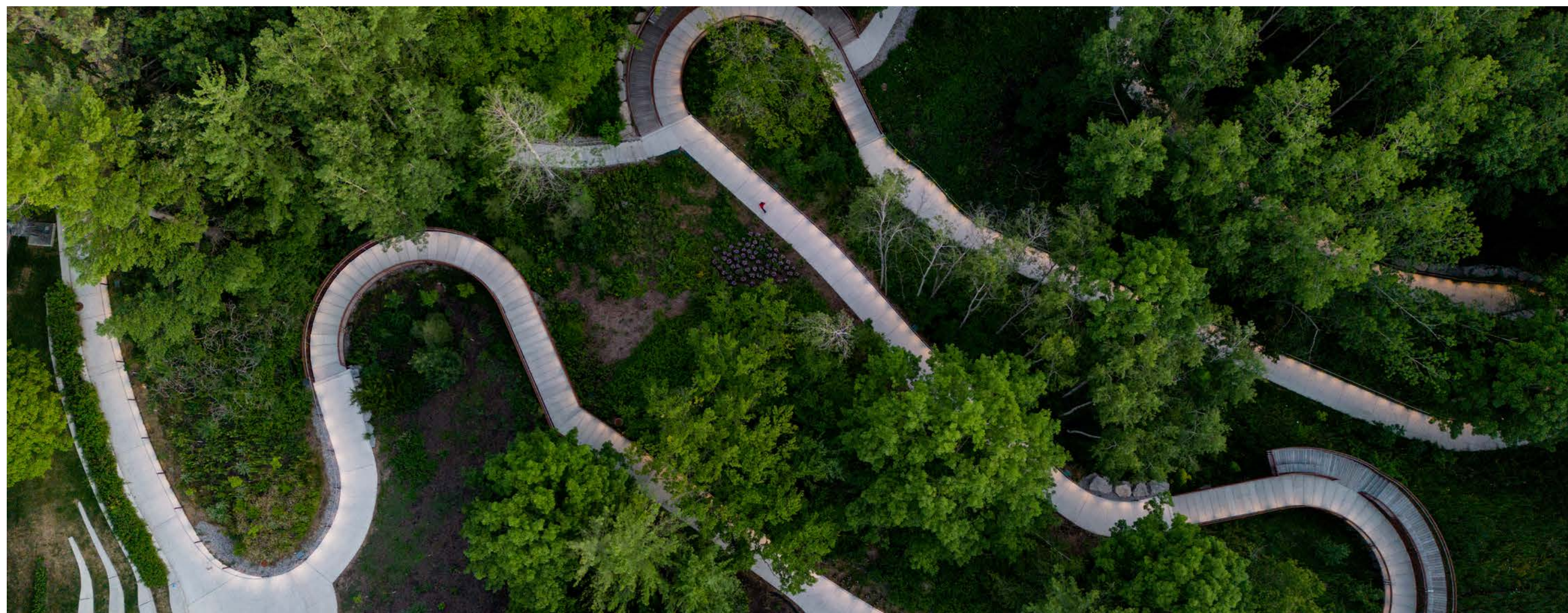
Associate Professor, Department of Computer and Mathematical Sciences  
*Statistical Methods for Causal Inference from Observational Studies*

# Undergraduate Research & Creative Prize

Sponsored by the U of T Scarborough Library and the OVPRI, the Undergraduate Research & Creative Prize celebrates U of T Scarborough students who have excelled in research, scholarship and creative activities, and recognizes their engagement with the library during their work. Distinctions and \$1,000 prizes are awarded for Humanities, Social Sciences, Sciences and Creative streams.

In 2024, 27 students submitted their projects, which were adjudicated by a diverse panel of faculty members. The selection committee was highly impressed by the quality and variety of this year's submissions, which included innovative and sophisticated research projects, studies with meaningful impact for the U of T Scarborough community, and sensitive and moving creative expressions.

The U of T Scarborough Library and the OVPRI also co-sponsor the Undergraduate Research and Creative Forum (URCF). The 2024 URCF showcased 41 presentations from 55 participants, giving students an inspiring opportunity to learn about the accomplishments and research or creative interests of their peers.



**IN THE HUMANITIES**

**Bhavana Akilan**  
 Department of Health and Society  
*Breaking Barriers and Capturing Change: Examining Sociocultural Influences on Sexual Experiences of Postpartum BIPOC Women Through Photovoice Narratives*

**IN THE SOCIAL SCIENCES**

**Brianna Wedderburn**  
 Department of Psychology  
*Neurodiversity in University: A Mixed-Methods Study on Student Experiences and Disability Identity*

*Honourable Mention*

**Hannah Klemmensen**  
 Department of Global Development Studies  
*A Tale of Two Neighbourhoods: Examining the Evolution of Public Open Spaces in Sarajevo's Residential Communities*

**IN THE SCIENCES**

**Mira-Smaktruffa Ola**  
 Department of Biological Sciences  
*Cellular Automata as a Theoretical Framework for Understanding Infectious Disease Dynamics*

*Honourable Mention*

**Sapolnach Prompiengchai**  
 Department of Psychology  
*Breakthroughs and Challenges for Generating Brain Network-Based Biomarkers of Treatment Response in Depression*

**CREATIVE**

**Tanya Ng Cheong**  
 Department of English  
*Feast for Three*

# Research Events

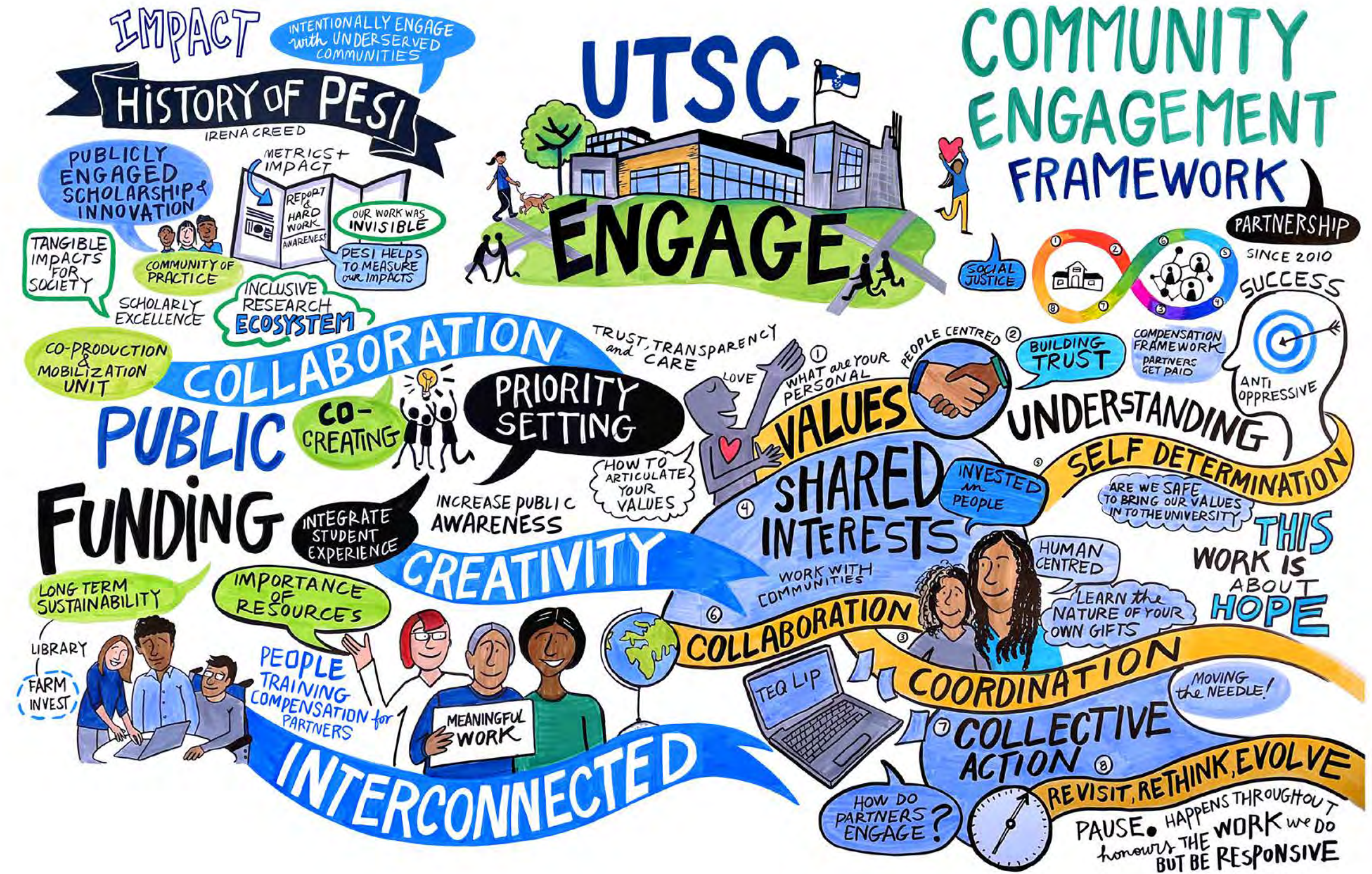
A recap of events hosted this year

# OVPRI's burgeoning focus on engaged scholarship at UTSC

On November 11, 2022, the OVPRI held a one-day university-community forum on publicly engaged scholarship at the U of T Scarborough. This forum was designed to establish and incubate OVPRI's strategic focus on supporting engaged scholarship and knowledge mobilization on campus to enhance democratic engagement and social justice in knowledge production practices.

Over the past year we have gathered and analyzed proceedings from the 2022 forum and conducted a series of needs-assessment consultations with leaders in engaged research and teaching from across the tri-campus. Results from these consultations led to the identification of current gaps in resources, collaborative possibilities and innovative programming to support engaged staff, researchers and teachers. One notable outcome of these consultations is our decision to purchase a 28-foot motorhome, which we will retrofit in 2025 for use as a mobile creative knowledge mobilization unit to support, resource and innovate engaged projects led by U of T Scarborough faculty.

To further develop our engagement portfolio with a shared vision, we created the U of T Scarborough Engage Advisory Committee to help collaboratively steer our strategic direction. The Advisory Committee played a key role in shaping the agenda and sessions at our important



two-part tri-campus event — called U of T Scarborough Engage — which took place at U of T Scarborough's Miller Lash House right after year-end in late April 2024. About 50 faculty and staff members joined in creative discussions at an interactive gathering to celebrate and envision the future of engaged scholarship at U of T Scarborough.

Stay tuned for more news in the months ahead on the activities and outcomes from this event and our mobile creative knowledge mobilization unit.

↑  
UTSC Cultural Innovation District, OVPRI Strategic Partnership & Initiatives team

**OVPRI is placing strategic focus on supporting engaged scholarship and knowledge mobilization to enhance democratic engagement in knowledge production practices.**



## OVPRI's burgeoning focus on engaged scholarship at U of T Scarborough (continued)

On October 13 and 14, 2023, U of T Scarborough and Scarborough Health Network hosted a conference titled Building Communities through Inclusive Health. Hundreds of researchers, community members and healthcare practitioners participated in panels, presentations and workshops to discuss the future of health care in the Eastern GTA and beyond. This conference offered a unique opportunity for various stakeholders to meet and share their visions and concrete actions to overcome equity gaps and barriers in the healthcare system. Among the topics discussed were: improving health and social service delivery in Scarborough through community solutions, using participatory theatre to eliminate discrimination in health service delivery, the role of communities in promoting health equity, equitable health data collection, advocating for access to health care for uninsured people living in Ontario, and integrating the arts in municipal crisis response programs as a viable alternative to mental health counselling for youth.

In addition to Scarborough Health Network, other U of T Scarborough partners provided fruitful insights, including the Ontario Shores Centre for Mental Health



Valerie Michaelson, Assistant Professor of Health Sciences at Brock University, was one of several presenters at the conference's breakout sessions. She spoke about initiatives to use storytelling tactics to better communicate about health.

Sciences, the Centre for Addiction and Mental Health, University Health Network, the University of Toronto's Temerty Faculty of Medicine and Lawrence Bloomberg Faculty of Nursing, Hamilton Health Sciences, the Ontario Ministry of Health, Toronto Public Health, CARE Centre for Internationally Educated Nurses, the Canadian Centre for Refugee and Immigrant Health Care, the Scarborough Centre for Healthy Communities, The Neighbourhood Organization, Future Black Female, TAIBU and the Toronto Zoo. Members from the University of West Indies, the University of British Columbia, the Yukon Government, Nurture Development and the Canadian Red Cross joined the conversations and offered global perspectives on the issues discussed. A panel discussion with young leaders in health and social work concluded the conference.



Working group session, HeART District Collider, April 2024

On April 22, 2024, the OVPRI organized the HeART District Collider. The goal of this event was to further pursue some of the discussions that took place in the previous conference. Representatives from the University of Toronto, CARE Centre for Internationally Educated Nurses, Lakeridge Health, the Centre for Addiction and Mental Health, the Scarborough Centre for Healthy Communities, Toronto North Local Immigration Partnership and SRA Academy worked in small groups to identify issues that could be jointly tackled. After identifying the causes and elements influencing those issues, they developed together a roadmap to offer concrete actions. The issues discussed were: access to addiction treatment and recovery; more integration of community feedback, from origin; knowledge translation through research ; and direct-to-consumer early detection and early prevention.

# Sam Ibrahim Centre

for Inclusive Excellence in Entrepreneurship, Innovation and Leadership



# The Hub to SICIEEIL

Proud Scarborough entrepreneur and U of T Scarborough alum, **Sam Ibrahim**, recently donated \$25 million to support U of T Scarborough and creating the [Sam Ibrahim Centre for Inclusive Excellence in Entrepreneurship, Innovation and Leadership \(SICIEEIL\)](#). The Centre will expand on U of T Scarborough's robust history of innovation services through The Hub and will provide the capacity to share them with an even wider audience. The Hub is U of T Scarborough's innovation centre and startup incubator. Since 2015, The Hub — and now SICIEEIL — has worked with more than 400 emerging startups, with a combined revenue and investment of over \$100 million.

SICIEEIL welcomes students, faculty, alumni, startups, campus staff, researchers, community and more. The Centre provides open access innovation and entrepreneurship services, including training, activities



↑  
The Hub to SICIEEIL

←  
Top five woman-founded teams: Biophyter, Neurokin, Akadion, My Dorm Store, TRIO including two competition winners, Biophyter and Neurokin

and ecosystem engagement. Innovators with diverse ideas can access support for any stage of their idea, business or research development.

SICIEEIL is currently located in Highland Hall and will move to the Sam Ibrahim Building in winter 2025. The OVPRI would like to extend a tremendous thank you to all Campus Linked Accelerators (CLAs) and The Hub's founder Gray Graffam for their impactful startup support.

SICIEEIL’s mission is to: **catalyze** a talent ecosystem that thrives on innovations and partnerships; **grow** the next generation of conscientious global leaders and entrepreneurs; and **centre** diversity, inclusion and equity to harness talent and to develop adaptable and responsive entrepreneurial leaders.

**SICIEEIL’s innovation and entrepreneurship services include:**

**Training:** Scholarly activities that create new knowledge, co-curricular experience, reskilling and upskilling in the U of T ecosystem.

**Activities:** Hackathons, challenges, demo days, commercialization support, and consulting services with Entrepreneurs-in-Residence, Advisors and others.

Level Up is a series of events, generously supported by Elina Chow, is directed toward new and existing entrepreneurs. Level Up includes skills development, mentorship, literacy, and more. In this end-to-end program, participants are supported no matter where they are on their entrepreneurial journey. Levels include:

- Design & Ideation
- Formation & Solidify
- Grow & Scale
- Getting Seed Funding Ready

**Ecosystem Special Events:** Entrepreneurs receive access to University of Toronto tri-campus events and opportunities hosted by the University of Toronto Entrepreneurship (UTE) campus-linked accelerators (CLAs) and incubators ecosystem (including UTE and CLA pitch competitions). Entrepreneurs can also connect with internal and external collaborators (including donors, alumni and sponsors).



**U of T Scarborough is rich with ideas, talent and resilience. We’re excited for the OVPRI through SICIEEIL to reinforce our campus and wider community with innovation and entrepreneurship resources. Looking forward to SICIEEIL’s future and success!**

Dr. Alison Mountz, Acting Vice Principal Research & Innovation

# Startup spotlight



## Biophyter

First Place in The Hub's Startup Pitch Competition, 2023-24

**Chengye Yang** is the founder of Biophyter, a startup reimagining the food waste process. Biophyter helps food and beverage processors with developing plant-based byproducts and repurposing them into sustainable ingredients. Regrain Project is its recent work, where upcycled food byproducts, like spent grain, are converted into handmade soaps.

[Check out more here](#)



## Vidar

**Sunny Kim** is the founder of Vidar, a startup developing crossover sneakers using throttle technology, a patent-pending midsole that adapts to the way basketball is played today. This product will support athletes in developing skillsets that match "the way they play."

[Check out more here](#)



## Leapon

**Nikhil Pawar** is the founder of Leapon, a startup focused on networking solutions using a smart near-field communication (NFC) Business Card. They have developed a "Smart Business Card" that eliminates manual data entry and effortlessly maintains warm connections.

[Check out more here](#)



## Akadion

**Soha Ahmadi** is the founder of Akadion, a startup focused on supporting graduates on their journey. Akadion's platform allows prospective students to connect with peers to learn from their academic experiences.

[Check out more here](#)



## Snapwrite AI

**Athiya Rastogi** is the founder of SnapWrite AI, a web application that enables eCommerce businesses to generate product features and descriptions from images within seconds.

[Check out more here](#)

# Our Startup Stats

Combined revenues and investments of Hub start-ups: **\$100M+**

University students participating in Hub events: **5180**

Total companies in residence: **127**

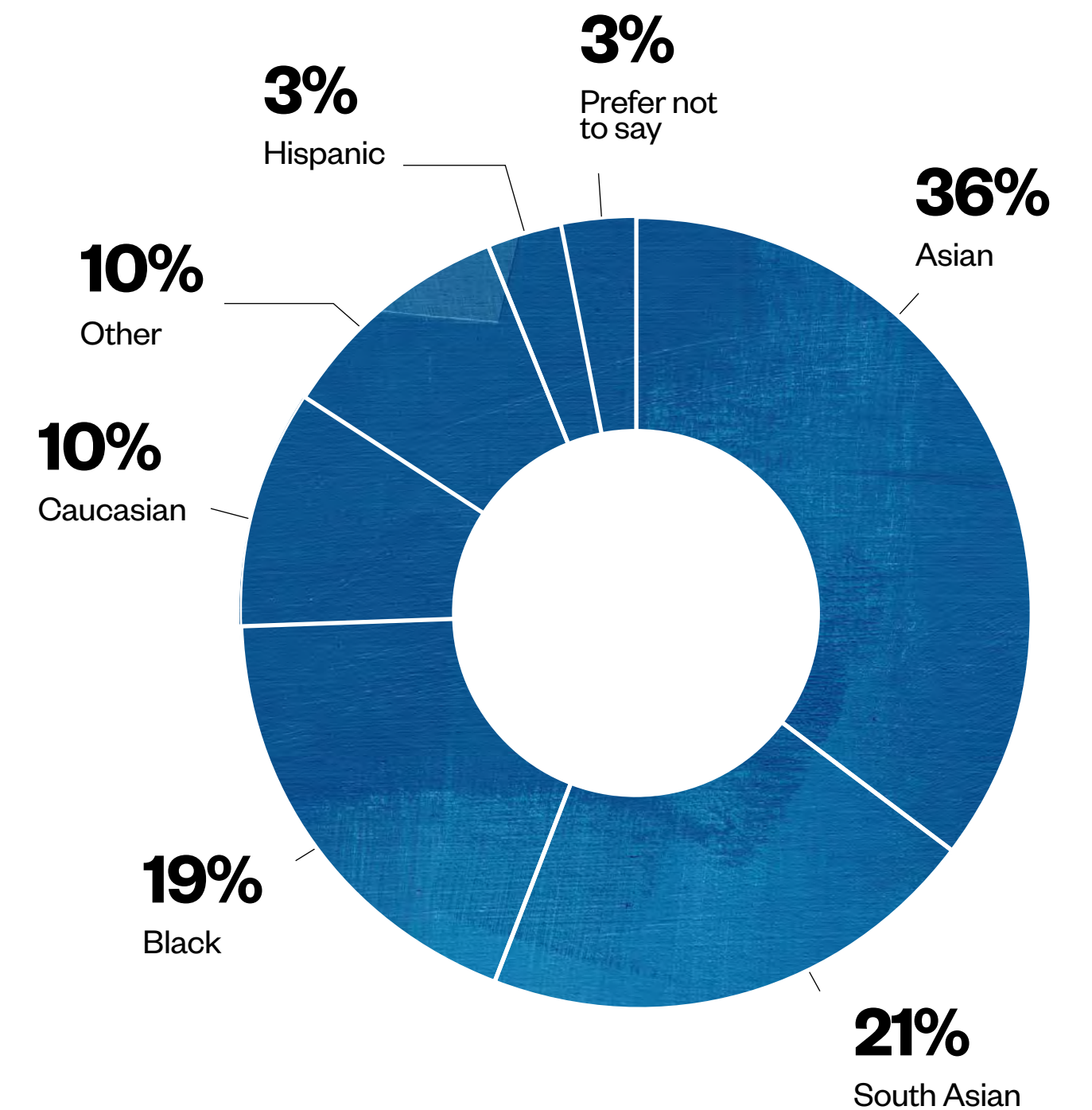
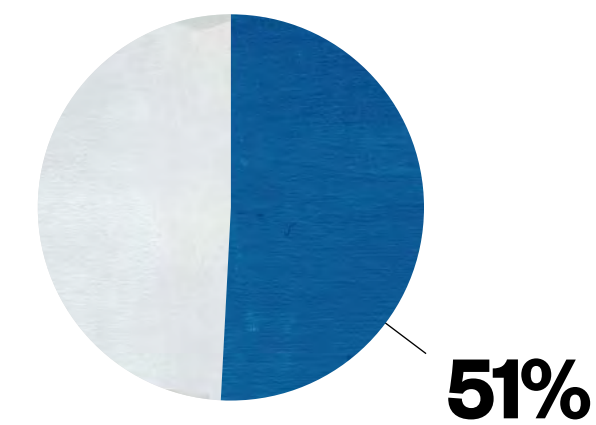
Companies graduated: **64**

New companies: **51**

## Equity, Diversity and Inclusion (EDI) Startup Matrix

Based on self-reported intake surveys, founders identified their ethnicity. Among the participants, 90% of founders identify as people of colour.

## Total percentage of companies with women founders



# Looking Ahead

Exciting new initiatives at U of T Scarborough

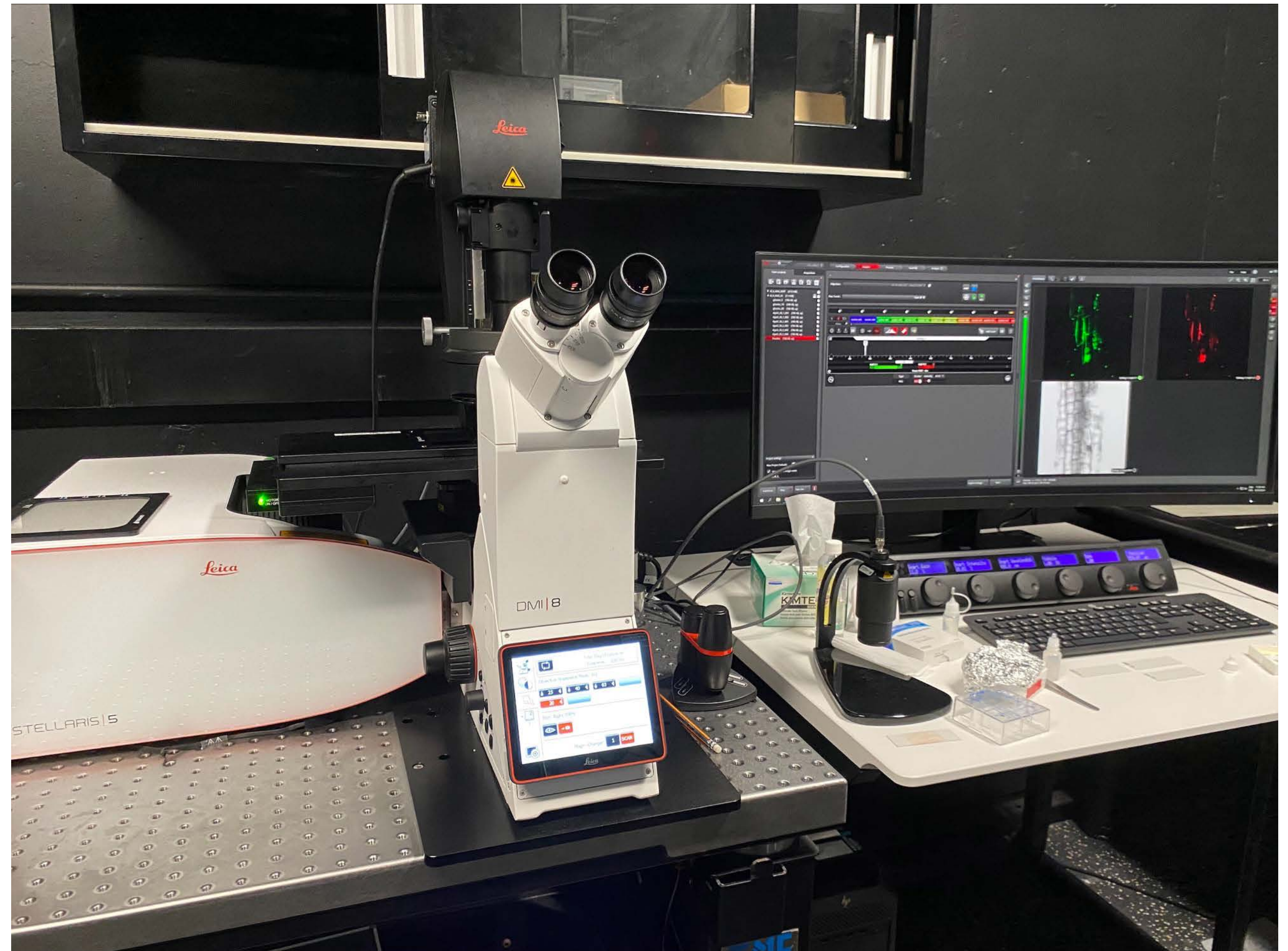
# Research Facilities & Equipment Support

The OVPRI invests strategically across various research areas, including, individual departments, the Centre for the Neurobiology of Stress, the Environmental NMR Centre, the vivarium, Culinaria Research Centre and the greenhouse.

The OVPRI is formalizing a core facilities plan to ensure resource allocation is fair, serving the most faculty and students, and efficiently operated.

This fiscal year, the OVPRI funded \$2 million to support acquisition and updates to research equipment, such as: an FT-IR spectrometer, electron microscope, laser scanning confocal microscope, photosynthesis system, environmental chamber, drosophila incubator, 3D multispectral plant phenotyping system, animal housing racks, tissue homogenizers, autoclave, portable fluorometer, genetic sequencer, soil chamber and hyperspectral imaging cameras.

This fiscal year, the OVPRI invested about \$1 million in various internal research funding programs. This includes: Tri-Agency bridge funding, departmental research funds, international research fund, conference publication fund, sponsorships for academic and research events, Tri-Agency matching funds, as well as matching funds for other grants.



# Future directions: Equity, Diversity and Inclusion in the research life cycle

In alignment with U of T Scarborough's strategic institutional and research priorities, the Equity, Diversity, and Inclusion Office (EDIO) and the Office of the Vice-Principal Research & Innovation (OVPRI) are collaborating to supporting Equity, Diversity and Inclusion (EDI) within and across all research practices. In line with these commitments, we have jointly drafted a Resource Directory for Embedding Equity, Diversity and Inclusion in the Research Cycle.

Initially conceptualized and prepared by Nicola M. Dove (Special Project Officer, EDIO), this resource is being further developed to direct researchers and research teams to resources that will enable them to productively embed EDI into their research practices. These practices include, but are not limited to:

- **Research Design**, i.e., how does or should social location (race, gender, age, ability, nationhood and sexuality) factor into my research questions and design?
- **Setting up a Research Team**, i.e., how do we employ equitable and inclusive recruitment, screening, interviews, selection and hiring strategies?
- **Onboarding and Training**, i.e., how do we identify barriers to participation and implement strategies to support full participation of all team members throughout the research process?
- **Partnerships and Community Engagement**, i.e., how do we ensure and privilege community voices throughout the research process?
- **Knowledge Mobilization**, i.e., what diverse pathways for research impact can we pursue that support and enable academic and non-academic communities?



This resource directory is still in development, but it will soon be available to all U of T Scarborough researchers and community members who are seeking expansive knowledge, ideas and practices regarding EDI commitments in their research. In addition to circulating the resource, the OVPRI is dedicated to offering webinars and departmental visits in upcoming academic years to ensure that researchers feel supported in designing and carrying out equitable, diverse, inclusive and socially just research. More information to come.



**This initiative will offer important resource to researchers across the tri-campus and beyond, with tools to achieve inclusive excellence by embedding EDI throughout the research life cycle.**

**Our thanks go to** everyone on staff and working in collaboration with the Office of the Vice-Principal Research & Innovation. For this annual report, we worked together creatively as a team to tell the stories of our work and the many successes of the vibrant research community at U of T Scarborough. Contributions to the 2023-2024 OVPRI Annual Report were made by every member of our staff, including Bahar Barkhordarian, Meredith Best, Hayley Brooks, Andrea Charise, Cintia Cristia, Ailen Cruz, Feihan Dai, Jason Darby, Donovan Dill, Joel Faber, Nicoda Foster, Janet James, Francesco Leri, Anika Mifsud, Seymone Mohammed, Alison Mountz, Kristine Peruzzi, Brice Rousseau, Jenefer Savoeung, Mark Schmuckler, Carmen Siu, Komal Tariq, Michelle Wodzak and Julia Gruson-Wood. We also thank previous OVPRI leadership and staff for their contributions, including Irena Creed, Ariella Lukach, Sharon George, Joshua van Ry, Jovana Drinjakovic and Suhail Asrar. Thanks also to Simone Castillo, Sarah Forbes, Imre Szeman, Sergio Montero, Charles Trick, Patricia Romero-Lankao and Erica Di Ruggiero. Finally, we gratefully acknowledge U of T and U of T Scarborough Communications for use of images and stories.

Design: Hambly & Woolley Inc.

Illustrations: Darren Booth







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@UTSCresearch



**OFFICE OF THE VICE-PRINCIPAL  
RESEARCH & INNOVATION**



OFFICE OF THE VICE-PRINCIPAL  
RESEARCH & INNOVATION

# Engage

Building research connections and communities

2023-2024  
Annual Report

# Impact By Numbers

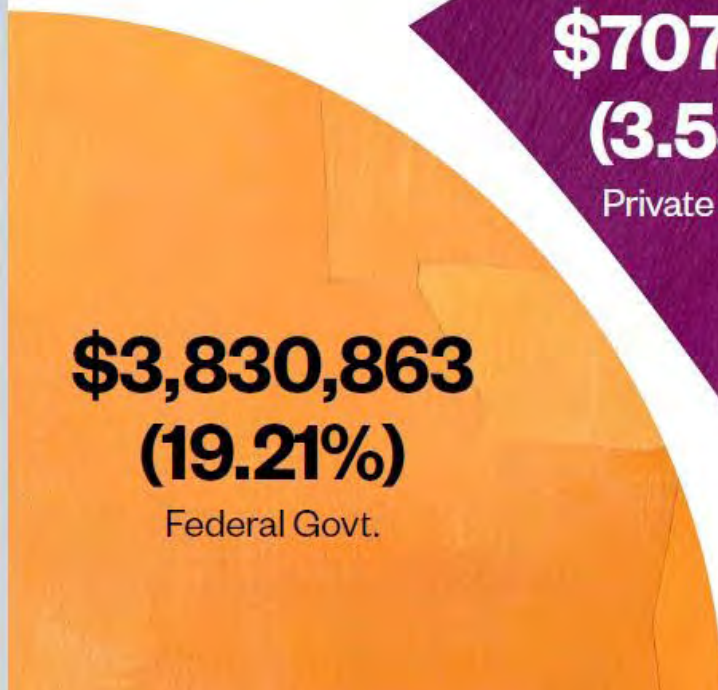
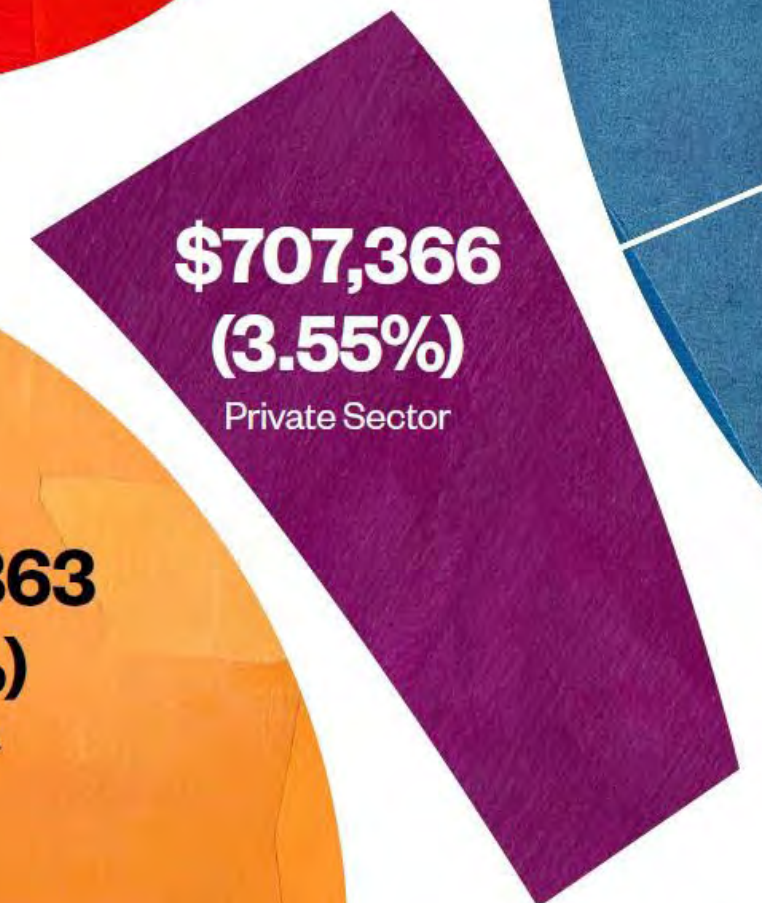
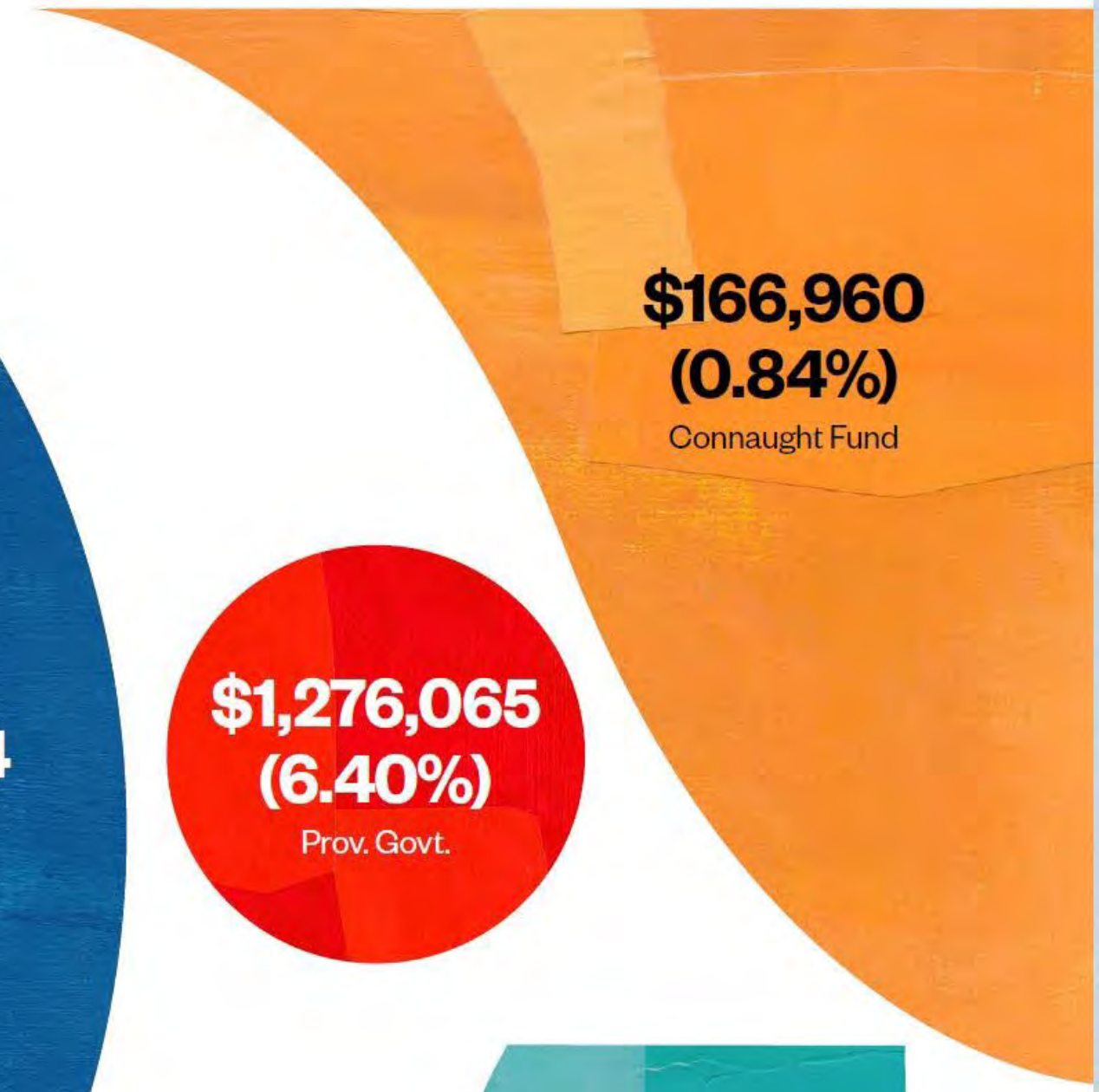
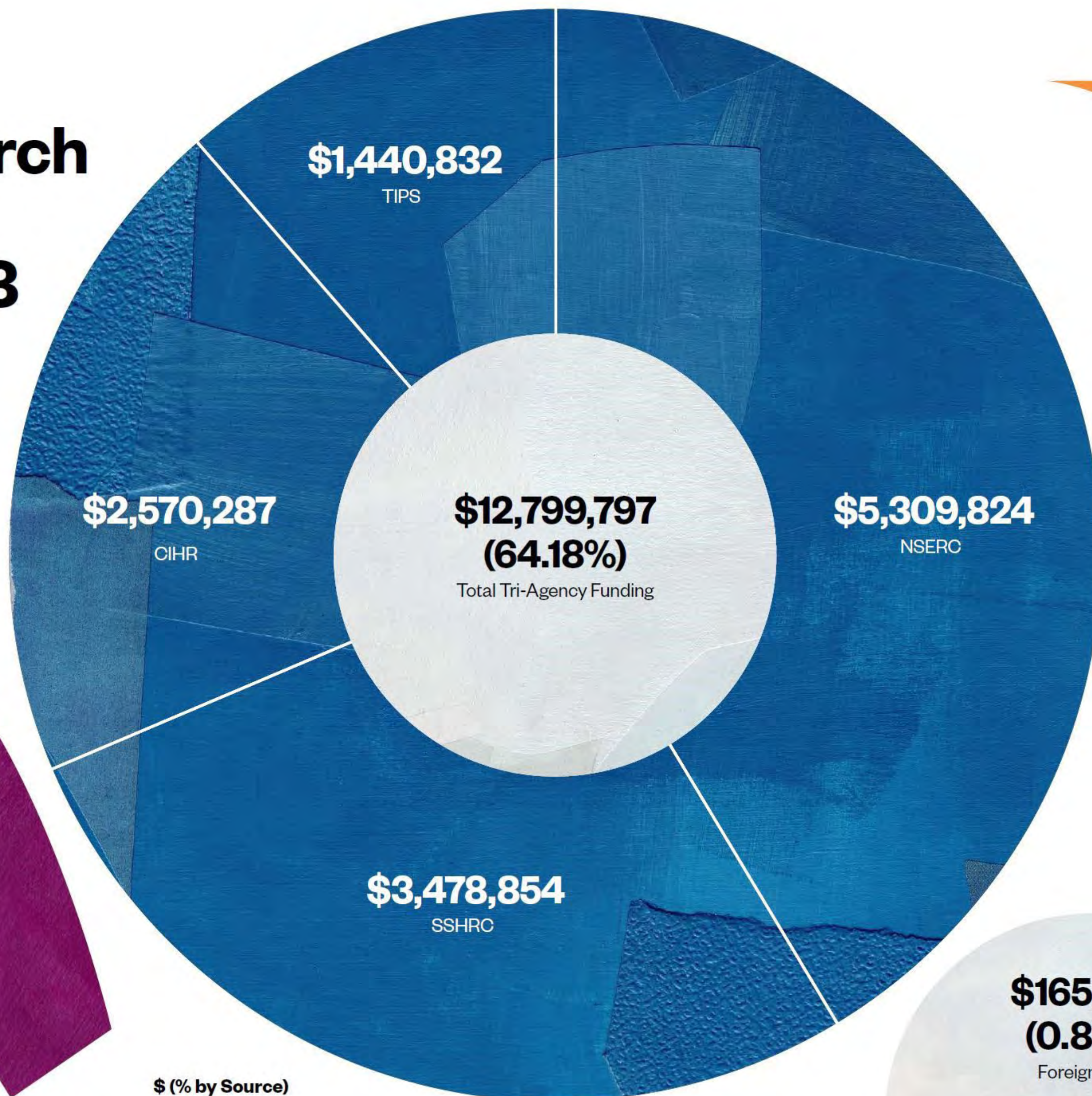
Highlighting the impact of our research

# Summary Statistics

	2023-24
Research Funds (Number of Grants and Contracts)	<b>327</b>
Funding Applications	<b>306</b>
Total Funding Sponsors	<b>58</b>
Total Private Sector Partners	<b>6</b>
Total Number of Funding Programs	<b>85</b>




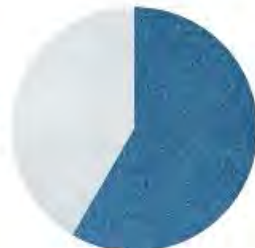



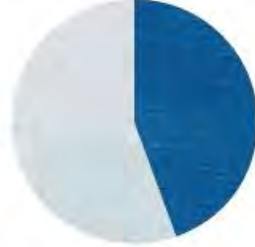


# Total Research Funding: \$19,944,083




\$ (% by Source)

# Grant Success

Funding rates for the most competitive Tri-Agency grants from the federal government

2023-24 TOTALS	U OF T SCARBOROUGH	NATIONAL
NSERC Discovery Grant	80% 	58.40% 
SSHRC Insight Development Grant	60.20% 	48.10% 
SSHRC Insight Grant	33.30% 	44.50% 
CIHR Project Grant	30% 	21.50% 

2023-24 TOTALS	
Supervisions by U of T Scarborough Faculty	<b>1,009</b>
	 <ul style="list-style-type: none"> <li>119 Masters Students</li> <li>643 Doctoral Students</li> <li>175 Post Doctoral Fellows</li> </ul>
Research Faculty	<b>321</b>
Published Journal Articles	<b>456</b>

# Initiatives & Partnerships

Advancing areas of importance and long-term goals

# **Research centers and institutes grow at UTSC**

U of T Scarborough is the proud home of several cutting-edge interdisciplinary research centres, institutes and extradepartmental units. These include, for example, the Centre for Global Disability Studies, Culinaria Research Centre, and SoundLife Scarborough, representing initiatives across the arts, humanities, social sciences and sciences. This past year saw three new institutes added to this rich and exciting network of innovative research and scholarship.



# Institutional Strategic Initiatives

## **SDGs@UofT: Committed creating an equitable and sustainable future**



# The Environmental and Related Technologies Hub (EaRTH District)



**CENTENNIAL  
COLLEGE**



**U of T Scarborough** has partnered with **Centennial College, Ontario Tech University, Fleming College** and **Trent University** to establish the Environmental and Related Technologies Hub (Earth District). The Earth District is committed to fostering a vibrant ecosystem of collaboration, research, education, and commercialization, aimed at driving sustainable technology sectors, prioritizing local community well-being, and catalyzing economic growth.

Earth District is forming strategic partnerships with industry, government and Indigenous communities to create a positive impact both locally and globally.

In March 2023, Earth District received [\\$500,000](#) from the Ontario Vehicle Innovation Network (OVIN) to develop the Earth Switch Program. This program involved 40 external partners and introduced more than 4,200 students — from grades 10–12 as well as post-secondary students in participating colleges and universities — to new career opportunities in the transportation and mobility sector, with a focus on vehicle innovation and electric vehicles.

Earth District signed its first joint memorandum of understanding with Alstom, a global leader in smart and sustainable mobility, on October 30th, 2023. The goal is to create new learning, research and work opportunities in the mobility sector. This partnership will help develop the talent Ontario and Canada need to deliver sustainable mobility solutions critical to tackling the climate crisis, such as the electrification of regional rail systems.

U of T Scarborough's leadership in Earth District helps increase the visibility of the campus's expertise in environmental research and offers to the campus research community new opportunities for collaborations across sectors.

# Work with anchor institutions

# Ontario Shores Centre for Mental Health Sciences



↑

Ontario Shores x The Hub Hackathon for Mental Health & Innovation, March 2023

# New joint facility at the Toronto Zoo will offer students, faculty more opportunities for hands-on learning and research



# **Clusters of Scholarly Prominence Program (CSPP)**

# Sam Ibrahim Centre

for Inclusive Excellence in Entrepreneurship, Innovation and Leadership

# Our Start-Up Stats

Combined Revenues and Investment of The Hub/SICIEEIL Start-ups:

**\$100M+**

University Students Participated in Hub Events:

**5180**

Total companies in residence

**127**

Existing

**64**

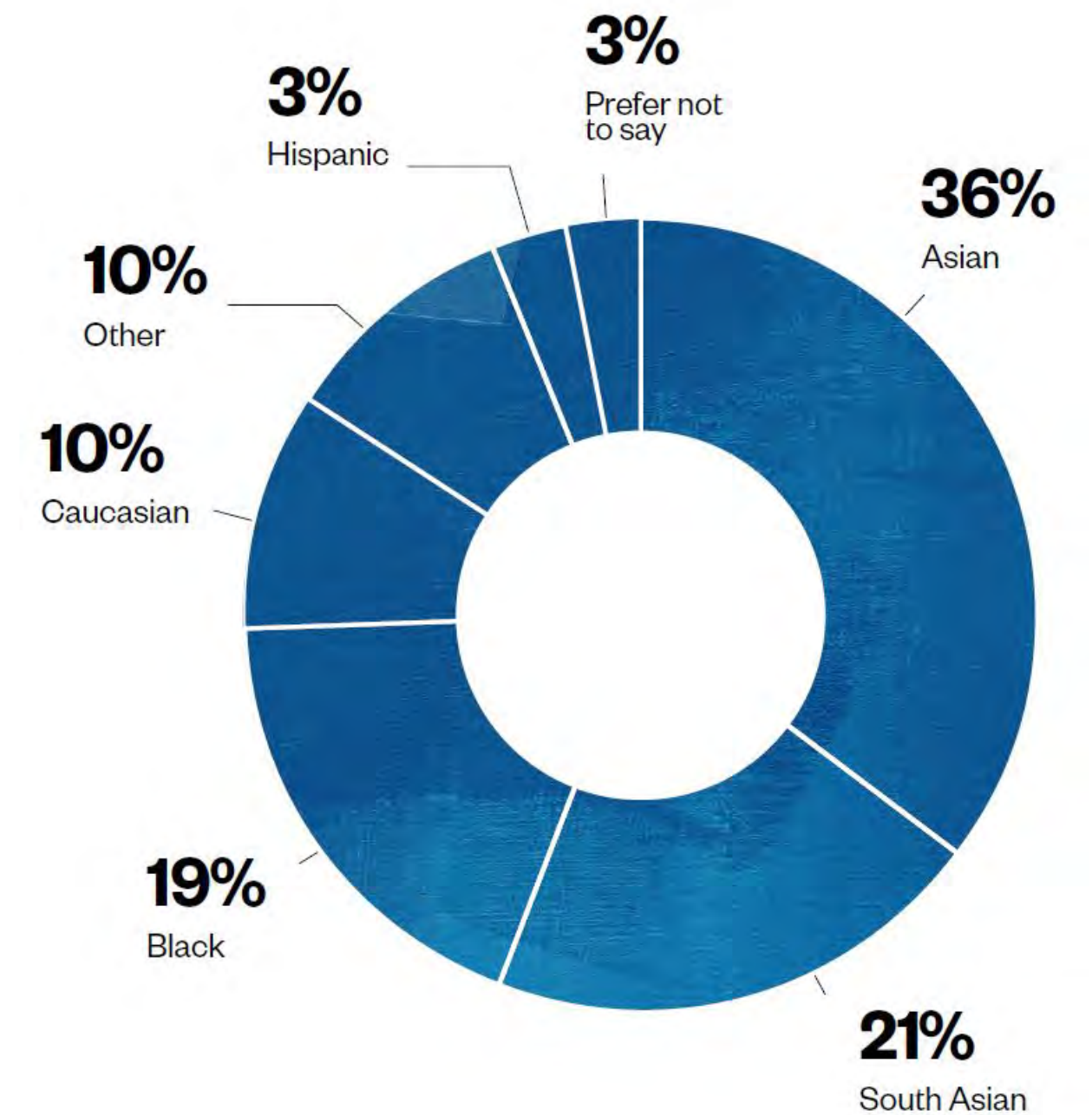
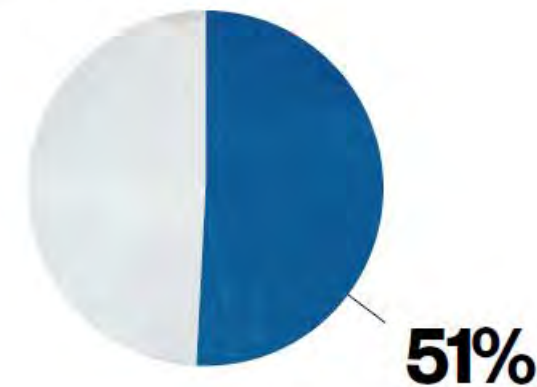
New companies

**51**

## Equity, Diversity and Inclusion (EDI) Startup Matrix

Based on self-reported intake surveys, founders identified their ethnicity. Among the participants, 90% of founders identify as people of colour.

Total percentage of companies with women founders





# Our Research

Impactful research drives deeper understanding



# Professor awarded \$8M in federal funding to make Canada's transition to clean energy more equitable



**Patricia Romero-Lankao,**  
Professor, Department  
of Sociology

# U of T Scarborough researcher discovers critically endangered bats living in two new locations

The Jamaican flower bat is so endangered, it was believed that only a small colony of roughly 500 existed, all living in a single cave. Until now.

An international team, including a PhD student from U of T Scarborough, recently made a groundbreaking discovery of two new habitats of the flower bat. The research, published in *Oryx—The International Journal of Conservation*, shows the bat living in Jamaica's Green Grotto Caves and Rock Spring Caverns.

"It's exciting that we found them in two new locations, but it doesn't mean they still aren't in danger of going extinct," says **Phillip Oelbaum**, a PhD student in Professor **Ken Welch's** lab in the Department of Biological Sciences and lead author of the study. "It also doesn't mean they should be delisted as a critically endangered species. It just shows how little we know about them and that more research is needed."

It's unknown why there are so few Jamaican flower bats in existence. The bat is found only in Jamaica and its numbers may have always been low. It may also be threatened due to habitat disturbance from bauxite mining, predation from cats and guano harvesting. Guano (bat feces) is a highly sought after fertilizer because of its high nitrogen and phosphorus content.

The species was declared extinct until 2010, when a small colony was found in Stony Hill Cave. Finding these new breeding grounds raises hope for the bat's survival and conservation, says Oelbaum.



↑ **Damion Whyte, Phillip Oelbaum, and Ronnie Hall** during recent field work in Jamaica.



↑  
Jamaican flower bat

Jamaican flower bats found in Stony Hill Cave, Jamaica.



# Afrosonic Innovation Lab provides a thriving space for music of the African diaspora

Launched in 2021, the Afrosonic Innovation Lab works to explore and experiment with Black music and sonic cultures from across the African diaspora. It is led by **Mark V. Campbell**, an Assistant Professor in the Department of Arts, Culture and Media.

“The mission around the lab is to be open and experimental around creating music, and working with soundscapes and sound in ways that can connect theory to practice,” Campbell says.

Situated in the Department of Arts, Culture and Media, the Afrosonic Innovation Lab encourages students to not only create music but conduct research to gain and mobilize knowledge about the role of music in the African diaspora. It also fosters a collaborative environment where researchers can think beyond the silos of disciplines.

The lab hosts a variety of events and programming in Scarborough and downtown Toronto throughout the academic year, including a speaker series and an artist residency. Programming in past years has brought new voices to Toronto through the musical world of the Spanish-speaking Caribbean and celebrated the foundations of sound system cultures in Toronto.

Guests from the speaker series in 2022 included Grammy-nominated artists Yosvany Terry and percussionist Magdelys Savigne — who are both from Cuba — as well as Welmo Romero-Joseph, an Afro-Puerto Rican poet and rap artist. Guests in 2023 included hip-hop scholar Dr. Shanté Paradigm Smalls and poet NourbeSe Philip.

Meanwhile, the lab’s 10-month artist residency program gives creatives an opportunity to experiment and challenge themselves by building a project that utilizes academic research and creation — which can range from performance to new music or archival research. The lab also takes up artist residencies to advance creative projects based on sound, music or performance in both local and international contexts.



**We also illuminate the very rich and multifold ways that sound and music have been critical to the sustenance, the survival and the thriving of populations of Africans forcibly displaced from the continent.**



**Mark V. Campbell,**  
Assistant Professor,  
Arts, Culture and Media



# Faculty & Student Awards

Celebrating our achievements

# Current Canada Research Chairs at U of T Scarborough



**Daniel Bender**  
Historical and Cultural Studies, CRC in Global Culture, 2014-2028



**Brian Connelly**  
Management, CRC in Integrative Perspectives on Personality, 2016-2026



**Caroline Hossein**  
Global and Development Studies, CRC in Africana Development and Feminist Political Economy, 2022-2027



**Cendri Hutcherson**  
Psychology, CRC in Decision Neuroscience, 2018-2028



**Marney Isaac**  
Physical & Environmental Sciences Centre for Critical Development Studies, CRC in Agroecosystems and Development, 2013-2024



**Kagan Kerman**  
Physical & Environmental Sciences, CRC in the Bioelectrochemistry of Proteins, 2016-2026



**Bianca Schroeder**  
Computer and Mathematical Sciences, CRC in Data Centre Technologies, 2014-2024



**Bebhinn Treanor**  
Biological Sciences, CRC in Spatially Resolved Biochemistry, 2016-2026



**Myrna Simpson**  
Physical & Environmental Sciences, CRC in Molecular Biogeochemistry, 2019-2026



**Hilary Brown**  
Health and Society, CRC in Disability and Reproductive Health, 2019-2026

# New Fellows of the Royal Society of Canada



**Bálint Virág**, Professor in the Department of Computer and Mathematical Sciences

A world leader in probability theory, specifically random walks and random matrices, Bálint Virág was also honoured this year with the Cathleen Synge Morawetz Prize from the Canadian Mathematical Society for a recent breakthrough in the field of probability studies co-authored with Prof. **Duncan Dauvergne** (UTM).



**Lucan Ahmad Way**, Professor in the Department of Political Science

Lucan Way is one of the world's foremost experts on democracy, particularly the relationship between democracy and its antithesis, dictatorship. He was also awarded the position of Distinguished Professor of Democracy at the University of Toronto this year in recognition of his extraordinary scholarly contributions.

# New Members of the RSC College of New Scholars, Artists and Scientists



**Stefanos Aretakis**, Associate Professor in the Department of Computer and Mathematical Sciences

Stefanos Aretakis is known for his work proving rigorous mathematical theorems that provide fundamental insights into the structure of the natural world. He pioneered a groundbreaking discovery of a novel instability of black holes, known as the *Aretakis instability*, which is now routinely studied by physicists and theoreticians of gravitational wave astronomy.



**Caroline Shenaz Hossein**, Associate Professor in the Department of Global Development Studies

Caroline Hossein is the founding member of the international Diverse Solidarity Economies Collective (DISE), a group of feminist political economists writing on people-led economies. Her work, including her latest book *The Banker Ladies*, highlights the need to amplify culturally diverse community economies to counter the systemic exclusion of marginalized populations.

# Connaught New Researcher Award Winners



**Ina Anreiter**

Assistant Professor, Department of Biological Sciences  
*The Role of m6A mRNA Methylation in Food Choice, Metabolism, and Obesity*



**Roger Antabe**

Assistant Professor, Department of Health & Society  
*Improving Access to HIV/AIDS Services for Racialized Populations and Immigrants of Colour in Canada*



**Vinicius De Aguiar Furuie**

Assistant Professor, Department of Anthropology,  
*Collaborative Research in Amazonia*



**Rafael Do Nascimento Grohmann**

Assistant Professor, Department of Arts, Culture and Media  
*Worker-Owned Platforms and Gender: Rider and Tech Co-ops in Brazil and Argentina*



**Suleyman Dost**

Assistant Professor, Department of Historical & Cultural Studies  
*Materializing Islamic Origins: Using Archaeology and Epigraphy for a Religious History of Arabia before Islam*



**Esmat Elhalaby**

Assistant Professor, Department of Historical & Cultural Studies  
*Parting Gifts of Empire: The Idea of Decolonization and the Making of the Global South*



**Lisa Janz**

Assistant Professor, Department of Anthropology  
*A Continuum of Human-Animal Relationships on the Mongolian Steppe*



**Yoshio Nozawa**

Associate Professor, Department of Management  
*The Effect of Trading Platforms on Bond Prices*



**Walter Tavares**

Assistant Professor, Department of Health & Society  
*Building Capacity in Community-Based Health Care and Social Services*



**Linbo Wang**

Associate Professor, Department of Computer and Mathematical Sciences  
*Statistical Methods for Causal Inference from Observational Studies*

# Research Events

A recap of events hosted this year



# The Heart innovation district, centered on building healthy communities



U of T Scarborough is leading the creation of an eastern GTA Health Innovation District — also known by the acronym HeART, for Health and Resilience Together — that will involve a consortium of academic institutions, hospitals, health providers and community organizations. These partners will work to drive changes to the healthcare system that aim to reduce long-standing health inequities within the region, with a particular focus on Scarborough's priority neighbourhoods.

To create and further strengthen connections between these diverse stakeholders, U of T Scarborough and Scarborough Health Network hosted the Building Communities through Inclusive Health conference in October 2023. Over two days, hundreds of researchers, community members and health care workers from across the GTA gathered and presented creative approaches to bridging inequity. Through panel discussions and workshops, participants brainstormed practical next steps to overcome equity gaps and barriers. Some highlights included a keynote speech by Professor Patricia Houston, Vice Dean, Medical Education at the Temerty Faculty of Medicine on the urgent need to promote health equity and a panel session discussing paths towards inclusive health.



[Building Communities through Inclusive Health](#)

IMPACT

INTENTIONALLY ENGAGE with UNDERSERVED COMMUNITIES

HISTORY OF PESI

IRENA CREED

PUBLICLY ENGAGED SCHOLARSHIP & INNOVATION

METRICS + IMPACT



OUR WORK WAS INVISIBLE

PESI HELPS TO MEASURE OUR IMPACTS

TANGIBLE IMPACTS FOR SOCIETY

COMMUNITY OF PRACTICE

SCHOLARLY EXCELLENCE

INCLUSIVE RESEARCH ECOSYSTEM

CO-PRODUCTION & MOBILIZATION UNIT

COLLABORATION

PUBLIC

CO-CREATING

PRIORITY SETTING

TRUST, TRANSPARENCY and CARE

LOVE

VALUES

WHAT ARE YOUR PERSONAL



PEOPLE CENTRED

BUILDING TRUST

COMPENSATION FRAMEWORK PARTNERS GET PAID



ANTI OPPRESSIVE

UNDERSTANDING

SELF DETERMINATION

ARE WE SAFE TO BRING OUR VALUES IN TO THE UNIVERSITY

THIS WORK IS ABOUT HOPE

FUNDING

INTEGRATE STUDENT EXPERIENCE

INCREASE PUBLIC AWARENESS

HOW TO ARTICULATE YOUR VALUES

SHARED INTERESTS

INVESTED IN PEOPLE

HUMAN CENTRED

LEARN THE NATURE OF YOUR OWN GIFTS

CREATIVITY

COLLABORATION

COORDINATION

COLLECTIVE ACTION

REVISIT, RETHINK, EVOLVE

PAUSE. HAPPENS THROUGHOUT THE WORK we DO BUT BE RESPONSIVE

LONG TERM SUSTAINABILITY

IMPORTANCE OF RESOURCES

PEOPLE TRAINING COMPENSATION for PARTNERS

MEANINGFUL WORK

INTERCONNECTED

LIBRARY FARM INVEST



COMMUNITY ENGAGEMENT FRAMEWORK

PARTNERSHIP

SINCE 2010 SUCCESS

SOCIAL JUSTICE



# Looking Ahead

Exciting new initiatives at U of T Scarborough

# Future Directions: Equity, Diversity and Inclusion in the Research Life Cycle

In alignment with U of T Scarborough's strategic institutional and research priorities, the **Equity, Diversity, and Inclusion Office (EDIO)** and the **Office of the Vice-Principal Research & Innovation (OVPRI)** are collaborating to supporting Equity, Diversity and Inclusion (EDI) within and across all research practices. In line with these commitments, we have jointly drafted a **Resource Directory for Embedding Equity, Diversity and Inclusion in the Research Cycle**.

Initially conceptualized and prepared by Nicola M. Dove (Special Project Officer, EDIO), this resource is being further developed to direct researchers/research teams to resources that will enable them to productively embed EDI into their research practices. These practices include, but are not limited to:

- **Research Design**, i.e., how does/should social location (race, gender, age, ability, nationhood, sexuality) factor into my research questions and design?
- **Setting up a Research Team**, i.e., how do we employ equitable and inclusive recruitment, screening, interviews, selection, and hiring strategies?
- **Onboarding and Training**, i.e., how do we identify barriers to participation and implement strategies to support full participation of all team members throughout the research process?
- **Partnerships and Community Engagement**, i.e., how do we ensure and privilege community voices throughout the research process?
- **Knowledge Mobilization**, i.e., what diverse pathways for research impact can we pursue that support and enable academic and non-academic communities?



While this resource directory is still in development, it will soon be available to all U of T Scarborough researchers and community members who are seeking expansive knowledge, ideas, and practices regarding EDI commitments in their research. In addition to circulating the resource, the OVPRI is dedicated to offering webinars and departmental visits in the upcoming academic year(s) to ensure that researchers feel supported in designing and carrying out equitable, diverse, inclusive, and socially just research. More information to come!



**This initiative will offer important resource to researchers across the tricampus and beyond, with tools to achieve inclusive excellence by embedding EDI throughout the research life cycle.**

# Thank you

**Our thanks go to** everyone on staff and working in collaboration with the Office of the Vice-Principal Research & Innovation. For this annual report, we worked together creatively as a team to tell the stories of our work and the many successes of the vibrant research community at U of T Scarborough. Contributions to the 2023-2024 OVPRI Annual Report were made by every member of our staff, including Bahar Barkhordarian, Meredith Best, Hayley Brooks, Andrea Charise, Cintia Cristia, Ailen Cruz, Feihan Dai, Jason Darby, Donovan Dill, Joel Faber, Nicoda Foster, Janet James, Francesco Leri, Anika Mifsud, Seymone Mohammed, Alison Mountz, Kristine Peruzzi, Brice Rousseau, Jenefer Savoeng, Mark Schmuckler, Carmen Siu, Komal Tariq, Michelle Wodzak, Julia Gruson- Wood. We also thank previous OVPRI leadership and staff for their contributions, including Irena Creed, Ariella Lukach, Sharon George, Joshua van Ry, Jovana Drinjakovic, and Suhail Asrar. Thanks also to Simone Castillo, Sarah Forbes, Imre Szeman, Sergio Montero, Charles Trick, Patricia Romero-Lankao, and Erica Di Ruggiero. Finally, we gratefully acknowledge U of T and U of T Scarborough Communications for use of images and stories.

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