



FOR INFORMATION PUBLIC OPEN SESSION

TO: UTM Academic Affairs Committee

SPONSOR: Professor Kent Moore, Vice-Principal, Research

CONTACT INFO: vpresearch.utm@utoronto.ca

PRESENTER: As above

CONTACT INFO:

DATE: May 3, 2022 for May 10, 2023

AGENDA ITEM: 5

ITEM IDENTIFICATION:

Annual Report: Office of the Vice-Principal Research, 2021-22, UTM

JURISDICTIONAL INFORMATION:

Under section 5.7 of its terms of reference, the Academic Affairs Committee receives annually, from the appropriate administrators, reports on services within its areas of responsibility, including research.

GOVERNANCE PATH:

1. Academic Affairs Committee [For Information] (May 10, 2023)

PREVIOUS ACTION TAKEN:

The annual report was provided for information to the Academic Affairs Committee on May 9, 2022.

HIGHLIGHTS:

- On July 1, 2022 Prof. Josh Milstein (CPS) took up the role of Associate Vice-Principal Research Facilities (AVPR-F), providing leadership for our core research facilities and advising on campus-wide research infrastructure and equipment projects.
- The staff complement increased, allowing for greater support to our community. A third Strategic Development Officer was hired. Dr. Stefanie Bernaudo with our other two current Strategic Development Officers continue to provide expertise to aid our faculty in grant and award application development. In addition, they continue to expand resources, including launching the grant and awards monthly newsletter. Hired Dr. Raquel De Souza

as Strategic Research Initiatives & Partnerships Manager to support UTM faculty with their research partnerships, and to propel strategic research initiatives.

- Developing first strategic framework for the OVPR, plan to launch by July 2023. To date have spent the initial phase of project conducting stakeholder meetings, including all 18 UTM unit faculty chairs/directors and various central UTM offices.
- Expanded and diversified workshop offerings available to UTM faculty by hosting summer grant writing cohort programs for SSHRC Insight and NSERC Discovery programs, offering information sessions on faculty awards and Mitacs funding for humanities and social sciences researchers, and coordinating with the Black Research Network to offer a research program planning workshop.
- Strengthened supports for SSHRC partnership suite grants and other large grant applications. This includes offering 0.5 course release (in collaboration with the Office of the Vice-Principal Academic and Dean) for successful SSHRC Partnership Grant applicants, and providing matching cash funds to strengthen institutional support for large grant applications.
- Doubled the number of UTM Postdoctoral Fellowship Awards to six to enhance the recruitment of world-class early career researchers.
- Launched Pedagogical Research Fund (PRF) which supports inquiry and research into pedagogy, teaching, learning, and/or dissemination of research findings.
- Released first annual research report, showcasing excellence in research at UTM.
- Launched a rebranded symposium showcasing summer undergraduate researchers work. The Summer Undergraduate Research Fair (SURF), which ran in August 2022, included student poster and oral presentations, and faculty keynote speakers. The event had more than 100 presenters and over 250 attendees.
- \$15M+ research funds from external sources, of which \$10M+ was from Tri-Agency. Over 600 peer-reviewed publications. 10+ external faculty awards. \$700K+ of internal funding support from the OVPR.

FINANCIAL IMPLICATIONS:

There are no financial implications.

RECOMMENDATION:

For information.

DOCUMENTATION PROVIDED:

2022 Annual Report of the Office of the Vice-Principal, Research.



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STATEMENT ON ACKNOWLEDGEMENT OF TRADITIONAL LAND

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 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.

Cover art by Tal Bavli,
medical illustrator and
graphic designer
Biomedical Communications,
class of 2T3
To see more of Tal's work visit
www.talbavli.com



A Message from the VP Research

University of Toronto Mississauga (UTM). UTM is a flourishing campus, generating research discoveries, innovation, and new knowledge from an impressive breadth of fields and collaborations that bridge many disciplines. Our research enterprise has been on a rapid rise; researchers continue to secure significant research revenue each year, reaching record levels in federal support, with funds supporting pioneering work in the humanities, natural and life sciences, as well as the social sciences — and this is a trend we aim to uphold.

t's an exciting time for research at the

Our vision in the Office of the Vice-Principal, Research (OVPR) is to support, promote, and inspire the research, scholarship, and creative activity of our community, and to enhance UTM's research environment, reputation, and profile. This past year has brought many welcome changes to our office, and we look forward to sharing our updates and successes, our outreach efforts, and additional support with the UTM community.

UTM's Strategic Framework emphasizes the need to empower research discovery and impact. Its

"Our vision is to support, promote, and inspire the research, scholarship, and creative activity of our research community, and to enhance UTM's research environment, reputation, and profile."

commitments — to attract, support, and retain world-leading researchers; to advance insight, innovation, creativity, and curiosity; and to catalyze research inquiry that enhances U of T's reputation for inclusive excellence that benefits both the region and the world at large — have informed our work on campus and beyond.

UTM is investing in new buildings and renovations with research infrastructure, expanding core research facilities, continuing to invest in research through internal funding programs, and adding new staff and faculty leadership roles to the OVPR. As our research environment continues to thrive, I enthusiastically support and encourage these new developments and initiatives, and am eager to ensure that our campus remains an outstanding centre of creative pursuits and scholarly advancements.

As such, I am pleased to share with you Synergy: 2022 Annual Report, Office of the Vice-Principal, Research. In it, you'll find evidence of the collaboration and partnerships taking place across UTM — the synergistic effects of leadership, faculty, staff, and students working together to support and empower research discovery and impact. Our sincere thanks go to artist Tal Bavli, a second-year student in the Biomedical Communications program at UTM,

who designed the cover art for this report. Tal's vibrant design captures just some of our many research strengths at UTM and highlights our position within the Mississauga community.

In our section **People**, you'll meet the OVPR team and learn more about our office. Find important data details in **Numbers**, where we provide information on funding, new partnerships, awards, projects, and more. Support outlines UTM's internal funding programs and initiatives and offers updates on our state-of-the-art core facilities. Finally, in **Reach** you'll read about our networks, partnerships, events, and communication activities.

I warmly invite you to read our inaugural 2022 Annual Report to learn how we're supporting the exciting research happening across the UTM campus — and to see where we're headed in the year to come.

G.W.K Moore, PhD

Vice-Principal, Research Professor, Department of Chemical & Physical Sciences



Our Team at the OVPR

ritical to supporting UTM's research mandate is the OVPR team, and our office has increased its staffing complement over the past year. With the departure of Professor Steven Short in July, Josh

Milstein, Associate Professor in the Department of Chemical & Physical Sciences joined our leadership team as Associate Vice-Principal, Research — Facilities. We welcomed a third Strategic Research Development Officer, Stefanie Bernaudo, PhD, who joins SRDOs **Anastassia Pogoutse**, PhD and Jessica Lapp, PhD in providing guidance and supporting research goals, funding opportunities, and the development of grant applications.

In the fall **Raquel De Souza**, PhD joined us as the Strategic Research Initiatives and Partnerships Manager and is responsible for designing and implementing programs and strategies that will increase UTM's strategic initiatives and research partnerships. Digital Humanities Developer Matthew **Lefaive** joined our office as well; he is working with the Critical Digital Humanities Initiative (CDHI), aiding DH researchers in creating project websites and digital exhibitions. With the September



Photograph by UTM Office of Communications. departure of Senior Research Associate Elizabeth Parke, PhD, Elisa Tersigni, PhD, joined us in November as the new SRA for the Collaborative Digital Research Space (CDRS).

Continuity in the office has been an important part of its success, and this includes Professor Elspeth Brown, who oversees UTM's strategic initiatives; OVPR Director Payam Zahedi, PhD; and Tanya Rohrmoser, Communications Officer. Office Administrator **Veron Fernandes** is the main point of contact for the office and coordinates many OVPR efforts. Rong Wu, our Internal Competitions & Events Coordinator, continues to oversee internal funding competitions, internal awards, and event coordination.

Academic Workshop supervisor Peter Duggan takes projects from concept to reality, combining his innovative industry experience and knowledge in machining, wood working, mechanics, and electronics to support researchers across UTM and beyond.

Bringing with her strong lab-management skills and more than 13 years of research experience in molecular biology, cell culture, and imaging, Xin **Zhao** manages the <u>Life Sciences Core Facilities</u> and common research equipment including autoclaves, pure-water systems, fridges/freezers, and growth chambers, as well as the Honeywell remote alarm system.

The Research Council is made up of faculty members representing each of the departments on the UTM campus. It serves as a forum for information exchange and discussion of issues relevant to the research community at **UTM.** The Research Council also serves as an advisory board that supports the mission of the Vice-Principal, Research to promote and facilitate research, scholarship, and creative activity at UTM.

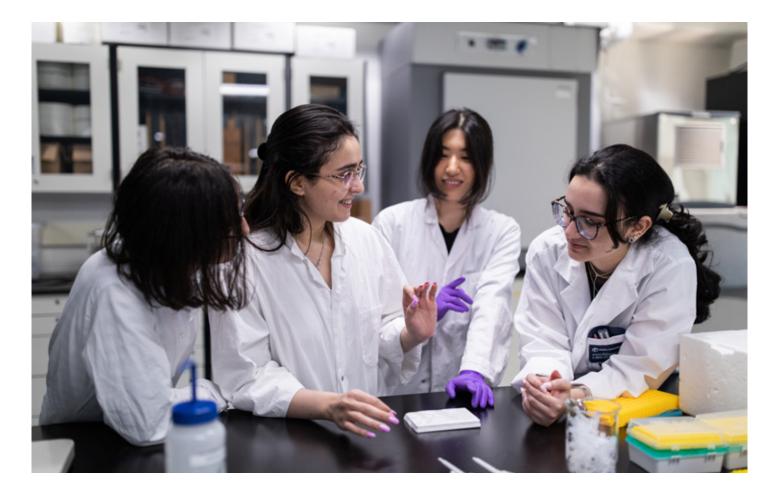
UTM's Research Council 2022–2023 Department Name **Jack Sidnell** Anthropology **Adriano Senatore** Biology **Chemical & Physical Sciences Voula Kanelis** Guerogui Kambourov **Economics English and Drama** Larry Switzky Alan Walks (Fall Term), Geography, Geomatics Tenley Conway (Winter Term) and Environment Karen Ruffle **Historical Studies** Institute of Communication, Culture, Alessandro Delfanti Information and Technology Institute for the Study of Tyler Evans-Tokaryk **University Pedagogy** Pascal Michelucci **Language Studies Dushyant Vyas** Management Mathematics and Spencer Unger **Computational Sciences** James Allen Philosophy Janine Clark **Political Science** Erika Carlson **Psychology** Phil Goodman Sociology Elizabeth Wijaya **Visual Studies UTM Library** Yayo Umetsubo

Cellular neurobiologist Kathryn Harris-Howard, PhD, runs the <u>Imaging Facility</u>, using her expertise in a wide range of imaging tools and techniques — along with her valuable experience as an educator — to support and provide UTM researchers with training, consultation, workshops, and access to resources. Kristina Han is the Site Coordinator for the Amgen Biotech Experience Program at UTM (ABE@UTM). She oversees the daily operation of the program and is one of three Master Lab Technicians in the global ABE community, providing technical support to over 20 international program sites.

Dmitry Pichugin has long been fascinated with nuclear magnetic resonance (NMR) and runs UTM's Nuclear Magnetic Resonance Centre.

UTM's **Growth Facilities** are run by in-house plant physiologist Vera Velasco, PhD, who facilitates and supports interdepartmental plant and animal research at UTM. Researchers from Biology, Geography, and Chemical and Physical Sciences use the state-of-the-art research greenhouse and growth chambers to perform experiments on different aspects of biology.

Veterinary Director Shawn Davis, DVM, MSc, Dip (Path) boasts over 16 years of experience as a laboratory veterinarian in both industry and academic institutions. In her work in the <u>Vivarium</u>, she works with investigators to help establish humane refinements for their research animals, and ensures research is conducted following proper procedures.



Leadership



Kent Moore Vice-Principal, Research, Professor, Department of Chemical & Physical Sciences



Elspeth Brown Associate Vice-Principal, Research - Strategic Initiatives, Professor, **Historical Studies**



Josh Milstein Associate Vice-Principal, Research - Facilities, Associate Professor, **Department of Chemical** & Physical Sciences

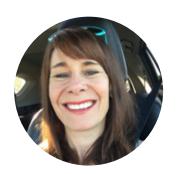


Payam Zahedi Director, Research

Support Leads

Photograph by

Nick Iwanyshyn.



Shawn **Davis** Veterinary Director, Vivarium



Peter Duggan Supervisor, **Academic Workshop**



Kristina Han Site Coordinator for the Amgen Biotech **Experience Program**



Kathryn Harris-Howard Senior Research Associate, Imaging Facility



Staff

Stefanie Bernaudo Strategic Research **Development Officer**



Raquel De Souza Strategic Research Initiatives & **Partnerships** Manager



Veron **Fernandes** Office Administrator



Jessica Lapp Strategic Research **Development Officer**



Elizabeth **Parke** Senior Research Associate, **Collaborative Digital** Research Space



Dimitry **Pichugin** Senior Research Associate, Nuclear Magnetic Resonance Centre (NMR)



Vera Velasco Senior Research Associate, Growth **Facilities**



Xin Zhao Life Sciences Core Facilities Manager



Matthew Lefaive **Digital Humanities** Developer



Anastassia **Pogoutse** Strategic Research **Development Officer**



Tanya Rohrmoser Communications Officer



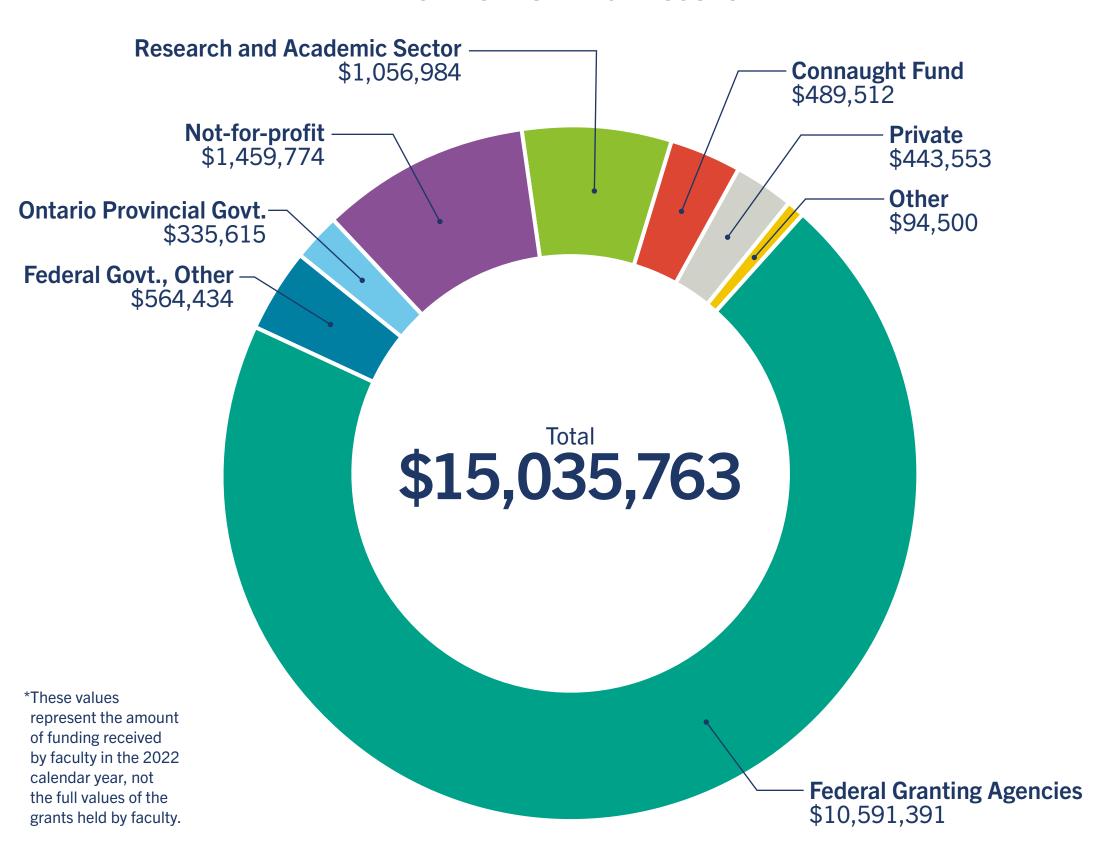
Rong Wu **Internal Competitions** & Events Coordinator



Funding

TOTAL RESEARCH FUNDING

RESEARCH FUNDING BY SOURCE



RESEARCH FUNDING SOURCES (Number of grants/awards held in 2022) **FUNDING** 225 132 86 **Sponsors Applications Programs** 83

Pending

Awarded

GRANT SUCCESS CIHR PROJECT GRANT (Spring 2022 competition)







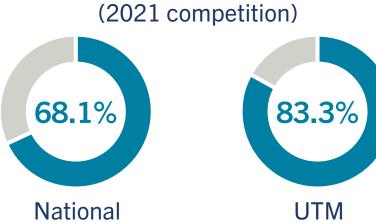
SSHRC INSIGHT GRANT (2021 competition)



National

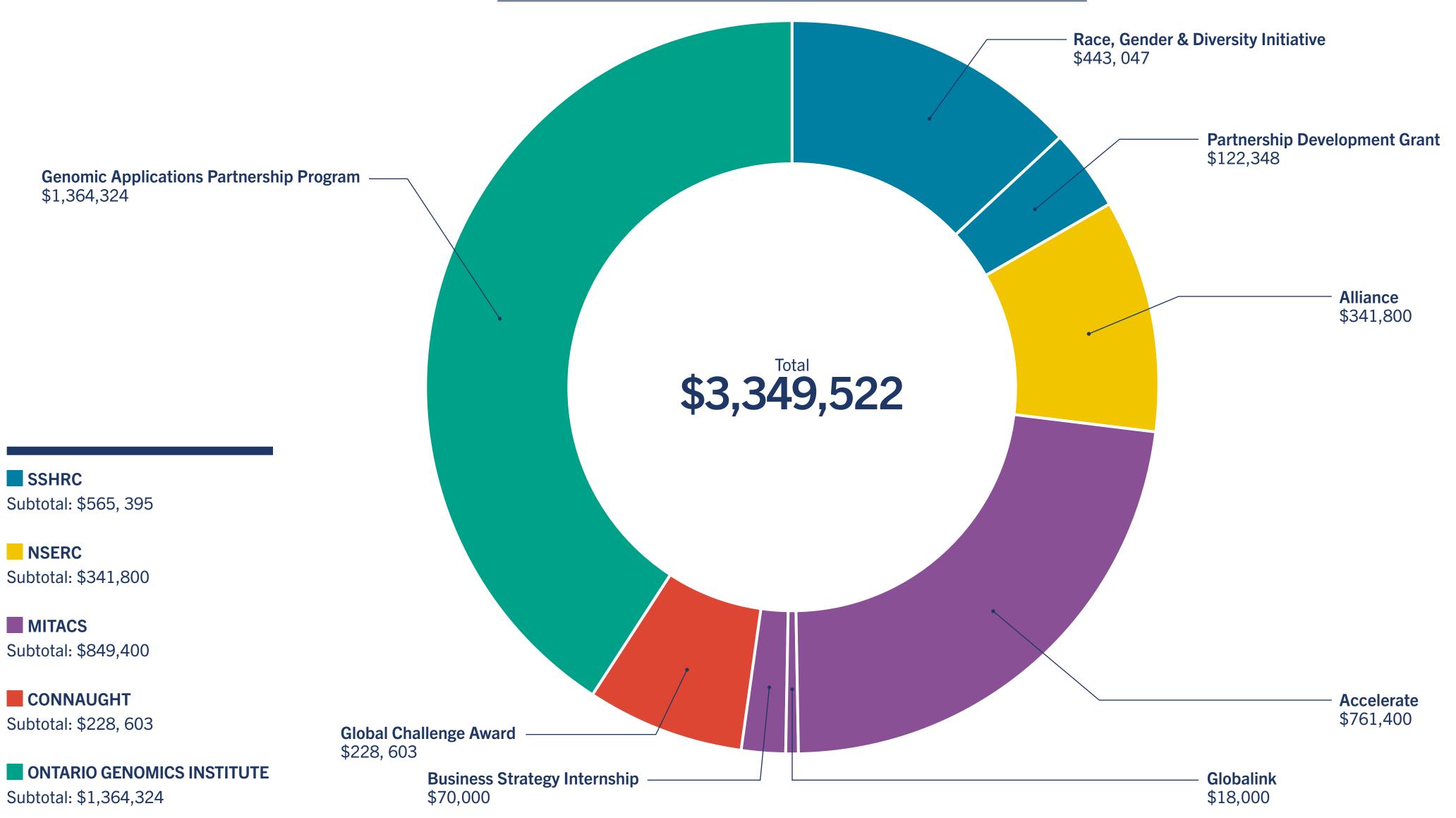
NSERC DISCOVERY GRANT

UTM



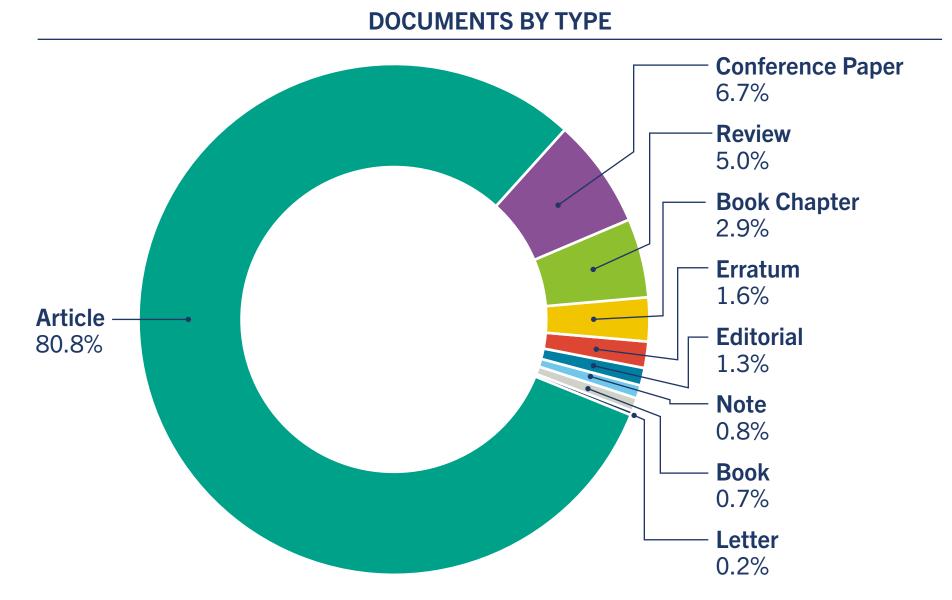
National

MAJOR PARTNERED RESEARCH FUNDING AWARDED IN 2022



Publications

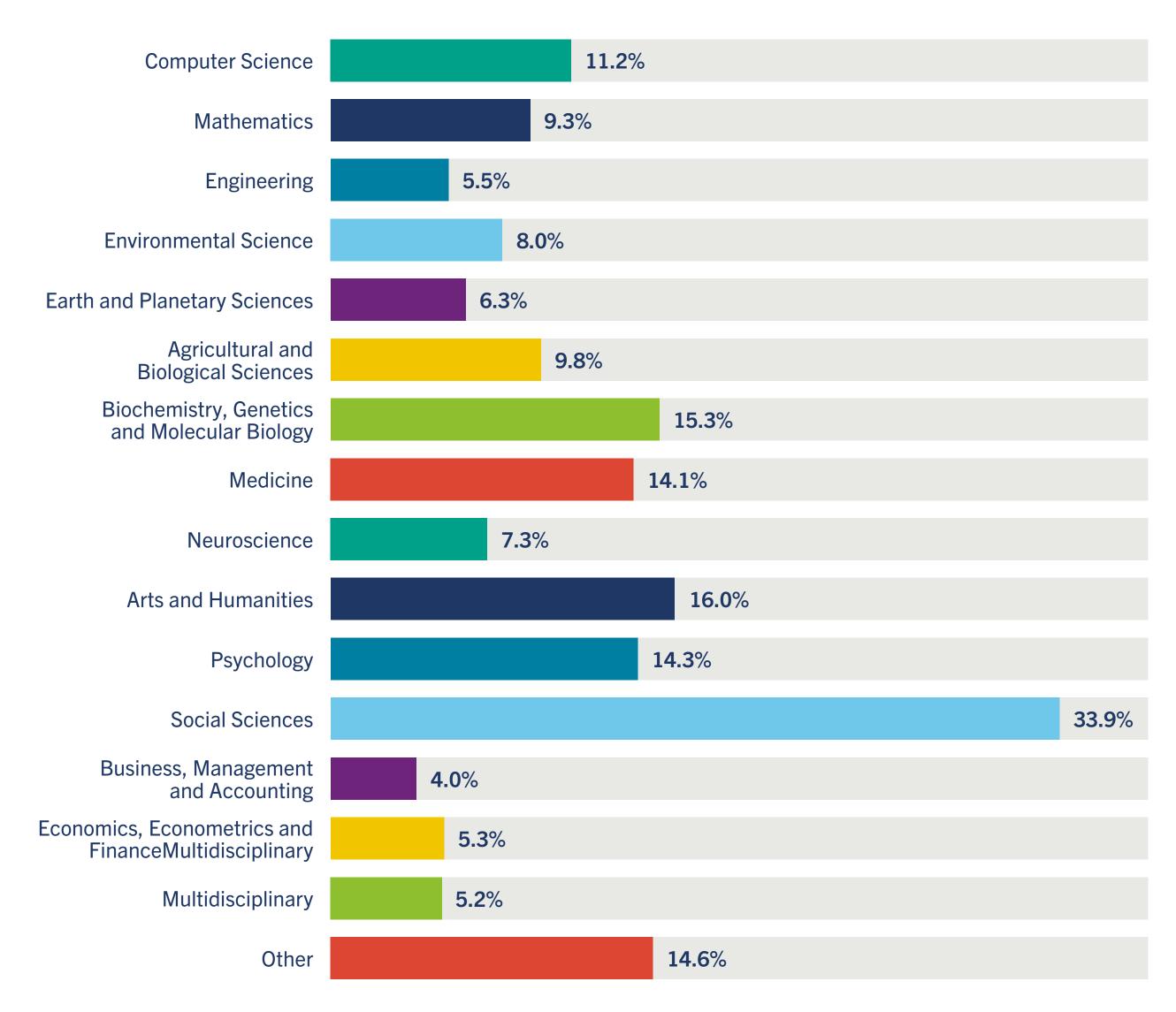
OUTPUT SUMMARY SCHOLARLY OUTPUT 48.6% in open access



*Data from SciVal and Scopus accessed January 2023

SUBJECT AREAS AND KEY PHRASES

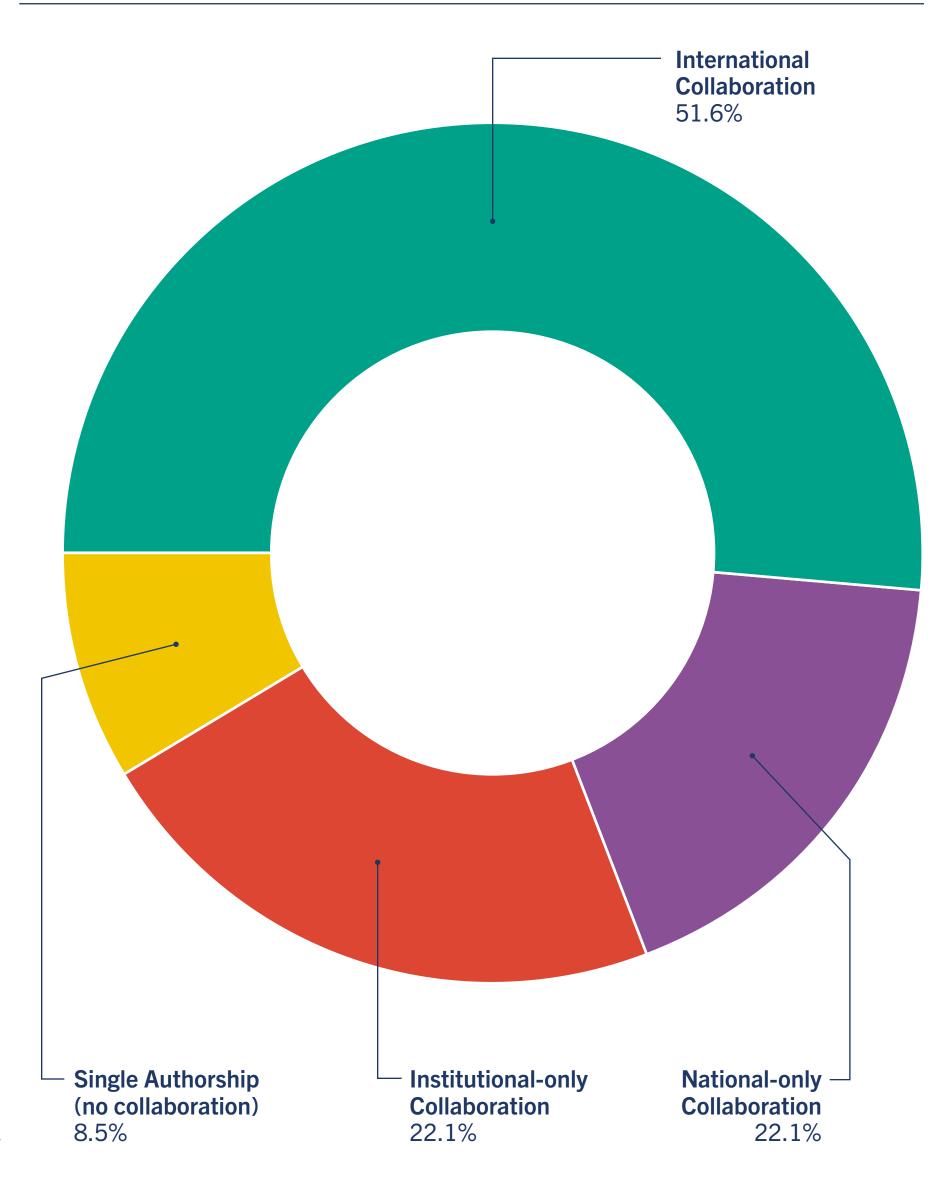
PUBLICATION SHARE BY SUBJECT AREA



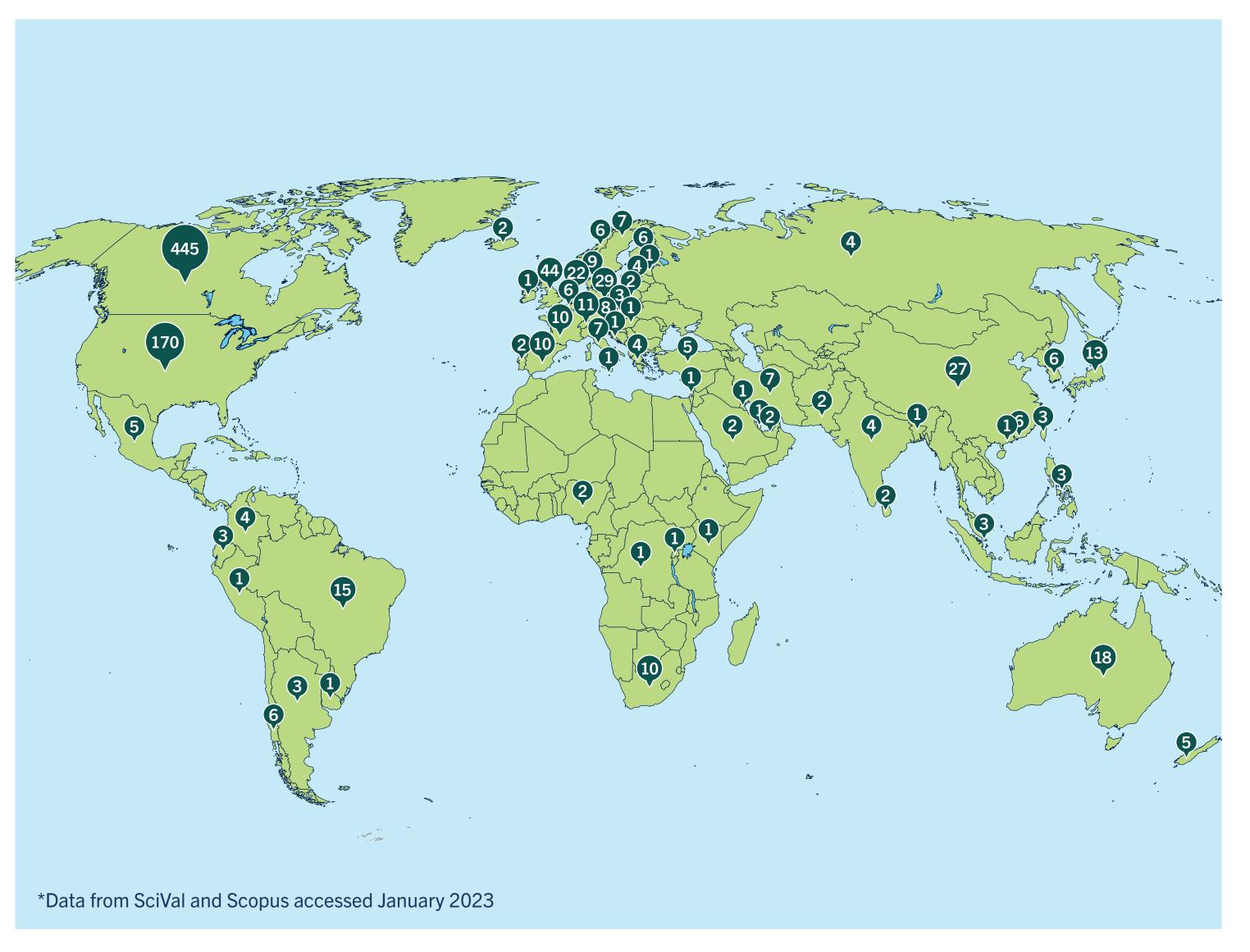
KEY PHRASE ANALYSIS

Reward Assignment Human-Computer Interaction (HCI) Personality Aggression Emotional Regulation Videorecording Well-being Computer Vision Inference Students Police Phonetics Science Education Memory Percolation Recognition Molecular Dynamics Continental Population Groups Imitation Guilt Sexual Disability Cultural Background Refugees Arctic Ontario Posttraumatic Stress Disorder Brazil Childhood Family Characteristic Mothers Evolution Adolescent Education Computing Long-Term Memory Biology Mental Health COVID-19 Romantic Relationships Heterocephalus Ethnic Groups Sustainable Development Goal Morality Proximity

COLLABORATIONS RESULTING IN PUBLICATIONS

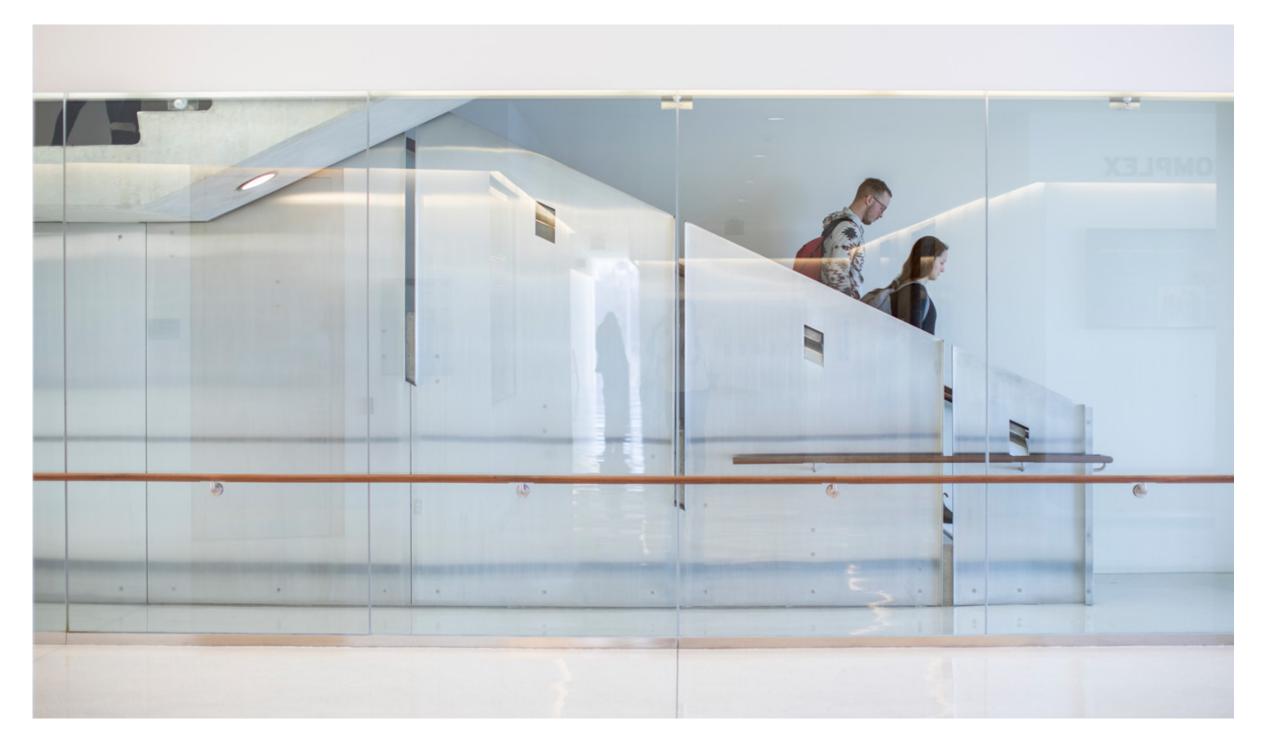


UTM FACULTY PUBLICATIONS RESULTING FROM INTERNATIONAL COLLABORATIONS IN 2022



Country/ Region	Scholarly Output	Country/ Region	Scholarly Output
Canada	445	Russian Federation	4
United States	170	Argentina	3
United Kingdom	44	Czech Republic	3
Germany	29	Ecuador	3
China	27	Philippines	3
Netherlands	22	Singapore	3
Australia	18	Taiwan	3
Brazil	15	Iceland	2
Japan	13	Nigeria	2
Switzerland	11	Pakistan	2
France	10	Poland	2
South Africa	10	Portugal	2
Spain	10	Saudi Arabia	2
Denmark	9	Sri Lanka	2
Austria	8	United Arab Emirates	2
Iran	7	Bangladesh	1
Italy	7	Congo	1
Sweden	7	Croatia	1
Belgium	6	Estonia	1
Chile	6	Hungary	1
Finland	6	Ireland	1
Hong Kong	6	Israel	1
Norway	6	Kenya	1
South Korea	6	Kuwait	1
Mexico	5	Macao	1
New Zealand	5	Malta	1
Turkey	5	Peru	1
Colombia	4	Qatar	1
Greece	4	Rwanda	1
India	4	Uruguay	1
Lithuania	4		

AWards and Honours



Photograph by **UTM Office of** Communications.

Page 15: Photographs by Nick Iwanyshyn

3M National Teaching Fellowship 3M Canada/ **Society for Teaching and Learning in Higher Education**

Fiona Rawle, Professor, Department of Biology

AstraZeneca Chair in Biotechnology, **University of Toronto/AstraZeneca**

Scott Prosser, Distinguished Professor, **Department of Chemical & Physical Sciences**

Austin Robinson Memorial Prize, Royal Economic Society

Ruben Gaetani, Assistant Professor, Department of Management

Biological and Medicinal Chemistry Lectureship Award, **Chemical Institute of Canada**

Scott Prosser, Distinguished Professor, **Department of Chemical & Physical Sciences**

Desmond Morton Research Excellence Award, University of Toronto Mississauga

Yuhong He, Professor, Department of Geography, Geomatics, and Environment

Desmond Morton Research Excellence Award, University of Toronto Mississauga

Claudiu Gradinaru, Professor, **Department of Chemical and Physical Sciences**

E. A. Robinson Teaching Excellence Award for Senior Faculty, **University of Toronto Mississauga**

Lindsay Schoenbohm, Professor, **Department of Chemical and Physical Sciences**

Faculty Award for Student Involvement, University of Toronto Mississauga Students' Union Michael Lettieri, Professor, Department of Language Studies

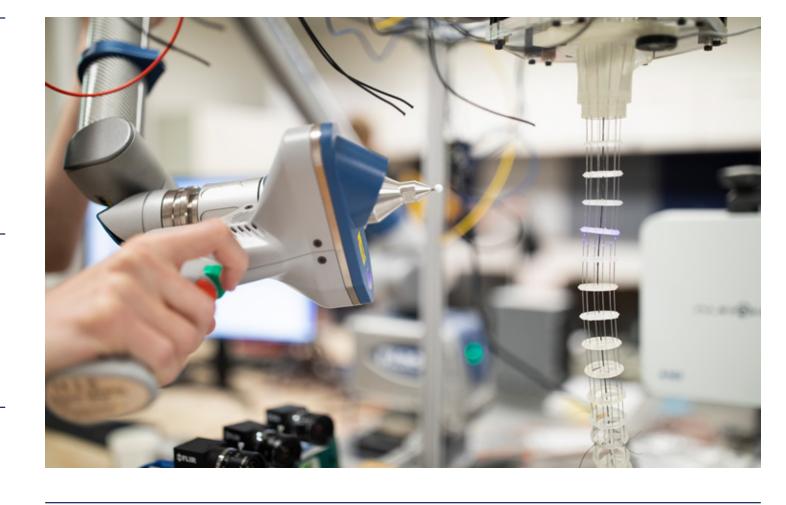
Finalist, Young Economists' Essay Award, EARIE Andrew Steck, Assistant Professor, Department of Management

IMI Research Award, UTM Institute for Management & Innovation Ningyuan Chen, Assistant Professor, Department of Management

John Charles Polanyi Prize, Council of Ontario Universities Alana Ogata, Assistant Professor, **Department of Chemical and Physical Sciences**

President's Teaching Award, University of Toronto Kenneth Derry, Associate Professor, Department of Historical Studies and Institute for the Study of University Pedagogy

Responsible Research in Management Award, **Fellows Group of the Academy of Management** Sonia Kang, Associate Professor, Department of Management



Roger Martin Award for Excellence in Research, **Rotman School of Management**

Ningyuan Chen, Assistant Professor, Department of Management

Rotman Outstanding Research Impact Award, Rotman School of Management Sonia Kang, Associate Professor, Department of Management

Sloan Research Fellowship, Alfred P. Sloan Foundation Michael Groechenig, Assistant Professor, Department of Mathematical and Computational Sciences

University of Toronto Early Career Teaching Award, University of Toronto

Sherry Fukuzawa, Assistant Professor, Department of Anthropology



UTM Annual Research Prize, University of Toronto Mississauga Alison Smith, Assistant Professor, Department of Political Science

UTM Annual Research Prize, University of Toronto Mississauga Loren Martin, Associate Professor, Department of Psychology

UTM Annual Research Prize, University of Toronto Mississauga Daniel Wright, Associate Professor, Department of English and Drama

UTM Teaching Excellence Award for Junior Faculty, University of Toronto Mississauga

Steve Szigeti, Assistant Professor, Institute of Communication, Culture, Information and Technology

Canada Research Chairs



Joel Levine Professor, Department of Biology Tier 1 NSERC Canada Research Chair in Biological Determinants of Social Networks, 2014–2028



Elizabeth Johnson Professor, Department of Psychology Tier 2 NSERC Canada Research Chair in Spoken Language Acquisition, 2013–2023





Marc Johnson Professor, Department of Biology, Tier 2 NSERC Canada Research Chair in Urban Environmental Science, 2018–2023





Sonia Kang Associate Professor, Department of Management Tier 2 SSHRC Canada Research Chair in Identity, Diversity and Inclusion, 2019–2024



John Ratcliffe Professor, Department of Biology Tier 2 NSERC Canada Research Chair in



Maria Hupfield Assistant Professor, Department of Visual Studies Tier 2 SSHRC Canada Research Chair in Indigenous Digital Arts and Performance, 2019–2024



Vincent Kuuire Assistant Professor, Department of Geography, **Geomatics and Environment** Tier 2 SSHRC Canada Research Chair in Immigrant Well-being and Global Health, 2019–2024



Neda Maghbouleh Associate Professor, Department of Sociology Tier 2 SSHRC Canada Research Chair in Migration, Race, and Identity, 2019–2024



Loren Martin Associate Professor, Department of Psychology Tier 2 CIHR Canada Research Chair in Translational Pain Research, 2015–2025



Rhonda McEwen Professor, Institute of Communication, Culture, Information and Technology Tier 2 SSHRC Canada Research Chair in Tactile Interfaces, Communication and Cognition, 2016-2026

Neuroethology, 2015–2025



Iva Zovkic Associate Professor, Department of Psychology Tier 2 CIHR Canada Research Chair in Behavioural Epigenetics, 2019–2024



Initiatives

UTM has recently introduced two initiatives to support grant development: the **Grant** Writing Cohort Program and the Funding **Application Repository.**

The **Grant Writing Cohort Program** was piloted in the summer of 2021 with the goal of supporting faculty members writing SSHRC Insight Grants and SSHRC Insight Development Grants. Participants in the program were divided into cohorts of 4-7 participants who had the option of writing together and supporting each other during the grant writing process. The program also offered monthly plenaries covering topics in grant writing and connected faculty members to peer reviewers of their choice who reviewed drafts of their applications.

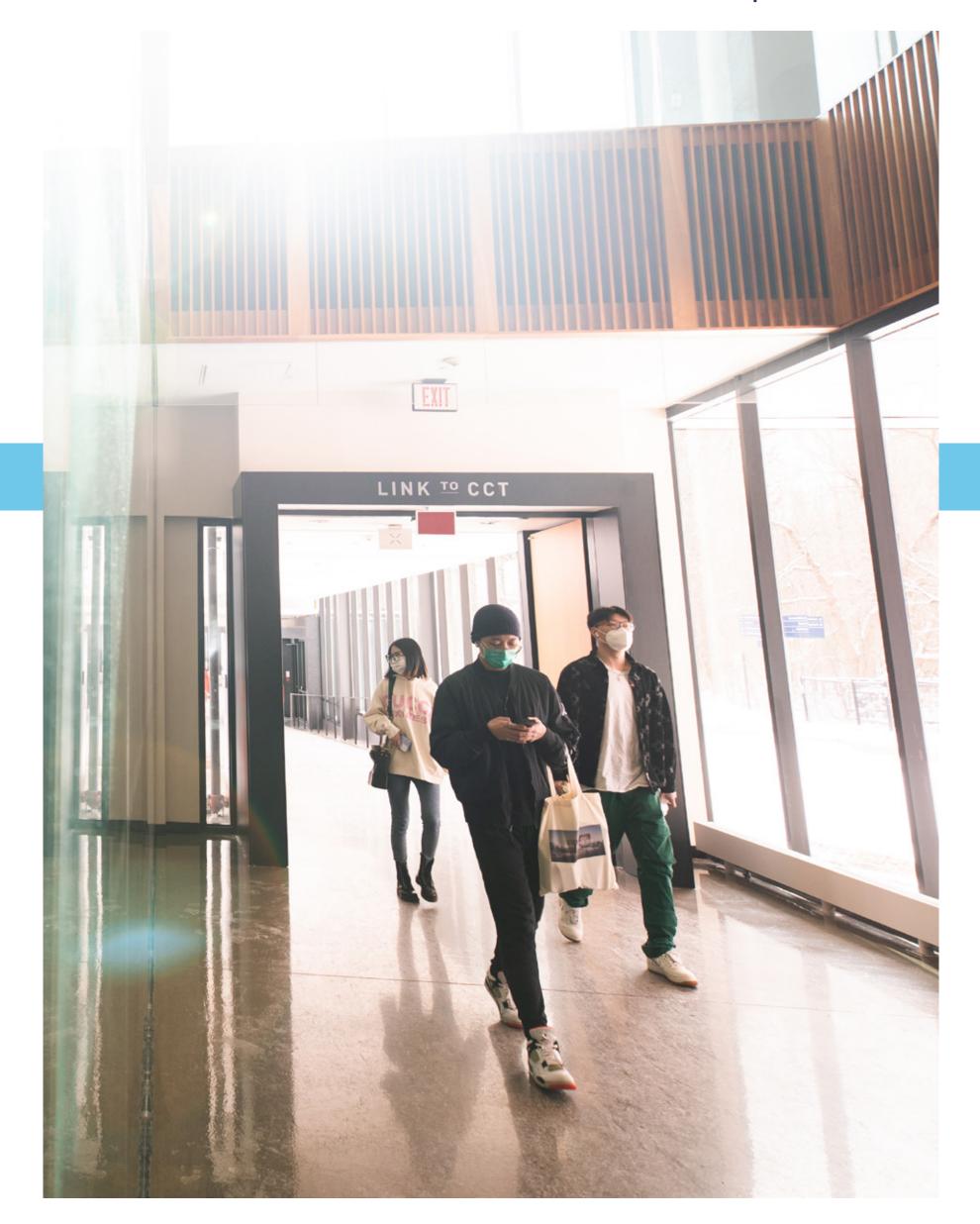
The Funding Application Repository is made available to UTM faculty through SharePoint.

The repository was made possible through the generosity of many UTM faculty members who, upon request, donated their successful grant applications to the repository where they can be used as references by faculty members who are looking for examples of successful grants.

The repository currently holds 71 applications covering various NSERC and SSHRC funding programs as well as the CIHR Project Grant, the Connaught program, CFI, Mitacs, the Ontario Research Fund, and other types of applications.

Since the repository was launched in March, it has received 277 visits from 40 individuals. Encouragingly, several researchers have expressed enthusiasm and appreciation to the OVPR for this project. This repository is a work in progress, and we will continue to update and expand it going forward.

Photograph by Nick Iwanyshyn.



Internal Funding Programs

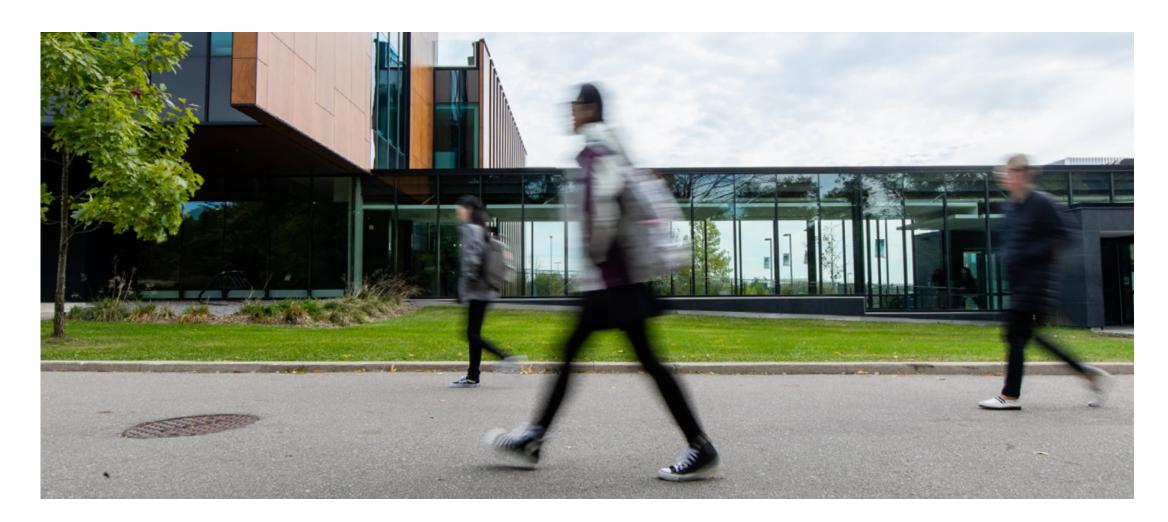


of the Registrar.

Page 20: Photograph by UTM Office of Communications.

ince 2015, UTM has introduced several internal funding opportunities to address gaps in faculty funding and support. These mechanisms are provided by the OVPR and help to support researchers across UTM.

Program	Recipients	Amount
Black, Indigenous, and Racialized Scholar Research Grant Program	6	\$58,124
Bridge Funding Program	18	\$260,000
Outreach, Conference and Colloquia Fund	6	\$8,500
Research and Scholarly Activity Fund	18	\$175,267
Research Infrastructure Support Program	6	\$168,650
Research Planning Grants	7	\$66,814
Tri-Council Postdoctoral Fellowship Top-up Program	7	\$70,000
UTM Postdoctoral Fellowship Award	5	\$226,000
UTM Postdoctoral Fellowship Travel/ Conference Grant	15	\$7,500
UTM Working Groups	1	\$3,000
XSeed	3	\$45,000



Launched in 2021, the Black, Indigenous, and Racialized Scholar Research Grant Program was established to address historical and contemporary effects of racism and racial disparities in all aspects of society. This funding mechanism has two streams:

- Research Seed Funding provides up to \$10,000 per project and supports works of research, research creation, or program development implemented at the UTM campus and/or in a community setting.
- Workshop/Outreach Grants provide up to \$2,000 and support organization of workshops, symposia, hosting of visiting scholars/artists, creative works; and/or community conversations

addressing the themes of the program. Ten researchers received funding in the first competition (\$97,950 dispersed total) and six received funding in the 2022 iteration of the program (\$58,124 dispersed total).

Also launched in 2021, the First Book Manuscript Workshop Competition program is designed for faculty completing their first monograph and funds an external specialist reader to read the manuscript and provide supportive feedback in a small seminar environment of 6-8 faculty. Two researchers, both Indigenous, have been awarded this grant so far.

In 2021, UTM offered the Pandemic Impact Support Fund to faculty who incurred

unanticipated costs and/or continued to fully fund graduate students and postdoctoral fellows during the COVID-19 pandemic. It provided up to \$20,000 per faculty member to help offset some of the pandemic's negative impact on researchers' already limited research budgets.

The Bridge Funding Program provides funds to faculty who have applied for, but not been awarded, a tri-council grant and who demonstrate need. In the 2021–2022 fiscal year, the Bridge Funding Program supported 12 researchers to the amount of \$213,000. Between 2016-2022, the Bridge Funding Program supported 33 researchers to a total amount of \$400,000.

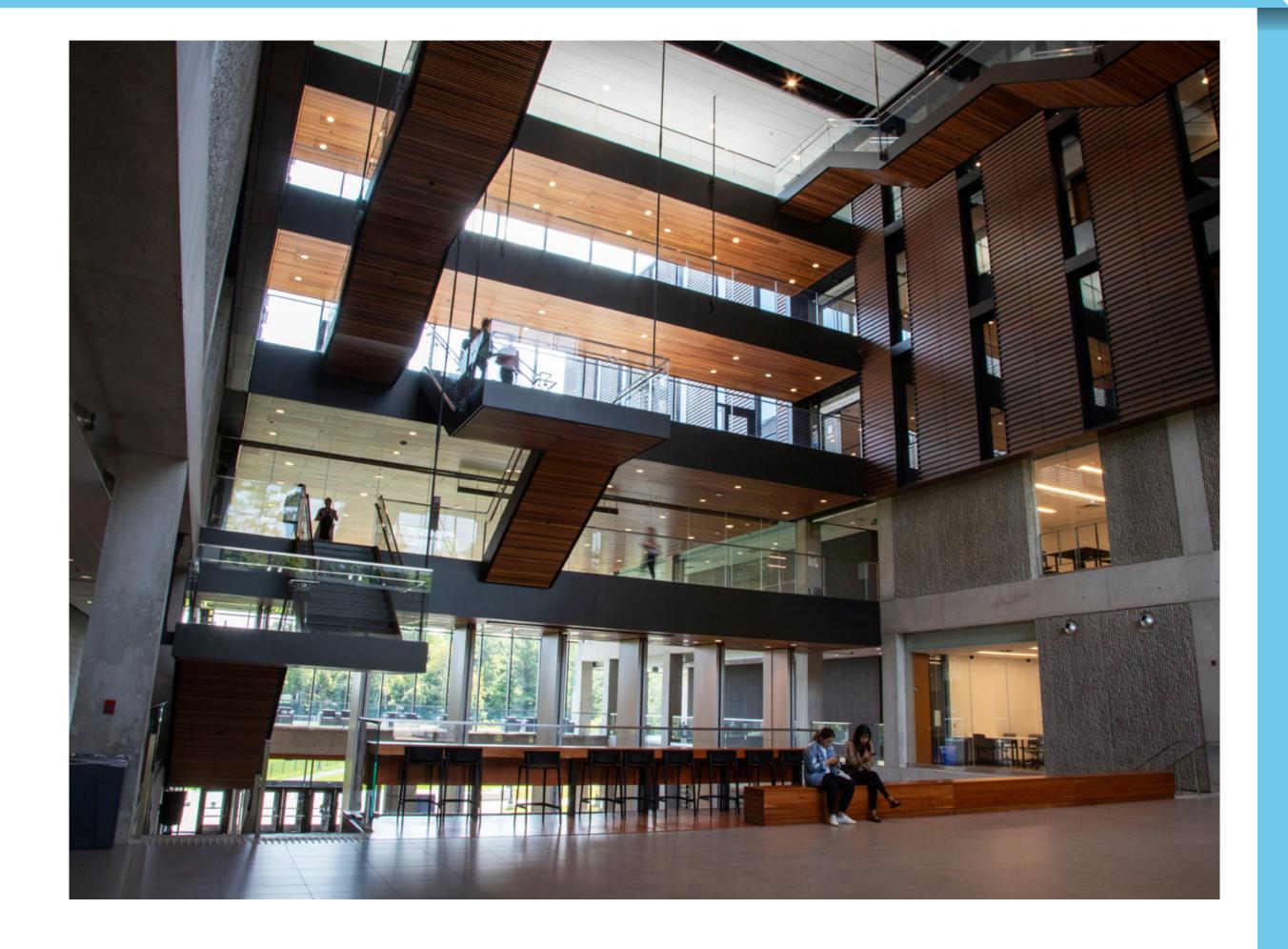
Also administered by the OVPR, the Research and Scholarly Activity Fund provides funding to increase the competitiveness of research proposals being submitted for external funding opportunities. To date, 95 applicants have been supported through the Research and Scholarly Activity Fund with the total amount dispersed equaling \$1,569,104.

Focusing on outreach activities that enhance UTM's research profile at the local, national, and international levels, the Outreach, Conference and Colloquia Fund (OCCF) provides financial support to organize conferences and colloquia. Between 2017–2022, the OCCF funded 33 projects to the amount of \$45,847.

ADDITIONAL INTERNAL FUNDING PROGRAMS:

- The Research Infrastructure Support Program, which supports units that require help with infrastructure-related needs, such as purchase/repair of research equipment and modifications of infrastructure;
- Research Planning Grants, which provide funds for UTM researchers to plan meetings to carry out grant development;
- Funding for the **UTM/Jackman Humanities Institute Annual Seminar,** which allows a faculty member in the humanities or social sciences to organize a series of events to address a topic of broad appeal; and
- The **UTM Working Groups**, which are led by UTM humanities and social sciences faculty members and tackle specific scholarly topics of interest.

Core Facilities





ore facilities are an integral part of the UTM research environment and are scheduled to grow with the completion of the New Science Building in summer of 2023. With the recent establishment of an Associate Vice-Principal - Facilities in the OVPR, this role is working in collaboration with each facility lead to ensure continued sustainability and growth.

Academic Workshop

The Academic Workshop, which has been in existence since the late 1960s, provides unique services to the UTM community in the design, manufacture, and repair of parts, materials, and products required by researchers, teaching operations, and Facilities Management & Planning. The facility is largely comprised of two components: the Machine and Electronics shops. The workshop has had steady growth in service orders over the years, and although COVID-19 had an impact, it is anticipated that requests will increase and exceed pre-pandemic levels.

Life Sciences Core Facilities

The <u>Life Sciences Core Facilities</u> consist of the Cell and Molecular Biology Facility and the Cell/Tissue Culture Facility and are open to faculty, staff, postdoctoral fellows, graduate students, and undergraduate research students. Equipment to enhance the facilities has been and will continue to be added over time based on the needs of the UTM community.

- The Cell and Molecular Biology Facility provides shared equipment related to DNA, RNA, and protein research.
- The Cell/Tissue Culture Facility provides researchers with a shared resource necessary to carry out cell/tissue culture-based experiments, and to maintain and store experimental cell lines.

Photograph by Drew Lesiuczok.

Growth Facilities

The <u>Growth Facilities</u>, composed of a greenhouse and multiple growth chambers, cater to multidepartmental research that requires specific environmental conditions for experiments and sample storage. The vision is to develop the UTM Growth Facilities as a smart phenomics facility with cutting-edge and sustainable equipment, capable of high-throughput phenotyping to address bottlenecks in plant and animal research.

Imaging Facility

The <u>Imaging Facility</u> is a shared resource providing instruction, support, and equipment for researchers performing optical microscopy. The facility is equipped with state-of-the-art instruments including a conventional confocal microscope, a spinning disc confocal microscope, a confocal system for multiphoton imaging, an epifluorescence microscope, and a tabletop scanning electron microscope. The facility also provides training, consultation, workshops, and access to software for data analysis.

Nuclear Magnetic Resonance Centre

The Nuclear Magnetic Resonance (NMR) Centre is equipped with modern spectrometers capable of a wide range of experiments. Through funding from the Canada Foundation for Innovation, the Ontario Government, UTM, and industrial partners, this facility focuses on small molecule structure characterization, fragment-based drug discovery, ligand-target interactions, and target structural dynamics. Staff and researchers

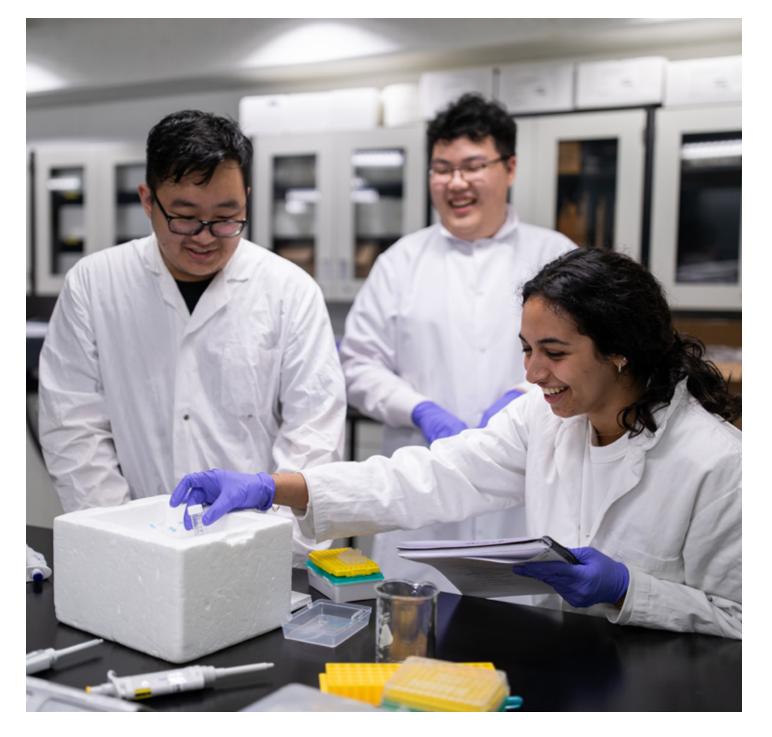
combine extensive expertise in medicinal, and structural biology, and biophysical research.

Collaborative Digital Research Space

The Collaborative Digital Research Space (CDRS) is a hub for interdisciplinary research in the arts, humanities, and social sciences offering a range of research supports including 1:1 consultations, co-working sessions, co-presenting film screenings hosting visiting speakers, and coding workshops. CDRS works closely with the Institutional Strategic Initiatives (ISI)-funded Critical Digital Humanities Initiative (CDHI), and Humanities and Social Science programs in the OVPR such as the UTM/Jackman Humanities Institute (JHI) Annual Seminar, the SSHRC Summer Cohort Program, and the First Book Manuscript Workshop.

The CDRS physical space was established by six departments: Historical Studies, English & Drama, Political Science, Language Studies, Philosophy, and Sociology. It is a unique space — in both mandate and size — unmatched across the tri-campus.

From January to December 2022, CDRS organized over 90 virtual co-working sessions and a three-day writing retreat (December 2022) that was attended by over 20 faculty, researchers, Contractually Limited Term Appointments, sessional instructors, postdoctoral fellows and graduate students. CDRS also played a role in the organization of the two-day Media Camp in May 2022. From September to December 2022, CDRS was booked for over thirty







Photographs by: Nick Iwanyshyn, Tanya Rohrmoser, Elizabeth Parke.

in-person events, including weekly faculty seminars and meetings, two workshops and conferences, and several visiting speakers hosted by various departments at UTM.

Vivarium

The UTM Animal Care Facility works with researchers at UTM to facilitate research projects in which the use of animals is necessary, and to ensure the research is conducted following proper procedures. This facility is regulated by the

Canadian Council on Animal Care (CCAC) and the Ontario government.

Other Facilities

Included under this category are High Performance Computing, Research Storage, the Department of Chemical & Physical Sciences core facilities, and the Department of Biology core facilities. These facilities are not under the purview of the OVPR, but all play an integral role in supporting the UTM research community.



Networks

INSTITUTES AND CENTRES

The OVPR continues to support and promote research at UTM, which is home to a range of centres and institutes that are sites of groundbreaking interdisciplinary research and training:

The Centre for Urban Environments (CUE), a transdisciplinary research centre directed by Marc Johnson, Professor in the Department of Biology, is committed to leadership in research, education, and outreach on urban environmental issues.

The Centre for Medicinal Chemistry (CMC) develops compounds with the potential to become cancer-fighting drugs and is led by **Patrick Gunning**, Professor in the Department of Chemical & Physical Sciences.

The Centre for Child Development, Mental Health, and Policy (CCDMP), directed by Tina Malti, Professor in the Department of Psychology, conducts research that advances a holistic understanding of children and generates service and practice solutions to enhance their potential and healthy development.

The Centre for South Asian Civilizations

is a multidisciplinary centre directed by Ajay Rao, Professor in the Department of Historical Studies and Vice-Dean Graduate & Postdoctoral Affairs. Led by Historical Studies, Language Studies, and Political Science, the centre educates students in history, religion, languages, and cultures.

ICUBE, led by Faculty Lead and Acting Director **Ann Armstrong**, is part of U of T's Innovation network and home to Social Entrepreneurship and early-stage startups at UTM, offering resources, programs, workshops, and mentorship for students and researchers alike.

The Institute for the Study of University Pedagogy (ISUP), led by Ruth Childs, Professor and Director, is a centre for research on teaching and learning which strives to make learning inclusive and accessible.

The vision of the Centre for NonLinear Analysis & Modeling (CNAM) is to enable researchers in nonlinear analysis and modelling at UTM, and the larger U of T, to strengthen and establish new connections outside of their traditional disciplinary networks.

INSTITUTIONAL STRATEGIC INITIATIVES

UTM is also home to several interdisciplinary research clusters funded through the **Institutional** Strategic Initiatives (ISI) program. Two are led by **UTM** researchers:

The Critical Digital Humanities Initiative (CDHI) is led by **Elspeth Brown**, Professor in the Department of Historical Studies and Associate Vice-Principal, Research - Strategic Initiatives, and enables transdisciplinary collaborations that emphasize questions of power, social justice, and critical theory in digital humanities.

Beth Coleman, Associate Professor, Institute of Communication, Culture, Information and Technology, directs the Black Research Network, which promotes Black excellence at U of T and enhances the research capacity of Black scholars within the university and on the world stage.

Additionally, The Mobility Network, Robotics Institute, and Data Sciences Institute all have UTM hubs headed by Mississauga-based Associate Directors — Shauna Brail, Associate Professor, Institute for Management & Innovation, **Jessica** Burgner-Kahrs, Associate Professor in the

Departments of Mathematical and Computational Sciences, and Bree McEwan, Associate Professor, Institute of Communication, Culture, Information, and Technology, respectively.











Community Partnerships

Photograph by UTM Office of Communications.

Cornerstone of UTM's Strategic
Framework is 'Embracing our
Place,' which highlights the
importance of incorporating
Mississauga's history, culture, and
regional priorities into campus
activities. The Framework details the centrality of
community-engaged teaching, learning, research,
and service, and the impact of community-engaged
efforts on Mississauga and the wider Peel region.
The following are some community collaborations
involving UTM faculty:

- Tenley Conway, Professor in the Department of Geography, Geomatics and Environment, partners with local municipalities, including the City of Mississauga, in a research program that seeks to understand the social impact of urban tree loss
- The <u>Indigenous Action Group</u> (IAG) includes UTM researchers **Sherry Fukuzawa**, Assistant

Professor in the Department of Anthropology, and **Nicole Laliberte**, Associate Professor in the Department of Geography, Geomatics and Environment, alongside members of the Mississaugas of the Credit First Nation (MCFN).

- The Amgen Biotech Experience at UTM

 (ABE@UTM) is the result of a partnership between the University of Toronto Mississauga and the Amgen Foundation. The program operates under the OVPR banner and offers a hands-on introduction to biotechnology for high school students, allowing them to get a head start on the kinds of lessons typically taught in undergraduate biology courses. ABE provides free access to professional equipment and trains teachers to impart core concepts to inspire students and serve them in their postsecondary education.
- The <u>Riverwood Junior Naturalist Club</u> (RJNC), directed by Dr. **Marc Johnson**, Professor in the Department of Biology, is a joint initiative



Based at UTM, the <u>Novo Nordisk Network for</u>
 <u>Healthy Populations</u> initiative was launched in
 2021 with a \$40-million investment from Novo
 Nordisk A/S and the University of Toronto. This

new network is a partnership between UTM, the Dalla Lana School of Public Health, and the Temerty Faculty of Medicine. The initiative is led by Lorraine Lipscombe, Associate Professor in the Department of Medicine, U of T, and will focus on new ways to support healthier urban populations and draw on U of T's leading expertise in public health research and education programs to impact the global fight against diabetes and other serious chronic diseases.



News and Achievements

UTM has a strong culture around celebrating the achievements of its researchers. Internal awards sponsored by UTM are the <u>Teaching Excellence</u>

<u>Awards for Faculty</u>; the <u>Teaching Excellence Awards</u>

<u>for Teaching Assistants</u>; the <u>Desmond Morton</u>

<u>Research Excellence Award</u>, which recognizes outstanding career achievement; and the <u>Annual Research Prizes</u>, which recognize outstanding early career faculty members, one each from the Humanities, Social Sciences, and the Sciences.

In addition to internal awards, UTM researchers continue to receive recognition at the provincial, national, and international levels. From 2015 to

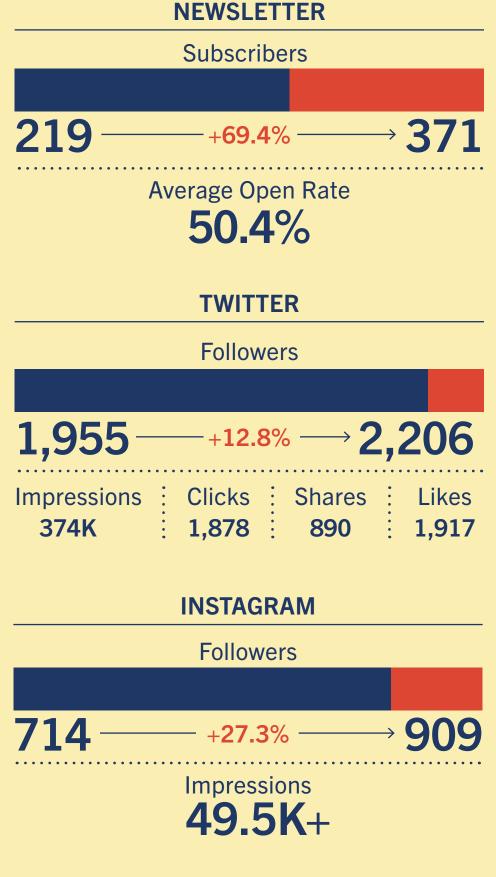
2021, UTM faculty members received 39 internal awards, 33 international awards, 7 national awards, and 4 provincial awards. The OVPR is currently developing a strategy to increase the number of award nominations and applications, which includes the recent hiring of a third Strategic Research Development Officer who is focusing on supporting honours and awards, and is working with individual units to identify potential nominees and relevant award opportunities. In identifying potential nominees, we strive to be systematic to identify all eligible researchers, particularly those who may not self-nominate or those who may normally be overlooked.

Communications

2021–2022 saw some exciting changes in our communications efforts. In October, we welcomed our Communications Officer,

Tanya Rohrmoser, who set to work streamlining communications processes, setting up analytics and reporting systems, and developing a plan to support our strategic objectives. We designed a suite of branded materials that present a clean and cohesive look across office activities, and improved our website with a simpler sitemap that functions with users in mind. We also redesigned our newsletter and implemented new strategies to increase our subscriber list, which grew this past year by more than 70%.

Social media saw changes as well: platforms have been updated with OVPR headers and profiles in line with the U of T brand, and the OVPR is now on LinkedIn. We continue to grow our Twitter following and to establish a more active presence on Instagram. In the coming months, we look forward to telling the stories of UTM researchers and supporting their efforts across our channels.



WEBSITE

Page Views

52,368

Users 16.5K Session

Sessions **26.9K**

Homepage Excellence Award SURF Top Viewed Pages

mepage 3,343 ee Award 2,828 SURF 2,441

Events

Whether online or on campus, this past year we welcomed faculty, staff, and students alike to join us in celebrating the outstanding research happening across UTM.

In January, early career researchers introduced attendees to their research at our Annual Research Prize Symposium. Prize-winners Andrew **Beharry**, Assistant Professor in the Department of Chemical & Physical Sciences, and Bailey **McMeans,** Assistant Professor in the Department of Biology, were both recognized for their contributions to the Sciences; Cosmin Munteanu, Assistant Professor, Institute for Communication, Culture, Information, and Technology (ICCIT) for his work in the Social Sciences; and **Owen** Ware, Associate Professor in the Department of Philosophy, for his work in the Humanities.

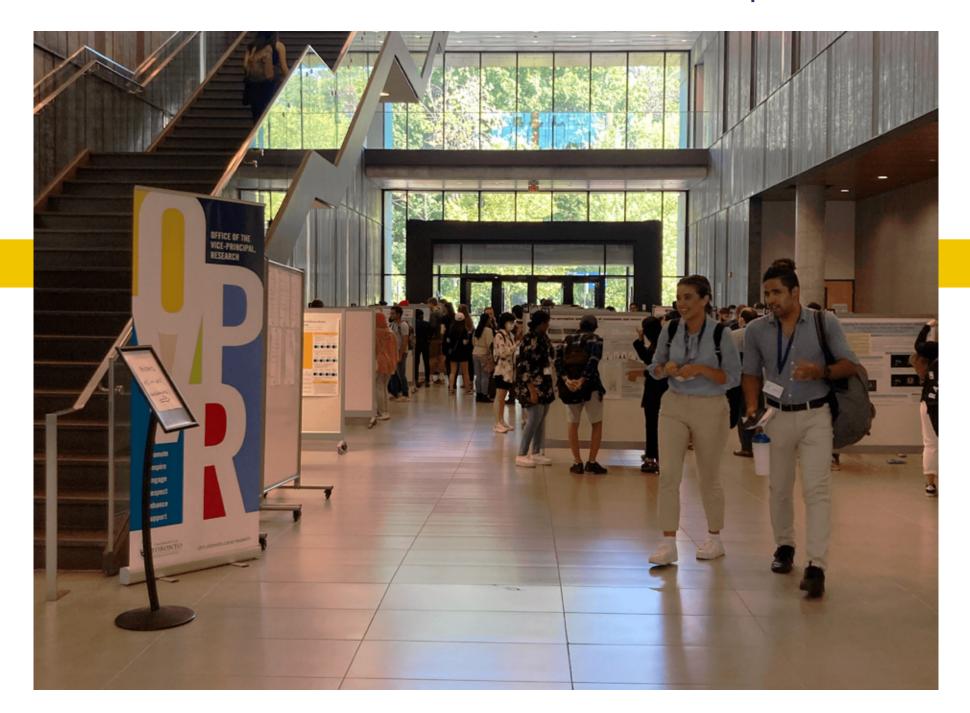
Professor Martin Revermann was awarded the 2021 Desmond Morton Research **Excellence Award**, recognized for his contributions to Classics and Theatre Studies. He delivered his virtual lecture, "The Theatre of Science," in February at the **Desmond Morton** Research Excellence Lecture.

Co-hosted with UTM Library, our **Annual** Celebration of Books celebrated UTM's diverse and vibrant scholarship in April. The virtual event featured 24 titles from 19 authors and editors, who together represented 10 departments at UTM.

In the summer, **Smarti Gras** was rebranded and replaced by **SURF** — UTM's <u>Summer</u> <u>Undergraduate Research Fair</u>. Featuring new logos, designs, and promotional activities, the lively August event took place on campus and welcomed more than 200 attendees. Students from across disciplines shared their summer research via posters and oral presentations; keynote speakers **Negin Dahya**, Assistant Professor, ICCIT, and Iva Zovkic, Associate Professor in the Department of Psychology, inspired the crowd with notes from their own research; and the gathering offered the perfect opportunity to come together in person and look toward the school year ahead.

Presentation winners included **Peter (Haoxuan)** Ge (GGE), Sandra Zhitkova (CPS), Sherry Du (Biology), Scott Ford (Biology), Jonathan Waugh (GGE), and Isabella Vessio (Biology).

Students and attendees wander the IB atrium at SURF 2022. Photographs by Angelia Meffe.











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