2022 Research & Innovation Annual Report
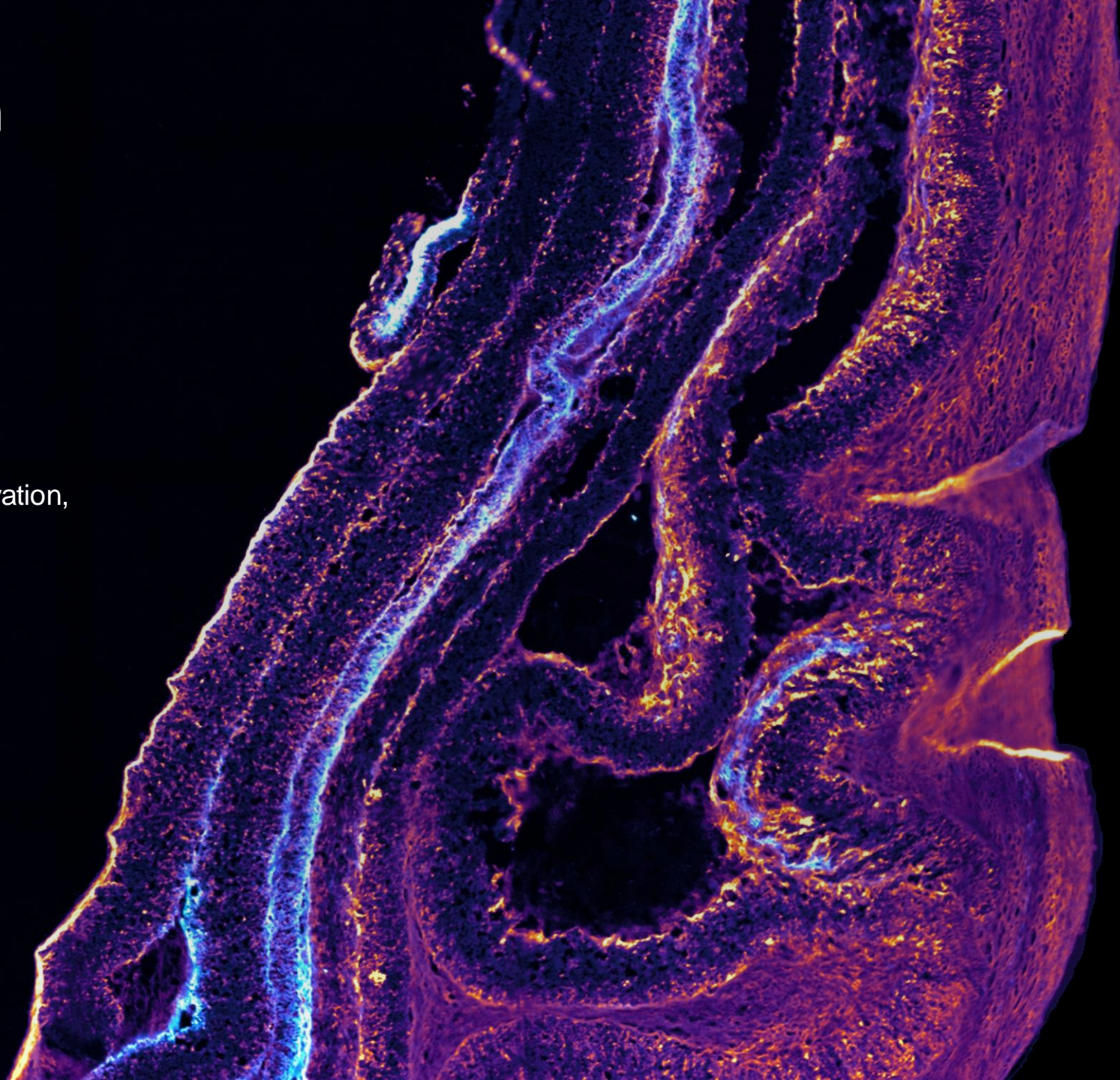
Presented by:

Professor Leah Cowen
Vice-President, Research and Innovation, and Strategic Initiatives

Apr 27, 2023

2022.research.utoronto.ca

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DEFY GRAVITY

University
Rankings & Awards

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The University of Toronto's Rankings and Impact

#1

in Canada by global university rankings worldwide

(THE 2023, U.S. News 2022–2023, and 2022 ARWU)

#2

among North American public universities

(Times Higher Education World University Rankings 2023)

#18

worldwide

(U.S. News 2022–2023 Best Global Universities Rankings and Times Higher Education World University Rankings 2023)

#2

worldwide among globally ranked universities for social and environmental impact

(QS Sustainability Rankings 2023)

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U of T 2022–2023 Major Field Ranking Results

In the top 5 by major field

2022–2023	Field	World Ranking
NTU	Medicine	4

In the top 15 by major field

2022–2023	Field	World Ranking
THE	Clinical, Pre-clinical & Health	7
NTU	Social Sciences	9
QS	Life Sciences & Medicine	12
THE	Education	13
NTU	Life Sciences	13
THE	Arts & Humanities	15

In the top 30 by major field

2022–2023	Field	World Ranking
QS	Arts & Humanities	16
THE	Law	16
THE	Psychology	19
QS	Social Sciences & Management	21
THE	Computer Science	22
THE	Physical Sciences	22
THE	Life Sciences	24
QS	Natural Sciences	24
THE	Business & Economics	25
THE	Social Sciences	26
THE	Engineering	27

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Publications in the Top 10% Most Highly Cited Publications (2017–2021)

Top 5 Global Institutions by Publications

Global Ranking	
1	Harvard University
2	University of Chinese Academy of Sciences
3	Stanford University
4	University College London
5	**University of Toronto**

U of T Top 10 Fields by Publications

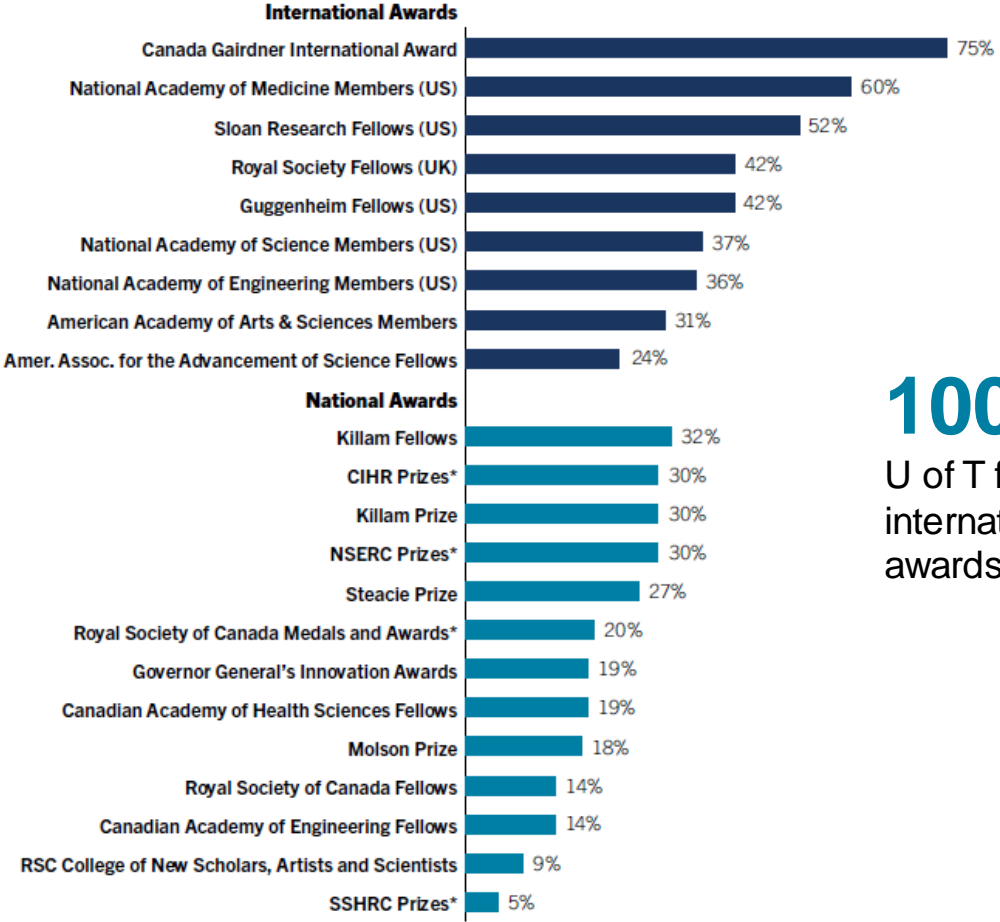| Global Ranking	
2	Clinical Medicine
4	Psychiatry/Psychology Social Sciences
6	Neuroscience & Behavior
7	Arts & Humanities

Three Canadian U15 universities are among the Top 100 institutions globally, in the order of U of T, UBC, and McGill.

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Major Awards & Honours – U of T Market Share Among Canadian Universities (2013–2022)

International Awards

Award	%
Canada Gairdner International Award	75%
National Academy of Medicine Members (US)	60%
Sloan Research Fellows (US)	52%
Royal Society Fellows (UK)	42%
Guggenheim Fellows (US)	42%
National Academy of Science Members (US)	37%
National Academy of Engineering Members (US)	36%
American Academy of Arts & Sciences Members	31%
Amer. Assoc. for the Advancement of Science Fellows	24%

National Awards

Award	%
Killam Fellows	32%
CIHR Prizes*	30%
Killam Prize	30%
NSERC Prizes*	30%
Steacie Prize	27%
Royal Society of Canada Medals and Awards*	20%
Governor General's Innovation Awards	19%
Canadian Academy of Health Sciences Fellows	19%
Molson Prize	18%
Royal Society of Canada Fellows	14%
Canadian Academy of Engineering Fellows	14%
RSC College of New Scholars, Artists and Scientists	9%
SSHRC Prizes*	5%

100

U of T faculty won major international and national awards in 2022

In 2022, U of T faculty members won two prestigious Canada Gairdner Awards, celebrating the world's best biomedical and global health researchers.

Photo: imagesbydelmar.com

University Professor John Dick
Temerty Faculty of Medicine
University Health Network

Canada Gairdner International Award

Professor Zulfiqar Bhutta
Temerty Faculty of Medicine
The Hospital for Sick Children

John Dirks Canada Gairdner Global Health Award

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2023 President's Impact Award Winners

**Professor
Ajay Agrawal**

Rotman School of Management

**Professor
Yu Sun**

Department of Mechanical
and Industrial Engineering,
Faculty of Applied Science
and Engineering

SCIENCE TABLE
COVID-19 ADVISORY FOR ONTARIO

**Ontario COVID-19
Science Advisory Table
Leadership**

Dalla Lana School of Public Health and
Institute of Health Policy, Management
and Evaluation; Department of
Mathematics, Faculty of Arts and Science;
Departments of Family and Community
Medicine, Medicine, Paediatrics, and
Psychiatry, Temerty Faculty of Medicine.

**Professor
George Dei**

Department of Social Justice
Education, Ontario Institute for
Studies in Education

**Professor
Ito Peng**

Department of Sociology,
Faculty of Arts and Science

Professor Peng is also the
recipient of the 2023 Carolyn
Tuohy Impact on Public
Policy Award.
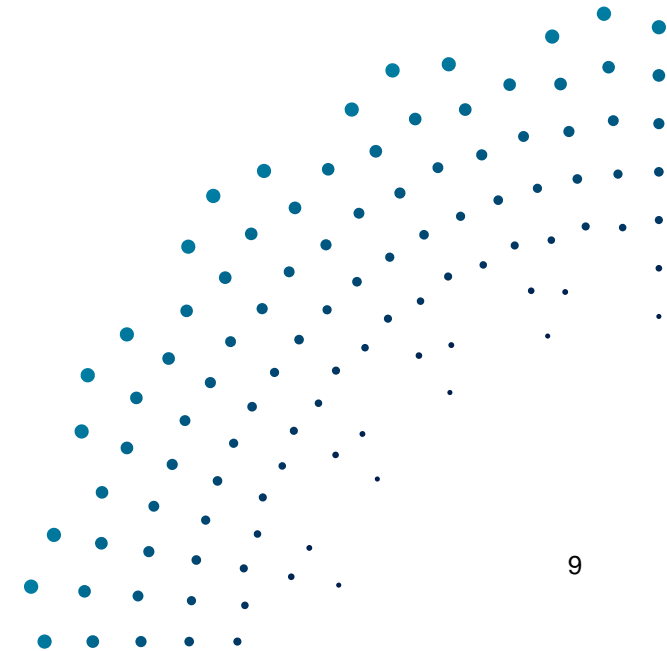
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Research & Innovation Funding

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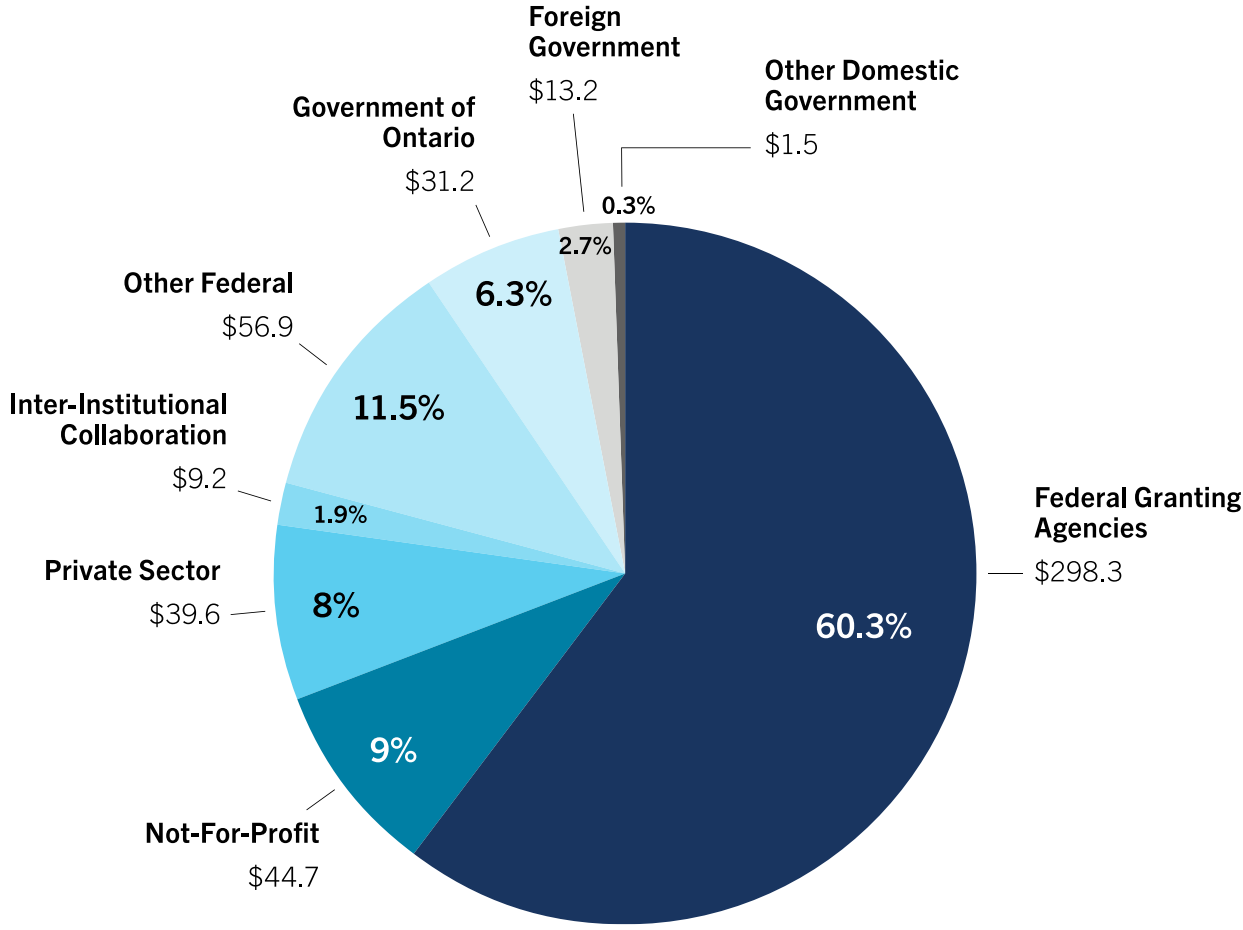
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Unprecedented Success Securing Grants Totalling $300M

✓ Canada Biomedical Research Fund – **CBRF $2M**

✓ Biosciences Research Infrastructure Fund – **BRIF $35M**

✓ New Frontiers in Research Fund – **NFRF Transformation $24M & Exploration $2.25M**

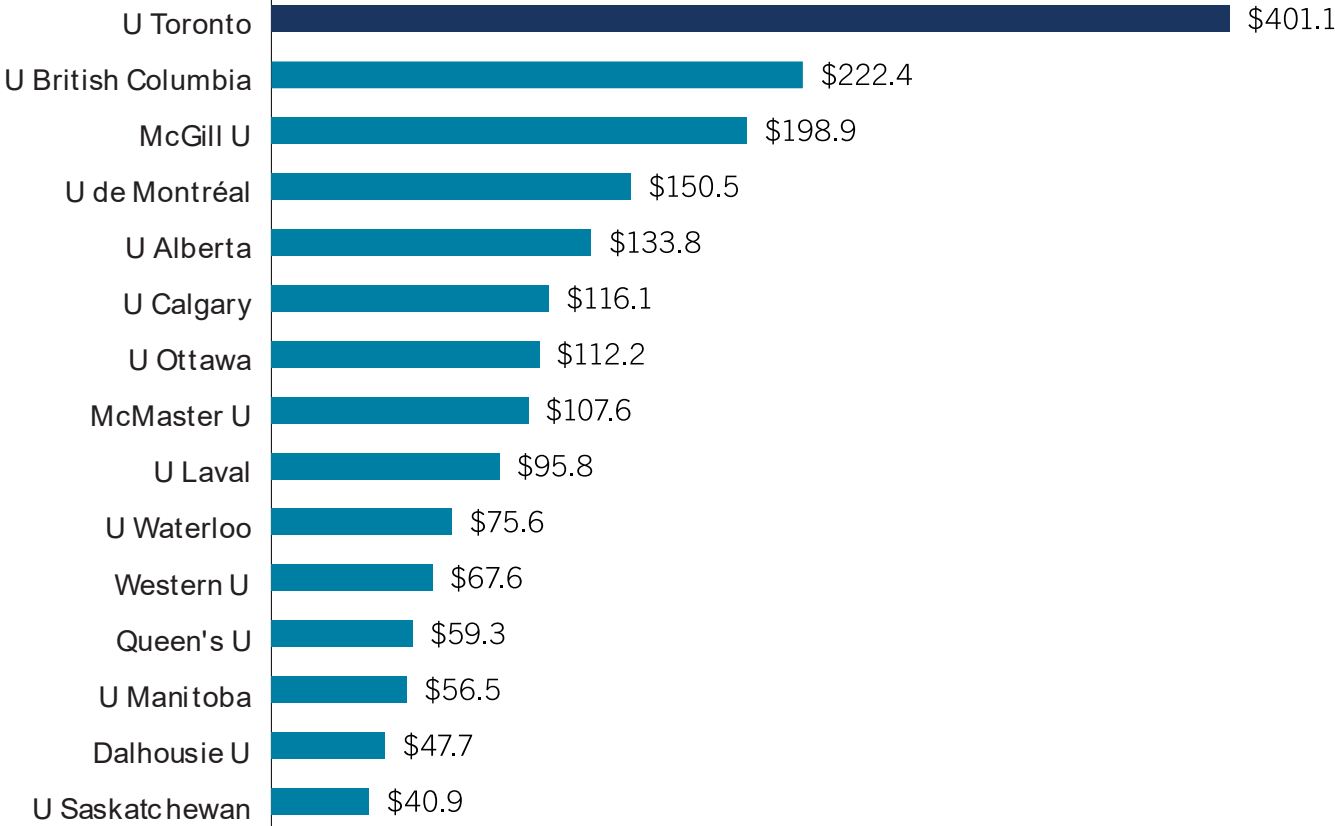✓ Eric and Wendy Schmidt **AI in Science Postdoctoral Fellowships $10M USD**

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Research Funds Awarded to U of T by Sector (2021–2022)

Total Funding
$495 million

Federal Granting Agencies $298.3 — 60.3%
Not-For-Profit $44.7 — 9%
Private Sector $39.6 — 8%
Inter-Institutional Collaboration $9.2 — 1.9%
Other Federal $56.9 — 11.5%
Government of Ontario $31.2 — 6.3%
Foreign Government $13.2 — 2.7%
Other Domestic Government $1.5 — 0.3%

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10

Tri-Agency Funding to U15 Universities Including Partner Hospitals (2021–2022)

U15 Universities

University	Funding
U Toronto	$401.1
U British Columbia	$222.4
McGill U	$198.9
U de Montréal	$150.5
U Alberta	$133.8
U Calgary	$116.1
U Ottawa	$112.2
McMaster U	$107.6
U Laval	$95.8
U Waterloo	$75.6
Western U	$67.6
Queen's U	$59.3
U Manitoba	$56.5
Dalhousie U	$47.7
U Saskatchewan	$40.9

16%
of the country's Tri-Agency funding

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Canada Foundation for Innovation (CFI) Funding to U15 Universities (2016–2017 to 2021–2022)
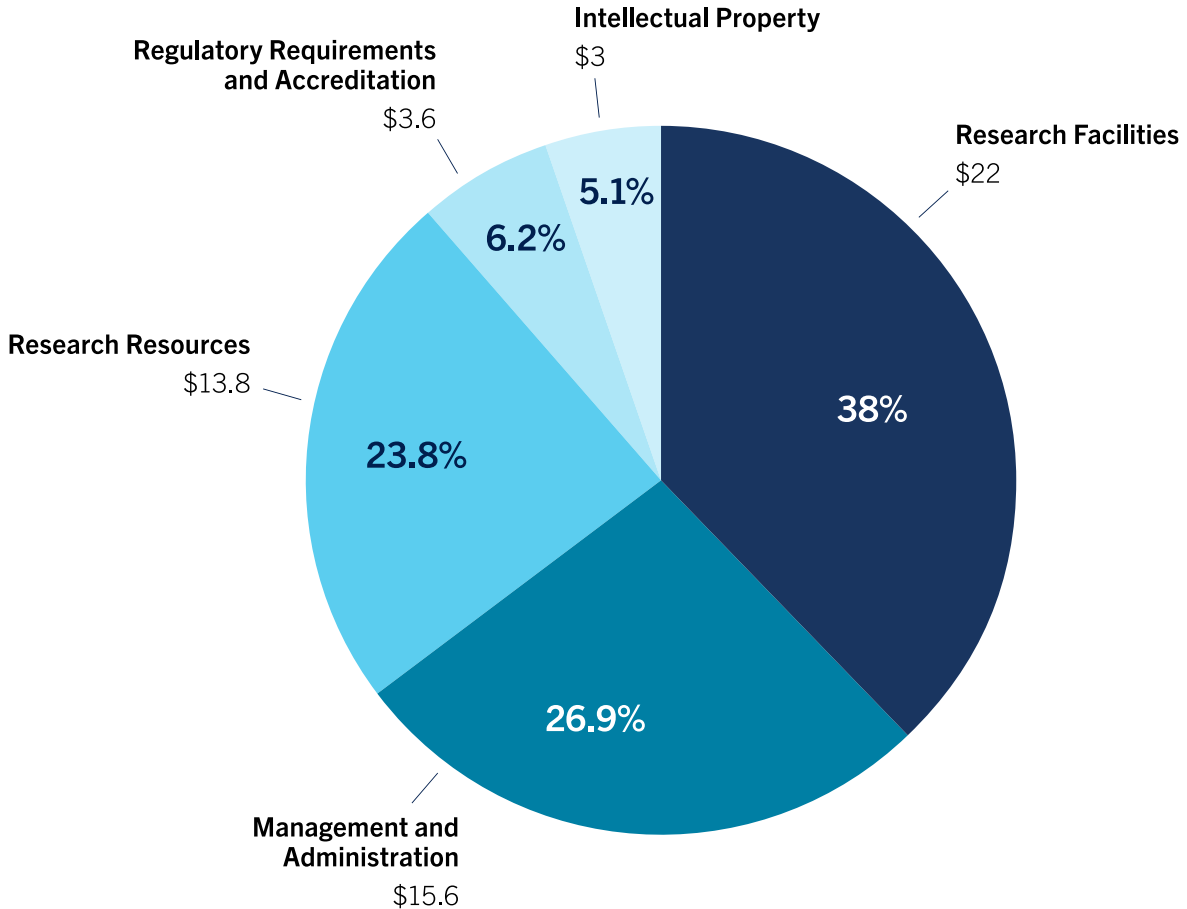
U15 Universities

University	Funding (millions)
U Toronto	$238
U British Columbia	$131
McGill U	$110
U de Montréal	$81
U Alberta	$67
McMaster U	$64
U Ottawa	$62
U Calgary	$60
U Waterloo	$52
U Laval	$44
Western U	$32
U Saskatchewan	$31
Dalhousie U	$30
Queen's U	$26
U Manitoba	$16
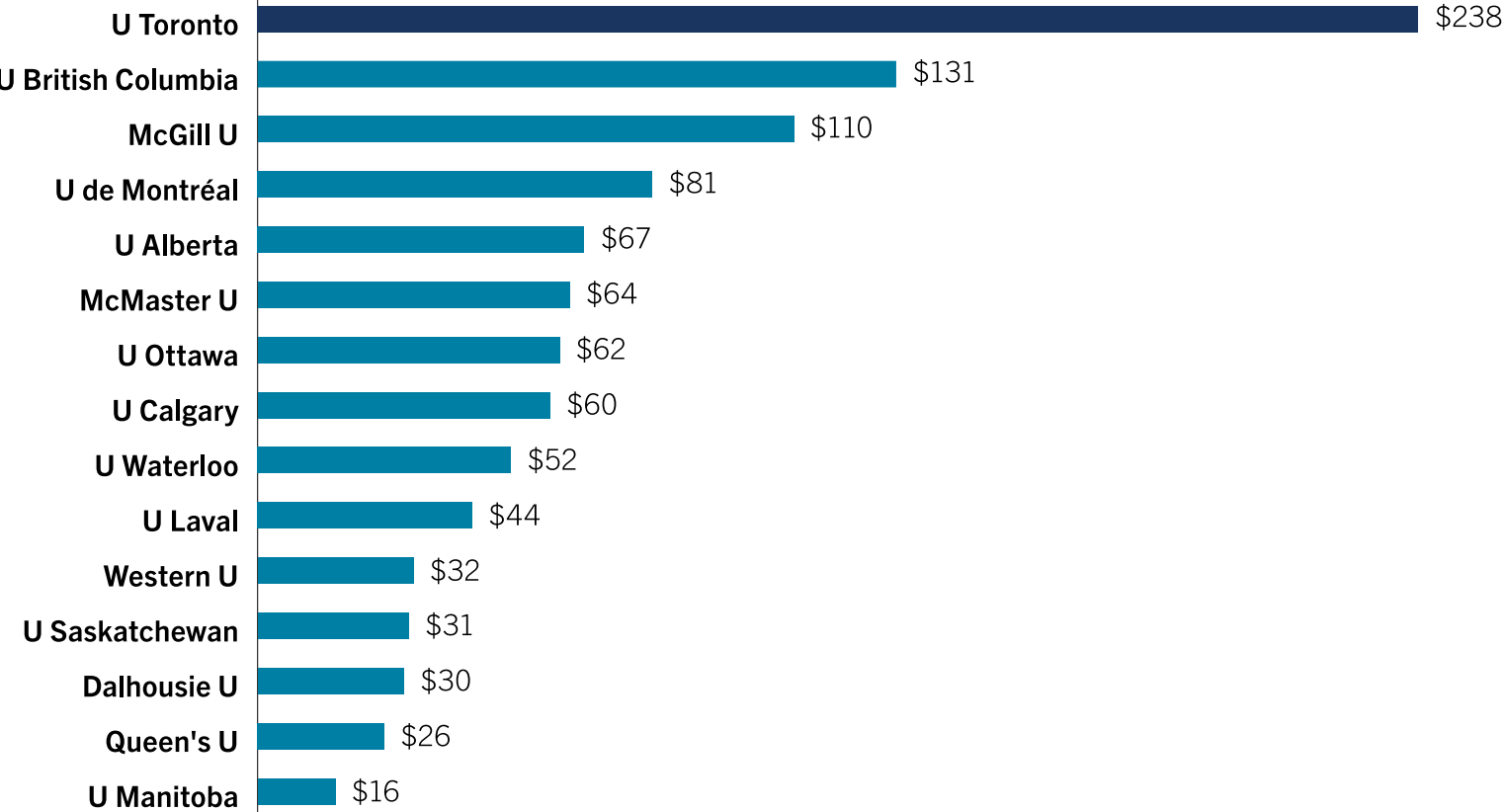
16.8%
of CFI funding awarded nationally

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Research Support Fund Expenditures by Eligible Categories (2021–2022)

Total Funding

$58 million

Intellectual Property
$3

Regulatory Requirements
and Accreditation
$3.6

Research Facilities
$22

5.1%

6.2%

38%

Research Resources
$13.8

23.8%

26.9%

Management and
Administration
$15.6

Connaught Fund Amounts Awarded (2021–2022)

Program	Amount Awarded Connaught Expendable	McLean Fund	Inventions Revenue	l'Anson Fund	# of Awards
Global Challenge Award	$859,143	–	–	–	4
New Researcher Award	$990,554	–	–	–	51
Innovation Award	$500,667	–	$500,667	–	13
McLean Award*	$62,500	$62,500	–	–	1
Graduate Scholarship	$1,129,583	–	–	–	116
	$3,542,447	**$62,500**	**$500,667**	**–**	**185**

Total funding to research projects overseen by the Connaught Committee:

$4,105,614

Income earned by Connaught Endowment for 2021–2022: $4,256,665.

*Required match to the McLean Fund investment

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Canada Research Chairs

The **Canada Research Chairs (CRC) program** enables U of T to attract and retain the best and most promising researchers from around the world.

U of T holds

330

CRCs, more than any other Canadian university and **138** more than our nearest peer

(Tri-agency Institutional Programs Secretariat 2021–2022)

Research Partnerships & Collaborations

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Research Partnerships & Collaborations

The University of Toronto's global reputation as a top research university attracts partners dedicated to addressing pressing challenges.

Research partnerships with industries, not-for-profits, communities, and others expand the collaborative network available to U of T researchers and facilitate access to essential materials, data, and resources for research and training opportunities.

Community Partnerships

Muslims in Canada Archives (MiCA)

Led by Professor Anver Emon (Faculty of Law, Department of History, and Director, and Institute of Islamic Studies), and supported by a SSHRC Partnership Development Grant in 2020, the Muslims in Canada Archives (MiCA) is a collaborative and participatory initiative at the Institute for Islamic Studies (IIS), providing a platform for the missing Muslim voices in Canada.

From Harvest to House: Developing a Pathway to Housing Self-sufficiency in Remote First Nations Communities

Led by Professor Sarah Haines (Department of Civil & Mineral Engineering), this partnership supported by the Connaught Global Challenge Award brings together several First Nations in Saskatchewan with a team of researchers from U of T and Toronto Metropolitan University to develop new pathways toward housing self-sufficiency.

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International Research Partnerships

In 2022, U of T received:

$29.7 million

in corporate sponsored research from international companies

More than $910,000

in funding supports for

100

joint international research projects led by U of T faculty in collaboration with researchers at other universities

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Innovation &
Entrepreneurship

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An Innovation and Entrepreneurship Powerhouse

Top 5
university-managed
incubators globally

$2.5 Billion
in investment raised
by U of T startups over
the past decade

Members of the U of T
entrepreneurial community
have launched

600+
venture-backed
companies, and created

9,000+
jobs in the past decade

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Launch of the Desjardins Startup Prize

In 2022, U of T partnered with Desjardins to launch the Desjardins Startup Prize. This annual business pitch competition awards over $100,000 in prizes to recognize, reward, and accelerate 10 innovative U of T startups.

New Institutional Strategic Initiatives

**Tanenbaum Institute for Science
in Sport (TISS)**

Launched through a generous $20-million gift
from the Larry and Judy Tanenbaum Family
Foundation, the Tanenbaum Institute for
Science in Sport (TISS) is a global centre of
excellence for high-performance sports
science and sports medicine.

Institute for Pandemics (IfP)

To help the public and policymakers better
navigate the next global outbreak, U of T
launched the Institute for Pandemics in 2022.
The initiative brings together researchers and
educators from across disciplines and around
the world to address the complex, global
public health challenges posed by
pandemics.

Engagement & Impact

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Equity, Diversity, & Inclusion in Research & Innovation

U of T is committed to inclusive excellence in the pursuit of its academic mission.

Through collaboration and strategic implementation of EDI commitments, the University of Toronto is building an equitable, inclusive, and diverse research and innovation ecosystem. We embrace inclusive excellence as it maximizes our research and innovation impact.

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Connaught PhDs for Public Impact Fellowship Program

The Connaught PhDs for Public Impact Fellowship Program supports 15 PhD students pursuing public impact scholarship. This program enables fellows to meaningfully contribute to our local and global communities through publicly accessible scholarship, open-access initiatives, community partnerships, and non-traditional research including social media.

Indigenous Initiatives

U of T is dedicated to creating a supportive environment for Indigenous research.

Indigenous initiatives led by VPRI aim to develop an interconnected and collaborative network of researchers, with review panels and funding streams to ensure research is aligned with Indigenous principles and values.

These include:

- **The Indigenous Research Network**

- **Indigenous Research Ethics Process**

- **Kay-Nah-Chi-Wah-Nung Gathering: Museums, Universities, and Communities Working Together**

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VPRI by the Numbers

University of Toronto

Defy Gravity

VPRI Serving the U of T Community

Research Funding

4,100
new funding applications

$533M
in funding awarded

9,490
research funds

Innovation & Entrepreneurship

170
invention disclosures
(2019-2021 annual average)

40
licensing and option agreements
(2019–2021 annual average)

290
commercialization projects
(2011–2021)

Oversight & Compliance

39,000+
people trained
in EHS programs

768
lab inspections conducted
(mix of in-person and virtual)

1,835
worksite assessments

Research Training & Resources

187
events and workshops directly supported by CRIS

860
trained and connected as participants of STaR

1000+
faculty and staff attended DiscoverResearch demos

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29

VPRI Serving the U of T Community

- COmmunity for Research Excellence (CORE)
- Core Facilities Working Group
- Digital Research Infrastructure DRI@UT
- Discover Research
- Divisional Quantitative Research Strategic Plans (DQRSP)
- Major Research Project Management Fund
- My Research Applications & Agreements
- U of T Commercialization Framework
- Researcher Development Framework
- Strengthening Administration of Research (STAR) Program
- VPRI Dashboards

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