# RESEARCH& NNOVATION



PRESENTED BY:

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

DATE:

**April 18, 2024** 



### U OF T'S RANKINGS



#1

in the world for sustainability

(QS Sustainability Rankings 2024)

in Canada by global university rankings

(ARWU 2023, NTU Ranking 2023, QS 2024, Times Higher Education 2023–24, U.S. News 2022–23)

#3

among North American public universities

(Times Higher Education World University Rankings 2023–24)



university business incubators in the world

(UBI Global's World Benchmark Study, 2021–22)

## AWARDS & HONOURS

125

international and major national research awards were received by U of T researchers in 2023

48%

of major international awards won by researchers at Canadian universities were awarded to U of T (Universities Canada Global Excellence Initiative, 2021–2023)

### **MAJOR AWARDS & HONOURS**

### Recognition by national academies

**Professor Yu Sun**, Department of Mechanical and Industrial Engineering, achieved the rare distinction of fellowship in all three Canadian academies:

- Canadian Academy of Health Sciences
- Canadian Academy of Engineering
- Royal Society of Canada



### IMPACT AWARDS

50%

of Canada's SSHRC Impact Awards for faculty in 2023 were awarded to U of T researchers, including U of T's second SSHRC Gold Medal in 3 years

### RECOGNIZING RESEARCH IMPACT AT U OF T

Social Sciences and Humanities Research Council (SSHRC) Impact Awards



University Professor
David Dyzenhaus,
Faculty of Law and
Department of Philosophy



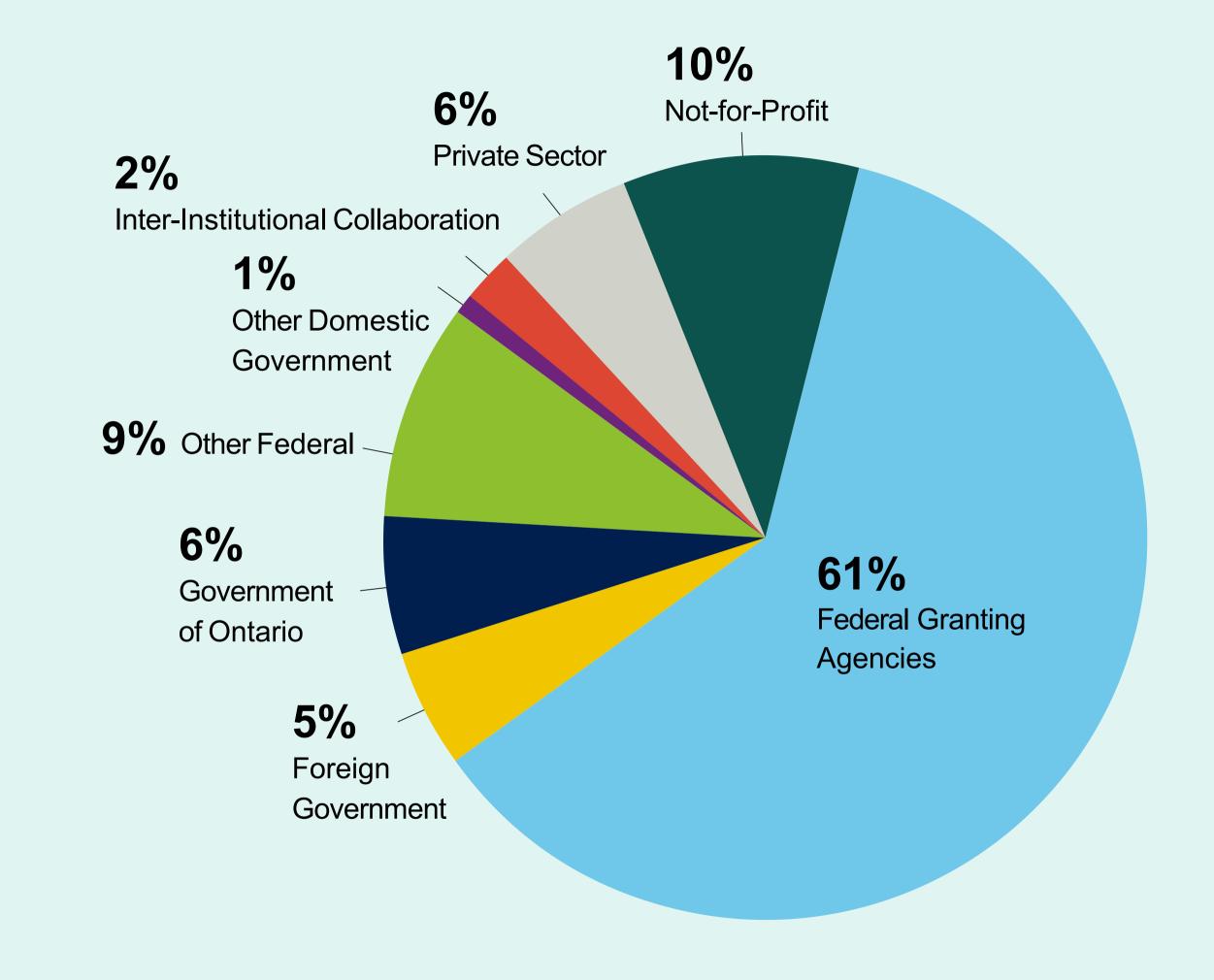
Professor Kang Lee,
Department of Applied Psychology
and Human Development

### **FUNDING**



**Total Funds Awarded:** 

\$497<sub>million</sub>

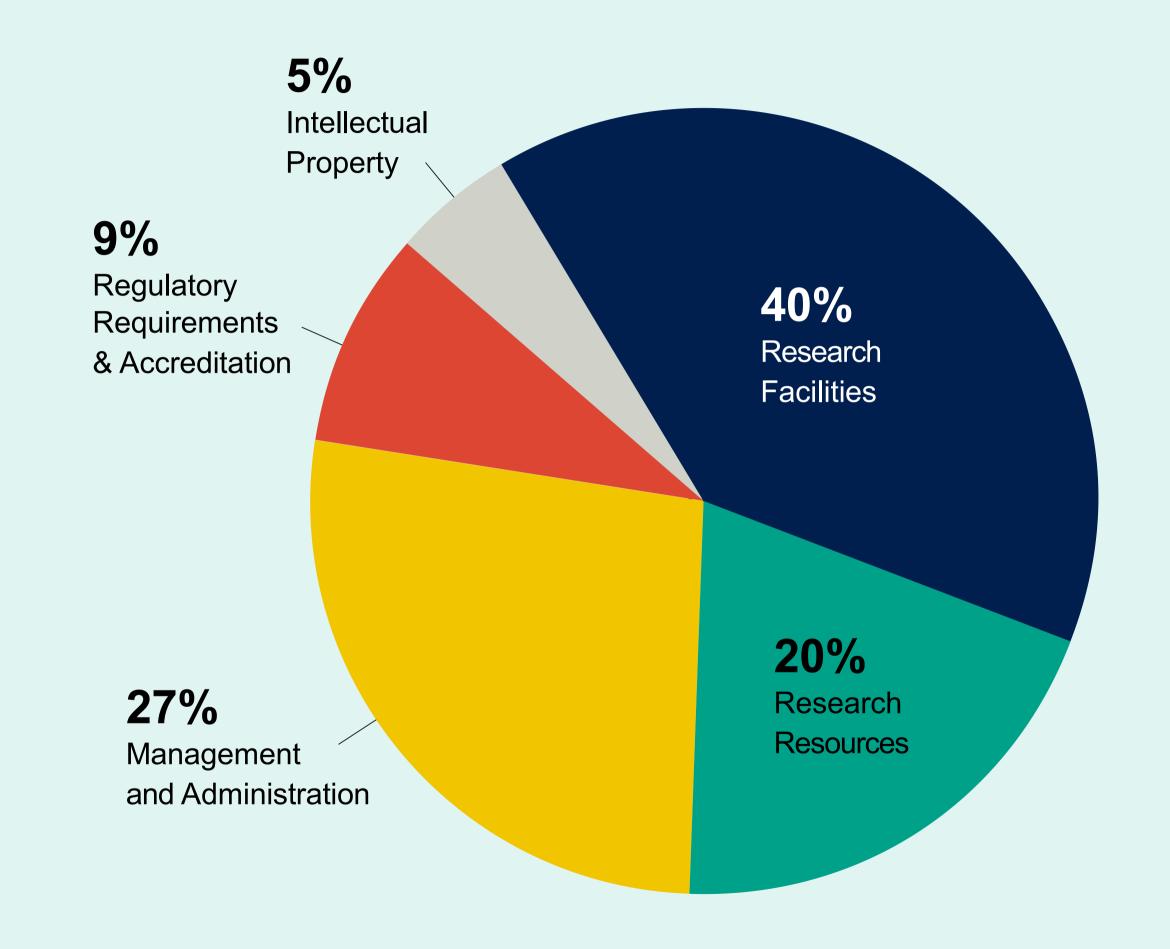


### **FUNDING**

Research Support Fund Expenditures by Eligible Categories (2022–23)

**Total Funds Awarded:** 

\$62.4 million



### **FUNDING**

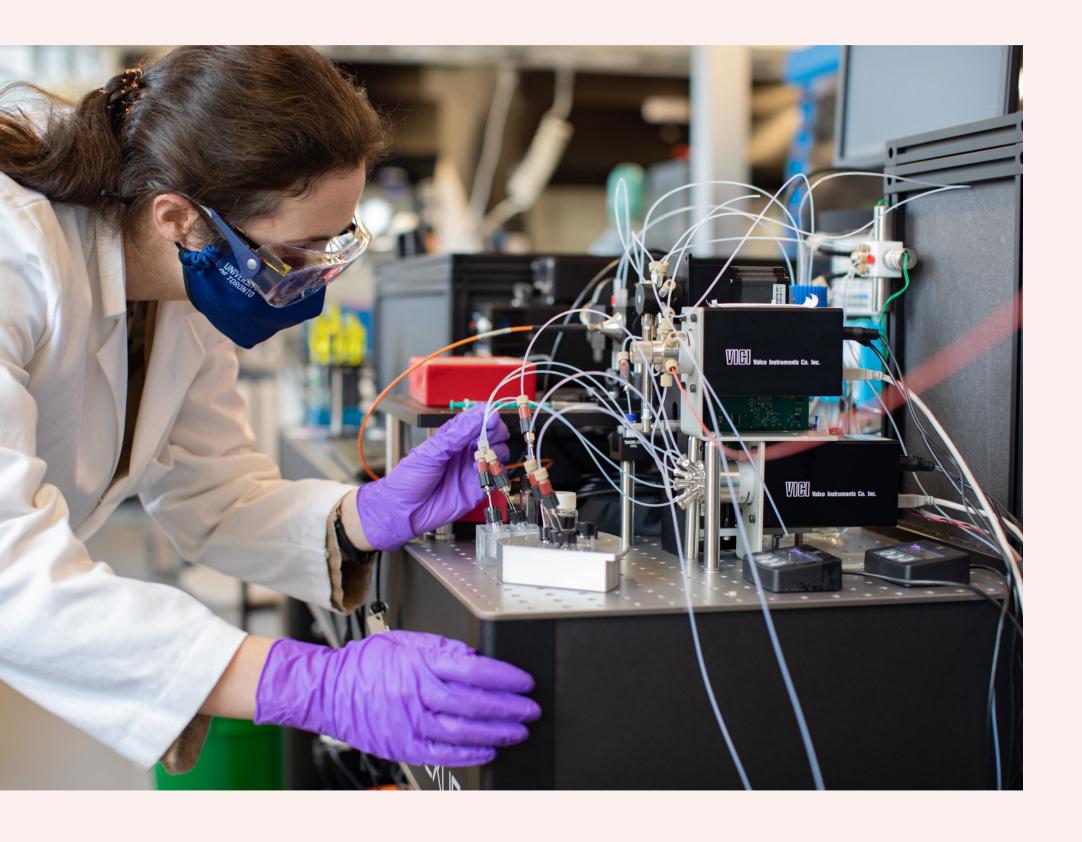


### **CANADA RESEARCH CHAIRS**

U of T is implementing strategies to meet federal targets for the representation of CRC's four designated groups by 2029:

- Women and gender minorities
- Indigenous peoples
- Racialized minorities
- Persons with disabilities

## ACCELERATION CONSORTIUM



## SUPERCHARGING MATERIALS DISCOVERIES

The Acceleration Consortium (AC) started as an Institutional Strategic Initiative (ISI) and is fundamentally transforming the search for new materials by combining AI and robotics to speed up the process of discovering new materials.

In April 2023, the VPRI's **Research Services Office (RSO)** led the successful proposal development to secure \$200 million from the **Canada First Research Excellence Fund (CFREF)** — the largest federal research grant ever awarded to a Canadian university — to fund a major expansion of AC's capabilities. Seven self-driving labs are currently in development, each focusing on a different material class that can have multiple applications.

## SOCIAL SCIENCES & HUMANITIES

### **2023 Global Subject Rankings**

(Times Higher Education 2023-2024)

9th

in education

**21** st

in law

10th

in psychology

**13**th

in arts & humanities

**24**th

in social sciences and business & economics

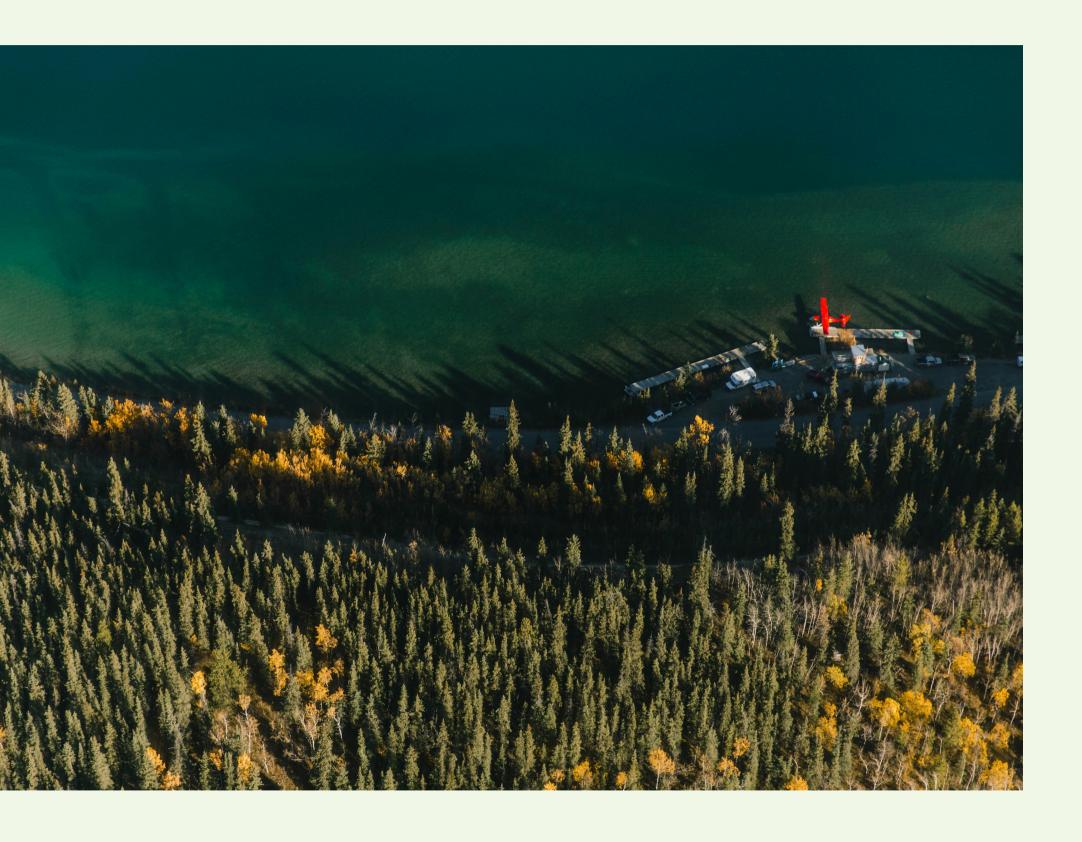
## RESEARCH LEADERSHIP IN THE SOCIAL SCIENCES AND HUMANITIES

#### Social Sciences & Humanities Research Spotlight

In April 2023, two U of T researchers were each awarded \$2.5 million in Partnership Grants from the **Social Sciences** and **Humanities Research Council (SSHRC)** including:

- Professor Catherine Sabiston, Faculty of Kinesiology & Physical Education, who is building equitable, diverse and inclusive participation, access and quality experiences in youth sport – with a special focus on girls.
- Professor Janice Du Mont, Dalla Lana School of Public Health, who formed the trans-LINK Network, a national network dedicated to better addressing the needs of trans and gender-diverse survivors of sexual assault and intimate partner violence.

## CLIMATE POSITIVE ENERGY



#### **MODERNIZING ENERGY**

Climate Positive Energy is an ISI dedicated to developing solutions that transform energy systems, ensuring equitable energy access and production, acknowledging the uneven burdens of energy generation, and helping Canada become a global clean-energy model.

In 2023, the CANSTOREnergy Project and Grid Modernization, Testing and Simulation Centre illustrated how multidisciplinary collaboration can further contribute to Canada's energy system.

## INNOVATION & COMMERCIALIZATION

140 inventions disclosures

priority patents applications

35 licensing and option agreements

57
new startup companies

## COMMERCIALIZATION AT U OF T IN 2023

#### U of T research-based company spotlight

Sustainable farming and clean technology company **Vive Crop Protection** develops green fungicides and insecticides to help growers reduce the environmental impact of farming.

In 2023, they gained recognition in the *Globe and Mail* 's Ranking of Canada's Top Growing Companies, the Deloitte Technology Fast 500™ and as a recipient of the Clean Technology award in Deloitte's Technology Fast 50 Program.

### U OF T ENTREPRENEURSHIP

12 startup accelerators and incubators 200 entrepreneurship-related courses

**690** teams supported annually

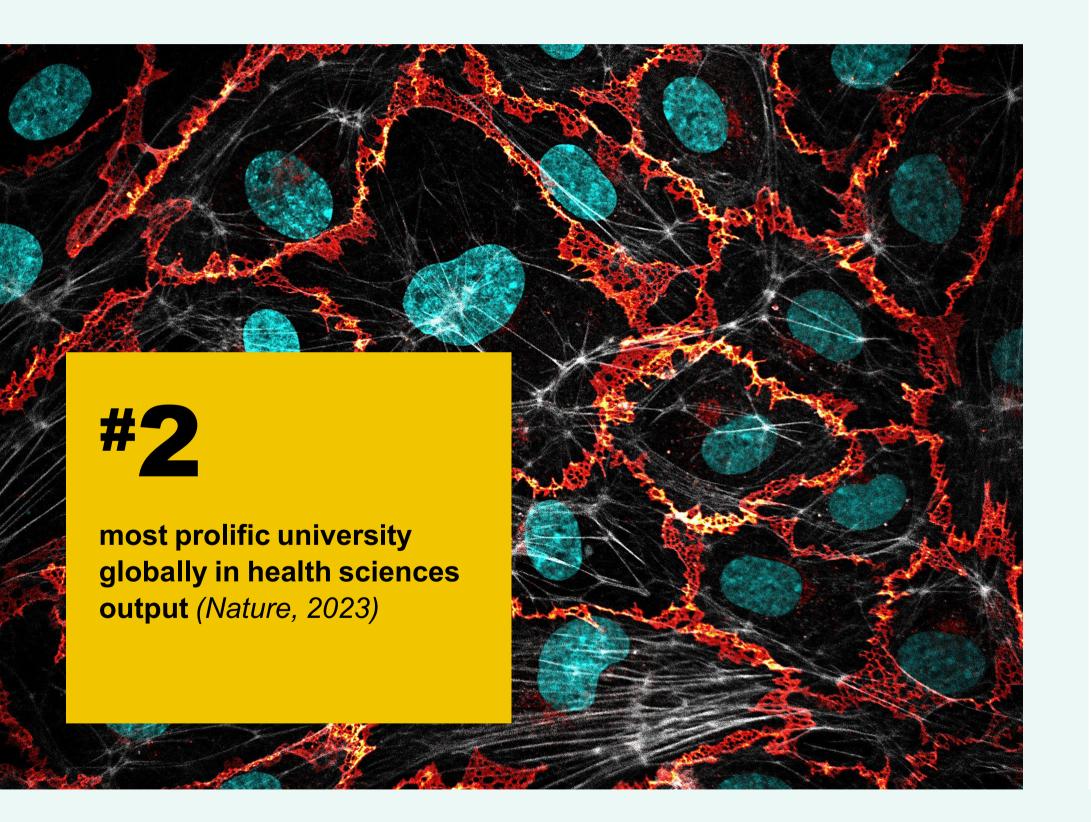
**53 billion**in venture funding raised by U of T startups in the past decade

## U OF T'S ENTREPRENEURSHIP ECOSYSTEM

#### **Schwartz Reisman Innovation Campus**

In 2023, U of T's innovation and entrepreneurship community moved into the new **Schwartz Reisman Innovation Campus**, a 750,000 square-foot space that anchors U of T's unique cluster of world-leading artificial intelligence scientists and startups in the heart of Toronto's Discovery District.

### LIFE SCIENCES HUB



### **WORLD CLASS LIFE SCIENCES HUB**

### Spotlight on Toronto Academic Health Science Network (TAHSN)

**TAHSN** links U of T and 14 Greater Toronto Area academic hospitals ranked among the best in the world for research and impact. It is one of the largest and most productive academic health centres in North America and serves one of the most diverse regions in the world.

In November 2023, **SHIFT Health** evaluated TAHSN's impact against five leading life sciences hubs in North America. The evaluation gave high marks in producing top-quality research, engaging in high rates of multidisciplinary and global collaborations, leading in clinical trials for drugs and therapies and cultivating dynamic and advanced training environments that attract talent.

### CONNAUGHT FUND



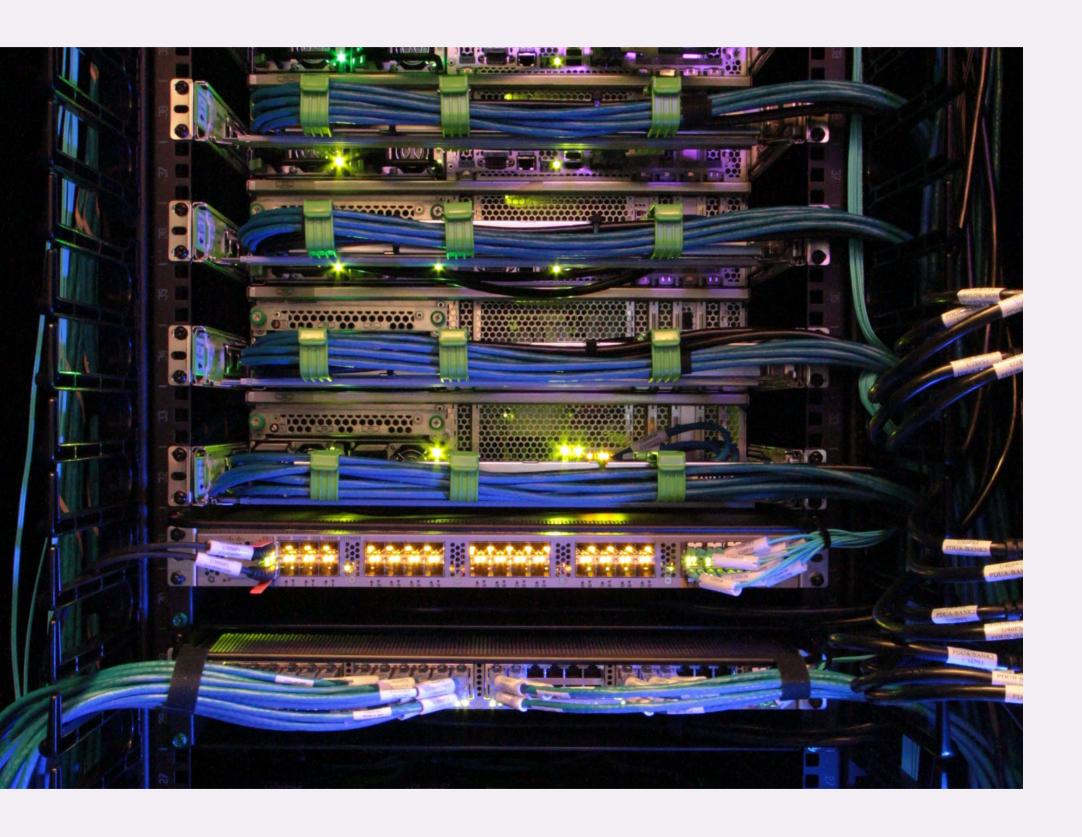
## CREATING RESEARCH OPPORTUNITIES

U of T's **Connaught Fund** is the largest internal university research funding program in Canada. Awarding more than \$5 million each year to University of Toronto researchers and trainees, the fund promotes research and the application of U of T's professional expertise and resources to matters of public interest in all research fields.

#### **Project Spotlight**

In 2023, **Professor Notisha Massaquoi**, Department of Health & Society, UTSC received the **Major Research Challenge for Black Researchers** to conduct Black health equity research that seeks tangible solutions to the social determinants of Canada's racial health gap.

### DISCOVERRESEARCH



## ENABLING MULTIDISCIPLINARY COLLABORATIONS

Launched in June 2023 by VPRI, **DiscoverResearch** is a database of searchable faculty profiles designed to connect potential collaborators with U of T faculty and improve the public visibility of scholars. The website facilitates multidisciplinary research collaboration, signals availability for media requests and graduate student supervision and assists anyone interested in community, industry and international partnerships.

As of January 2024, the platform hosts over 2,300 public profiles and integrates with key U of T platforms such as **Blue Door** and **Blue Book**.

### THE VPRI SERVING THE U OF T COMMUNITY

Research Funding

4,030

funding applications

\$540M

in awarded funding

9,770

research grants

Innovation & Entrepreneurship

140

invention disclosures

**70** 

priority patent applications

285

commercialization projects

**Oversight & Compliance** 

22,410

environmental health & safety trainees

4,357

occupational health & safety assessments

8,481

financial reports & audit conducted

Research Training & Resources

2,300+

public profiles curated in DiscoverResearch

300+

training sessions led for faculty and staff by VPRI

60

research administrators supported by the Community for Research Excellence (CORE)

### LOOKING AHEAD

"Over the next year, we will continue to build on our legacy of discovery that improves lives, demonstrates global impact and advances the world's collective knowledge by leveraging our globally recognized strengths in research and innovation. Guided by our bold new **Institutional**Strategic Research Plan, we will help guide the facilitation of research and innovation and provide opportunities for partnerships and collaborations."

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

