



UNIVERSITY OF
TORONTO

Beyond Sustained Success

Leveraging Our Unique Strengths and
Charting New Territory

Professor Paul Young, PhD, FRSC

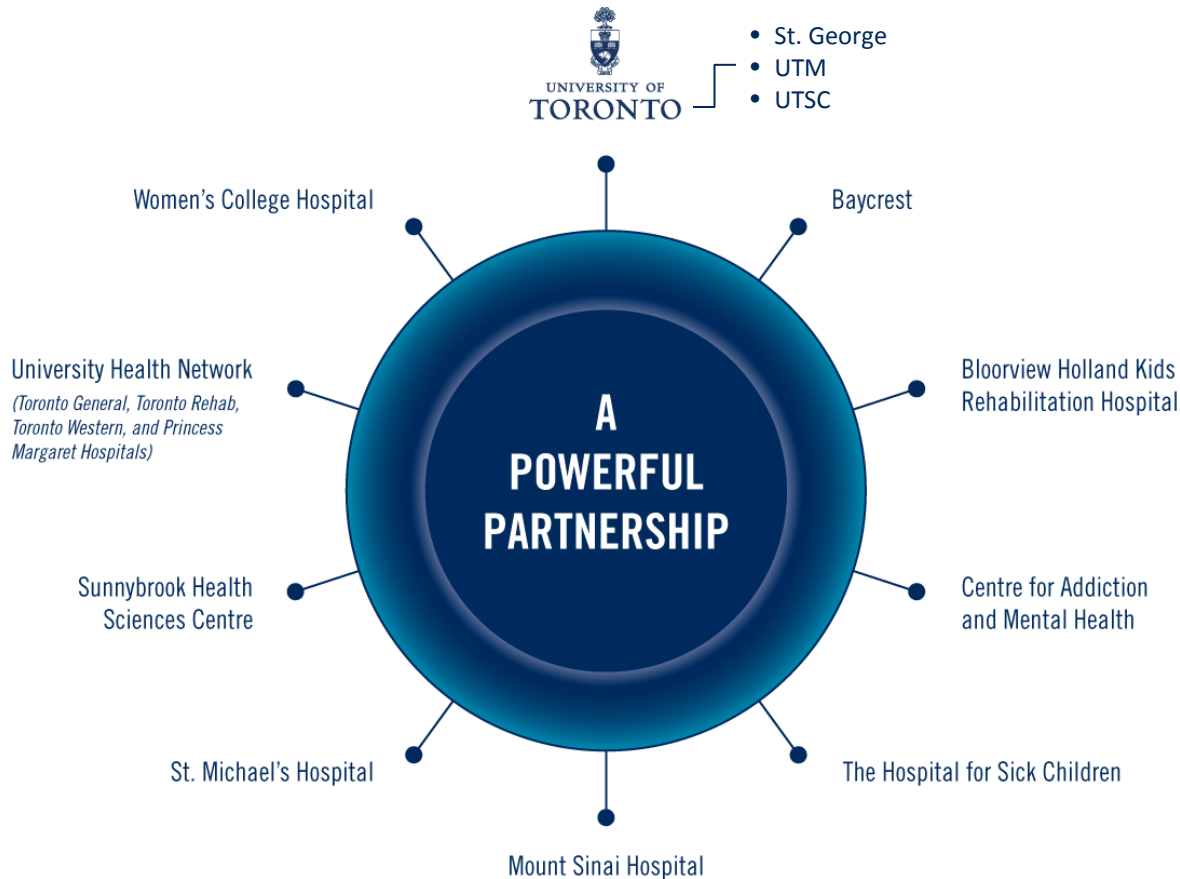
Vice-President, Research & Innovation



May 23, 2013

BOUNDLESS

U of T – AN ACADEMIC ECOSYSTEM



U of T's **three campuses** and **nine partner hospitals** form a robust academic ecosystem that is **unrivalled in Canada** and **rare in the world.**

WHAT DOES RESEARCH AT U of T MEAN?



Our **collaborative, investigator-led** research culture involves faculty members, postdoctoral fellows, graduate and undergraduate students, and highly trained staff.

A photograph of classical stone columns and arches, likely from a university building, serving as a background for the top of the slide.

WHAT DOES RESEARCH AT U of T MEAN?

Research is an **engine of change** in two ways:

- Research with **potential applications**
(discoveries, creative works, new insights and understandings about our world, and work that may inform policy or professional practice); and
- Research with **clear applications**
(inventions, services, and technologies).

These **civic returns** have always benefited our economy, communities, and quality of life.

In an increasingly competitive research landscape, there is a growing call to make these benefits **more visible**.



WHAT DOES RESEARCH AT U of T MEAN?

Nearly **200 years** of excellence across all disciplines, generating notable civic returns, including:

- Discovery and commercialization of insulin
- “The medium is the message”
- Pioneering works in literary criticism
- Discovery of stem cells
- Invention of the electron microscope
- Leading-edge research in clean energy
- Breakthroughs in human-computer interactions

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HOW DOES U of T STAY COMPETITIVE?

- **We hire the best faculty**, enabling students to learn from – and work alongside – leaders in the field;
- **We adopt a holistic view** to research and teaching by hiring well-rounded faculty who bring leading-edge thinking and practice into the classroom;
- **Our researchers are evaluated** through peer review, both internally (promotion & tenure) and externally (publication);
- **We support academic freedom**, balancing investigator-led research against serving the public good; and
- **We advocate on issues of national concern** through the U15 (e.g., the need to increase indirect costs).

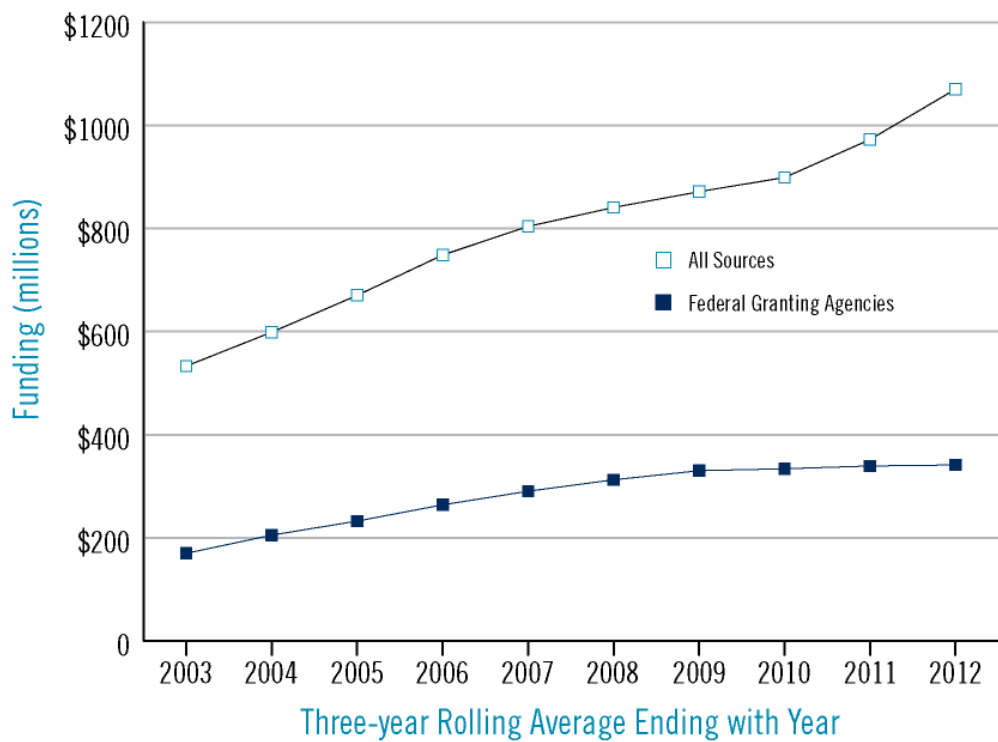
A photograph of classical stone columns, likely from a university building, is visible at the top of the slide. The columns are partially cut off by the top edge of the image.

CELEBRATING OUR SUCCESSES

U of T attracted **record research funding in 2012.**
The University continues to lead the country in
**market share of major national and international
awards.**

2012: A RECORD-BREAKING YEAR

Research Funds Awarded – Ten-Year Trend (2001-2012)
U of T and Partner Hospitals



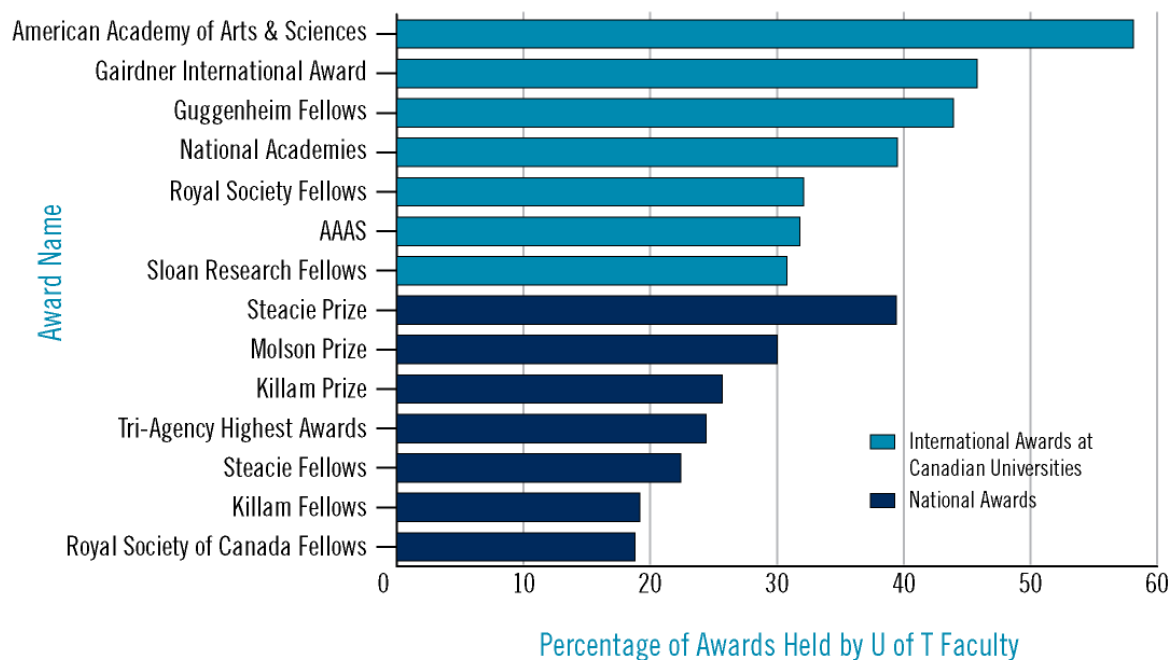
U of T captured a **record \$1.2 billion** in research funding in 2011-12.

This continues a **steady upward trend** over the past 10 years.



FACULTY AWARDS AND HONOURS

Faculty Honours by Award (1980-2012)
Prestigious National and International Prizes & Fellowships



U of T leads the country in market share of major national and international awards and prizes.

U OF T: A WORLD-CLASS UNIVERSITY

#21	2012 Times Higher Education World University Rankings
#27	2012 Shanghai Jiao Tong Academic Ranking of World Universities
#19	2012 QS World University Rankings
#7	2012 NTU World University Rankings

U of T ranks higher than any other university in Canada, and **among the best in the world.**

Based on total research output, the **top two universities in the world** are Harvard and **U of T.**



PROGRESS & CHALLENGES

The VPRI “Pillars” (RSO, IPO, ROCO) have made measurable progress in addressing three key challenges outlined in the 2010 Annual Report.

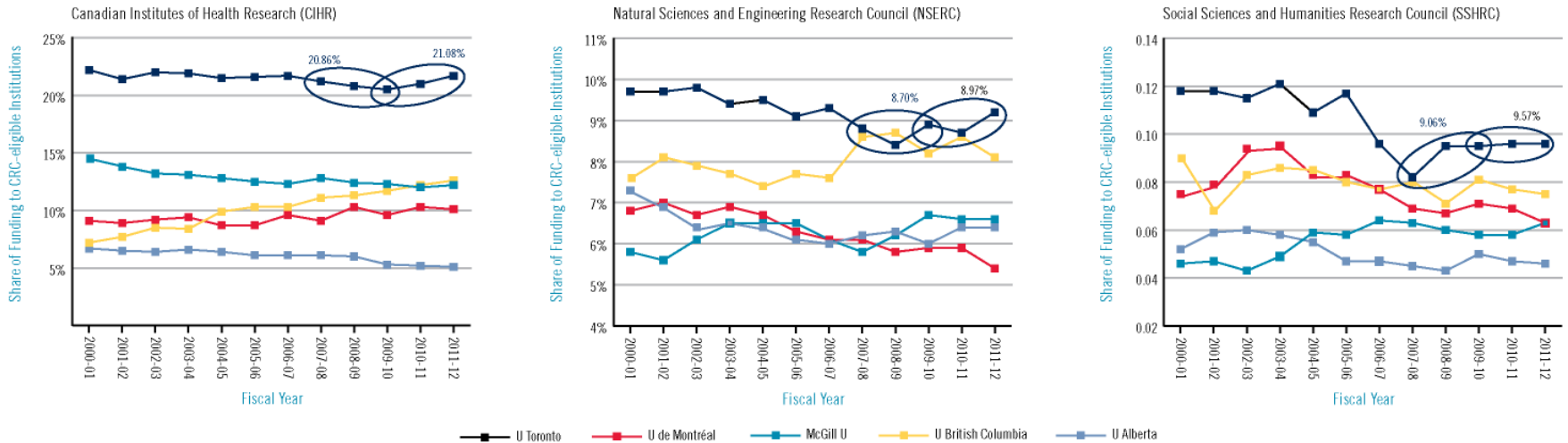
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CHALLENGE #1: Increase Market Share in Tri-Agency Competitions

Goal: Increase market share in each federal funding agency by one-quarter per cent each year for four years, and sustain those levels.

MARKET SHARE IN TRI-AGENCY FUNDING

Tri-Agency Market Share (2000-01 to 2011-12)
Top Five Universities

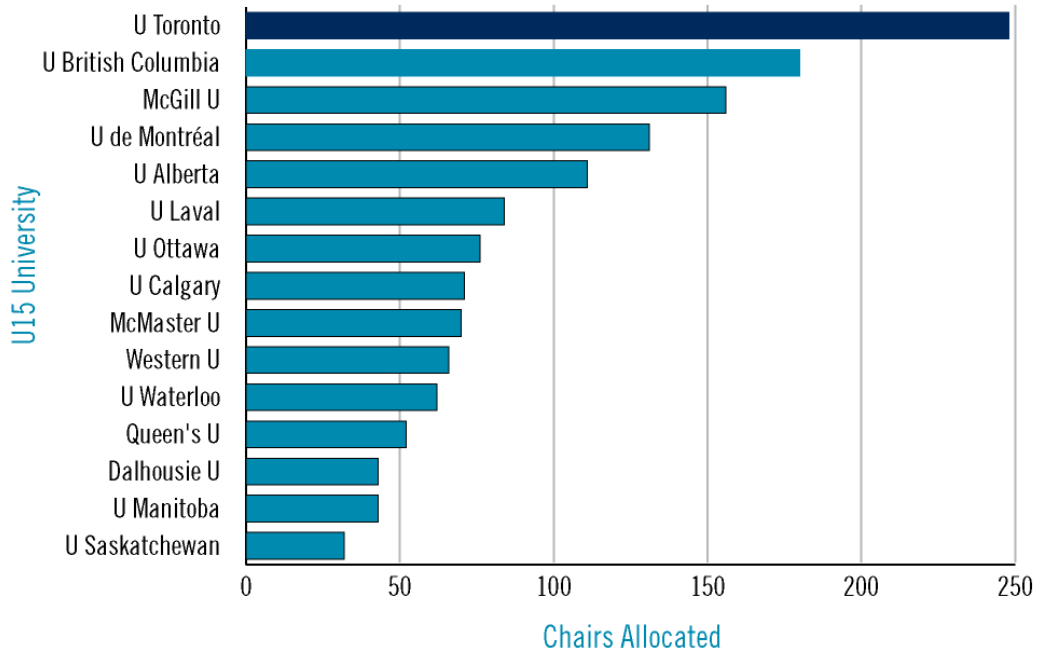


The turnaround in U of T's market share decline has yielded 10 new Canada Research Chairs: **3 from CIHR**, **4 from NSERC**, and **3 from SSHRC**.



REGAINING CANADA RESEARCH CHAIRS

Canada Research Chairs
Regular Chairs Allocation (2013-14) – U15 Universities



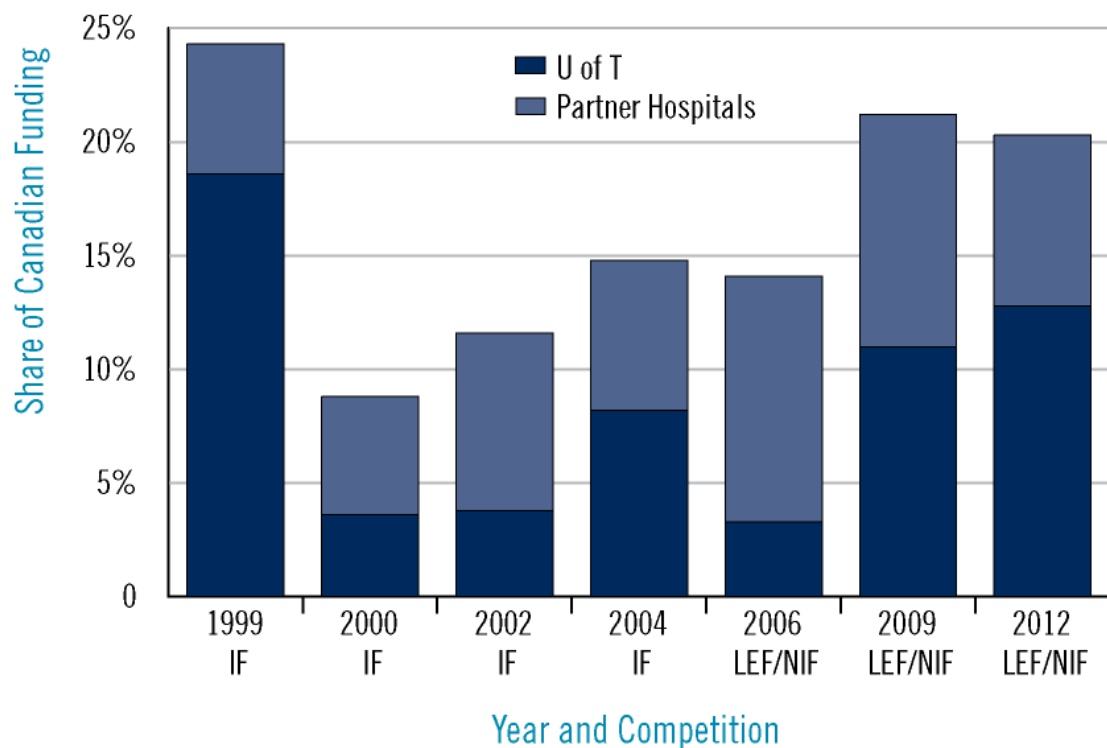
U of T's CRC allocation dipped to 238 in 2011-12.

We **regained 10 CRCs** in the 2013-14 recalculation for a total of 248.

Goal: Achieve and maintain 250 CRCs.

CFI: U of T's MARKET SHARE

U of T's Share of CFI Funding
By Major Competition



The **internal CFI pre-submission competition** implemented in 2009 dramatically improved U of T's performance in the last two CFI LEF/NIF competitions.

RESEARCH SERVICES OFFICE



Each year, RSO receives **2,800 new funding applications** and oversees more than **\$400 million in research funding** awarded to **2,800 PIs** across **9,000 active accounts** that involve **800 unique sponsors** and **2,000 different programs**.

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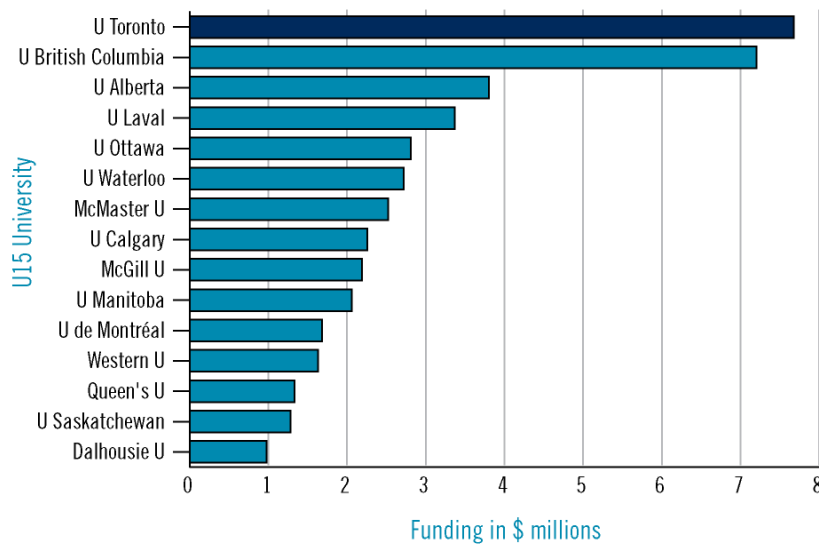
CHALLENGE #2: Strengthen Research Partnerships

VPRI achieved measurable outcomes in:

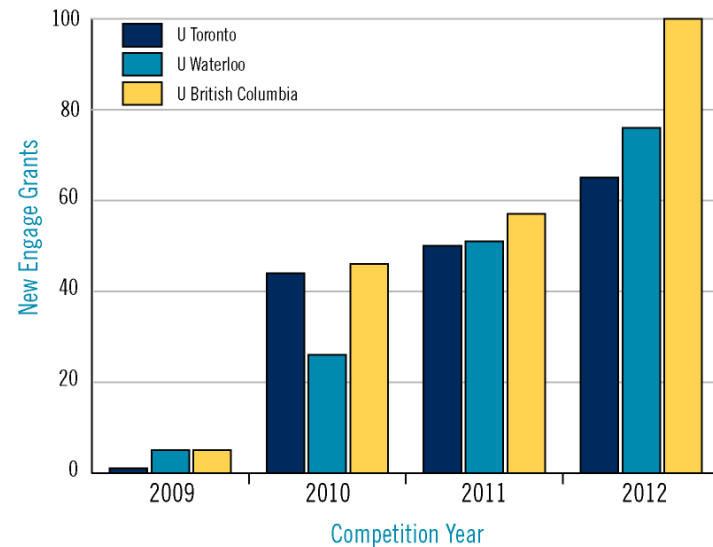
1. Building successful partnerships; and
2. Enhancing innovation and entrepreneurship.

IPO: ENHANCING INNOVATION

NCE Expenditure (2008-09 to 2010-11)
Three-year Average – U15 Universities



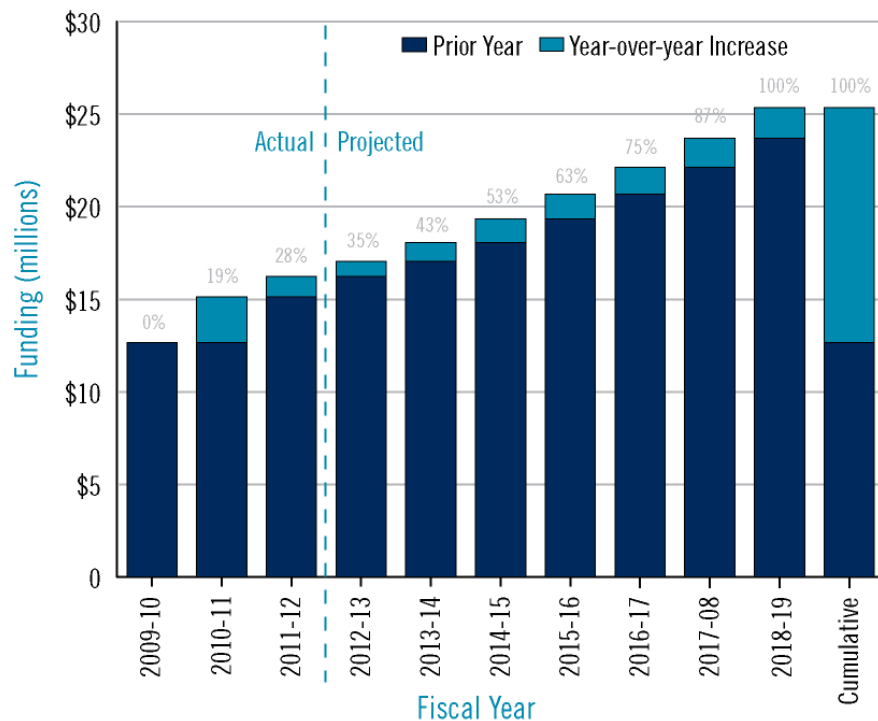
NSERC Engage Grants (2009 to 2012)
Top Universities



IPO's focus on partnerships has led to success with two targeted funding sources: **Networks of Centres of Excellence** and **NSERC Engage**.

INDUSTRY-SPONSORED RESEARCH

Increasing Private Sector Funding Over Ten Years
Projected Increase in Corporate Funding of 100%



Goal: To establish a trajectory that results in a **100% increase in corporate funding** in the current decade (2009-10 to 2018-19).

INNOVATIONS & PARTNERSHIPS OFFICE



Each year, IPO oversees **\$15 million in industry-sponsored research funding** supporting **1,800 projects**, manages **150 invention disclosures**, grants **25 license agreements**, and champions the creation of over **20 new start-up companies**.

The top of the slide features a photograph of several large, classical stone columns, likely from a university building, set against a bright sky. The columns are partially obscured by a dark blue horizontal bar that serves as a background for the text below.

CHALLENGE #3: Address Changing Requirements for Oversight and Compliance

Priority: Ensure the University maintains compliance with the changing requirements of research sponsors.



SAFEGUARDING THE UNIVERSITY

One of the first offices of its kind in Canada, ROCO exists to consolidate and manage the inherent risks in research and, by extension, to protect the University's reputation.

Key responsibilities:

1. Identify problem areas and **re-engineer business processes** to strengthen transparency, accountability, and auditability;
2. Address **changing requirements of research sponsors** and meet their **financial reporting expectations**; and
3. Support **Research Ethics Boards** and **Animal Care Committees**.

RESEARCH OVERSIGHT & COMPLIANCE OFFICE



In 2011-12, ROCO managed **10,259 active research funds**, oversaw the compilation of **7,000 financial reports**, took part in **100 external audits**, and supported the review of **4,615 research ethics protocols**.

STRATEGIC INITIATIVES & RESEARCH COMMUNICATIONS



- U of T's Strategic Research Plan and VPRI Annual Reports;
- Award-winning *Edge* magazine;
- Research & Innovation Catalogues
- Extraordinary funding competitions: NCEs, FedDev (e.g., **SOSCIP**);
- Global research partnerships;
- Awards and honours program; and
- The Connaught awards programs.



U of T AS A BEACON

“What more can we accomplish?”



CONSIDERATIONS IN LOOKING AHEAD

- 1. Extending our reach:** We must sustain coordinated efforts in response to a changing and competitive research landscape.
- 2. Maximizing our potential for connectivity and collaboration:** We must be able to respond to an increasing emphasis on problem-based and collaborative research.
- 3. Further operationalizing success:** We must anticipate trends and opportunities, leverage and expand our strengths, and facilitate collaboration.



UNIVERSITY OF
TORONTO

Thank you:

Principal Investigators and Co-Investigators

Research Advisory Board

Committee Members & Academic Champions

Staff in RSO, IPO, ROCO and OVPRI

Divisional Administrators

External Partners and Research Sponsors