



FOR INFORMATION PUBLIC OPEN SESSION

TO: Academic Board

**SPONSOR:** Professor Vivek Goel, Vice-President, Research & Innovation

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**PRESENTER:** See above

**CONTACT INFO:** 

**DATE:** May 20, 2016 for May 30, 2016

**AGENDA ITEM:** 3

**ITEM IDENTIFICATION:** 2015 Annual Report – Research and Innovation Impact, Division of the Vice-President, Research & Innovation.

**JURISDICTIONAL INFORMATION:** The Academic Board is one of the three Boards of the Governing Council. It is responsible for matters affecting the teaching, learning and research functions of the University, the establishment of University objectives and priorities, the development of long-term and short-term plans and the effective use of resources in the course of these pursuits.

#### **HIGHLIGHTS:**

The University of Toronto is Canada's leading research-intensive university and is recognized as one of the top universities worldwide. Our impressive performance nationally and internationally in research and innovation is a reflection of the excellence of our faculty and students and their collaborations with leading researchers, institutions and partners.

U of T celebrated numerous significant achievements in research and innovation in 2015-16, and the Vice-President, Research and Innovation portfolio is proud to have played a supportive role in helping our researchers and innovators do what they do best—acquire and apply new knowledge and advance understanding. Our Annual Report highlights their accomplishments and the impact of their research, as well as key performance metrics and how we support the Three Priorities. The Report also highlights the activities and service improvements we have implemented in order to support research and innovation. Finally, we look ahead and highlight priorities for the future.

Academic Board - 2015 Annual Report, Division of the Vice-President, Research & Innovation

This year, we have undertaken a trial reformatting of the Report, moving entirely online for the first time as a pilot project in order to present more detailed and dynamic content. An online Report also reflects our commitment to innovation and the environment. Please explore <a href="2015.research.utoronto.ca">2015.research.utoronto.ca</a> to learn more about how we continue to build a portfolio that serves a world-class institution that aspires to even higher levels of achievement.

#### FINANCIAL AND/OR PLANNING IMPLICATIONS:

None

#### **RECOMMENDATION:**

For Information

#### **DOCUMENTATION PROVIDED:**

Executive Summary of 2015 Annual Report – Research and Innovation Impact, Division of the Vice-President, Research & Innovation

Link to full online report: 2015.research.utoronto.ca

## 2015 ANNUAL REPORT Executive Summary Impact Through Innovation and Service

Full Report: 2015.research.utoronto.ca

The University of Toronto (U of T), Canada's research and innovation powerhouse, is recognized as one of the top universities in the world.

Key measures of our researchers' excellence include global rankings, prestigious national and international honours, and the ability of our researchers to secure competitive, peer-reviewed research grants and apply their knowledge in practice, policy and the marketplace.

#### RESEARCH & INNOVATION LEADERSHIP

20%
of Canada's
most
influential
scientific
minds

7th in the world for highly cited papers

38th most innovative university in the world

2015 RANKINGS	WORLD	CANADA
NATIONAL TAIWAN UNIVERSITY	3	1
U.S. NEWS BEST GLOBAL UNIVERSITIES (2016)	16	1
TIMES HIGHER EDUCATION WORLD UNIVERSITY RANKINGS	19	1
ACADEMIC RANKING OF WORLD UNIVERSITIES	25	1
QS WORLD UNIVERSITY RANKING	34	2

# Exceptional performance and reputation across a breadth of disciplines

QS		Shanghai		THE		NTU		
Life Sciences & Medicine		Eng & Computer Science		Clinical, Pre-Clinical & Health		Clinical Medicine		
12	1	23	1	11	1	3	1	
Arts & Humanities		Clinical Med & Pharmacy		Arts & Humanities		Life Sciences		
22	1	28	1	14	1	7	1.	
Natural Sciences		Social Sciences		Life Sciences		Social Sciences		
31	1	29	1	17	1	10	1	
Social Sciences & Nate		Natural Scie	Natural Sciences & Math		Social Sciences		Natural Sciences	
41	1	37	1	19	1	28	1	
Eng & Tech		Life & Agricultural Sciences		Physical Sciences		Engineering		
49	1	38	2	20	1	39	1	
					Eng & Tech		ulture	
				25	1	39	3	

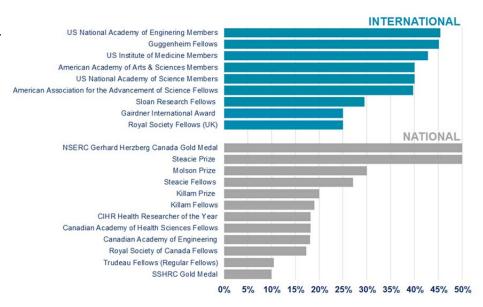
U of T is the only Canadian university to rank among the top 50 globally across all premier international field rankings. It is the highest-ranked Canadian university in 20 out of 22 such fields. U of T ranks among the top 10 most influential universities in the world on a prestigious list that includes Harvard, UC Berkeley, Oxford, Stanford, MIT and Cambridge.



#### AWARD-WINNING RESEARCHERS & INNOVATORS

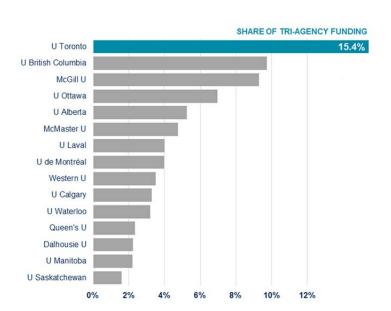
Although U of T faculty account for only 7% of Canada's professorial faculty, they have secured a dominant share of prestigious honours.

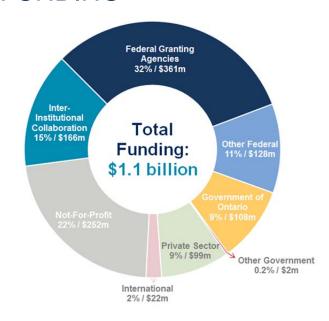
U of T also gained 17
Canada Research Chairs in the past two recalculations, for a total of 255—the largest number in the country and 82 more any other university.



#### RESEARCH AND INNOVATION FUNDING

The total value of research funds awarded to U of T investigators was \$410 million in 2014-15. When combined with funding awarded through partner hospitals, the total was \$1.1 billion.





U of T continues to lead in securing Tri-Agency funding, which is critical to allowing our faculty to extend the boundaries of knowledge. This market share is crucial because it is the primary driver for allocating other federal research investments including Canada Research Chairs, the Research Support Fund and a portion of Canada Foundation for Innovation (CFI) funding.

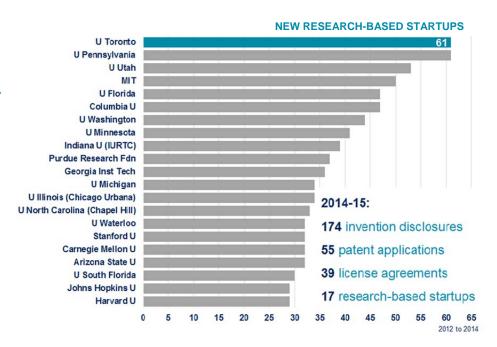


#### INNOVATION AND STARTUP POWERHOUSE

U of T is a North American leader in the number of new research-based startups.

#### Research that feeds innovation, entrepreneurship and commercialization is thriving at U of T.

We have a well-earned, impressive reputation for bringing cutting-edge discoveries to the world, turning ideas and intellectual property into new companies and accelerating them into the marketplace. Our community of researchers, innovators and entrepreneurs is constantly creating new technologies, products and services that are improving lives around the world.



### Banting & Best Centre for Innovation & Entrepreneurship (BBCIE) Services & Support Hub

U of T hosts 9 vibrant campus-led accelerators (CLAs) connected and supported by BBCIE, which helps coordinate our support programs for University-based entrepreneurs and recent graduates. In addition to supporting our acceleration programs, the BBCIE buildings host 19 UofT startup companies and 5 commercialization-support agencies.



### JLABS @ U of T Partnership will support up to 50 biomedical ventures

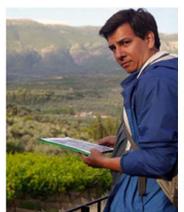
In partnership with the Government of Ontario, the MaRS Discovery District and Johnson & Johnson Innovation, U of T helped establish the first JLABS incubator in Canada—the international expansion of the JLABS initiative—a 40,000-square-foot facility that will transform healthcare discoveries and innovations into market-worthy products.





#### PRESTIGIOUS NATIONAL & INTERNATIONAL GRANTS

U of T faculty continue to be successful in securing prestigious national and international grants.



MacArthur Fellowship for transforming our understanding of prehistoric societies



Andrew W. Mellon Foundation grant for leading edge Digital Scholarship Initiative



BUILDING EXCELLENCE IN REGENERATIVE MEDICINE

Medicine by Design – Canada First Research Excellence Fund historic \$114M investment

**Centre for Advanced Therapeutic Cell Technologies** – \$20M from the Advanced Manufacturing Fund

Ted Rogers Centre for Heart Research – Improving heart health from childhood to adulthood

#### THREE PRIORITIES

- 1. Re-imagining and reinventing undergraduate education working with the Provost's Office to enable students in discovering research and innovation opportunities, as well as the tagging of courses with a research component in the student information service.
- Leveraging our urban location taking advantage of one of the world's most vibrant, culturally diverse and economically dynamic regions.
- International impact leveraging existing (and new) strong research partnerships with leading institutions around the world to create even more opportunities for our faculty and students.





50% of papers published by U of T researchers are joint efforts with institutions outside of Canada.



#### SERVING THE U OF T COMMUNITY

The VPRI is dedicated to continuously improving service via the development of innovative administrative systems and tools, research information analysis to support strategic research planning, and recognition for our award-winning researchers and innovators.



#### An integrated suite of automated web-enabled tools

The Research Administration Improvement and Systems Enhancement (RAISE) is a significant example of automated enhancements that benefit the work of the VPRI and our academic units and researchers. RAISE allows for greater accountability, and efficiency.



My Research – Animal Protocols (MRAP) In development

My Research-Human Protocols (MRHP) In development

My Research – Intellectual Properties (MRIP) In development 4,000+ current users

1,500 new users estimated in 2016

Student users

\$520,000 annual savings



#### Accountability and Reporting

Strengthening the Administration of Research (STAR)

Leading our proactive response to accountability requirements, the VPRI initiated STAR – an education and outreach program to clearly identify roles and responsibilities in the financial reporting and audit process, and educate business officers in various aspects of financial management of research funds in order to ensure accountability and compliance, innovation, accountability, and efficiency.



#### LOOKING AHEAD: OUR 2016-17 PRIORITIES

Our work, coupled with the immense talent, energy and dedication of the research community at U of T, will enable us to continue to build upon past accomplishments while also expanding successfully into new areas and enhancing our reputation nationally and internationally as a hub of research and innovation excellence. Looking ahead, we will:

- 1. Federal Government Reviews and U of T Strategic Research Plan: Engage the U of T community to ensure appropriate input into the Federal government science structural review. We will also be developing a new University Strategic Research Plan. This will present an opportunity to ensure that our Plan is aligned with any new directions that are set as a result of the Federal review.
- 2. Enabling Research & Innovation Success: Support the development of a regional innovation corridor and ONRamp, a 15,000 square-foot collaborative networking space for student startups.
- 3. Collaborative Research Opportunities: Provide the support and guidance needed to enable individuals and teams to be successful with multi-divisional and multi-institutional large, collaborative research opportunities (e.g. the 2016-17 Canada Innovation Fund competition).
- 4. Three Priorities: Continue to support reimaging and reinventing undergraduate education, leveraging our urban location, and our international impact.
- 5. Providing Information More Effectively: Search for ways to improve the flow of information and strengthen research communications, including revamping the VPRI website to better serve our internal and external communities.

The Division of the Vice-President, Research & Innovation, is proud to play a supportive role in helping our researchers and innovators do what they do best—acquire and apply new knowledge, and advance understanding.



