

Excellence, Innovation, Leadership  
**RESEARCH AT THE UNIVERSITY OF TORONTO**



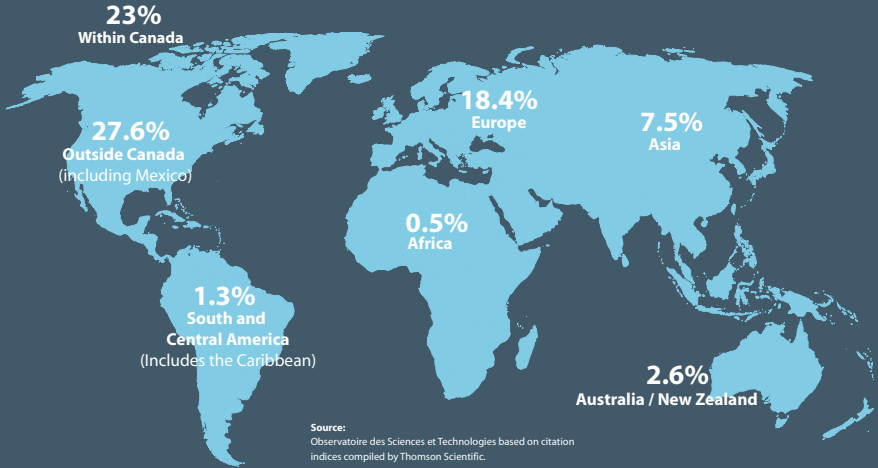
**BY THE NUMBERS**

# Global Reach

43% of U of T research involves collaboration with researchers outside of Canada – a number that has increased steadily and has kept well ahead of other Canadian universities.

## Global Reach of Research

Proportion of Research Paper Co-Authorship by Continent, University of Toronto and Partner Hospitals

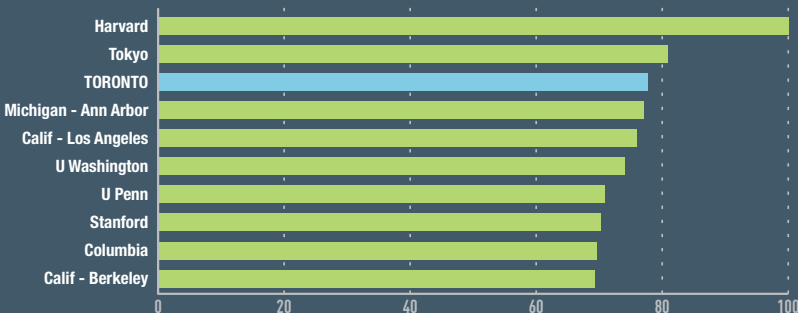


# Productivity

U of T researchers publish more than all but two other universities in the world.

## Publication Score

2006



Source: Academic Rankings of World Universities 2007, Institute of Higher Education, Shanghai Jiao Tong University

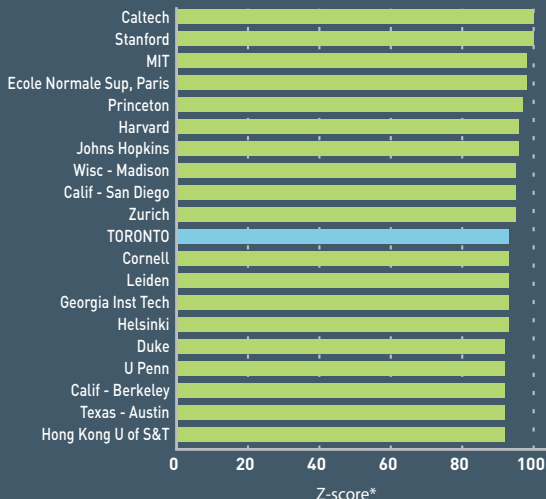
Score relative to highest institution

# Impact

*Our researchers are among the most highly-cited in the world.*

## Citations per Faculty

2002-2006



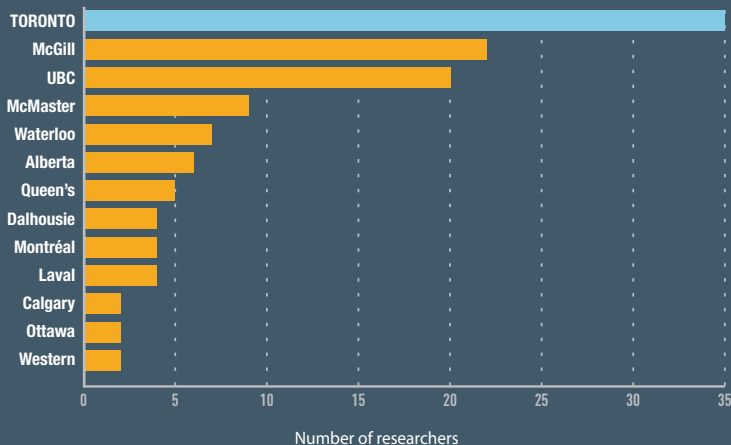
### Source:

World University Rankings,  
Times Higher Education  
Supplement, November 9, 2007

\*A standardized score used to  
measure citations

*U of T has the highest number of ISI Highly-Cited Researchers in Canada – one of the best indicators of research influence.*

## ISI Highly-Cited Researchers Distribution Among Canadian G13 Universities



### Source:

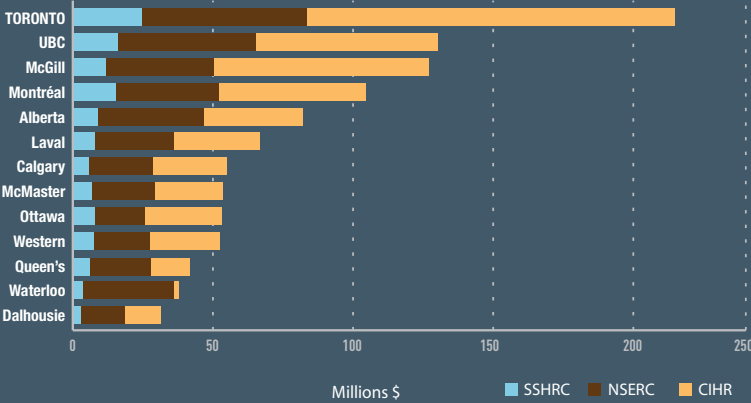
<http://isihighlycited.com>  
May 2007

# Federal Funding

*U of T consistently leads all other Canadian universities in investment from federal granting agencies.*

## Federal Research Council Payments Canadian G13 Universities

2005-06

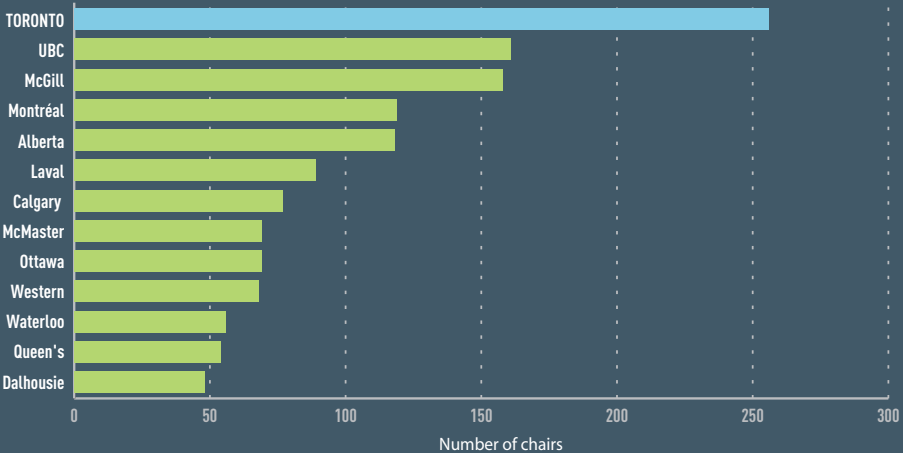


Figures include funding to partner institutions. Figures exclude funding for the Networks of Centres of Excellence, the Canada Research Chairs program, and the Indirect Costs program.

Source: Councils' statistical tables.

## Canada Research Chairs Allocations Canadian G13 Universities

2007

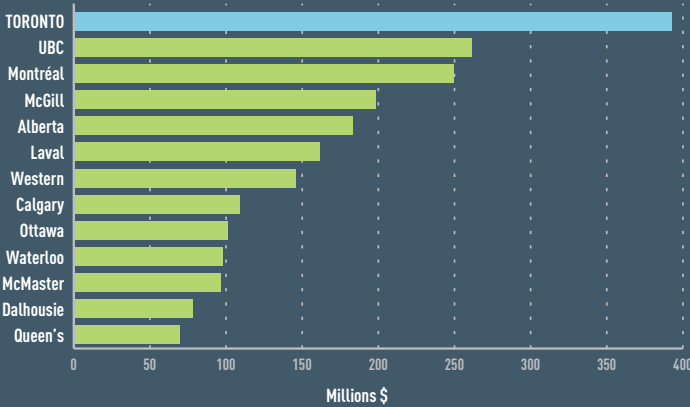


Source: CRC Program website [www.chairs.gc.ca](http://www.chairs.gc.ca), September 2007

# Federal Funding

## Canada Foundation for Innovation Canadian G13 Universities

From Inception (1998) to September 2007

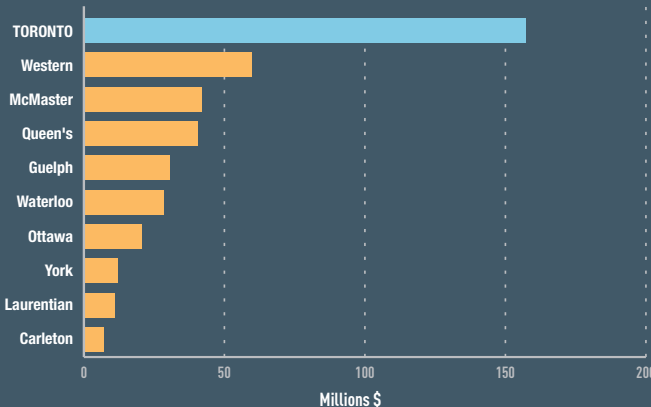


Source:  
CFI website September 2007;  
national projects excluded;  
partners counted with  
each university

# Provincial Funding

*U of T, with its partner hospitals, leads all Ontario universities in funding from the Ministry of Research and Innovation.*

## Ontario Ministry of Research and Innovation Main Competitive Programs Since Inception Top Ten Universities (with affiliates)

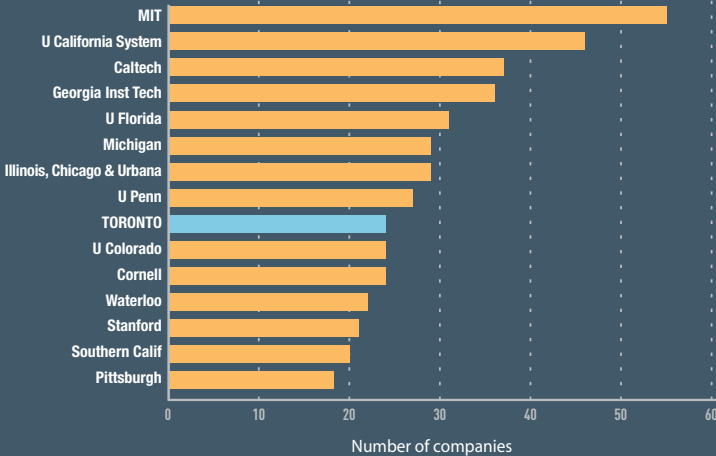


Main competitive programs results as per MRI January 10, 2008: Early Researcher Award, Ontario Research Fund (Research Excellence Award and Research Infrastructure Award), Premier's Discovery Award, Premier's Summit Award, Postdoctoral Fellowship Award, Ontario Research Chair.

# Innovation

*U of T is among North America's leaders in creating spin-off companies.*

## New Spin-off Companies (2003-2005) U.S. and Canadian Universities



**Notes:**  
Source: Published AUTM Survey FY 2005, 2004, and 2003. Data received directly from partner hospitals for Toronto if not reporting to AUTM.

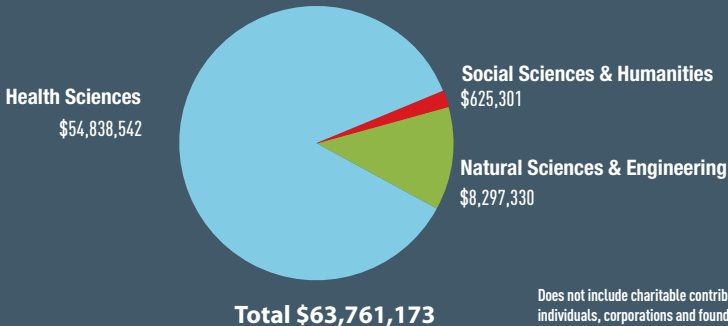
Partner hospitals counts are reported with each university.

# Industry Partners

*Our partners in industry invest in research across all disciplines.*

## Research Sponsorship by Industry

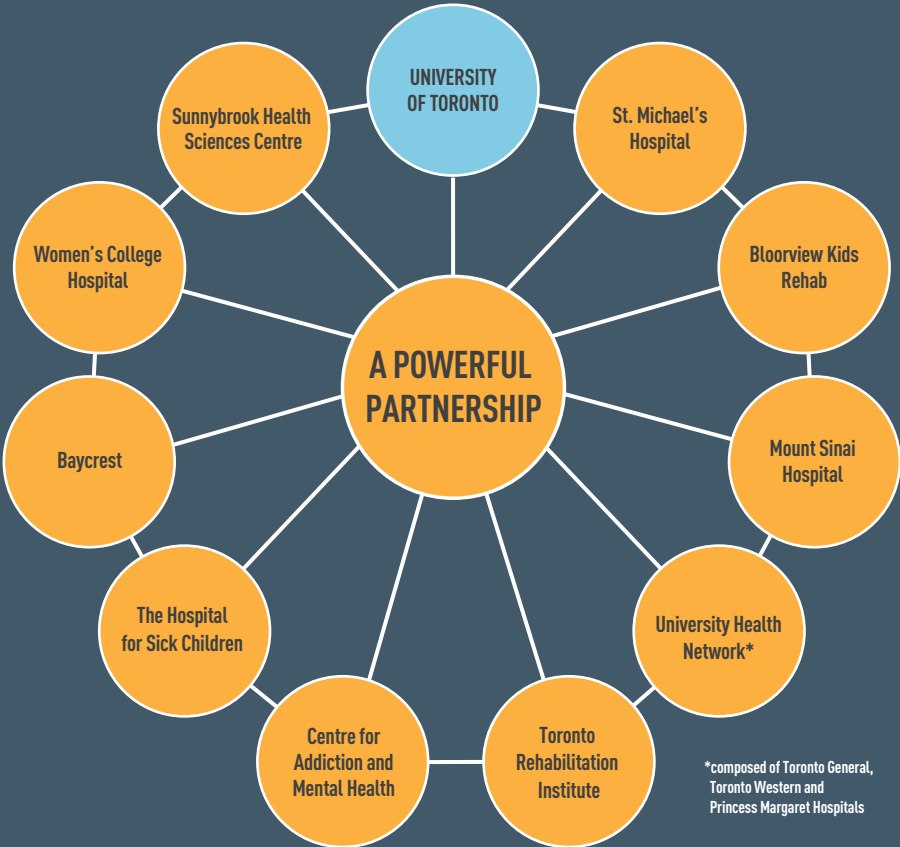
U of T and Partner Hospitals (2005-06)



Does not include charitable contributions from individuals, corporations and foundations

# Hospital Partners

The combination of U of T and the 10 partner hospitals affiliated with the university creates one of the world's largest and most innovative health research forces. More than 1,600 researchers and 3,000 graduate students and post-doctoral fellows pursue the next vital steps in every area of health research imaginable. This community of scholars enables our students to learn from, and collaborate with, world-renowned leaders and experts. And the global community benefits from a stunning array of new developments, findings and inventions.



# Connaught Fund Investment

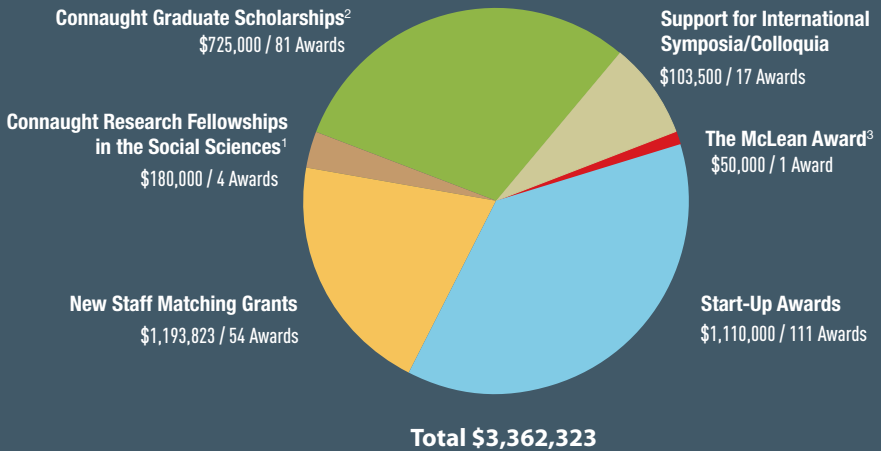
The Connaught Fund originated from the sale of U of T's Connaught Laboratories in 1972 for approximately \$29 million. Since then, the University has grown the fund to become the largest of its kind in Canada. Using Connaught funds, we have invested more than \$100 million in U of T scholars and their research through a variety of programs:

- Connaught Graduate Scholarships support top international students
- The Start-Up grant program helps defray the cost of initiating research for new tenure-stream or tenured faculty
- The New Staff Matching program assists junior scholars with grants of up to \$30,000
- The International Symposia/Colloquia program aims to advance knowledge in matters of public interest and raise U of T's international profile
- Research Fellowships enable scholars to work full-time on their research
- Each year, \$50,000 is matched to create the \$100,000 McLean Award. It provides one faculty member in the basic physical sciences or engineering with the means to attract and support graduate students and post-doctoral fellows

The Connaught Committee also oversees the Mary Gertrude l'Anson Fund, which is dedicated to research in the medical sciences. It is currently valued at \$3.2 million.

## Connaught Fund Direct Contributions to Research

2006-07



1. In addition to the Social Science Fellowships, four Chancellor Jackman Fellowships in the Humanities were supported by a combination of the Jackman and Connaught Funds.

2. The 81 Scholarships comprise 26 new and 55 continuing awards.

3. \$50,000 matching funding is contributed from the McLean Endowment to enable an award of \$100,000.



# Faculty Honours

## Selected Honours and Awards in the past five years

### INTERNATIONAL AWARDS AND HONOURS

#### AMERICAN ACADEMY OF ARTS AND SCIENCES

##### Foreign Honorary Members

Recognizes outstanding intellectual achievement, leadership and creativity in all fields.

2005

Richard Borshay Lee, Anthropology

Tak Mak, Medical Biophysics

Janice Gross Stein, Political Science

2004

Anthony J. Pawson, Molecular Genetics

2003

James G. Arthur, Mathematics

J. Richard Bond, Canadian Institute for Theoretical Astrophysics

Geoffrey E. Hinton, Computer Science

Linda Hutcheon, Centre for Comparative Literature

Janet Rossant, Molecular Genetics

#### AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS)

Fellows are recognized by their peers for efforts to advance science.

Cristina Amon, Faculty of Applied Science and Engineering

Harold Atwood, Physiology

James Donaldson, Physical and Environmental Sciences, UTSC

Donald A. S. Fraser, Statistics

Barbara Lee Keyfitz, Mathematics

Ronald H. Kluger, Chemistry

Linda Kohn, Botany, UTM

Ping Lee, Pharmacy

Howard D. Lipshitz, Molecular Genetics

Albert E. Litherland, Physics

Susan McCahan, Mechanical and Industrial

Engineering

Morris Moscovitch, Psychology

K. Sandy Pang, Pharmacy

John R. Percy, Astronomy, UTM

Nancy M. Reid, Statistics

Robert Reisz, Biology, UTM

Keren Rice, Linguistics

Janet Rossant, Molecular Genetics

John W. Sender, Mechanical and Industrial Engineering

Sara L. Shettleworth, Psychology

Donald Stuss, Medicine

Thomas T. Tidwell, Chemistry, UTSC

Peter Zandstra, Institute of Biomaterials and Biomedical Engineering

Jean Zu, Mechanical and Industrial Engineering

#### THE GAIRDNER FOUNDATION

##### Gairdner International Award

Recognizes medical research scientists for outstanding discoveries or contributions.

2005

Endel Tulving, Psychology

#### JOHN SIMON GUGGENHEIM MEMORIAL FOUNDATION

Provides fellowships across the disciplines for advanced professionals who have demonstrated exceptional accomplishment.

2007

Michael Goldstein, Computer and Mathematical Sciences, UTSC

Jerry Mitrovica, Physics

Peter Zandstra, Institute of Biomaterials and Biomedical Engineering

2006

Thomas Hurka, Philosophy

2005

Alexander R. Jones, Institute for the History and Philosophy of Science and Technology

2004

David Zingg, Aerospace Studies

2003

Lynne Viola, History

#### ISI HIGHLY-CITED RESEARCHERS

The ISI rankings represent 250 of the most highly-cited researchers over the last 20 years in the articles indexed by the Institute for Scientific Information (ISI) in 21 categories.

##### Biology and Biochemistry

Sergio Grinstein, Biochemistry

David H. MacLennan, Banting and Best Department of Medical Research

##### Chemistry

Lewis Edward Kay, Molecular Genetics

Mitchell A. Winnik, Chemistry

##### Computer Science

Radford M. Neal, Statistics and Computer Science

Subbarayan Pasupathy, Electrical and Computer Engineering

Charles Rackoff, Mathematical and Computational Sciences, UTM

Kenneth C. Sevcik, Computer Science

##### Ecology/Environment

Peter A. Abrams, Ecology and Evolutionary Biology

Wan-Ying Shiu, Centre for Environment

##### Engineering

Bruce Allen Francis, Electrical and Computer Engineering

##### Geosciences

W. Richard Peltier, Physics

##### Immunology

Pamela Ohashi, Immunology

## **Immunology, Molecular Biology and Genetics**

**Tak Mak**, Medical Biophysics

## **Materials Science**

**Karl T. Aust**, Materials Science and Engineering

**Neil Coombs**, Chemistry

**Geoffrey A. Ozin**, Chemistry

## **Mathematics**

**Nancy Reid**, Statistics

## **Mathematics and Engineering**

**W. M. Wonham**, Electrical and Computer

Engineering

## **Molecular Biology and Genetics**

**Anthony J. Pawson**, Molecular Genetics

**Johanna M. Rommens**, Molecular Genetics

**Janet Rossant**, Molecular Genetics

**Jeffrey L. Wrana**, Molecular Genetics

## **Pharmacology**

**Werner Kalow**, Pharmacology

**Philip Seeman**, Pharmacology

**Edward M. Sellers**, Pharmacology

## **Plant and Animal Science**

**Stephen S. Tobe**, Cell and Systems Biology

## **Psychology/Psychiatry**

**R. Michael Bagby**, Psychiatry

**Paul E. Garfinkel**, Psychiatry

**Janet Polivy**, Psychology, UTM

**Endel Tulving**, Psychology

## **Social Sciences**

**Keith E. Stanovich**, Human Development and

Applied Psychology, OISE/UT

## **Space Sciences**

**J. Richard Bond**, Canadian Institute for

Theoretical Astrophysics

**Raymond G. Carlberg**, Astronomy and

Astrophysics

**Howard K.C. Yee**, Astronomy and Astrophysics

## **LASKER FOUNDATION**

### **Albert Lasker Award For Basic Medical Research**

2005

**Ernest McCulloch and James Till**, Medical

Biophysics

### **MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

#### **World's Top 35 Innovators Under the Age of 35**

2005

**Parham Aarabi**, Electrical and Computer

Engineering

**Aaron Hertzmann**, Computer Science

### **MIT TECHNOLOGY REVIEW**

#### **Top 100 Young Innovators**

2003

**Edward E. Sargent**, Electrical and Computer

Engineering

### **THE NATIONAL ACADEMIES (U.S.)**

#### **Foreign Associate Members, unless otherwise indicated**

Membership in the Academies (or for those outside of the U.S., Foreign Associateship) is one of the highest honours accorded to a scientist or engineer, recognizing distinguished and continuing achievement in research.

#### **Institute of Medicine**

2007

**Peter St George-Hyslop**, Centre for Research in

Neurodegenerative Diseases

2005

**David Naylor**, Medicine

#### **National Academy of Engineering**

2006

**Cristina Amon (member)**, Faculty of Applied

Science and Engineering

2005

**W. M. Wonham**, Electrical and Computer

Engineering

#### **National Academy of Sciences**

2004

**Robert J. Birgeneau**, Physics

**Anthony J. Pawson**, Molecular Genetics

**Lap-Chee Tsui**, Molecular Genetics

2002

**Tak Mak**, Medical Biophysics

### **THE ROYAL SOCIETY**

Fellowship in the Royal Society is awarded to scientists who have made a distinguished achievement in their fields.

2004

**Spencer Barrett**, Ecology and Evolutionary Biology

**Peter St George-Hyslop**, Centre for Research in Neurodegenerative Diseases

2001

**Robert J. Birgeneau**, Physics

**J. Richard Bond**, Canadian Institute for Theoretical Astrophysics

2000

**Janet Rossant**, Molecular Genetics

**James Till**, Medical Biophysics

1999

**Ernest McCulloch**, Medical Biophysics

### **THE ROYAL SOCIETY OF LITERATURE**

2003

**Margaret MacMillan**, History

### **ALFRED P. SLOAN FOUNDATION**

#### **Sloan Research Fellowship**

These U.S.-based awards enhance the careers of the best young faculty members in specific fields of science.

2007

**Ravin Balakrishnan**, Computer Science  
**Deborah Zamble**, Chemistry

2006

**Aaron Hertzmann**, Computer Science  
**Arun Paramekanti**, Physics

2005

**Sam Roweis**, Computer Science

2004

**Gregory Scholes**, Chemistry  
**Balint Virag**, Computer and Mathematical  
Sciences, UTSC

2003

**Peter Andolfatto**, Zoology  
**James Ellis Colliander**, Mathematics  
**Kentaro Hori**, Physics  
**Hae-Young Kee**, Physics  
**Daniel A. Lidar**, Chemistry

## NATIONAL HONOURS

### THE CALDWELL PARTNERS

#### Top 40 Under 40

2006

**Tom Chau**, Institute of Biomaterials and  
Biomedical Engineering  
**Brendan J. Frey**, Electrical and Computer  
Engineering  
**Vivek Rao**, Surgery  
**Aaron Schimmer**, Medicine

2005

**Brenda Banwell**, Paediatrics  
**Philip Zelazo**, Psychology

2003

**Peter Dirks**, Surgery  
**David Jaffray**, Medical Biophysics  
**Edward E. Sargent**, Electrical and Computer  
Engineering

2002

**Adalsteinn Brown**, Health Policy, Management  
and Evaluation

**Aled Edwards**, Banting and Best Department  
of Medical Research  
**Christopher Hogue**, Biochemistry  
**Michael Sherar**, Medical Biophysics  
**Molly Shoichet**, Chemical Engineering and  
Applied Chemistry

### CANADA COUNCIL FOR THE ARTS

#### Killam Prize

Honours eminent Canadian scholars  
in engineering, health sciences, natural  
sciences, social sciences and humanities.

2007

**J. Richard Bond**, Canadian Institute for  
Theoretical Astrophysics

2005

**Linda Hutcheon**, Centre for Comparative  
Literature

2004

**James G. Arthur**, Mathematics  
**Janet Rossant**, Molecular Genetics

2003

**Edward J. Davison**, Electrical and Computer  
Engineering  
**Tak Mak**, Medical Biophysics

2002

**Ian M. Hacking**, Institute for the History and  
Philosophy of Science and Technology  
**Lap-Chee Tsui**, Molecular Genetics

### CANADIAN INSTITUTES OF HEALTH RESEARCH

#### The Michael Smith Prize in Health Research

Given annually to a Canadian researcher  
who has demonstrated a high degree of  
innovation, creativity, leadership and  
dedication in health research.

2007

**Peter Singer**, Medicine

2005

**Janet Rossant**, Molecular Genetics

2004

**Sergio Grinstein**, Biochemistry

2002

**Anthony J. Pawson**, Molecular Genetics

### KILLAM RESEARCH FELLOWSHIP

Recognizes and supports distinguished  
Canadian scholars who have established  
outstanding reputations in their areas of  
research.

2007

**Lynne Magnusson**, English

2005

**Virginia Brown**, Medieval Studies  
(Renewed in 2006)

2004

**Ian Lancashire**, English (Renewed in 2006)

2003

**John B. Friedlander**, Computer and  
Mathematical Sciences, UTSC  
**Barbara Sherwood Lollar**, Geology  
(Renewed in 2005)

**Lynne Viola**, History (Renewed in 2005)

2002

**J. Edward Chamberlin**, English  
**Victor Ivrii**, Mathematics  
**Thomas L. Pangle**, Political Science

### MOLSON PRIZE

Recognizes an outstanding lifetime  
contribution to the cultural and  
intellectual life of Canada.

2005

**Ramsay Cook**, History

2003

**Janice Gross Stein**, Political Science

2002

**Ian M. Hacking**, Institute for the  
History and Philosophy of Science and  
Technology



**NATURAL SCIENCES AND  
ENGINEERING RESEARCH  
COUNCIL OF CANADA  
Brockhouse Canada Prize for  
Interdisciplinary Research in  
Science and Engineering**

2005

**Sajeev John** (Physics) and **Geoffrey A. Ozin**  
(Chemistry)

**Gerhard Herzberg Canada  
Gold Medal For Science and  
Engineering**

Given annually to a scientist or engineer  
who has demonstrated excellence and influ-  
ence in research for work that has advanced  
the natural sciences or engineering fields.

2006

**J. Richard Bond**, Canadian Institute for  
Theoretical Astrophysics

**Steacie Memorial Fellowship  
Award**

Given annually to university researchers  
for outstanding scientific or engineering  
achievement.

2007

**Eckhard Meinrenken**, Mathematics

**Gregory Scholes**, Chemistry

**Aephraim Steinberg**, Physics

2006

**Locke Rowe**, Zoology

2005

**Roberto Garcia Abraham**, Astronomy and  
Astrophysics

**Peter Zandstra**, Chemical Engineering and  
Applied Chemistry

2004

**George Eleftheriades**, Electrical and Computer  
Engineering

**Lisa Jeffrey**, Computer and Mathematical  
Sciences, UTSC

2003

**Molly Shoichet**, Chemical Engineering and  
Applied Chemistry

**Kim J. Vicente**, Mechanical and Industrial  
Engineering

**Synergy Award For Innovation  
2007**

**Luis Seco**, Mathematical and Computational  
Sciences, UTM

2005

**Joseph Paradi**, Mechanical and Industrial  
Engineering

2004

**Douglas Reeve**, Chemical Engineering and  
Applied Chemistry

**ONTARIO MINISTRY  
OF RESEARCH AND  
INNOVATION**

**Premier's Catalyst Award Best  
Young Innovator**

Recognizes excellence in commercially  
successful innovations.

2007

**Parham Aarabi**, Electrical and Computer  
Engineering

**Premier's Discovery Award**

Recognizes excellence in internationally  
recognized research.

2007

**Spencer Barrett**, Ecology and Evolutionary  
Biology

**Andreas Mandelis**, Mechanical and Industrial  
Engineering

**Premier's Summit Award in  
Medical Research**

Given to leaders in medical research who  
have made a major impact in their field  
and a substantial contribution to medical  
science.

2007

**John E. Dick**, Molecular Genetics

**Tak Mak**, Medical Biophysics

**Anthony J. Pawson**, Molecular Genetics

**Peter St George-Hyslop**, Centre for Research in  
Neurodegenerative Diseases

**THE ROYAL SOCIETY OF  
CANADA**

**Fellowships**

Fellowship is a prestigious honour  
recognizing outstanding contributions  
to the arts and sciences.

2007

**James Robert Brown**, Philosophy

**Gary Crawford**, Anthropology, UTM

**Lisa Jeffrey**, Computer and Mathematical  
Sciences, UTSC

**Eugenia Kumacheva**, Chemistry

**Ian Lancashire**, English

**Kenneth Leithwood**, Theory and Policy Studies  
in Education, OISE/UT

**Peter Martin**, Canadian Institute for Theoretical  
Astrophysics

**John Mylopoulos**, Computer Science

**J. Robert Prichard**, Law

**Theodore Shepherd**, Physics

**Peter Singer**, Medicine

**Barry Wellman**, Sociology

**R. Paul Young**, Civil Engineering

2006

**Ronald Beiner**, Political Science

**Alan Bewell**, English

**Jing M. Chen**, Geography

**Joseph G. Culotti**, Molecular Genetics

**Abdallah Daar**, Public Health Sciences

**Lewis E. Kay**, Molecular Genetics

**Hector Levesque**, Computer Science

**Andreas Mandelis**, Mechanical and  
Industrial Engineering

**Pamela Ohashi**, Medical Biophysics

**Terence W. Picton**, Medicine

**Janet Polivy**, Psychology, UTM

**Stephen Scherer**, Molecular Genetics

**Demetri Terzopoulos**, Computer Science

**William Trimble**, Biochemistry

**Mariana Valverde**, Criminology

**Jeffrey Wrana**, Molecular Genetics

2005

**Peter Abrams**, Ecology and Evolutionary Biology  
**Brenda Andrews**, Banting and Best Department of Medical Research  
**Charles M. Boone**, Banting and Best Department of Medical Research  
**James Alan Dainard**, French  
**Ronald de Sousa**, Philosophy  
**James Drummond**, Physics  
**Monica Heller**, Sociology and Equity Studies in Education, OISE/UT  
**Mark R. Henkelman**, Medical Biophysics  
**John M. Kennedy**, Psychology, UTSC  
**Alexander M. Leggatt**, English  
**John F. MacDonald**, Physiology  
**Alberto O. Mendelzon**, Computer and Mathematical Sciences, UTSC  
**Freda Miller**, Molecular Genetics  
**Robert Morris**, Chemistry  
**G. Peter Richardson**, Centre for the Study of Religion  
**Michael Salter**, Centre for the Study of Pain  
**Michael Sefton**, Chemical Engineering and Applied Chemistry  
**John Edward Sipe**, Physics

2004

**Daniel Brooks**, Ecology and Evolutionary Biology  
**Gregory M. Brown**, Psychiatry  
**Stephen Clarkson**, Political Science  
**John E. Dick**, Molecular Genetics  
**Alison Fleming**, Psychology, UTM  
**John Myles**, Sociology  
**David Naylor**, Medicine  
**Barbara Sherwood Lollar**, Geology  
**Richard Simeon**, Political Science  
**Donald Stuss**, Medicine  
**Rosemary Sullivan**, English

2003

**Ian Blake**, Electrical and Computer Engineering  
**Meric S. Gertler**, Geography

**Allan Griffin**, Physics  
**David J. A. Jenkins**, Nutritional Sciences  
**Roland Le Huenen**, Centre for Comparative Literature  
**Jill Levenson**, English  
**Patrick Macklem**, Law  
**Yoshio Masui**, Cell and Systems Biology  
**Adel Sedra**, Electrical and Computer Engineering  
**Carolyn Tuohy**, Political Science  
**Gordon F. West**, Physics

#### Jason A. Hannah Medal

2007

**Michael Bliss**, Health Policy, Management and Evaluation

#### The McLaughlin Medal

2007

**John R. G. Challis**, Physiology

2006

**Michael D. Tyers**, Molecular Genetics

2002

**Sergio Grinstein**, Biochemistry

#### E.W.R. STEACIE FOUNDATION

##### Steacie Prize

Canada's most prestigious research award for young scientists and engineers.

2003

**Stephen Scherer**, Molecular Genetics

## CONNAUGHT COMMITTEE

### CHANCELLOR JACKMAN RESEARCH FELLOWSHIPS IN THE HUMANITIES

2006-2007

**Suzanne Akbari**, English  
**Alana Johns**, Linguistics

**James Retallack**, History  
**Marleen Rozemond**, Philosophy

### CONNAUGHT RESEARCH FELLOWSHIPS IN THE SOCIAL SCIENCES

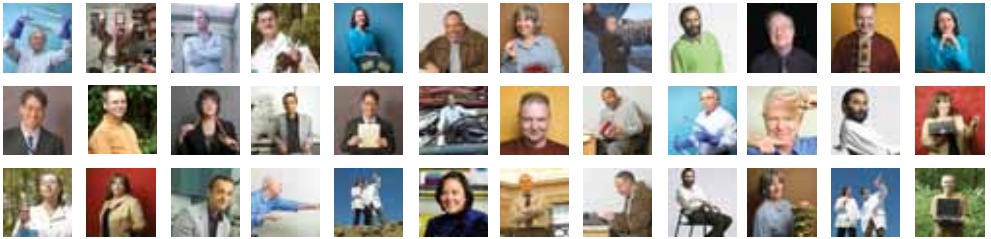
2006-2007

**Joseph M. Bryant**, Religion  
**Simone Chambers**, Political Science  
**Kelly Hannah-Moffat**, Sociology, UTM  
**Jack Sidnell**, Anthropology, UTM

### MCLEAN AWARD

Since start of program in 1996

**James Colliander (2007)**, Mathematics  
**Aephraim Steinberg (2006)**, Physics  
**Yael Karshon (2005)**, Mathematics  
**Molly Shoichet (2004)**, Chemical Engineering and Applied Chemistry  
**Eckhard Meinrenken (2003)**, Mathematics  
**Kim J. Vicente (2002)**, Mechanical and Industrial Engineering  
**Jerry Mitrovica (2001)**, Physics  
**Lisa Jeffrey (2001)**, Computer and Mathematical Sciences, UTSC  
**Boris Khesin (1999)**, Mathematics  
**Lewis Kay (1998)**, Molecular Genetics  
**Ian Manners (1997)**, Chemistry  
**Sajeev John (1996)**, Physics



UNIVERSITY OF  
**TORONTO**

Office of the Vice-President, Research  
Simcoe Hall  
27 King's College Circle  
Toronto, Ontario  
Canada M5S 1A1

Tel: 416-978-4984  
Fax: 416-971-2647  
[vp.research@utoronto.ca](mailto:vp.research@utoronto.ca)  
[www.research.utoronto.ca](http://www.research.utoronto.ca)