



UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

2007-2008 DEAN'S REPORT



INTERNATIONAL LEADERSHIP IN HEALTH RESEARCH AND EDUCATION

MESSAGE FROM DEAN WHITESIDE

By almost any measure, the University of Toronto and our affiliated hospitals remain one of the leading health sciences centres for research and education in North America, with a global reputation for excellence and innovation. We have much to celebrate and we can rightly take pride in our accomplishments. But the changes, challenges and opportunities confronted by our world require rigorous self-examination and consideration of three crucial questions: Where do we go from here? How do we get there? How do we measure our progress toward those goals?

With that in mind, the Faculty of Medicine initiated in 2007 a planning process, captured in *Renewal and Focus of the Faculty of Medicine's Strategic Plan* (on-line at www.facmed.utoronto.ca). This white paper lays out our aspirations and focus for the coming years; an ongoing implementation process will guide us in achieving those goals and in reporting and measuring our progress.

In this year's *Dean's Report*, we provide data that demonstrate the impact our Faculty of Medicine has on the health care landscape in Ontario, across Canada and around the world.

But we also highlight some truly outstanding faculty and students, whose achievements in the classroom, in the laboratory, in the clinical setting and in our communities, serve as beacons to steer our Faculty as we move together into the future. These inspirational individuals are among the thousands of students, staff and faculty who make the University of Toronto Faculty of Medicine such an extraordinary place. As Dean of the Faculty, it is an honour to serve with them and collectively realize our vision of international leadership in health research and education.

Catharine Whiteside, MD,
PhD, FRCPC

Dean, Faculty of Medicine
Vice-Provost, Relations with
Health Care Institutions
University of Toronto



LEADERSHIP

OUR STRATEGIC DIRECTIONS

The Faculty of Medicine is committed to the following actions to fulfill its vision. We will establish accountability benchmarks and report our progress in their achievement to all stakeholders.

LEADERSHIP	Recognize that excellence and innovative leadership in health education, research, and knowledge translation remain a competitive advantage of our Faculty and University.
SUCCESSION	Identify leadership potential among our faculty, students and staff, and promote its development for succession planning in all of our academic and administrative units.
PARTNERSHIPS	Enrich our strong partnerships with the affiliated hospitals by further integrating our shared education and research goals. Establish new strategic partnerships internal and external to the University.
COMMUNITY	Initiate collaborative ventures with community affiliates diversifying and expanding health professional education with a focus on patient- and family-centred quality care.
COMMUNICATION	Implement new communication strategies to effectively connect our faculty, students, staff, alumni, and donors. We will communicate about our achievements and seek advice from all of our partners including the public.
RECOGNITION	Enhance the student, faculty and staff experience in the Faculty of Medicine by recognizing their accomplishments and responding positively to their academic, career development, and work environment needs.
ADVOCACY	In partnership with the affiliated hospitals and other local, provincial and national agencies, advocate for improved funding for sustained excellence of publicly-funded health and biomedical education and research.
SOCIAL RESPONSIBILITY	Be responsible in all our local, provincial, national, and global academic endeavours by valuing social justice, equity, diversity and professionalism.
INFRASTRUCTURE	Renew and develop our physical facilities and support services, including information technology, to facilitate our students, faculty, and staff in achieving their goals.
ADVANCEMENT	Throughout the Faculty, aggressively pursue fund-raising and new resources to sustain the academic mission and capital investment.



A RICH EDUCATIONAL EXPERIENCE

Students and faculty achieving excellence

Success for Sagar Dugani means not just reaching his own potential; it means making a difference in other people's lives. Despite being in one of the most demanding academic programs in the Faculty, he has made time to mentor inner-city youths in downtown Toronto.

Under the leadership of 35 student directors, including Sagar, and in collaboration with the office of Health Professions Student Affairs, the number of community outreach programs expanded from 17 last year to 23 in 2007 – 2008. The programs serve isolated seniors, the homeless and at-risk students and involve 600 student volunteers.

Sagar is one of 42 students enrolled in the rigorous MD/PhD program that enables highly qualified and motivated students to graduate from medical school and obtain a PhD in health or biomedical research in about eight years, positioning them at the interface of research and medicine with a thorough understanding of both.

Sagar is currently conducting neurodevelopment research at The Hospital for Sick Children, but finds time for other commitments. He was recently appointed chief co-editor of *Toronto Notes*, a student-run, 1,400-page textbook sold worldwide, supporting bursaries and outreach programs.

Sagar's community work as well as his scientific productivity and academic success were recently recognized by the 2008 Canadian Medical Association Award for Young Leaders. It is the latest of many awards he has won since leaving India nine years ago to study in Toronto.

To complete his studies requires perseverance. That trait helps Sagar both achieve his academic goals and fuels his leadership and dedication to others.

Sagar Dugani
MD/PhD Student
University of Toronto



Educa



Debbie Hebert, OT Reg. (ON)

Corporate Professional Leader
and Clinical Educator, Toronto
Rehabilitation Institute

Assistant Professor
Department of Occupational Sciences
and Occupational Therapy
University of Toronto

When Prof. Debbie Hebert defends her PhD later this year she adds the designation of researcher to her diverse roles: occupational therapist and corporate professional leader at the Toronto Rehabilitation Institute and educator in the Department of Occupational Science and Occupational Therapy. Prof. Hebert introduces and supports best practices in occupational therapy at the Toronto Rehabilitation Institute. She has worked there in neurorehabilitation since 1980 and now has a leadership role in the education and professional excellence segments of its Patient Care program.

When teaching students, Prof. Hebert brings clinical situations alive by including patients, in person or through video. She also recruits clinicians who volunteer their rich practical knowledge to support the learning experience in departmental courses.

Prof. Hebert's long-term commitment to teaching her peers was recognized by the University's Colin R. Woolf Award for Excellence in Continuing Education in 2006. She has coordinated and facilitated Continuing Education (CE) courses for community clinicians for the past 14 years and chairs the department's CE Committee. Her responsibilities recently expanded to include mentoring faculty interested in co-ordinating CE programs. Prof. Hebert's enthusiasm for occupational therapy is apparent by her excellence in teaching and supervising students and also by her dedication to research and translation of new scientific knowledge into practice.

The Toronto Rehabilitation Institute's support of Prof. Hebert throughout her PhD was critical for her and the partnership between the fully affiliated hospital and the University. Prof. Hebert is building her educational, research and clinical practice strengths – a benefit to all.

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TRAINING WITH THE BEST

Experts and innovators throughout our Faculty

As a boy, Bob Salter had seen in athletic friends the persistent stiff and painful joints that resulted when they were immobilized for months in a cast. So, he decided to become a doctor and develop better methods of prevention and treatment.

In medical school he learned that ordinarily, joint cartilage cannot heal or regenerate. In 1970, he originated his revolutionary biological concept for continuous passive motion (CPM) of joints, that dramatically produced both the healing and regeneration of joint cartilage. CPM has since been used in the treatment of nine million patients worldwide.

His other major achievements include the Salter-Harris classification of epiphyseal (growth plate) injuries and the Salter Operation for children with congenital dislocation of the hip.

He has educated students and clinicians worldwide through scientific articles, as a visiting professor at more than 150 universities, and with his undergraduate textbook, that has sold over 190,000 copies in six languages.

In 2006, Prof. Salter was named one of the U of T Faculty of Medicine's 10 most outstanding scientists of the past 80 years, known as the "Giants of Medical Research." Their busts are displayed in the lobby of the Terrence Donnelly Centre for Cellular and Biomolecular Research.

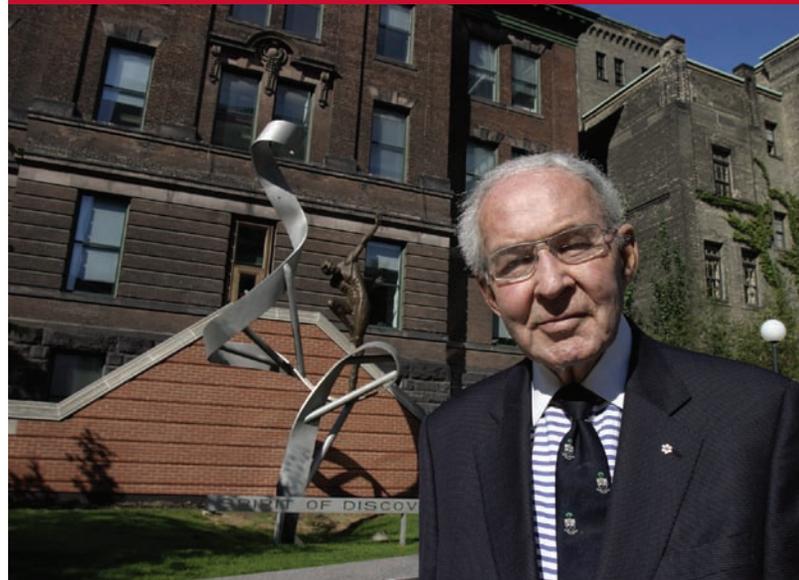
He continues to be an inspiration to orthopaedic students and practitioners worldwide, including the 330-plus members of the Salter Society, a group of former clinical fellows of the orthopaedic division at the hospital who meet annually to present their research to their mentor.

Robert Salter, CC, OOnt,
MD, FRSC, FRCSC, FACS

University Professor Emeritus

Professor of Orthopaedic Surgery
Emeritus, University of Toronto

Senior Scientist Emeritus
The Research Institute of the
Hospital for Sick Children



Training



Helen Batty, MD,
CCFP, MEd, FCFP

Professor

Director, Graduate Studies &
Faculty Development Programs

Department of Family
and Community Medicine
University of Toronto and
Women's College Hospital

Prof. Helen Batty has spent most of her career quietly closing the gap between mentorship, leadership and teaching. When she joined the Department of Family and Community Medicine just over 30 years ago, the department was staffed by excellent family doctors with plenty of enthusiasm but little formal teaching experience. Three decades later, the department's innovative education programs, which train health professionals how to teach effectively, attract applicants worldwide.

In 2008, Prof. Batty received the prestigious U of T President's Teaching Award in recognition of her long-term commitment and passion for medical education, and is now a member of the University's exclusive Teaching Academy. Previous acknowledgement of her outstanding contributions includes the establishment in 2005 of the Helen P. Batty Award which recognizes excellence in faculty development programming and teaching.

Prof. Batty is the founding director of the department's Academic Fellowship and the Graduate Studies programs. She led the development of a new Master of Science Community Health program that admitted 20 Canadian and international health professionals this year. In this program participants advance their teaching, research, administrative and other faculty member skills while being able to remain employed or in practice.

Despite her extensive duties, Prof. Batty continues to practise family medicine at Women's College Hospital. She has treated up to four generations of some families, and patients remain her motivation to elevate teaching standards. She has seen how more effective systems of learning – where faculty and students feel supported and appreciated – result in improved patient care.



GLOBAL IMPACT IN RESEARCH

Making waves in the lab and in the field

Living and working in Toronto, one of the most culturally diverse cities on the planet, gives world-renowned malaria researcher Prof. Kevin Kain an ideal platform for thinking globally.

In the early '80s on a road trip through Africa, Prof. Kain saw firsthand the devastation caused by malaria and decided to be part of a solution. While he has worked extensively in the tropics and sub-tropics, it is in Toronto that Kain is developing clinical applications based on research on the host-parasite interactions responsible for malaria, HIV and tuberculosis.

Malaria remains the most troubling parasitic disease in the world, infecting three hundred million people and killing an estimated two million each year. Increasing international travel and migration makes the disease a global problem reflected in a rising number of cases documented in Canada.

Prof. Kain encourages collaborative input from many disciplines in his search for innovative ways to impact treatment and prevention. A priority is the development of inexpensive, robust, handheld devices to accurately diagnose malaria in the field and assess its severity.

In light of increasing malaria drug resistance, his research also studies the evolution of infection control in nature to better understand intrinsic protective mechanisms in humans. Prof. Kain promotes the exchange of researchers and trainees between Toronto and the developing world. His research is funded by over \$40 million in peer-reviewed grants and has been recognized by numerous awards. It is, however, social responsibility that fuels his commitment to research and support of global equity, knowledge sharing and education.

Kevin C. Kain, MD, FRCPC

Professor, Department of Medicine
University of Toronto
McLaughlin Centre for
Molecular Medicine
Canada Research Chair
in Molecular Parasitology
Senior Scientist
Toronto General Research Institute
Director, Centre for Travel
and Tropical Medicine
Division of Infectious Diseases
University Health Network



Research



Leah E. Cowen, PhD

Assistant Professor

Canada Research Chair in Microbial
Genomics & Infectious Disease

Department of Molecular Genetics

University of Toronto

When Prof. Leah Cowen was appointed Canada Research Chair in Microbial Genomics and Infectious Disease last year, she came home – not just to Canada but also to the university where her research career started.

During her postdoctoral training at the Massachusetts Institute of Technology, Prof. Cowen became an international authority on drug-resistant fungal infections that are life-threatening for individuals with compromised immune systems including those with organ transplants, with cancer receiving chemotherapy or with HIV/AIDS. She discovered a new role for a well-known molecule, heat shock protein 90, in mediating drug resistance of fungi that have evolved over 800 million years, a finding reported in *Science* in 2005.

Prof. Cowen came back to the University of Toronto (where she obtained her PhD), attracted by the opportunity to work with a highly-skilled, inter-disciplinary team using modern genomic and imaging technologies, molecular genetics, experimental evolution and computer models of fungal pathogenesis.

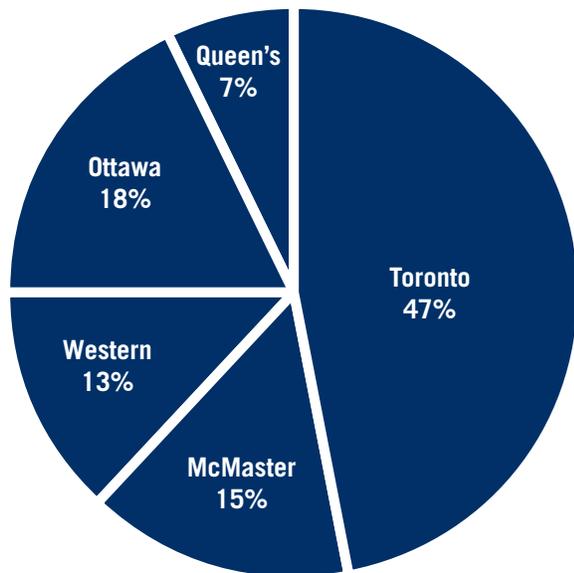
Based on her stellar academic record and the far-reaching implications of her work, she received major infrastructure and research funding support, including awards from the Canadian Foundation for Innovation, the Canadian Institutes of Health Research and a Career Award from the Burroughs Wellcome Fund. Equally important to the new investigator was the generous exchange of information and expertise from an engaged university research community. Prof. Cowen, in turn, now inspires the next generation of biomedical researchers through teaching and supervision.

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OUR IMPACT ON EDUCATION

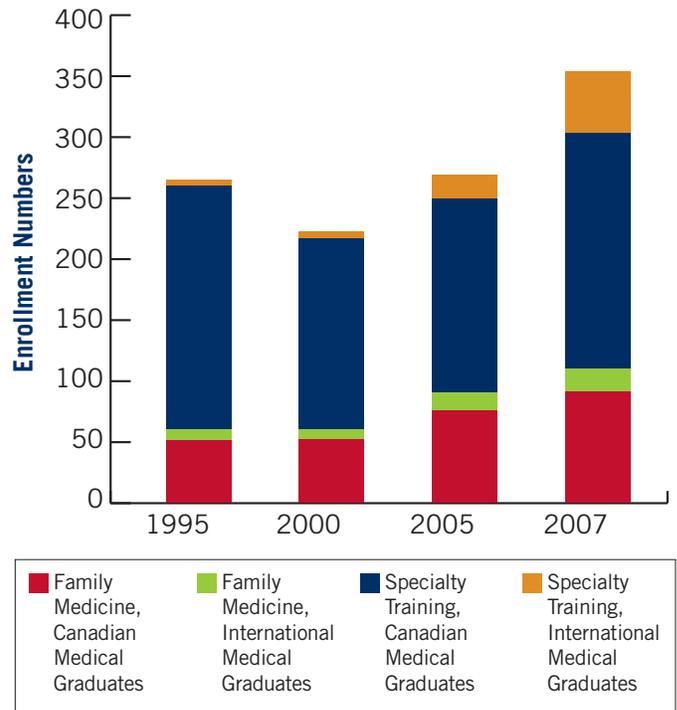
Our Faculty of Medicine maintains a leading position in health care education. The figures below demonstrate the expansion of our educational capacity and the impact our graduates have on Ontario's health.

Physicians who exited Ontario post MD training in 2005 and are in practice in Ontario in 2007 by Faculty of Medicine. Canadian medical graduates only.*

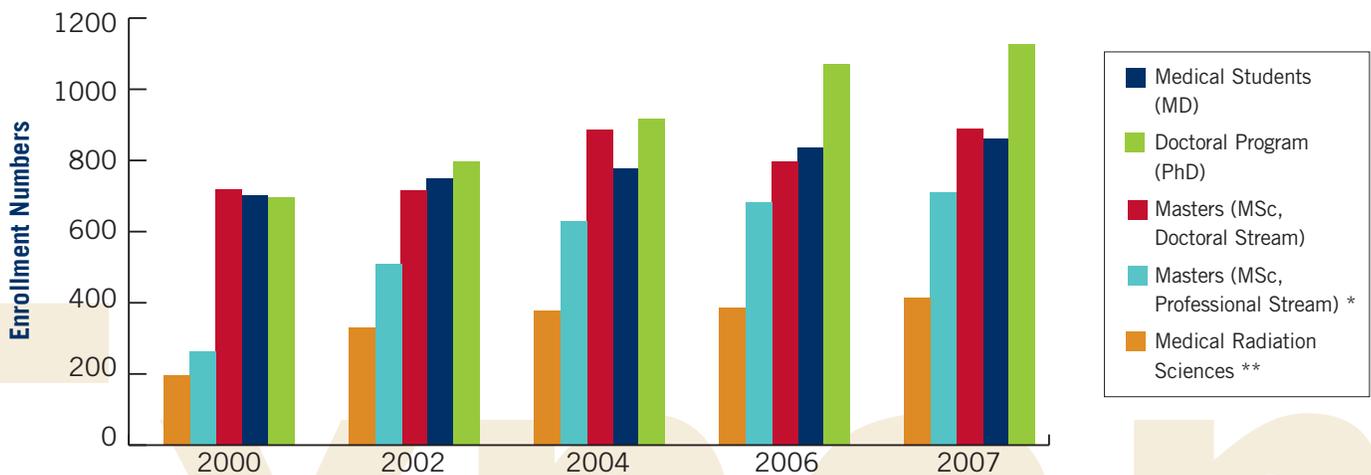


*Source: Canadian Postgraduate Education Registry (CAPER), 2008

U of T MD Postgraduate Family Medicine and Royal College Specialty Trainee Enrollment Numbers



Students by Degree Type in our Faculty



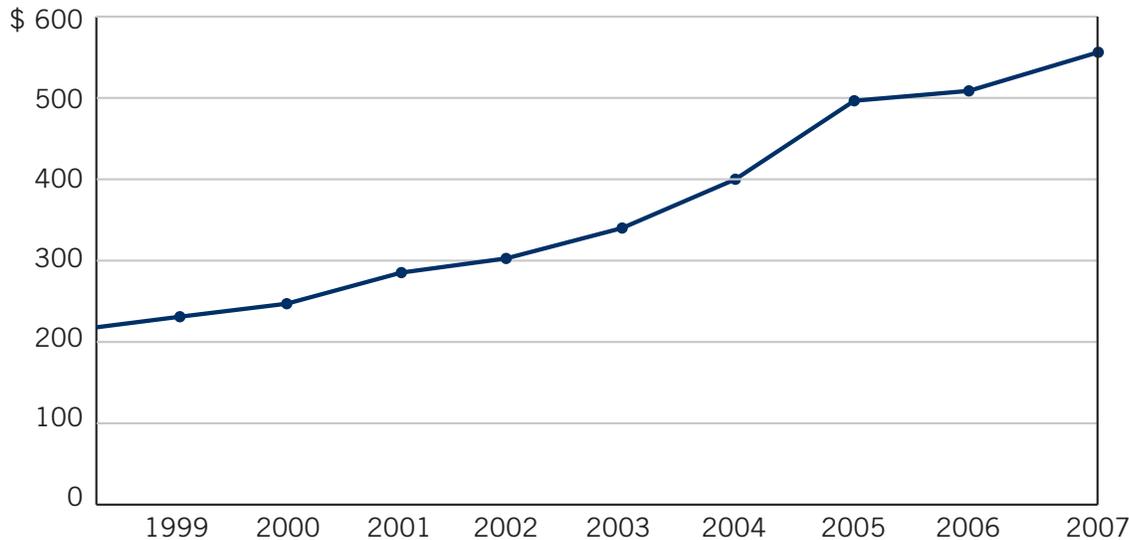
* Includes occupational therapy, physical therapy, speech-language pathology, health administration, biomedical communications, bioethics, and public health sciences

** U of T and the Michener Institute for Applied Health Sciences Joint Degree/Diploma Programs in nuclear medicine, radiation therapy and radiological technology

OUR IMPACT ON RESEARCH

With our hospital partners, we remain the largest research entity in Canada and the fourth largest in North America. The facts and figures below mark our Faculty's recent research achievements.

Total research funding (in millions) of our faculty members on campus and in the 10 fully affiliated hospitals and their research institutes



- In 2006 – 2007, the Faculty received a total of \$544 million in research funds from all sources, an increase of 9% over the previous year.
- In 2006 – 2007, the Faculty received over \$144 million in funding from the Canadian Institutes of Health Research (CIHR), an increase of 16% over the previous year.
- In 2006 – 2007, the Faculty was awarded five new Tier 1 Canada Research Chairs, 11 new Tier 2 Chairs and 14 renewed Tier 2 Chairs, to our total complement of 130 Canada Research Chairs.
- Four Faculty researchers were recipients of the inaugural Premier's Summit Awards (value \$5 million) for research excellence.
- The Faculty received seven CIHR New Investigator Awards in 2007.
- Thirteen faculty members were awarded Early Researcher Awards from the Ontario Ministry of Research and Innovation.
- Nine faculty members were named new Fellows of the Royal Society of Canada.
- In one year, the number of postdoctoral MDs and clinical research fellows has increased by 37% to 1,103.

For more information, see the *Synopsis of Research Activities* available on-line:

http://www.medresearch.utoronto.ca/misc_attach_pdfs_etc/Synopsis2006_07_V01c.pdf

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OUR MISSION

We prepare future health leaders, contribute to our communities, and improve the health of individuals and populations through the discovery, application and communication of knowledge.



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