



UNIVERSITY OF TORONTO  
FACULTY OF MEDICINE



**DEAN'S REPORT**  
2012-13

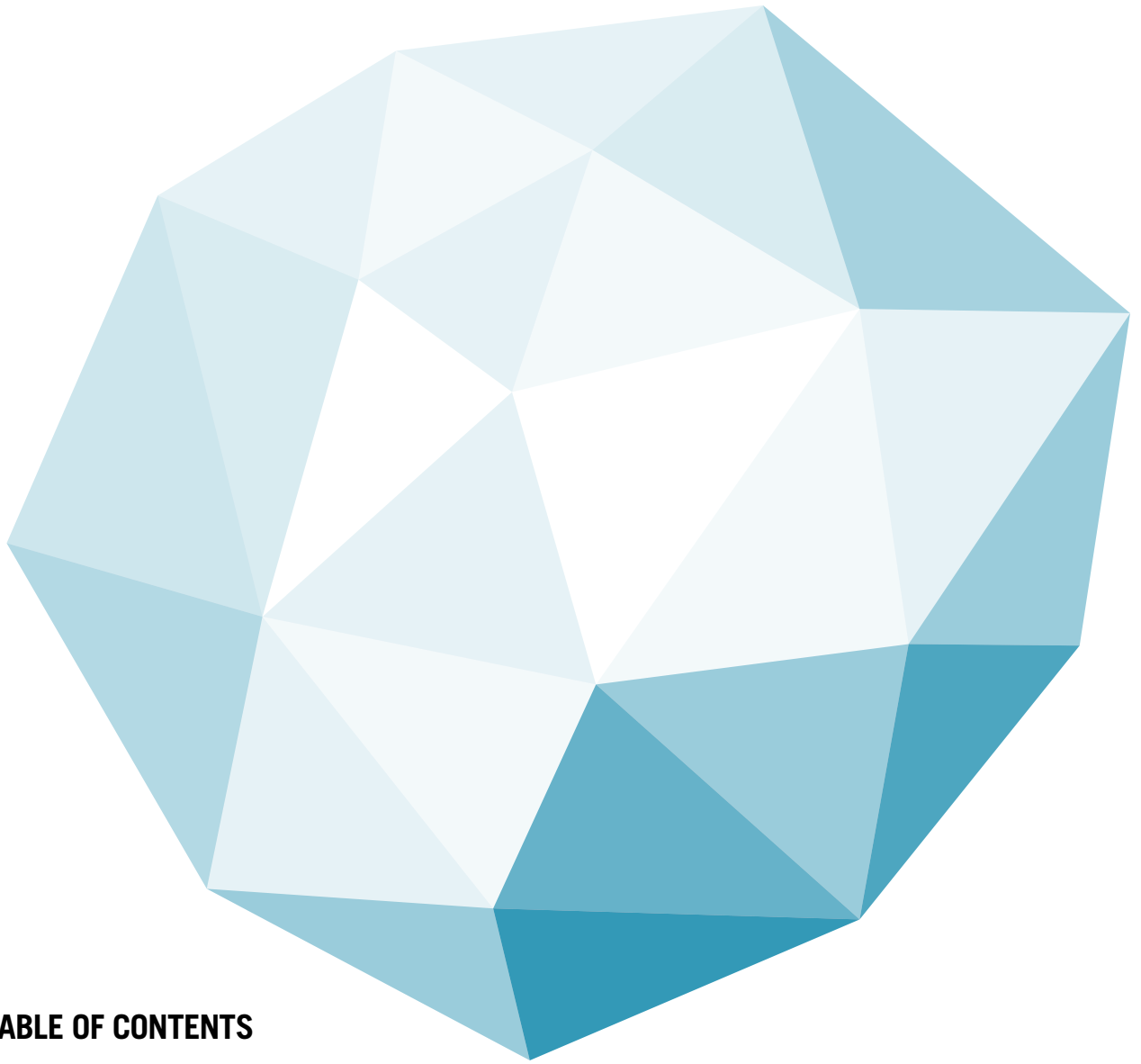
**BOUNDLESS INTEGRATION**



The Faculty of Medicine at the University of Toronto achieves international leadership by improving health through innovation in research and education.

Our Faculty has established strategic academic partnerships with the University's nine fully affiliated hospitals, their research institutes and the four major community-affiliated hospitals that form the Toronto Academic Health Science Network (TAHSN). The Faculty also works with 14 other community hospitals and clinical sites in the Greater Toronto Area that are affiliated with the University of Toronto.

This report highlights the importance of these relationships in enabling the strategic integration of education and research activities of our faculty and students across TAHSN. The result is innovation and impact that improves health locally and globally.



## **TABLE OF CONTENTS**

Dean's Message	2
Research	3
Education	8
Knowledge Transfer	13
Global Reach	16
Impactful Leadership	20
Supporting Excellence	24
Facts & Figures	28
Faculty Awards & Honours	30

## DEAN'S MESSAGE

The 2012–2013 Dean's Report on the activities of the University of Toronto's Faculty of Medicine highlights the ongoing fulfilment of goals outlined in our strategic academic plan (2011–2016). An overarching theme is integration among the many health and biomedical disciplines on campus and in our affiliated hospitals forming the Toronto Academic Health Science Network (TAHSN). This collaborative enterprise builds value beyond the sum of its parts and is the platform for innovation in our research and education endeavours.

Over the last two years, our health education programs have undergone rigorous evaluation through formal, external accreditation reviews. We experienced the very successful accreditation of our major undergraduate health professions education programs including Undergraduate Medical Education, Physician Assistants and Medical Radiation Sciences. As well, the on-site accreditation reviews of Continuing Education and Professional Development and Postgraduate Medical Education programs have been most favourable and we anticipate exemplary positive outcomes when we receive the final reports from the credentialing colleges. The highly successful performance of our education programs demonstrates the commitment to excellence and remarkable dedication of our faculty, staff and affiliated hospital partners. Together, not only do we create the very best training opportunities, but also focus on innovation in leadership development, preparing our graduates to be the future agents of transformative change in our health care system.

This year our Faculty engaged in extending and developing new global, academic relationships in South America, Europe, Africa and China. Our goal is to develop specific programs that enable strategic collaborations for our faculty and students. Leveraging our strengths has resulted in innovative new collaborations such as the launch of the first family and community medicine training program in Ethiopia at Addis Ababa University in collaboration with our Department of Family and Community Medicine. The first PhD students were recruited to our joint PhD program in molecular genetics with the University of Hong Kong. We established a joint post-doctoral program in human development between our Department of Physiology and the Karolinska Institutet. These three initiatives are clear manifestations of the successful implementation of the goals outlined in our Global Health Roadmap and strategic academic plan.

The Faculty of Medicine officially launched its Boundless campaign in September 2012 and has reached the

\$311-million mark of our \$500-million goal (2005–15). As a top priority, our fundraising supports student bursaries to help minimize their debt load. For the first time, our Medical School is able to provide high-needs bursaries to cover all costs of entering our undergraduate medical education program. We take very seriously the need to ensure we achieve diversity among our students, the most challenging being socio-economic.

In the pages that follow, you will read about the ways that our students and faculty help make TAHSN a thriving community of researchers, teachers, learners and clinicians. You will see how our Faculty values its people and their commitment to improving health. And you will discover how we invest in their success by creating the optimal conditions for research, teaching and learning at home and abroad.

The outcomes of our academic partnerships among the University of Toronto, the TAHSN hospitals and our community affiliates are highly advantageous for the Greater Toronto Area, Ontario and our collaborators around the world. Our Faculty provides the bridge that connects across all stakeholders, optimizing engagement in seamless learning and discovery. Each partner contributes to collective social responsibility of improving the health of our communities.

Many thanks to our faculty members, staff and students for their outstanding work this year — as well as to our broader community of alumni and philanthropists for their most generous support.

I look forward to the coming year as we continue to connect and integrate across disciplines, institutions and around the world to make a boundless impact in health education and research.



A handwritten signature in black ink that reads "C Whiteside". The signature is fluid and cursive, with a small dot above the 'i' in Whiteside.

**Catharine Whiteside, MD, PhD, FRCP**  
Dean, Faculty of Medicine  
Vice-Provost, Relations with Health Care Institutions





# RESEARCH

How does a mother's emotional well-being during pregnancy affect the future health of her baby? What food choices can we make that will encourage optimal development for our children and contribute to better brain health as we age? How can we ensure that there are fewer global disparities in disease prevention and health promotion? Why do some of us have a higher predisposition to degenerative conditions such as dementia or Parkinson's disease?

The answers to these questions — and many others — keep our researchers engaged and thriving in a dynamic community. At the Faculty of Medicine, we're working across disciplines and institutions and driving innovation through international research collaborations — as we pursue discovery, create and apply new knowledge to improve health.



# BUILDING BRIDGES

For Canadians with complex diseases, treatment can mean bouncing from hospitals to home care—and back—and facing a never-ending stream of medical caregivers. Patients suffer and Ontario pays each year for hospital re-admissions that could be avoided.

The Building Bridges to Integrate Care (BRIDGES) project—led by U of T’s Departments of Medicine and Family and Community Medicine—supports proposals for new care models that will improve patient care and reduce health care costs.

The projects link hospitals, primary care clinics and community services

in ways that benefit patients and lower costs for the health system. Supported by the Ontario Ministry of Health and Long-Term Care, BRIDGES helps inter-disciplinary health teams plan and implement novel health system interventions that include evaluation of financial and health care outcomes.

“Developing and evaluating innovative models of care that keep people out of the hospital is critical to improving the patient experience and sustaining the health care system,” says Department of Medicine Professor Gillian Hawker, Chief of Medicine at Women’s College Hospital (WCH). “BRIDGES enables us to create, test and share new models that benefit both individual patients and the system.”

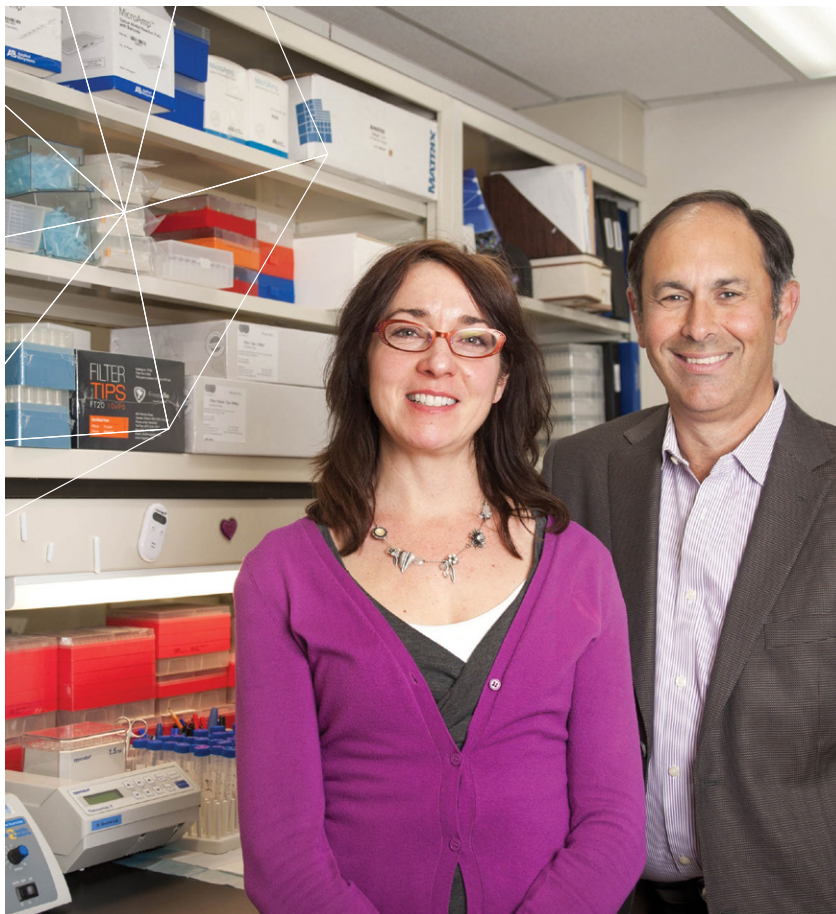
Supported by BRIDGES, the Seamless Care Optimizing the Patient Care Experience project—a partnership of WCH, University Health Network (UHN) and the Community Care

Access Centre (CCAC)—aims to do just that.

The project gives community-based solo-practice primary care doctors single-point, streamlined access to resources at WCH, UHN and the CCAC—such as telephone support from general internists and other specialists and online access to patient test results through UHN’s electronic medical records system.

The two-year project helps family doctors take better care of their patients with complex, chronic diseases—and keep them out of hospital.

The next phase of BRIDGES will be scaling up a number of these projects for broader application across the Greater Toronto Area and beyond. The U of T departments lead this transformative project in collaboration with the TAHSN hospitals.



## EXPLORING THE IMPACT OF THE MICROBIOME ON HEALTH & DISEASE

Most people may not think about the trillions of micro-organisms — bacteria, viruses and fungi (microbiota) — that live on and inside our bodies, but these microbes have a tremendous impact on health. Faculty of Medicine researchers are zeroing in on these tiny organisms to figure out exactly how they influence health and disease.

With \$12 million in funding from the Canada Foundation for Innovation and Ontario's Ministry of Research and Innovation, U of T's Host-Microbiome Research Network will explore how these microbes may be responsible

for immune responses—including inflammation—which scientists believe may be at the root of many chronic diseases.

Gut microbiota metabolize food, strengthen the intestinal barrier and stimulate the production of antibodies — hallmarks of a healthy gut—but scientists now believe that an imbalance in these microbiota can lead to inflammation, which plays a role in all kinds of chronic diseases from diabetes to obesity to inflammatory bowel disease (IBD).

“If we can eradicate inflammation-causing bacteria using probiotic cocktails, we can treat or prevent disease,” says Dana Philpott, Professor of Immunology, who will lead the Network alongside Ken Croitoru, Professor of Medicine and Clinician-Scientist in Mount Sinai Hospital's Division of Gastroenterology.

By integrating the research of immunologists, gastroenterologists, molecular geneticists, nutrition scientists, pathologists and many more on campus and across the Toronto Academic Health Science Network, the Network will help close the gap between laboratory discovery and patient benefit.

With its leading-edge research equipment — including high-resolution microscopes and a germ-free testing facility — under one roof, the Medical Science Building is the Network's basic science research hub. Mount Sinai will house a Clinical Research Unit focusing on patients with IBD.

“Sharing equipment, ideas, talent and resources leads to greater potential for exploring new research avenues and, eventually, disease cures,” says Philpott.



# TORONTO DEMENTIA RESEARCH ALLIANCE

With 750,000 Canadians now suffering from dementia and prediction of rising numbers in an aging population, the impact of degenerative brain diseases on our society and health care system will be staggering over the next 25 years.

The University of Toronto and affiliated hospitals and research institutes have a collective powerhouse of leading-edge researchers and clinicians engaged in the study and care of individuals with neurodegenerative diseases.

Recognizing this opportunity to create a new collaborative coalition that includes the five memory/dementia clinics across the Toronto Academic Health Science Network, the leadership of the Faculty of Medicine, Baycrest, the Centre for Addiction and Mental Health,

St. Michael's, Sunnybrook Health Sciences Centre and the University Health Network (UHN) invested in a new academic network called the Toronto Dementia Research Alliance (TDRA).

The Executive Director of the TDRA is Professor Sandra Black (Department of Medicine, Division of Neurology, Sunnybrook) and the Director of Strategy is Dr. Barry Greenberg, (Director, Neuroscience Drug Discovery and Development, UHN).

This new paradigm for collaborative research is working to create an effective platform for consistent collection and interpretation of clinical data across member institutions. The TDRA is positioning itself as a Canadian research centre of excellence in dementia, co-morbidities and co-occurring contributory underlying disorders.

The TDRA focuses on both the basic and clinical research of neurodegenerative diseases that result in dementia, including Alzheimer's disease, fronto-temporal degeneration, dementia with Lewy bodies, Parkinson's disease dementia and vascular cognitive impairment.

Together, TDRA-related clinics see approximately 6,000 patients per year, roughly 2,000 new patients and 4,000 follow-ups. Successful provincial, national and international research collaborations are emerging rapidly with new funding to enable larger-scale research capabilities required for studies focusing on the identification and treatment of subjects in the earliest stages of disease.

Experts agree that preventing or delaying dementia onset is critical and therefore the Mission of the TDRA is to "Mitigate suffering from neurodegenerative disorders through understanding mechanisms and finding better targets for disease modification and earlier means to detect and treat these diseases."

"If the patient is experiencing symptoms, it means the brain has already lost essential tissue and there's less that can be done to contain the ongoing damage and restore brain function," says Black, also Research Director of Sunnybrook Research Institute's Brain Sciences Program, who notes that dementia includes a broad spectrum of interrelated diseases.

Beyond Alzheimer's disease, there are also vascular cognitive disorders — intellectual impairments resulting from damage to the blood vessels supplying the brain — and other neurodegenerative diseases. Importantly, the most common cause of dementia is actually Alzheimer's and cerebrovascular disease in combination.

Beyond early detection, the TDRA will help lead collaborative national and international dementia initiatives, pushing for alliances across different sectors and for national registries within a proper privacy and ethical framework.

"The TDRA aims to set the standard for the kind of collaboration we should strive for in brain medicine and science. Together, we can accomplish so much more," says Black.



## MOBILE MEDICINE



“I want to empower patients to take control of their health,” says first-year internal medicine resident Jeffrey Alfonsi, a recent graduate of the University of Toronto MD program.

That’s why he started SYNapps, a company that specializes in the development of mobile applications to improve the safety and quality of care provided to patients.

Alfonsi — who also has a Bachelor of Applied Sciences in Systems Design Engineering from the University of Waterloo — worked with Professor Liesly Lee (Department of Medicine and Sunnybrook Health Sciences Centre), to develop the two mobile apps that SYNapps offers.

The first is the iPhone/iPad app called the *Toronto Expanded Disability Severity Score (EDSS) Calculator*, which helps neurologists determine the severity of multiple sclerosis based on symptom complex and diagnostic data and is available in English, French, German, Arabic or Spanish. The other is *MED Log*, which lets medical residents log their interaction with patients so they may receive customized feedback, helping them improve the quality of care they provide.

“These apps are the result of significant collaboration between hospitals, departments and disciplines,” says Alfonsi, who received the Faculty’s prestigious Ankle Award for his work with SYNapps. The award — sponsored by Carlo Fidani and the Fidani Foundation — is given annually to a student for an innovative project that improves health care systems.

Alfonsi is working with Dr. Ian Chen from the Hospital for Sick Children on the second phase of *MED Log*, which will enable doctors to track information in real time — such as a patient’s blood pressure — and send patients customized plans to help them achieve their goals.

Photo credit (left): Gustavo Toledo

## IMPROVING BREAST CANCER TREATMENT



Despite important advances in the early diagnosis and treatment, breast cancer continues to be a leading cause of mortality and disability for women.

For the past five years, Jasdeep Saggar, a PhD student in the Department of Medical Biophysics, supervised by Professor Ian Tannock at Princess Margaret Hospital/Ontario Cancer Institute (UHN), has been exploring how chemotherapy and a new anticancer drug can improve drug distribution in the breast cancer microenvironment.

“Chemotherapy is really good at targeting and killing rapidly growing cells that are close to blood vessels, but cells that are farther away may survive because they don’t receive enough drugs,” says Saggar.

In her research, Saggar homed in on the problematic cells that contribute to tumour regrowth, and found that they could be better targeted with a specific type of treatment: hypoxia-activated pro-drugs. Reduced blood supply to tumour masses leads to decreased penetration of chemotherapy drugs to cancer cells in the hypoxic zones. As well, lower nutrient and oxygen levels cause tumour cells in hypoxic zones to replicate more slowly, causing resistance to chemotherapies and radiation that target dividing cells. Hypoxia-activated pro-drugs are designed to act specifically in these conditions. Combining standard chemotherapy with hypoxia-activated pro-drugs resulted in increased cell death throughout the tumour.

Saggar’s groundbreaking research — and her ability to translate it into lay language for a broad audience — recently won her top honours at Ontario’s Three Minute Thesis competition.

The contest challenged graduate students from 16 universities across the province to present their complex research in an engaging and accessible way.

“It’s important to translate research discoveries because they serve the needs of human health and that’s what ultimately drives us to do innovative research. It improves health not just in communities here, but worldwide,” Saggar says.



# EDUCATION

Today's health professionals are more than just providers of care. They are leaders in their communities who understand not only their clinical practice, but also the policies that govern it, and the emerging technologies that can improve it.

The Faculty of Medicine offers our health professions students an educational experience that integrates all aspects of the roles they are required to fill, and does this, in part, through interprofessional communities of practice. Our graduate students train in the laboratories of researchers who guide them to become the next generation of biomedical and health science experts.

We engage both our alumni and the larger health professional community through a full complement of continuing training and professional development opportunities. Our Faculty offers world-class education programs that are highly competitive, extend across the continuum of training and promote life-long learning skills.

# NEW FRONTIER OF MEDICAL EDUCATION

## APPLICATION OF IT-EDUCATION TOOLS



Mr. G.B. is a 74-year-old widower with congestive heart failure. A complex patient who makes for an interesting case study, he is also an example of how the Faculty of Medicine is leveraging technology to train the next generation of health professionals.

In this case, Mr. G.B. is actually a virtual patient module that helps first-year medical students develop clinically oriented thinking using interactive self-directed learning. Mr. G.B. is used in three major pre-clerkship courses and is just one of the innovative educational tools being used by the Faculty.

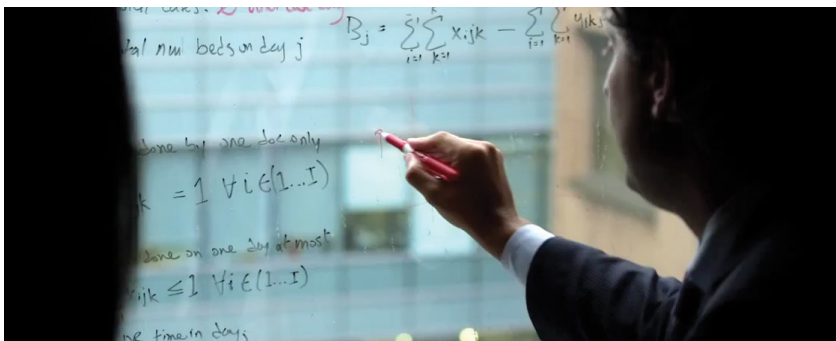
Other examples include video-based faculty development resources, an online learning community and online courses. There is also an e-assessment tool to evaluate how trainees are doing on core physician competencies, such as communication, collaboration and advocacy.

“This is a really exciting time at the Faculty of Medicine. There has been a proliferation of resources that are helping educators and learners navigate an increasingly integrated and dynamic health professions environment,” says Professor Marcus Law (Department of Family and Community Medicine) and Director of Medical Education at Toronto East General Hospital.

Many departments are also leveraging new technologies to improve training and education. The Institute of Medical Science (IMS) and Continuing Education and Professional Development (CEPD) recently “hosted” world-leading health experts during their TEDMED events by streaming video content directly from Washington, D.C. The Mississauga Academy of Medicine uses similar technology to integrate the St. George and Mississauga campuses, providing a seamless educational experience for students regardless of location.

Image of Mr. G.B., a virtual patient module that helps first-year medical students develop clinically oriented thinking and self-directed learning skills.

# TRAINING A NEW CLASS OF LEADERS



Poverty. Nutrition. Relocation of large populations. Today's complex health challenges require courageous new leaders who can provide innovative solutions. The Leadership Education and Development (LEAD) program at the Faculty of Medicine is answering the call by training clinicians who are more than excellent care providers—they're the next generation of transformative health care leaders.

"There is an overwhelming lack of integration between clinical, intellectual, academic and economic resources in health care. LEAD brings together people from different backgrounds to capitalize on our collective potential," says Victoria Leung, a third-year medical student in the LEAD program.

A collaboration among the Faculty of Medicine's Institute of Health Policy, Management and Evaluation, U of T's Rotman School of Management and the School of Public

Policy and Governance, the LEAD program provides communication, entrepreneurship and policy planning training to students who aspire to be at the helm of health care. Scholars take graduate courses in business and policy to enhance their undergraduate medical education, while gaining hands-on experience during summer practicums.

Leung—who is focusing on sustainable change in health care organizations—put theory into practice by working with renowned health care strategist Professor Dante Morra (Department of Medicine, former Director of the Centre for Innovation in Complex Care at UHN, now Chief of Medical Staff at Trillium Health Partners) and fellow LEAD medical student Erica Merman. The team significantly improved hand-washing compliance rates on the General Internal Medicine wards at Toronto General Hospital by piloting a hand hygiene program. They also produced "Wash Your Hands—It Just Makes Sense," an award-winning video that inspires improved hand hygiene

practices. Victoria Leung and Erica Merman are the winners of the 2011 Ivey Global Health Conference Student Video Contest. The purpose of the contest was to stimulate students to be creative and develop an innovation to improve health care systems.

"Clinical practice is my passion, but I don't want to stop there," says Leung. "I want to transform Canadian health care. LEAD will help me do that."

"To solve today's biggest health challenges, we need to train creative, collaborative leaders who understand the clinical perspective, but also have policy and business acumen," says Bill Downe, President and Chief Executive Officer of BMO Financial Group, who recently made a personal gift in support of LEAD scholars. "The LEAD program provides the training and hands-on experience to produce health care leaders who will really make a difference."

## A NEW GENERATION OF HEALTH CARE LEADERS

Health systems have become too complex to rely on traditional leadership structures. Inspired by the call for reforms by the Lancet report, “Health Professions for a New Century and the US Institute of Medicine (IOM),” the Canadian Interprofessional Health Leadership Collaborative (CIHLC) brings knowledge in leadership development and education innovation to the world stage.

Led by the University of Toronto and funded by the Ontario Ministry of Health and Long-Term Care and our partners — the University of British Columbia, Université Laval, Queen’s University and the Northern Ontario School of Medicine — the CIHLC is creating transformative, courageous and visionary leaders committed to social accountability and to addressing root causes of inequities in global health.

“We are changing the focus from high-cost, hospital-based care to integration of public health, primary care and continuity of care,” says Professor Sarita Verma (Deputy Dean of Medicine and Associate Vice-Provost, Health Professions Education) the project’s co-lead and Canadian nominee to the IOM’s Global Forum on Innovation in health professions education.

In the face of health care disparities around the world, the CIHLC is defining the competencies required for today’s health care leaders. Anchored in principles of community engagement and social justice, the CIHLC develops curriculum as well as an evaluation framework to measure impact.

Verma adds, “U of T fosters dialogue that cuts across disciplines and geography, seeks common ground towards solutions and generates new knowledge on leadership. Our opportunity to influence global policy is immense.”

Sarita Verma (left). Photo credit: John Beebe. Donnelly Health Science Complex at UT Mississauga (right). Photo credit: Dave Mazierski



## MISSISSAUGA ACADEMY OF MEDICINE: RAISING STANDARDS FOR COMMUNITY INTEGRATION

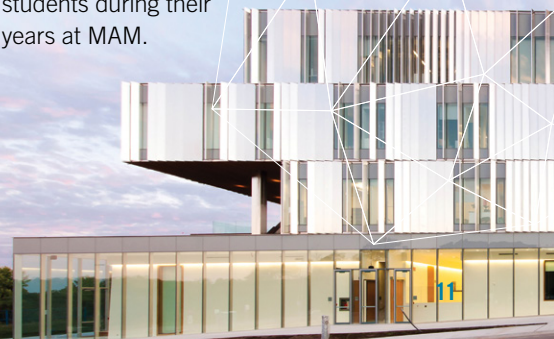


With its first batch of students headed for clerkship (third year), the Mississauga Academy of Medicine (MAM) is setting the stage to improve access to health care in one of Canada’s fastest-growing cities. MAM, formed in partnership among the Faculty of Medicine, the University of Toronto Mississauga and the Trillium Health Partners (formerly Credit Valley Hospital and Trillium Health Centre) sets the standard for integrating MD training into community-affiliated hospitals.

Second-year MD student Robin Kaloty appreciates the benefits of studying at MAM. Its smaller class size has fostered strong relationships with her peers, and she is eager to start her clerkship in the community she calls home.

“It’s convenient to have the majority of rotations held in hospitals close to our campus,” says Robin, adding that “our pre-clerkship clinical skills lessons have already given us exposure to the hospitals and the physician-teachers, making for a seamless transition.”

MAM is growing towards a projected total enrolment of 216 students (four-year program) by 2015. The academy, which is located across two floors inside the new Terrence Donnelly Health Sciences Complex, provides state-of-the-art learning spaces and laboratories. Its videoconferencing facilities connect students and clinical teachers across a network that includes the MAM at University of Toronto Mississauga, the Medical Sciences Building at St. George and Trillium Health Partners. Education facilities at the community-affiliated hospital site include classroom space as well as clinical learning laboratories, a critical part of teaching and training medical students during their first two years at MAM.







# STUDENT OF THE WORLD

For Ayodele Odutayo, the attraction of medical school at U of T lay in the remarkable range of experiences available in the university's hospitals. Now a graduate of the MD program, Odutayo will leave for Oxford this fall on a Rhodes scholarship, with a clear purpose and a passion for nephrology and global health.

Odutayo's time in U of T's vast hospital network sharpened his focus.

"I've had incredible mentors at Sunnybrook, St. Michael's and University Health Network," says Odutayo. "I was exposed to innovative research and diverse patients, from pregnancy in kidney disease to acute kidney injury, which really cemented my interest in nephrology."

Odutayo will study epidemiology and health policy at Oxford, and plans to improve global management of kidney disease through the World Health Organization, where he's already interned, or other NGOs. "Better health care delivery means building research capacity for smart policy, where it's needed around the world," says Odutayo.



# MEDICAL STUDENT LEADERSHIP IN THE PUBLIC DEBATE

Jesse Kancir (MD 1T4) is passionate about student engagement. Since joining the Canadian Federation of Medical Students (CFMS) in first year, he has become an active student leader. As he enters his final year, he is serving as CFMS's 2013–14 President.

As a national advocacy and service organization, CFMS represents more than 7,500 students at 14 medical schools and is the voice of Canadian medical students to the federal government, the public and other national organizations.

A master's graduate of the London School of Economics and Political Science, Jesse will use his background in health policy and economics in combination with his MD studies to encourage participation in public debate.

He observes, "This is a symbolic year for our nation's health policy: many had hoped to see a renewed Health Accord in Canada. Now, in its absence, we must find new channels to discuss the future of health systems in this country."





# KNOWLEDGE TRANSFER

The discoveries researchers are making today will revolutionize tomorrow's health care and help make it focused on individualized and precision medicine.

In the Faculty of Medicine, we strive to integrate scientific pursuit, intellectual property and commercialization to help deliver innovative health care for patients at home and around the world. This is not just part of our social responsibility, but an important way we are doing our part to strengthen our provincial and national economies.



# DRIVING NEW TECHNOLOGIES TO IMPROVE HEALTH

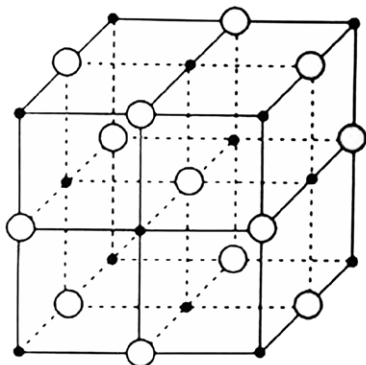
Techna is the Institute for the Advancement of Technology for Health and a major University Hospital Network (UHN) commercialization venture launched with the support of the University of Toronto and the Institute of Biomaterials and Biomedical Engineering. It is led by Dr. David A. Jaffray, Vice Chair in the Department of Radiation Oncology, Head of Radiation Physics at Princess Margaret Hospital and Senior Scientist at the Ontario Cancer Institute.

In its first year, Techna has cultivated collaborative relationships with more than 40 local and global industrial partners — from startups to multinationals — and has grown to include eight core faculty member leads from multiple disciplines including biomedical engineering, medicine, otolaryngology, surgery, health policy, medical imaging and

medical biophysics. It boasts 15 affiliated faculty members and 47 employees.

As an institute of UHN, Techna has access to more than 500 hospital researchers, 13,000 clinical staff and 1,300 technical staff. Through its partnership with U of T, Techna has access to thousands of faculty and researchers in the fields of medicine, applied sciences and engineering, business and the physical sciences. Techna is the gateway for industry and private inventors to use these human resources. Techna helps with evaluating the clinical need of new technologies developed internally and externally. It advises on the value proposition and commercial viability prior to further development of the product.

Collectively, Techna has secured more than \$100 million in available infrastructure integrated throughout UHN, MaRS and the U of T campus. This includes hardware and software laboratories, medical imaging facilities, machine shops, microfabrication facilities, pre-clinical laboratories at the Spatio-Temporal Targeting and Amplification of Radiation Response Program and the new Guided Therapeutics Operating Room — an operating room featuring next-generation technology for imaging and tracking tools. Techna also helps its investigators and partner institutions secure lab and office space.



# FULL CIRCLE

## ONLINE CALCULATOR SUMS UP SODIUM INTAKE

Canadians eat too much salt, but many do not realize that the biggest culprit in increased consumption is the salt added during food production.

After analyzing the sodium levels of more than 20,000 grocery and restaurant foods, U of T researchers developed an online salt calculator based on Canadian eating patterns and the latest sodium-level data.

“The calculator helps users zero in on the foods that provide the most sodium in their diet,” says JoAnne Arcand, a Postdoctoral Fellow in the Nutritional Sciences Department who developed the calculator with Department Chair Mary L’Abbé.

By asking users a series of questions — such as how often they eat out and how often they use condiments in their meals — the calculator provides personalized feedback on the amount of sodium consumed daily and the percentage above (or below) the daily recommended level.

“Armed with this information, people can change their eating habits and re-evaluate using the calculator over time.”

One U of T professor made the discovery. Another helped to realize his vision for a treatment for cystic fibrosis.

When Health Canada recently approved a new drug for treating cystic fibrosis patients with the G551D mutation, Professor Elizabeth Tullis was elated.

“The treatment works especially well on the lungs, which is so important because lung disease is the leading cause of death for cystic fibrosis patients,” says Tullis, a Professor of Medicine and Director of the Adult Cystic Fibrosis Clinic at St. Michael’s Hospital. “It’s a game-changer for many people living with this debilitating disease.”

Health Canada approved the drug — Kalydeco — last year after extensive testing in the USA and at St. Michael’s and the Hospital for Sick Children showed impressive results. But the journey from bench to bedside actually began 24 years ago when Faculty of Medicine Professor Lap-Chee Tsui at SickKids Research Institute first discovered the cystic fibrosis gene in Toronto in 1989.

Kalydeco targets the defect in the CFTR protein caused by the G551D mutation, found in 2.9 per cent of Canadians with cystic fibrosis. In the lung, CFTR allows the proper flow of salt and fluids to keep mucus secretions thin. Dysfunction of CFTR results in the buildup of thick, sticky mucus in the lung. Kalydeco binds to CFTR to make it work properly. Kalydeco is a breakthrough in treatment of cystic fibrosis because it is the first treatment that targets the cause of the disease.

Tsui’s breakthrough — deemed one of the most significant human genetics discoveries of the century — laid the foundation for the development of drugs like Kalydeco, which are personalized treatments based on a patient’s specific gene mutations.

“We’ve really come full circle, from the discovery of the cystic fibrosis gene to a treatment that works,” says Tullis. “This is what every medical researcher hopes for when they make a basic science discovery — to improve people’s lives.”



# GLOBAL REACH

As a Faculty of Medicine, we see it as our responsibility to form partnerships in education, research and capacity-building that best exemplify international cooperation in clinical care and research.

Our faculty and students travel to Ethiopia, Kenya, Brazil, Sweden, China and to the corners of the world, to teach and provide the benefit of their knowledge.

Working within and across disciplines helps us to understand both transnational health issues as well as the challenges we face closer to home.





# BACK TO THE BEGINNING OF HUMAN DEVELOPMENT

It is a debate that has played out over the ages: does nature or nurture determine a child's life course? Only now are scientists beginning to understand that the unique interaction between genes and environment makes us who we are—and the critical importance of the first 2,000 days of life.

U of T's new Fraser Mustard Institute for Human Development is at the forefront of discovery in this realm and is supported by a \$1-million Connaught Fund Global Challenge Award. The cutting-edge research hub is collaborating across disciplines—and even continents—to explore the impact of life's earliest days.

"Our goal is to give every child the best possible shot at maximizing their potential," says Institute Executive Director

Stephen Lye, a Professor in the Departments of Obstetrics and Gynaecology, and Physiology. "To do that, we need to bring the brightest minds together."

Supported by academic faculties ranging from Medicine and Arts & Science to the Ontario Institute for Studies in Education, the Institute is driving cross-disciplinary research that looks at how the first 2,000 days factor in to future health and well-being. It is leveraging the strength of the Toronto Academic Health Science Network and the tremendous power of U of T's international networks.

A 16-year partnership with Sweden's Karolinska Institutet is crucial to advancing research in maternal-infant health, neurodevelopment and regenerative medicine. And last year, supported by hockey legend Mats Sundin's \$330,000 gift—now increased to more than \$1 million—U of T and the Karolinska Institutet established a new, elite post-doctoral fellowship exchange program focused on human development.

"Everything from health and social functioning to psychological well-being may be determined in the earliest days of life," says Lye, Associate Director of Mount Sinai Hospital's Samuel Lunenfeld Research Institute. "Working with global powerhouses like the Karolinska Institutet allows us to exchange the ideas, talent and resources to help all children live happy, healthy lives."





# MAKING A GLOBAL IMPACT

## WORKING WITH CHINA TO SOLVE HEALTH CARE CHALLENGES

From cancer and heart disease to childhood obesity, Canada and China face many of the same health challenges. The Faculty of Medicine is focused on building strong research, education and clinical care connections with China, in areas ranging from molecular genetics to family medicine.

“We benefit tremendously from working with China. Research is enhanced, teaching linkages deepen the institutional commitment and faculty members interact with young scientists who may pursue further training in Toronto,” says Chris Paige, Professor in the Departments of Medical Biophysics and Immunology and Vice-President of Research at University Health Network (UHN).

Thanks to an Ontario International Strategic Opportunities Program grant, more than 50 investigators from UHN, U of T and Shanghai Jiao Tong University School of Medicine have exchanged visits since 2010 and established collaborations, some of which have already received independent funding.

This has led to the establishment of a joint translational research program which will initially concentrate on biospecimen sciences led by research pathologists from both groups.

Since 2010, the Department of Molecular Genetics’ Undergraduate Summer Research Internship, fully funded by the Department, has attracted more than 30 of China’s best and brightest students. About half have subsequently returned to the Department for graduate studies.

“Attracting top international students elevates our research capacity and gives us the opportunity to harness that talent here in Toronto,” says Professor Howard Lipshitz, Chair of the Department.

Health leaders in Shanghai are also partnering with the Department of Family and Community Medicine (DFCM)—the largest family medicine training program in North America. China has the goal of training 300,000 family doctors by 2020 and recognizes the value of the IT-based education and evaluation programs offered by the DFCM to assist in training family doctors. The DFCM is now establishing opportunities to “train the trainers” in family medicine for leading academic institutions in Shanghai and Beijing.

“By sharing our innovations, such as our academic family health teams, we’re helping create an effective primary care system in China to improve the health of people and their communities, and help sustain economic growth,” says Professor Lynn Wilson, Chair of the DFCM.



# KONORONHKWA\*

When Professor Janet Smylie began attending births at Anishnawbe Health Toronto many years ago, she was deeply concerned by the health problems facing the infants she saw there. Seeking guidance on how she could best treat her tiny patients, Smylie consulted Mohawk elder Jan Longboat, who also worked at the clinic. Her advice: think about the grandparents. The birth of a child, she said, is a chance for the rebirth of family, community and nation.

The wisdom stuck, and Smylie, a Professor in the Dalla Lana School of Public Health and a Scientist at the Centre for Research on Inner City Health at St. Michael's Hospital, has spent the last two decades melding indigenous ideas on kinship and the sharing of knowledge across generations with Western medical research and practice.

"It's really about putting culture back at the centre of indigenous health services," says Smylie, who holds partnerships with more than a dozen aboriginal organizations in Canada and around the world.

Smylie leads the Indigenous Health Network, through which aboriginal health workers in 10 communities in Ontario and Saskatchewan provide care that incorporates indigenous oral histories, sayings and languages. Her research has shown that indigenous infant mortality rates in Canada, Australia, New Zealand and the US are up to four times higher than those of non-indigenous infants — much higher than many government statistics. She is the Director of the new Well Living House, an "action research" centre focused on indigenous infant, child and family health, uniquely governed by a Counsel of Grandparents and St. Michael's.

"When access to care is inequitable, it's not just the indigenous who suffer," says Smylie. "Health care costs rise and human potential is lost, and that's bad for everyone."



Janet Smylie and her sons, Jay and Quinn.

\*A MOHAWK TERM FOR CARING AND RECIPROCITY

# IMPACTFUL LEADERSHIP

A hallmark of leadership is the capacity to recognize and develop it throughout an organization.

We value our faculty, staff and students and believe in building their skills because we know these skills will help shape and direct the future of health and biomedical industries in Canada and around the world.

We nurture the academic careers of our faculty, preparing them to use their creativity and vision to benefit their students. We empower our community members to reach their fullest potential.



## A MAGNET

For Professor Charlotte Ringsted, one attraction to the Faculty of Medicine was the chance to work with the large number of world-leading scientists at U of T and its affiliated hospitals. Since arriving earlier this year from Denmark, where she was the first leader of a renowned education centre linked to six hospitals in Copenhagen, Ringsted has found the close contact and collegiality of faculty across the Toronto Academic Health Science Network (TAHSN) exceeding her expectations.

“Given the size of TAHSN, I’m impressed by how well the faculty here know each other and how closely they collaborate. There is tremendous enthusiasm for research and great desire to work together,” says Ringsted, Professor of Anesthesiology and the new Director of the Wilson Centre, a cross-disciplinary hub for research in medical education and practice. “Toronto really is a place of possibilities.”

The Faculty of Medicine has attracted many other top scientists and educators from around the world in the last year. Professor Ruth Ross has come from the University of Aberdeen, where she was Chair in Molecular

## FOR TOP TALENT

Pharmacology and Director of the Kosterlitz Centre for Therapeutics, to take the role of Chair of the Department of Pharmacology and Toxicology at U of T and Director of the Centre for Collaborative Drug Research.

Professor Sherif El-Defrawy, past President of the Canadian Ophthalmology Society and former Professor at Queen’s University, is our new Chair in the Department of Ophthalmology and Vision Sciences. El-Defrawy provides a breadth of experience in new approaches to vision care in ambulatory settings and is building stronger integration of teaching and research among the TAHSN hospitals and the Kensington Eye Institute.

Toronto resident Professor Justin Nodwell has left McMaster University to become Chair of our Department of Biochemistry. Nodwell spent 15 years at McMaster, where he played a key role in the development of the Institute for Infectious Disease Research, and was the Associate Chair of Graduate Studies in the Department of Biochemistry and Biomedical Sciences.





# A NEW VISION FOR MEDICAL EDUCATION

Since 2008, Jay Rosenfield (Vice-Dean, Undergraduate Medical Professions Education) has helped to lead the Future of Medical Education in Canada (FMEC) project led by the Association of Faculties of Medicine of Canada and funded by Health Canada. Sarita Verma (Deputy Dean) and Sal Spadafora (Vice-Dean, Postgraduate Medical Education) have contributed significantly to design and

implementation of the postgraduate phase of FMEC.

This ambitious, national project lays out a vision for new ways of educating physicians at both the undergraduate and postgraduate levels. Part of this vision is that all Canadian physicians will have the clinical expertise they need to practice medicine based on the principles that include patient

safety, quality care, professionalism, and patient-centred and team-based care.

“This is a great example of the Faculty of Medicine helping to facilitate transformative and integrating change in medical education,” says Rosenfield. “We’re integrating undergrad and postgrad, and integrating across many national stakeholder agencies.”

Indeed, one of the key goals of FMEC is to ensure effective integration and transition across the entire educational curriculum. Specifically, in one of its ten recommendations, the FMEC postgraduate plan calls for smoother





and more effective transitions from medical school to residency and from postgraduate into general practice. To do that, FMEC calls for reviewing and redesigning current practices and systems, linking learner competencies developed in MD training to educational objectives set for the resident, reviewing the timing of national examinations and developing more flexible options for changing disciplines during training or when re-entering residency training.

“When it comes to creating a new approach to physician training, our Faculty of Medicine really is playing a leading role in Canada,” says Rosenfield.



# LEADING THE WAY

Being a leader is seldom easy.

But being an academic leader in the health sciences—a complex network of blurred lines between hospitals and care sites, government and university—carries a unique set of challenges.

To address these challenges, the Centre for Faculty Development (CFD) designed the New and Emerging Academic Leaders (NEAL) program.

“Leadership which is authentic, collaborative and ecological is especially critical in influencing change in the health sciences,” says Susan Lief, Director of Academic Leadership Development for the CFD. “The NEAL program brings together academic leaders from across the network to encourage learning, collaboration and dialogue across faculties, departments and clinical settings, which is essential to improving the entire system.”

This fall, academic health sciences leaders—from medicine to social work and dentistry—will participate in a series of modules designed to hone their skills in the four pillars of academic leadership including intrapersonal, interpersonal, organizational and system practices. Key to the program is an on-the-job leadership component, so participants will also apply learned concepts in the field.

“Perhaps the most valuable contribution of academic leaders is in training, mentoring and enabling the next generation of health science leaders,” says Lief. “The NEAL program will empower them to do that while helping them establish a strong network of leading colleagues in the health sciences.”



# SUPPORTING EXCELLENCE

Fuelling the activities of our faculty, students and trainees is a top priority of the Faculty.

Our administrative portfolios work together, using their ingenuity, creativity and dedication to support the Faculty's vision, mission and pursuit of excellence.

# BUILDING ON THE FACULTY'S LEGACY OF DISCOVERY & INNOVATION

Last fall, the Faculty of Medicine launched a \$500-million fundraising campaign—the largest ever for a medical school in Canadian history, and a cornerstone of U of T's \$2-billion Boundless campaign.

The campaign will help improve health for people in Toronto and around the world by training future health care leaders and putting scientific discovery into action. It supports four strategic research priorities:

human development, global health, neuroscience and brain health and complex diseases-systems management.

Funds raised will support students, faculty members and research, enabling the Faculty to continue its legacy of discovery and innovation.

- \$100 million for student programming and financial aid, ensuring trainees have continued access to world-class opportunities;
- \$200 million for research programs and infrastructure, providing the Faculty's scientists with leading-edge research technology; and
- \$200 million to support faculty, enabling the Faculty to recruit and retain world-leading experts.

"Integration, innovation and impact are core concepts of the Faculty of Medicine," says Dean Catharine Whiteside. "The Boundless campaign leverages these concepts and positions us to meet our commitment to developing leaders, contributing to the global community and improving health through discovery, application and communication of knowledge."

The U of T Medicine campaign has raised \$311 million towards its fundraising goal, with alumni contributing \$6.5 million last year alone. Alumni engagement is also a key component of the campaign and over the last year the number of alumni volunteers has nearly doubled to 180 who have contributed their knowledge and time, helping the Faculty to reach this momentous milestone.

# \$69.9

**MILLION** TOTAL RAISED  
2012-13

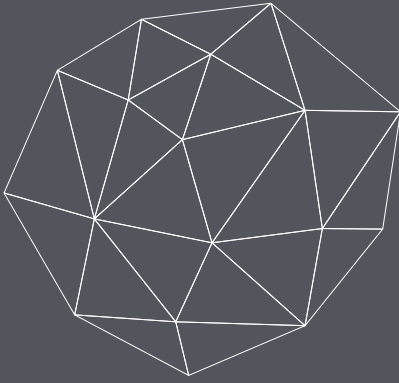
## AMOUNTS PER PRIORITY AREA

- PROGRAMS & RESEARCH: \$53 MILLION
- FACULTY SUPPORT: \$10.5 MILLION
- STUDENT EXPERIENCE: \$4.6 MILLION
- INFRASTRUCTURE: \$1.8 MILLION

**\$311** MILLION  
RAISED TO DATE  
(MAY 2013)

**\$500**  
MILLION  
GOAL





# TURNING ASPIRATIONS & GOALS INTO REALITY



The Faculty's Office of Health Professions Student Affairs (OHPSA) supports students in developing leadership skills and maximizing personal and professional growth.

"We believe students can learn as much outside the classroom as they do inside the classroom," says Ike Okafor, Senior Officer, Service Learning and Diversity Outreach in the OHPSA. "Social accountability is a significant part of a career in health services, and we help students develop this critical quality through a variety of opportunities."

The OHPSA provides personal, career and learning skills counselling to students in the MD/PhD, Doctor of Medicine (MD), Medical Radiation Sciences, Physician Assistant Professional Degree and Occupational Therapy programs. The team also engages in rigorous diversity outreach for under-represented communities, helping the Faculty become more accessible.

Okafor — a 10-year U of T veteran whose door is always open — supports students participating in service learning and community affairs projects that serve the University and surrounding communities — an important priority for the Faculty. Around 60 per cent of pre-clerkship students are involved in community affairs activities such as the

IMAGINE Clinic, a student-run initiative that provides care to downtown Toronto's underserved and homeless populations. Other examples include the University of Toronto Parkdale Mentorship Program — which provides basic life skills and career development training to youth — and Adventures in Science, where high school students conduct science experiments for elementary school kids.

"Ike and his team work tirelessly to support social responsibility, diversity, professional development and mentorship at the Faculty of Medicine," says Associate Dean of the OHPSA Professor Leslie Nickell (Department of Family and Community Medicine).

Since accepting his current position in 2012, Okafor has increased programming meant to help students from under-represented groups discover the health professions. He also worked with the Daffydil and EarthTones committees to raise more than \$50,000 for cancer research and international children's charities. But he credits the students with driving these successes.

"Our students are incredibly driven, dedicated and multi-talented. They are truly amazing."





# FUELLING RESEARCH WHILE SAVING ENERGY

## MEDICAL SCIENCES BUILDING DRASTICALLY REDUCES ENERGY USE

From early-morning classes to late-night lab work, the Medical Sciences Building (MSB) is a bustling hub for thousands of students, scientists and academic leaders. Its extensive, 24-hour wet labs — where researchers handle chemicals, drugs and biological matter — and many offices and classrooms mean it requires more energy than any other campus building to run efficiently and safely.

But thanks to an energy-reduction initiative, supported by U of T's Facilities and Services Department and the

Faculty of Medicine, the MSB is drastically reducing its annual energy consumption and saving more than \$600,000 each year.

By installing cutting-edge automated fan technology in the MSB, air flow and temperature is now automatically adjusted based on the building's occupancy needs.

"Before, fresh cooled or heated air was supplied to empty rooms overnight. The new system delivers air based on time of day and the type of work performed,"

says Heather Taylor, Director of Facilities Management and Space Planning in the Faculty of Medicine who worked with U of T Facilities and Services and Tim Neff, the Faculty's Chief Administrative Officer, on the project.

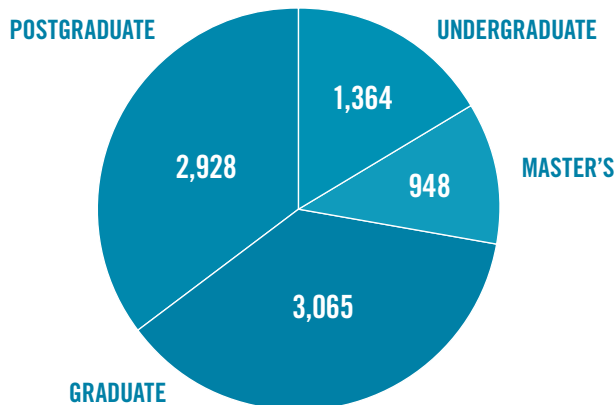
The \$1.4-million initiative included \$588,000 in incentives from Toronto Hydro and Enbridge Gas, including one of the largest single cheques ever awarded by Enbridge.

"With a campus this size, controlling energy spending is challenging, so finding savings within the organization is crucial," says Ron Swail, U of T's Assistant Vice-President of Facilities and Services. "U of T's investment in reducing energy consumption in the MSB will be realized within only 18 months — one of the best returns on investment I've ever seen on a project of this magnitude and complexity."

The Faculty also uses sustainable supplies to help reduce U of T's environmental footprint. As the purchaser of laboratory gloves for the university, the Faculty was recently recognized by supplier Kimberly-Clark with a 2013 RightCycle Award for helping to divert 1.54 tons of waste from local landfills, making U of T one of the top three North American universities in waste diversion.

# FACTS & FIGURES

2012–2013



**8,305**  
TOTAL STUDENT ENROLMENT

## STUDENTS

### UNDERGRADUATE MEDICAL PROFESSIONS EDUCATION

BScPA	46
MEdRadSci	316
Doctor of Medicine (MD)	994
Other*	8
<b>TOTAL</b>	<b>1,364</b>

### PROFESSIONAL MASTER'S

Public Health Sciences	292
Physical Therapy	190
Occupational Therapy	167
Health Policy, Mgmt. & Eval.	142
Speech-Language Pathology	98
Institute of Medical Science	59
<b>TOTAL</b>	<b>948</b>

### POSTGRADUATE MEDICAL EDUCATION

Residents	1,858
Clinical fellows	1,070
<b>TOTAL</b>	<b>2,928</b>

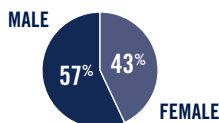
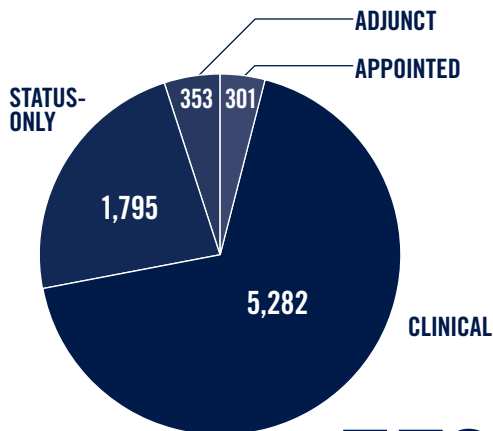
### GRADUATE & LIFE SCIENCES EDUCATION

Diplomas and Certificates	5
Doctoral Program	1,180
Master's: Doctoral	919
Master's: Professional	948
Specials: Other	13
<b>TOTAL</b>	<b>3,065</b>

PGME Programs	74
Combined MD/Phd	45

### CONTINUING EDUCATION & PROFESSIONAL DEVELOPMENT

**32,800**  
REGISTRANTS  
2012–13



**7,731**  
TOTAL FACULTY

## FACULTY

### APPOINTED FACULTY

Full-time	262
Part-time	39
<b>TOTAL</b>	<b>301</b>

Basic Science	126
Clinical Sciences	54
Public Health & Rehab	121
<b>TOTAL</b>	<b>301</b>

### CLINICAL FACULTY

Full-time	2,593
Part-time	1,360
Adjunct	1,329
<b>TOTAL</b>	<b>5,282</b>

### STATUS-ONLY APPOINTMENTS

Basic Sciences	280
Clinical Sciences	600
Public Health & Rehab	915
<b>TOTAL</b>	<b>1,795</b>

### ADJUNCT APPOINTMENTS

Basic Sciences	12
Clinical Sciences	74
Public Health & Rehab	267
<b>TOTAL</b>	<b>353</b>

## PROMOTIONS

46 to Assistant Professor  
60 to Associate Professor  
47 to Full Professor

# \$919,211,000 TOTAL RESEARCH FUNDING

17% CAMPUS-BASED RESEARCHERS — 83% HOSPITAL-BASED RESEARCHERS

MAJOR FEDERAL & PROVINCIAL FUNDING

**\$161,751,000**

CANADA FOUNDATION FOR INNOVATION/ONTARIO INNOVATION TRUST

**\$154 MILLION**

CANADIAN INSTITUTES OF HEALTH RESEARCH

**10,964 GRANTS & AWARDS**

**121**

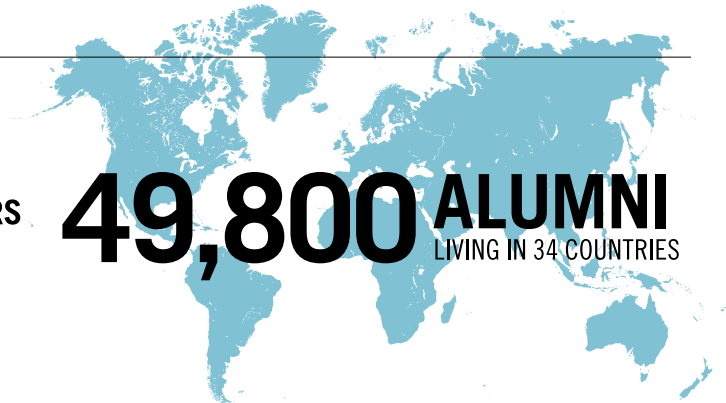
**CANADA RESEARCH CHAIRS HELD BY THE FACULTY OF MEDICINE**  
38 HELD BY ON-CAMPUS FACULTY, 83 HELD BY FACULTY BASED IN OUR NINE FULLY AFFILIATED HOSPITALS

## ADVANCEMENT

**2,280** ANNUAL FUND DONORS  
2012-13

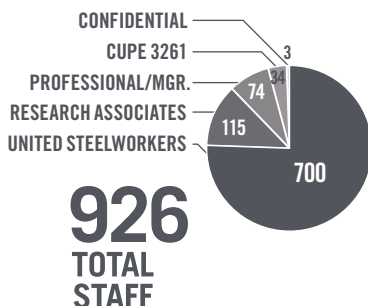
\*Note: this includes both annual fund and Leadership Annual Giving, meaning donations between \$1,000 and \$25,000 annually.

**49,800** ALUMNI  
LIVING IN 34 COUNTRIES



## ADMINISTRATIVE STAFF

### APPOINTED STAFF



## ACCREDITATION

The past year has seen a number of successful accreditation reviews:

- Undergraduate Medical Education
- Medical Radiation Sciences
- Continuing Education and Professional Development
- Postgraduate Medical Education

Our Faculty's performance in accreditation reviews over the last year shows our commitment to excellence in medical education at all levels. Through the dedicated work of our faculty, staff and affiliated hospitals, we will continue to provide the very best training opportunities, so our students can continue to treat and heal patients, and improve health, at home and around the world.

# FACULTY AWARDS & HONOURS

2012–2013

## INTERNATIONAL

### RESEARCH

Emmanuel Farber	American Association for Cancer Research, Fellow of the AACR Academy
Tak Mak	American Association for Cancer Research, Fellow of the AACR Academy
Brenda J. Andrews	American Academy of Microbiology, Fellow
Charles M. Boone	American Academy of Microbiology, Fellow
Andres M. Lozano	Karolinska Institutet, Herbert Olivecrona Medal
Lewis Kay	Royal Society of Chemistry, Khorana Prize
Aaron Wheeler	Royal Society of Chemistry, Joseph Black Award
Aaron Wheeler	American Chemical Society, Arthur F. Findeis Award
Stephen G. Matthews	Society for Gynecologic Investigation, President's Achievement Award
John R.G. Challis	Society for Gynecologic Investigation, Frederick Naftolin Award for Mentorship
Joanne M. Bargman	National Kidney Foundation (USA), Donald W. Seldin Award
Joseph Chen	Triological Society, Harris P. Mosher Award
Michael Fehlings	Cervical Spine Research Society, Presidential Medal
Michael Fehlings	Society of Neurological Surgeons, H. Richard Winn, M.D. Prize
Rosemary Martino	American Speech-Language Hearing Association, Fellow
Shafique Keshavjee	The Transplantation Society, Roche Award for Excellence in Translational Science
Molly S. Shoichet	International Fellows of Tissue Engineering and Regenerative Medicine, Fellow
Ants Toi	American Institute for Ultrasound in Medicine, Fellow
Donald Stuss	International Neuropsychological Society, Lifetime Achievement Award
Brian C. Wilson	Optical Society of America, Michael S. Feld Biophotonics Award
Gideon Koren	Pediatric Pharmacy Advocacy Group, Sumner J. Yaffe Lifetime Achievement Award
Arthur S. Slutsky	American Thoracic Society Assembly on Critical Care, Lifetime Achievement Award
Shaun Morris	International Congress on Infectious Diseases, Sanofi Pasteur Award for Communicable Disease Epidemiology
Fei-Fei Liu	Israel Cancer Research Fund, Women of Action Award
Vladimir Vuksan	Government of South Korea, World Ginseng Science Award
Philip Kim	Human Frontier Science Program, HFSP Grant
Peter St George-Hyslop	BIAL Foundation, Merit Award in Medical Sciences

### EDUCATION

Brian D. Hodges	Association of American Medical Colleges, Alpha Omega Alpha Robert J. Glaser Distinguished Teacher Award
Lisa Allen	American Congress of Obstetricians and Gynecologists, National Faculty Award
Ranil Sonnadara	Association for Surgical Education, Award for Excellence in Innovation
Donna E. Stewart	Shastri Indo-Canadian Institute, Educational and Research Faculty Mobility Grant

### OTHER

Mary Gospodarowicz	European Society for Radiotherapy and Oncology, Lifetime Achievement Award
Mary Gospodarowicz	American Radium Society, Janeway Medal
Mark Bernstein	American Association of Neurological Surgeons, AANS Humanitarian Award
Avrum Gotlieb	Association of Pathology Chairs, Distinguished Service Award
Bart Harvey	American Medical Writers Association, Special Recognition Award
Michael F. Evans	Health Information Resource Center, Web Health Awards' Gold Medal for Social Media
Izzeldin Abuelaiash	P & V Foundation, Citizenship Award
Denis Daneman	University of Witwatersrand, Senior Doctorate
Shoo K. Lee	Shanghai Municipal Government (PRC), Magnolia Award
David J.A. Jenkins	United States Department of Agriculture, Agricultural Research Service, W.O. Atwater Lectureship



## NATIONAL

### RESEARCH

Sandra E. Black	Royal Society of Canada, Fellow
James W. Dennis	Royal Society of Canada, Fellow
Daniel J. Drucker	Royal Society of Canada, Fellow
James L. Kennedy	Royal Society of Canada, Fellow
Steven A. Narod	Royal Society of Canada, Fellow
Prabhat Jha	Order of Canada, Officer
Harold Kalant	Order of Canada, Member
Marian A. Packham	Order of Canada, Member
Benjamin A.S. Alman	Canadian Academy of Health Sciences, Fellow
G. Ross Baker	Canadian Academy of Health Sciences, Fellow
Denis Daneman	Canadian Academy of Health Sciences, Fellow
Raisa B. Deber	Canadian Academy of Health Sciences, Fellow
Eleftherios P. Diamandis	Canadian Academy of Health Sciences, Fellow
I. George Fantus	Canadian Academy of Health Sciences, Fellow
Brian Kavanagh	Canadian Academy of Health Sciences, Fellow
Gary Lewis	Canadian Academy of Health Sciences, Fellow
Andres M. Lozano	Canadian Academy of Health Sciences, Fellow
Robin S. McLeod	Canadian Academy of Health Sciences, Fellow
Steven A. Narod	Canadian Academy of Health Sciences, Fellow
Beverley Anne Orser	Canadian Academy of Health Sciences, Fellow
Linda Rabeneck	Canadian Academy of Health Sciences, Fellow
Reinhart Reithmeier	Canadian Academy of Health Sciences, Fellow
Molly S. Shoichet	Canadian Academy of Health Sciences, Fellow
Bernard Zinman	Canadian Academy of Health Sciences, Fellow
Anthony Pawson	Canadian National Proteomics Network, Distinguished Researcher Award
Warren Chan	Natural Sciences and Engineering Research Council, E.W.R. Steacie Memorial Fellowship
J. Paul Santerre	Natural Sciences and Engineering Research Council, Synergy Awards for Innovation
W. Scott Beattie	Canadian Anesthesiologists' Society, Research Recognition Award
Steven A. Narod	Canadian Cancer Society, O. Harold Warwick Prize
Aaron Schimmer	Canadian Cancer Society, Young Investigator Award
Angela Cheung	Canadian Society of Internal Medicine, Dr. David Sackett Senior Investigator Award
Irfan Dhalla	Canadian Society of Internal Medicine, New Investigator Award
L. Trevor Young	Canadian College of Neuropsychopharmacology, Canadian College of Neuropsychopharmacology Medal
Patrick McNamara	Canadian Paediatric Society, Emerging Leader in Neonatology Award
Prakesh Shah	Canadian Paediatric Society, Emerging Leader in Neonatology Award
Allan Peterkin	Canadian Psychiatric Association, Distinguished Fellow
Subodh Verma	Royal College of Physicians and Surgeons of Canada, Royal College Medal Award in Surgery
Michael Fehlings	March of Dimes Canada, Jonas Salk Award for Scientific Achievement
David H. MacLennan	Canadian Medical Hall of Fame, Inductee
Janet K. Smylie	The Inspire Awards, National Aboriginal Achievement Award for Health
Moshe Ipp	Canadian Paediatric Society, Noni MacDonald Award
Michelle Greiver	Canadian Family Physician, Best Original Research Article Award

### EDUCATION

Jane Philpott	Association of Faculties of Medicine of Canada, May Cohen Equity, Diversity and Gender Award
Sanjeev Sockalingam	Association of Faculties of Medicine of Canada, Young Educators Award
Rodrigo Cavalcanti	Canadian Association for Medical Education, Meridith Marks New Educator Award
Vito Forte	Canadian Association for Medical Education, Certificate of Merit Award
Shirley Lee	Canadian Association for Medical Education, Certificate of Merit Award
Lynfa Stroud	Canadian Association for Medical Education, Certificate of Merit Award
Ivy F. Oandasan	College of Family Physicians of Canada, Donald I. Rice Award
Walter W. Rosser	College of Family Physicians of Canada, W. Victor Johnston Award
Allan Peterkin	Royal College of Physicians and Surgeons/Associated Medical Services, Donald R. Wilson Award
William Coke	Canadian Society of Internal Medicine, Osler Award
Michael Tymianski	Canadian Stroke Network, Paul Morley Mentorship Award in Stroke

## FACULTY AWARDS & HONOURS

### OTHER

Izzeldin Abuelaish	Queen Elizabeth II Diamond Jubilee Medal
Sandra Black	Queen Elizabeth II Diamond Jubilee Medal
Robert Boyko	Queen Elizabeth II Diamond Jubilee Medal
Dina Brooks	Queen Elizabeth II Diamond Jubilee Medal
James D. Carson	Queen Elizabeth II Diamond Jubilee Medal
Tom Chau	Queen Elizabeth II Diamond Jubilee Medal
Lee E. Errett	Queen Elizabeth II Diamond Jubilee Medal
Michael Fehlings	Queen Elizabeth II Diamond Jubilee Medal
Geoff R. Fernie	Queen Elizabeth II Diamond Jubilee Medal
Herbert Gaisano	Queen Elizabeth II Diamond Jubilee Medal
Patrice Lindsay	Queen Elizabeth II Diamond Jubilee Medal
Mingyao Liu	Queen Elizabeth II Diamond Jubilee Medal
Daune MacGregor	Queen Elizabeth II Diamond Jubilee Medal
Milica Radisic	Queen Elizabeth II Diamond Jubilee Medal
Vivian Rambihar	Queen Elizabeth II Diamond Jubilee Medal
Chandrakant P. Shah	Queen Elizabeth II Diamond Jubilee Medal
Molly S. Shoichet	Queen Elizabeth II Diamond Jubilee Medal
Gary Sibbald	Queen Elizabeth II Diamond Jubilee Medal
Gaetan Tardif	Queen Elizabeth II Diamond Jubilee Medal
Graham Trope	Queen Elizabeth II Diamond Jubilee Medal
Mladen Vranic	Queen Elizabeth II Diamond Jubilee Medal
Mary Gospodarowicz	Canadian Medical Association, May Cohen Award for Women Mentors (2012)
Wendy Levinson	Canadian Medical Association, May Cohen Award for Women Mentors (2013)
David J. McKnight	Canadian Medical Association, Dr. William Marsden Award in Medical Ethics
Catharine Whiteside	Women's Executive Network, Canada's Top 100 Most Powerful Women
Rajiv Singal	Prostate Cancer Canada, Mark Dailey Local Hero Award
Izzeldin Abuelaish	United Auto Workers, Walter Reuther Social Justice Award
Vivian Rambihar	Canadian Immigrant Magazine, Top 25 Canadian Immigrant Award

## PROVINCIAL

### RESEARCH

Adalsteinn Brown	Association of Ontario Health Centres, Community Health Champion Award
Milos Popovic	Ontario's Health Technology Exchange, Morris (Mickey) Milner Award
Irfan Dhalla	McMaster University, Labelle Lecturer

### EDUCATION

Carol-Anne Moulton	Professional Association of Internes and Residents of Ontario, Excellence in Clinical Teaching Award
George Porfiris	Professional Association of Internes and Residents of Ontario, Excellence in Clinical Teaching Award

### OTHER

Izzeldin Abuelaish	Order of Ontario
Rory H. Fisher	Order of Ontario
Shafique Keshavjee	Order of Ontario
Gail E. Robinson	Order of Ontario
Arnold Aberman	Laurentian University, Honorary Doctor of Laws
Mladen Vranic	McMaster University, Honorary Doctor of Science
Urban Emmenegger	Cancer Care Ontario, Human Touch Award

## UNIVERSITY

### RESEARCH

Tom Chau	University of Toronto Inventors of the Year
Sachdev Sidhu	University of Toronto Inventors of the Year
Aaron Wheeler	University of Toronto Inventors of the Year
Peter Zandstra	University of Toronto Inventors of the Year
Mississauga Academy	Excellence Through Innovation Award of Medicine

### EDUCATION

Christopher Perumalla	President's Teaching Award
Barry Goldlist	Teacher of the Year in Geriatric Medicine

# AFFILIATED HOSPITALS

## FULL AFFILIATE HOSPITALS

1. Baycrest
2. Centre for Addiction and Mental Health  
(College Street, Queen Street)
3. Holland Bloorview Kids Rehabilitation Hospital
4. The Hospital for Sick Children
5. Mount Sinai Hospital
6. St. Michael's Hospital
7. Sunnybrook Health Sciences Centre  
(St. John's Rehab)
8. University Health Network  
(Toronto General, Princess Margaret, Toronto Western,  
Toronto Rehabilitation Institute)
9. Women's College Hospital

## COMMUNITY AFFILIATE HOSPITALS & CENTRES

10. Bridgepoint Health
11. George Hull Centre for Children and Families
12. Hincks-Dellcrest Centre
13. Humber River Regional Hospital
14. Lakeridge Health Network
15. Markham Stouffville Hospital
16. North York General Hospital
17. Ontario Shores Centre for Mental Health Sciences
18. Providence Healthcare
19. Royal Victoria Regional Health Centre
20. The Scarborough Hospital
21. Southlake Regional Health Centre
22. St. Joseph's Health Centre
23. Surrey Place Centre
24. Toronto East General Hospital
25. Trillium Health Partners
26. Waypoint Centre for Mental Health Care
27. West Park Healthcare Centre







UNIVERSITY OF TORONTO  
FACULTY OF MEDICINE

Published by the Office of Strategy,  
Communications & External Relations  
University of Toronto Faculty of Medicine

6 Queen's Park Crescent West  
Suite 306  
Toronto, ON  
M5S 3H2

Contributors: Teona Baetu, Nicole Bodnar,  
April Kemick, Suniya Kukaswadia,  
Jim Oldfield, Meera Raj, Lloyd Rang

Design: Raj Grainger

Editor: April Kemick  
[medicine.communications@utoronto.ca](mailto:medicine.communications@utoronto.ca)