Faculty of Medicine

Vision
International leadership in improving health through innovation in research and education

Mission
We fulfill our social responsibility by developing leaders, contributing to our communities, and improving the health of individuals and populations through the discovery, application and communication of knowledge.

Values
- Integrity in all of our endeavours
- Commitment to innovation and excellence
- Life-long learning and critical inquiry
- Promotion of social justice, equity, diversity, and professionalism
- Effective partnership with all our stakeholders
- Multi-professional and interdisciplinary collaboration
- Supportive and respectful relationships
- Accountability and transparency
- Responsiveness to local, national, and international health needs

Undergraduate Medical Education (MD) Program
www.md.utoronto.ca

MD/PhD Program
www.mdphd.utoronto.ca

Medical Radiation Sciences (MRS) Program
www.radonc.utoronto.ca/future-students/programs/bsc-in-medical-radiation-sciences

Physician Assistant (PA) Program
www.paconsortium.ca

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I am pleased to share the 2013–14 Undergraduate Medical Professions Education Annual Report. This report highlights activities and achievements from 2013–14 that help support the education goals articulated in our Faculty of Medicine Strategic Academic Plan (2011–2016).

An important foundational milestone in 2013–14 was the development of Undergraduate Medical Education (UME) Future Directions (2014–2017), which are included in this report. The UME Future Directions provide a roadmap for implementation of strategic directions for the MD program that fall under four priority areas: admissions processes and learner diversity, innovative curricular pathways and learner assessment, learner experience and support, and faculty and staff engagement and development. Building on the results of the MD program’s most recent accreditation, development of the UME Future Directions involved consultation with faculty, students and staff, culminating in a presentation at the April 2, 2014 Faculty of Medicine mid-point strategic planning retreat.

Accreditation helps ensure the quality of our programs. In July 2013, we submitted a status report in response to the Vice-Dean's Message from the Vice-Dean, Undergraduate Medical Professions Education.

Future Directions (2014–2017), which are included in this report, provide a roadmap for implementation of strategic directions for the MD program. This year marked the development of Undergraduate Medical Education (UME) Future Directions (2014–2017), which are included in this report. The UME Future Directions provide a roadmap for implementation of strategic directions for the MD program that fall under four priority areas: admissions processes and learner diversity, innovative curricular pathways and learner assessment, learner experience and support, and faculty and staff engagement and development. Building on the results of the MD program’s most recent accreditation, development of the UME Future Directions involved consultation with faculty, students and staff, culminating in a presentation at the April 2, 2014 Faculty of Medicine mid-point strategic planning retreat.

Over 2013–14, the Office of Health Professions Student Affairs (OHPSA) continued its work on the development and implementation of wellness initiatives for learners from diverse backgrounds to apply for and gain admission to our programs. In the pages that follow, you will learn about enhancements to our recruitment and outreach programs, changes to our admissions and enrollment management processes, and increased bursary support for learners with the highest level of financial need, all of which support our commitment to diversifying the student body.

Our unique Academy system – which provides MD students with a clinical home in an affiliated teaching hospital for the duration of the program – was identified as a particular strength by the accrediting bodies. Building upon the strengths of the Academy system, further steps were taken in 2013–14 towards the development and implementation of an Academy Membership Framework that will support even greater clarity and transparency in the planning and delivery of educational goals that we share with our hospital partners.

The inaugural class of the Mississauga Academy of Medicine (MAM) moved into year three of the MD program in 2013–14. Working in collaboration with Trillium Health Partners, we achieved over 75% capacity across the ten mandatory clinical rotations in the first year of clerkship at the MAM. Following this very successful launch, we are confident that we will be able to increase our capacity in 2014–15 to take core clerks in Mississauga across all ten of our mandatory clinical programs.

I would like to thank our faculty, staff, students and all other members of the undergraduate medical professions education community for their outstanding work and another remarkable year. 2013–14 was a year that saw meaningful initial steps taken toward curricular and operational reforms that I am confident will mark transformative changes in our education programs. I look forward to working together and seeing those initial steps through to fruition.

Sincerely,

Jay Rosenfield
MD, MEd, FRCP(C)
Vice-Dean, Undergraduate Medical Professions Education

U of T’s Faculty of Medicine is at the forefront of life-changing health research and innovation, doing what can’t be done since 1843.
Undergraduate Medical Education
Future Directions (2014–2017)

The UME Future Directions (2014–2017) consist of four high-level priority areas, each of which includes a series of corresponding strategic directions, as well as two key enablers. These priorities were developed through stakeholder consultation and represent our plans for implementing the Faculty of Medicine’s strategic goals as well as the Future of Medical Education in Canada MD Project Report recommendations.

Keeping with our vision of social responsibility and social accountability, the UME Future Directions encourage, support and promote the development of future academic health leaders who will contribute to our communities and improve the health of individuals and populations through the discovery, application and communication of knowledge.

Key Enablers

- Evidence-informed assessment and continuous quality improvement are guiding principles that inform all of our strategic activities
- Intelligent use of e-learning, simulation and innovations in technology is an enabler that cuts across all four priority areas

PRIORITY AREA

<table>
<thead>
<tr>
<th>STRATEGIC DIRECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Admissions Processes and Learner Diversity</strong></td>
</tr>
<tr>
<td>Enhance admissions processes to most effectively balance consideration of both academic and non-academic qualities and characteristics</td>
</tr>
<tr>
<td>Maximize opportunities for qualified learners from diverse backgrounds to gain admission to the program</td>
</tr>
<tr>
<td><strong>Innovative Curricular Pathways and Learner Assessment</strong></td>
</tr>
<tr>
<td>Develop user-friendly, competency-based program objectives that both inform curriculum planning and are readily linked to enabling objectives within courses and other curricular components</td>
</tr>
<tr>
<td>Introduce clinically-relevant and adaptive curricular pathways to support greater curricular integration, individualized learning experiences, interprofessional collaborative practice skills, leadership development, and joint degree options</td>
</tr>
<tr>
<td>Develop milestone-based approaches to learner assessment that support achievement of competencies necessary to proceed along the continuum of medical education and that inspire lifelong learning</td>
</tr>
<tr>
<td>Ensure the curriculum supports students at key transition points from admission through to residency</td>
</tr>
<tr>
<td>Facilitate and support opportunities for learning experiences in a variety of settings, including community-based hospitals and agencies</td>
</tr>
<tr>
<td><strong>Learner Experience and Support</strong></td>
</tr>
<tr>
<td>Cultivate an integrated culture of wellness</td>
</tr>
<tr>
<td>Provide effective academic support and career management opportunities and services</td>
</tr>
<tr>
<td>Enable appropriate professional development throughout the learning continuum</td>
</tr>
<tr>
<td>Develop processes to effectively monitor and improve the learning environment as well as strategies to address the adverse effects of the hidden curriculum</td>
</tr>
<tr>
<td><strong>Faculty and Staff Engagement and Development</strong></td>
</tr>
<tr>
<td>Develop strategies to encourage and support individual interest in the collective administration, governance and delivery of undergraduate medical education</td>
</tr>
<tr>
<td>Develop strategies to ensure commitment to the program by dedicated teachers, administrators and staff</td>
</tr>
<tr>
<td>Offer development opportunities for faculty and staff that support innovations in program delivery</td>
</tr>
</tbody>
</table>

UME Future Directions
Organization & Leadership

The Vice-Dean, Undergraduate Medical Professions Education, oversees the MD and MD/PhD programs as well as the Medical Radiation Sciences and Physician Assistant undergraduate degree programs.

A team of senior academic and administrative leaders is responsible for the management of the MD and MD/PhD programs, while governance is supported by a robust committee structure that includes active participation by student leaders.

The Medical Radiation Sciences (MRS) program is based in the Department of Radiation Oncology, Faculty of Medicine, and is jointly administered with The Michener Institute for Applied Health Sciences.

The Physician Assistant (PA) program is based in the Department of Family and Community Medicine, Faculty of Medicine, and delivered in collaboration with the Northern Ontario School of Medicine and The Michener Institute for Applied Health Sciences.

The Medical Academies

A unique feature of the Undergraduate Medical Education program is its Academy system. The four Academies – FitzGerald, Mississauga, Peters-Boyd, and Wightman-Berris – are comprised of clusters of the University’s affiliated hospitals and healthcare sites. Each Academy offers a unique combination of educational settings based on the strengths of their member hospitals while at the same time maintaining a consistent high standard of curriculum delivery.

The St. George campus supports the FitzGerald, Peters-Boyd and Wightman-Berris Academies. The Mississauga Academy of Medicine is based at the U of T’s Mississauga campus.

At the Academies, students learn clinical skills, participate in problem-based learning, interprofessional education, and conduct research in community-based partner agencies.

The Academies are led by Directors, who work closely together and coordinate the provision of core curriculum for the MD program.

In 2012–13, we initiated a process to develop Academy membership principles and guidelines for health care institutions participating in the Academy system. This involved consultations with the four Academy Directors and designated education leads of the University’s nine fully affiliated hospitals and four major community-affiliated hospitals. In 2013-14, those stakeholders endorsed the outcome of our consultation efforts: an Academy Membership Framework. Building upon the organic, collaborative relationships from which the Academy system draws its strengths, the Framework provides even greater clarity and transparency in the planning and delivery of shared educational goals, expectations and accountabilities.

Each Academy offers a unique combination of educational settings based on the strengths of their member hospitals while at the same time maintaining a consistent high standard of curriculum delivery.
Clinical teaching, which occurs in the first two years of the MD program and to a greater extent in clerkship over years three and four, is provided in both academic hospitals and community-based hospitals and healthcare sites, located mainly in Toronto and Mississauga. The number and breadth of clinical teaching sites is a strength of the Undergraduate Medical Education program, as they provide students opportunities for learning experiences in a variety of settings that often involve different perspectives on patient care.

1. Baycrest Centre for Geriatric Care
2. Bridgepoint Health
3. Centre for Addiction and Mental Health
4. George Hull Centre for Children and Families
5. Hincks-Dellcrest Centre
6. Holland Bloorview Kids Rehab Hospital
7. The Hospital for Sick Children (SickKids)
8. Humber River Regional Hospital
9. Lakeridge Health Network
10. Markham-Stouffville Hospital
11. Mount Sinai Hospital
12. North York General Hospital
13. Ontario Shores Centre for Mental Health Sciences
14. St. Joseph’s Health Centre
15. St. Michael’s Hospital
16. The Scarborough Hospital
17. Southlake Regional Health Centre
18. Sunnybrook Health Sciences Centre
19. Surrey Place Centre
20. Toronto East General Hospital
21. Trillium Health Partners
22. University Health Network
23. West Park Healthcare Centre
24. William Osler Health Centre
25. Women’s College Hospital
26. York Central Hospital
27. Rouge Valley Health System
About the Programs

Undergraduate Medical Education

MD Program

The MD program at the U of T delivers a rigorous curriculum that educates undergraduate medical students in the initial phase of their medical education. The first two years of the MD program, called Preclerkship, establish fundamentals through classroom learning, in anatomy labs, through lectures and seminars, and in the community. Clinical skills are developed early on, providing students with patient-based learning from year one. Years three and four are spent in Clerkship, which includes a series of rotations through the major health care specialties. With support from affiliate hospitals and healthcare centres, students delve deeper into clinical areas such as paediatrics, geriatrics, internal medicine, and psychiatry. At the U of T, student learning goes beyond the classroom and hospital walls – our medical students are involved in everything from research and community development to athletics, arts and culture.

Our MD graduates demonstrate the knowledge, skills and attitudes necessary to achieve the competencies associated with the seven Royal College of Physicians and Surgeons of Canada CanMEDS roles as well as the College of Family Physicians of Canada’s Four Principles of Family Medicine.

MD/PhD Program

Our MD/PhD program was established in 1984, the first of its kind in Canada. The goal of the program is to generate physician scientists who are well prepared, highly competitive and productive. Most MD/PhD students pursue graduate studies within the Faculty of Medicine, in the departments of Biochemistry, Immunology, Laboratory Medicine and Pathobiology, Medical Biophysics, Institute of Medical Science, Molecular Genetics, and Physiology.

In addition to the PhD programs offered through graduate departments, centres and institutes, unique graduate-level collaborative programs are also available to students in our MD/PhD program. These innovative programs emerge from the cooperation between two or more graduate units, providing students with a broader base from which to explore novel interdisciplinary areas or special developments in particular disciplines.

Students begin the MD/PhD program by completing Year 1 of medical school, followed by commencement of the PhD degree. Students remain in the graduate phase for four to five years. Following successful completion of their PhD thesis, students then return to complete years two through four of the MD program.

U of T MD/PhD physician scientists advance and shape the world of medical research and play an essential role as members of the health care profession.

Developing New Educational Pathways

Developing New Educational Pathways

Integrated Physician Scientist Training Pathway

The development of competency-based and flexible approaches to medical education is one of the ten recommendations of The Future of Medical Education in Canada (FMEC) MD Project report and a strategic direction identified in our UME Future Directions. Included below are two examples of steps we are taking to support achievement of that recommendation.

MD Program Objectives Review

A comprehensive review of the MD program’s goals and objectives was initiated in 2013-14. Under the leadership of Dr. Martin Schreiber, Director, Curriculum and Senior Academic Coordinator, Accreditation, and with support from working groups and a steering committee, the review will be informed by CanMEDS 2015 and Future of Medical Education in Canada MD Project recommendations as well as developments at the Medical Council of Canada and College of Family Physicians of Canada. The revised program competencies and milestones will provide a framework that can be effectively taken into account in curriculum planning and evaluation in general and readily linked to enabling objectives within individual courses in particular.
UME Enrolments

<table>
<thead>
<tr>
<th>Total Number of MD and MD/PhD Students</th>
<th>MD Program Only</th>
<th>MD/PhD Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1021</td>
<td>995</td>
<td>26</td>
</tr>
</tbody>
</table>

Gender Distribution

- Female (52.3%)
- Male (47.7%)

Age Distribution

- 18–20 (2%)
- 21–25 (78.5%)
- 26–30 (16.2%)
- 31–40 (1.2%)

Student Diversity

The Faculty of Medicine’s Diversity Statement articulates our principles and goals with respect to student diversity, and identifies three groups for priority attention: Indigenous Peoples of Canada (First Nations, Inuit, and Métis), People of African ancestry, and the economically disadvantaged. We are also committed to providing a welcoming and accommodating environment to LGBTQ students. In alignment with our Diversity Statement, we are committed to maximizing opportunities for students from diverse backgrounds and under-represented populations to gain admission to the MD program.

Priority Groups

- African ancestry: 1.3%
- Indigenous peoples: 1.9%
- Economically disadvantaged: 17.3%
- LGBTQ: 3.8%

Student diversity data drawn from entry surveys for admitted MD students completed by students entering first year in 2010–11, 2011–12, 2012–13 and 2013–14. Of those four cohorts, 693 of 1031 (67.2%) students responded to the survey.

UME Admissions

The Undergraduate Medical Education program has a large and highly competitive applicant pool as well as a consistently high rate of acceptance of offers. From 2013 to 2014, there was a 10% increase in the number of applications to the MD program and a 40% increase in the number of applications to the MD/PhD program. For September 2014 entry to the MD program, there was a 79% acceptance rate of offers for the MD program at both campuses, St. George and Mississauga.

MD Program

<table>
<thead>
<tr>
<th>SEPTEMBER 2013 ENTRY</th>
<th>SEPTEMBER 2014 ENTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
<td>3153</td>
</tr>
<tr>
<td>Files Reviewed</td>
<td>1775</td>
</tr>
<tr>
<td>Interviews</td>
<td>587</td>
</tr>
<tr>
<td>Offers</td>
<td>338</td>
</tr>
<tr>
<td>Acceptances</td>
<td>259</td>
</tr>
<tr>
<td>Acceptance Rate of Offers (without deferrals)</td>
<td>78%</td>
</tr>
</tbody>
</table>

MD/PhD Program

<table>
<thead>
<tr>
<th>SEPTEMBER 2013 ENTRY</th>
<th>SEPTEMBER 2014 ENTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
<td>88</td>
</tr>
<tr>
<td>Files Reviewed</td>
<td>79</td>
</tr>
<tr>
<td>Interviews</td>
<td>42</td>
</tr>
<tr>
<td>Offers</td>
<td>14</td>
</tr>
<tr>
<td>Acceptances</td>
<td>12</td>
</tr>
<tr>
<td>Acceptance Rate of Offers</td>
<td>86%</td>
</tr>
</tbody>
</table>

Gender Distribution

<table>
<thead>
<tr>
<th>SEPTEMBER 2013 ENTRY</th>
<th>SEPTEMBER 2014 ENTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49%</td>
</tr>
<tr>
<td>Female</td>
<td>51%</td>
</tr>
</tbody>
</table>

Students with graduate degree

<table>
<thead>
<tr>
<th>SEPTEMBER 2013 ENTRY</th>
<th>SEPTEMBER 2014 ENTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate degree</td>
<td>73%</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>27%</td>
</tr>
</tbody>
</table>

From the 2010 to the 2014 admissions cycle, there has been more than a four-fold increase in the number of applications from individuals who self-identify as being of Aboriginal descent.

In March 2014, we created a new position—Associate Registrar, Enrolment Management—to help lead various initiatives to assess, develop, and implement outreach and recruitment strategies aligned with the Faculty’s missions and values.
UME Student Financial Assistance

UME is committed to supporting students with the highest level of financial need through a number of programs, including Faculty of Medicine Grants, Faculty of Medicine Enhanced Bursaries, Faculty of Medicine MD Admission Bursaries, and Needs-Based Travel Stipends.

Faculty of Medicine Grant Program

77% of MD students receive needs-based funding through the Faculty of Medicine Grant Program.

In 2013-14, 789 MD students received financial assistance through the Faculty of Medicine Grant Program for a total allocation of $5,343,480, equivalent to 45% of the unmet financial need of the eligible recipients.

From 2012-13 to 2013-14, we have seen increases in the:

- Total grant assistance provided to students
- Percentage of students receiving assistance
- Average individual student grant

Increased Bursary Support

Our high-needs bursary programs provide additional funding to students with particularly challenging financial situations.

- The Enhanced Bursary Program, introduced in 2005, is designed to assist MD students with the highest level of financial need.
- The Faculty of Medicine MD Admissions Bursary Program was introduced in 2011–12 to provide assistance to applicants who might not otherwise apply for entry to the MD program due to financial constraints. In 2012–13, the number of admissions bursaries was increased from six to ten and the value of each bursary was increased from $50,000 to $80,000 over the four years of the MD program.
- A new “entire expense” bursary was introduced for September 2013 entry to the program. With an approximate total value of $160,000, this bursary covers tuition and living expenses for one high-needs student per year over the four years of the MD program.
- A Need-based Travel Stipend was introduced in January 2012 to assist students with transit and travel costs related to various educational experiences.

UME Residency Match

In spring 2014, 94% of U of T MD students who applied to Canadian residency positions were matched in the first round of CaRMS. We are also pleased that 39% of our graduates matched to Family Medicine, the highest percentage in the last ten years and consistent with our vision of and commitment to social accountability.

Medical Council of Canada Qualifying Examination (MCCQE) Part I Results

The Medical Council of Canada (MCC) is a national body, which grants a qualification known as the Licentiate of the Medical Council of Canada (LMCC). Upon completion of medical school, MD graduates demonstrate competence by successfully completing the Part I of the Medical Council of Canada Qualifying Examination (MCCQE). The MCCQE Part I assesses knowledge, clinical skills and attitudes as outlined by the Medical Council of Canada Objectives. Part II follows after one year of residency. Our students’ pass rate on the MCCQE Part I has consistently been 99%.
About the Programs

Medical Radiation Sciences Program

The medical radiation sciences are an exciting and ever-growing area within medicine. The Medical Radiation Sciences (MRS) program is a professional, undergraduate program jointly administered by the Department of Radiation Oncology, Faculty of Medicine and The Michener Institute for Applied Health Sciences. This partnership combines the expertise and resources of the two institutions to offer a Bachelor of Science in Medical Radiation Science (BScMRS) from the U of T and an Advanced Diploma in Health Sciences from The Michener Institute. The program consists of three disciplines: radiological technology, nuclear medicine and molecular imaging technology, and radiation therapy. The integrated three-year curriculum provides students in each of the three disciplines with a broad theoretical and analytical foundation along with discipline-specific courses and clinical practice activities.

Radiological Technology

Radiological Technology uses X-radiation to produce medical images for the diagnosis and treatment of injuries and diseases using imaging technologies (general radiography, fluoroscopy, interventional radiology, computed tomography and bone mineral densitometry). Radiological Technologists are responsible for producing diagnostic images while providing optimal care for the patient, utilizing minimal radiation and employing appropriate radiation protection measures.

Radiation Therapy

The Radiation Therapy program prepares students to apply ionizing radiation to treat patients with cancer. Students have the opportunity to practice in a simulated clinical environment in all aspects of treatment planning and delivery. They work with cutting edge equipment and technology that was built specifically for the education of Radiation Therapy students, including the linear accelerator (Linac) treatment units and the Virtual Environment Radiotherapy Training system (VERT™), located on-site at Michener.

Redesigned Nuclear Medicine and Molecular Imaging Technology Program

The practice of Nuclear Medicine and Molecular Imaging Technology, which involves functional imaging to safely detect disease in its early stages, is constantly evolving. Nuclear Medicine Imaging involves noninvasive procedures to determine everything from the size and location of tumors to the volume of blood ejected from the heart with each beat. Molecular Imaging utilizes specialized instrumentation alone, or in combination with targeted imaging agents, to visualize biochemical events at the cellular and molecular level in order to help identify regions of pathology and potential mechanisms of disease. To meet the needs of our students, we redesigned the Nuclear Medicine and Molecular Imaging program to reflect changes in clinical practice and technology. Using varied learning environments (live, tutorial, simulation and lab work), and teaching methods, students work both independently and in teams to develop problem solving and clinical reasoning skills that help them apply their theoretical knowledge into clinical practice. The redesigned Nuclear Medicine and Molecular Imaging program was offered for the first time in September 2014.

MRS Admissions

FOR SEPTEMBER 2013 ENTRY

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Applicants</th>
<th>Successful Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiological Technology</td>
<td>170</td>
<td>39</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>2</td>
<td>n/a*</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>163</td>
<td>44</td>
</tr>
<tr>
<td>TOTAL</td>
<td>335</td>
<td>83</td>
</tr>
</tbody>
</table>

*Intake to the nuclear medicine discipline was suspended for the 2012–13 and 2013–14 academic years. A redesigned Nuclear Medicine and Molecular Imaging discipline will be offered for the first time in September 2014.

MRS Enrolments

<table>
<thead>
<tr>
<th>Class</th>
<th>Radiological Technology</th>
<th>Nuclear Medicine</th>
<th>Radiation Therapy</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2017</td>
<td>41</td>
<td>15</td>
<td>37</td>
<td>93</td>
</tr>
<tr>
<td>Class 2016</td>
<td>36</td>
<td>0</td>
<td>43</td>
<td>79</td>
</tr>
<tr>
<td>Class 2015</td>
<td>39</td>
<td>0</td>
<td>50</td>
<td>89</td>
</tr>
</tbody>
</table>

“What I enjoy most about the Nuclear Medicine program is the interactive hands-on labs with patient models, learning how to use radiation safely and how to use gamma-cameras to image our patients. My favourite part is my clinical rotation, where I am actually able to experience with it is like to be Nuclear Medicine Technologist.”

— Janelle Ryan, Nuclear Medicine, Class of 2014

Photo courtesy of The Michener Institute.
About the Programs

Physician Assistant Program

The Bachelor of Science Physician Assistant degree (BScPA) is a professional, second-entry program, based in the Department of Family and Community Medicine (DFCM). The BScPA is a U of T degree delivered in collaboration with the Northern Ontario School of Medicine (NOSM) and the Michener Institute for Applied Health Sciences (Michener). These three institutions have formed the Consortium of PA Education to collaborate on program development, administration and delivery.

The BScPA is a distance and distributed education program with the majority of its curriculum delivered online. Students receive a balance in academic and clinical orientation and a curriculum delivery model that maximizes rural training and geographic accessibility throughout Ontario. The program runs for six continuous semesters (24 months) and is designed to meet the competencies outlined in the National Competency Profile as established by the Canadian Association of Physician Assistants (CAPA).

Curriculum Renewal

In 2013–14, we reorganized the Physician Assistant program courses to maximize students’ didactic learning prior to their first clinical rotation and improve focus on daily preparation for clinical rotations.

To improve access to the program, we revised the program’s admission requirements and shifted when students start in the program from January to September. For the 2015–16 academic year, all students in the program will begin their studies in September.

Physician Assistant Certification Council of Canada (PACCC) National Certification Exam Results

The results of the BScPA students on the National Certification Exam scores continue to be above the national average with a 94% pass rate, compared to the overall national pass rate of 92%.

94%

PACCC PASS RATE

Physician Assistants Set to Play a Greater Role in Health Care

A new study by Nanos Research shows overwhelming support for a rapid expansion of Physician Assistants (PAs) into Canada’s health care system. The study of 1,000 Canadians was released at the Canadian Association of Physician Assistants (CAPA) Annual Conference this fall, where 150 PAs discussed how to improve patient care through better collaboration with other providers and best practices.


Support for PAs was strongest amongst Canadian seniors, with almost nine out of ten respondents supporting an expansion of PA presence in this country.

“PAs can help provide better, faster care to our patients, and especially our seniors,” said Chris Rhule President of CAPA. “At a time when governments are struggling to save money, and find innovative ways to better care for our aging population, we need to be moving quickly to ensure we’re taking full advantage of these valuable members of the health care team.”

“The Physician Assistant program at the University of Toronto is dynamic, fast paced, and delivered by experts in diverse and respective fields. I am proud to be part of such a committed, hard working group of students and faculty, and am looking forward to making a positive contribution in the delivery of health care as a Physician Assistant.”

—Stephanie Shaw, PA Student, U of T.
Established in 2013-2014, the Office of Indigenous Medical Education provides a culturally safe space for Indigenous medical students. The office—which is home to our two Curricular Co-Leads in Indigenous Health Education, Dr. Jason Pennington and Dr. Lisa Richardson, as well as Cat Criger, our Aboriginal Elder-in-Residence—incorporates Indigenous teachings about medicine to improve the discourse in Indigenous medical education. Rochelle Allan, our Indigenous Peoples’ Undergraduate Medical Education Program Coordinator, works within UME to develop Indigenous programming and community outreach. The program also supports health professions students interested in learning more about Indigenous people and Indigenous concepts of health and healing.

The Office of Indigenous Medical Education was established to attract and support Indigenous medical students, build partnerships, and advance the understanding of Aboriginal health issues within the Faculty’s curricula. Another goal was to help non-Indigenous students better understand how to deliver culturally safe care.

“We hope to have many more Aboriginal students here, and also Aboriginal residents and faculty members,” said Dr. Lisa Richardson. “We have many students who could one day be working with Aboriginal patients, and through this office, we’ll be teaching them, guiding them and helping to give them some skills and knowledge to work with Aboriginal patients.”

From left: Jason Pennington, Rochelle Allan and Cat Criger.
Accreditation

Undergraduate Medical Education

In October 2013, the Committee on Accreditation of Canadian Medical Schools (CACMS) and Liaison Committee on Medical Education (LCME) voted to continue accreditation of the U of T MD program for the maximum allowable eight year term, until May 2020. Based on a status report we submitted in July 2013, three standards previously identified as being in noncompliance were found by the CACMS-LCME to be in compliance with monitoring, while one of six standards previously identified as being in compliance with monitoring was found to be in full compliance. Under the leadership of Dr. Martin Schreiber, Director, UME Curriculum and Senior Academic Coordinator, Accreditation, a follow-up status report regarding the eight accreditation standards still requiring monitoring will be submitted to the accrediting bodies in April 2015.

Medical Radiation Sciences Program

In the spring 2013, all three of the Medical Radiation Sciences (BScMRS) program’s disciplines (radiological technology, nuclear medicine, and radiation therapy) were granted accreditation for the maximum allowed term of six years (until 2019).

Physician Assistant Program

In December 2011, the Physician Assistant (BScPA) program received accreditation status from the Canadian Medical Association (CMA) for the maximum allowed term of six years (until December 2017).

Repatriating Undergraduate Medical Education Accreditation

In December 2013, the Association of American Medical Colleges, the American Medical Association, the Canadian Medical Association, and the Association of Faculties of Medicine of Canada signed a landmark agreement that will both provide Canadian medical schools with greater autonomy over our educational standards and accreditation procedures and maintain the close relationship with our American colleagues. This landmark agreement will ensure that graduates of the U of T MD program meet “made in Canada” accreditation standards but are still prepared and eligible for medical training on either side of the Canadian-American border.

The new accreditation framework, which officially took effect June 2014, includes standards that reflect aspirations shared among Canadian medical schools, such as our commitment to social responsibility and accountability. By more closely aligning accreditation standards with recommendations of the Future of Medical Education in Canada (FMEC) project, the new accreditation framework will help ensure that the U of T MD program in particular and our medical education system in general continues to meet the current and future health care needs of all Canadians.
Supporting Our Students

Office of Health Professions Student Affairs (OHPSA)

The Office of Health Professions Student Affairs (OHPSA) helps students find the support and balance they need to succeed academically and professionally. OHPSA provides services and resources to support students as they learn to become health professionals. The office provides confidential personal counselling and educational coaching for students in the MD, MD/PhD, Medical Radiation Sciences, Physician Assistant and Occupational Therapy programs, as well as career management for medical students. It also runs numerous programs and events to support student well-being.

“"We want to help students integrate healthy behaviour and attitudes from the beginning, enabling them to better manage the demands of their education and professional lives," says Dr. Leslie Nickell, Associate Dean of OHPSA and Associate Professor, Department of Family and Community Medicine.

We connect students to extracurricular activities that enable them to make a meaningful difference, while developing health advocacy, communication, collaboration, and management competencies," says Ike Okafor, senior officer at OHPSA responsible for service learning and diversity outreach.

Supporting students is essential to the development of future academic health professionals.

Summer Mentorship Program Celebrates 20th Anniversary

In 1994, the Office of Student Affairs, the Faculty of Medicine, the Toronto Board of Education, and the Association for the Advancement of Blacks in Health Sciences established a pilot program to address growing concerns regarding the lack of students of Indigenous and African ancestry in health professions.

While the SMP program began as a modest pilot, it became and remains a highly regarded program, and has exposed over seven hundred students to the possibilities and careers in medicine and health care.

On July 30, 2014, over two hundred students, mentors and alumni joined Dr. Catharine Whiteside, Dean, Faculty of Medicine, Dr. Jay Rosenfield, Vice-Dean, Undergraduate Medical Professions Education, Dr. Leslie Nickell, Associate Dean, Health Professions Student Affairs, and UMPE staff in celebration of the Summer Mentorship Program 20th Anniversary.

In 2013-14 we celebrated the 20th anniversary of the Summer Mentorship Program (SMP), which provides high school students of Indigenous and African ancestry with an opportunity to explore health sciences at the U of T over four weeks in July. Offered to approximately 50 students each year, the SMP helps students discover university education and professional careers in the health sciences, get hands-on experience through experiments, lectures and special projects, and connect with mentors.

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"One of the best experiences of my life! Meeting experienced and educated professionals, who also happened to be minorities, helped open my eyes to new possibilities not previously imagined."

—Tobin McPherson, SMP Alumni 1996 Field/Specialty: Economics and Child and Youth Care
Engaging Students Outside of the Classroom

With the support provided by OHPSA, students run a variety of extracurricular activities, including the IMAGINE Clinic, EarthTones Concert, and Daffydil Play.

**IMAGINE**

IMAGINE is a student-run clinic providing services for marginalized populations in Toronto, including new immigrants not covered by OHIP and those who experience homelessness, mental health issues, and have precarious status. At IMAGINE, students gain valuable practical experience, learn more about the healthcare system, as well as develop leadership and teamwork skills. In 2013–2014, IMAGINE served over 200 clients, with support from over 60 student volunteers as well as 100 preceptors from a variety of disciplines, such as medicine, nursing, pharmacy, physiotherapy, and social work. IMAGINE hosted the student-run National Clinic Conference (SNaCC) in 2014, which included participants from all student-run clinics in Canada, and launched an advocacy program to raise awareness about issues affecting marginalized populations.

**EarthTones**

Among other notable initiatives, EarthTones stands out – an annual student-run live music concert supporting international children’s charities. This year’s charities include UNICEF (Ebola Crisis Fund) and Canadian Physicians for Aid and Relief (CPAR). EarthTones is co-presented by University of Toronto Faculty of Medicine and University of Toronto International Health Program (UTIHP).

**Daffydil**

Daffydil, a play that is written, produced and performed by medical students, raises funds for the Canadian Cancer Society, while enhancing student life and supporting the development of leadership skills through theatre, music, song, and dance.
Spotlight

Teaching and eLearning

We are continually striving to help our students become better clinicians through innovations in technology and intelligent use of eLearning. In 2013–14, all lecture notes for first-year MD students were converted into digital formats, and a website was created to help students and tutors transition from paper to digital.

We are also committed to expanding eLearning and online digital resources for our teachers. In 2013–14, a new online faculty development tool called Accessible Resources for Teaching (ART) was developed by the U of T Centre for Faculty Development. Through ART, our teachers have access to a series of eLearning modules that focus on particular teaching and learning topics such as teaching a diverse group of students, providing effective feedback, effective role modelling, and digital professionalism and privacy.

eLearning Expansion

Our educators and students, under the leadership of Dr. Marcus Law, Director of UME Academic Innovation, have been working hard to introduce “virtual patients” into the MD program, with the goals of increasing and integrating clinical relevance and skills within the basic science curriculum and enhancing digital literacy. Students are meeting “Professor Allison Smith”, “Wilson Chan” and “Mr. G.B.” as part of their first year Structure and Function cardiorespiratory medicine unit, and navigate the worlds of underlying pathophysiology, history taking, physical exam, diagnosis and management of their patients in both virtual and real life educational sessions. The continued focus on eLearning responds to the growing technology for advocacy trend, which helps students combine their knowledge of medicine with a deeper understanding of technology. Plans to expand the number of “virtual patients” in the MD program’s second year Mechanisms, Manifestations, and Management of Disease course are already underway.

New Courses

In 2013-14, UME moved toward the creation of two new courses: Community, Population and Public Health, which launched in August 2014, and Health Science Research, which will launch in August 2015. These new courses required a thorough development of learning objectives, plans for curriculum delivery, and recruitment of course directors. The new Community, Population and Public Health course takes place in first and second years of the program, and aims to introduce students to a population and community health perspective on medical practice. The course objectives are linked closely with the CanMEDs Roles and the Medical Council of Canada ‘Medical Expert’ Objectives in Population Health. The Health Science Research course focuses on many aspects of the CanMEDS Scholar role, in particular learning to participate in the conduct of a research project and to interpret and apply the result of research to patient care.

“Our responsibility is to make sure that every group of students has an excellent experience, and continue to improve upon the existing program as part of the ongoing commitment to excellence in medical education.”

— Dr. Martin Schreiber, Director, UME Curriculum
Spotlight

Leadership Education and Development (LEAD) Program

The Leadership Education and Development (LEAD) program is an interdisciplinary partnership between UME, the Rotman School of Management, the School of Public Policy and Governance, and the Institute of Health Policy Management and Evaluation. The LEAD program, available to nine medical students from each MD cohort, fosters a new generation of physician leaders committed to improving health care and the health of our communities.

The program curriculum includes a longitudinal sequence of six graduate courses as well as two summer-long practicum experiences in which students have an opportunity to apply their knowledge and further develop their understanding of career opportunities in leadership.

Varuna Prakash – Leadership Education and Development (LEAD) Student

Undergraduate Education: Bachelor of Applied Science and Engineering (BASc) in Materials Engineering, University of Toronto

Graduate Education: Master of Health Science (MHSc) in Clinical Engineering, University of Toronto.

Varuna comes to medicine from the world of clinical engineering, where she spent several years working in patient safety, quality improvement, medical device usability, and patient-centered design. She is passionate about working at the intersection of health care and technology, and has a particular interest in understanding the effects of human factors on medical error. Varuna strongly believes that tackling complex problems in health care requires a truly multidisciplinary mindset.

Varuna’s education in leadership, combined with her education in engineering and medicine, will support her championing quality improvement efforts in a fragmented health care system.

“LEAD is proving to be a fantastic complement to the medical curriculum. We are exposed to a variety of courses and practicums, and have the tremendous opportunity of working with and learning from health leaders from a number of different disciplines. LEAD helps me critically examine health systems issues and understand the important part that all physicians can play in championing and stewarding change.”

—Varuna Prakash, LEAD Student

UME Awards

UME Students

Our students benefit from a significant number of student awards and scholarships, established through the generous individual and corporate contributions. In 2013–14, our medical students received 277 awards for a total amount just under $275,000. The student awards fall under the following eight categories:

- Admission Scholarships
- In-Course Awards
- Elective Awards
- Awards Requiring Application
- Convocation Awards
- Undergraduate Medical Program Medalists
- Research Support (CREMS)
- Ankle Award

UME Teachers

This year, we also celebrated the achievements of UME teachers who have contributed to undergraduate teaching excellence. The 12th Annual Education Achievement Celebration was held on May 13, 2014 at the Great Hall in Hart House, University of Toronto.

W. T. Aikins Faculty Teaching Awards

These awards, named after William Thomas Aikins, the first Dean of the Faculty of Medicine following the 1887 reorganization, are the Faculty’s most prestigious teaching awards in Undergraduate Medical Education. Recipients of these awards have significantly contributed to high-quality undergraduate teaching by establishing and integrating new and effective methods of instruction into the undergraduate curriculum. The award winners are selected from nominees in a process that requires support from both faculty and students.

W. T. Aikins Faculty Award for Excellence in Undergraduate Teaching – Individual Teaching Performance (Small Group)

- Gemini Tanna, Department of Medicine

W. T. Aikins Faculty Award for Excellence in Undergraduate Teaching – Course / Program Development and Coordination

- Susan Goldstein, Kym Feldman, and the members of the FMLE Course Committee, Department of Family and Community Medicine

MEDICAL ALUMNI ASSOCIATION AWARDS (2013)

The winners of the Medical Alumni Association Awards are honoured at Convocation. Award recipients are also acknowledged at the Annual Education Achievement Celebration in the following academic year.

E. Mary Hollington Award – Excellence in Preclinical or Basic Science Teaching

- Mike Wiley, Department of Surgery

E. Mary Hollington Award – Excellence in Clinical Teaching

- Patrick Gudgeon, Department of Medicine

Dean A.L. Chute Award (The Silver Shovel)

- George Christakis, Department of Surgery, and Todd Koch, Department of Psychiatry
The Comprehensive Research Experience for Medical Students (CREMS) Program is a unique research program that allows interested medical students to gain extracurricular research experiences in various structured programs without interrupting their medical studies. Students participating in a CREMS Program undertake an original research project under the supervision of a member from the U of T Faculty of Medicine. The research may be basic, clinical, applied biomedical, epidemiological or social science/humanities related to medicine or medical practice, and the project may involve laboratory experiments, prospective and retrospective clinical or social studies.

Students participating in a CREMS Program present their work at the Medical Student Research Day (MSRD), which is an annual one-day conference to showcase biomedical and other medicine-related research by U of T medical students. The MSRD includes poster presentations, oral presentations, and awards for the best poster presentation. The 2013–14 award winners are listed on the next page.

The 28th Annual Medical Student Research Day was held on Tuesday, January 28, 2014. The event provided a forum for 170 U of T medical students to present research on a range of topics in the fields of clinical research, health care, basic science, determinants of community health, and international health. The event featured MD/PhD, CREMS, and first-year projects. U of T MD alumnus Dr. Jay Keystone, a global leader in tropical and infectious diseases, was the keynote speaker at the event. Five students were selected by a panel of peer medical students to present their research at the event as oral presentations, and awards were given by faculty judges for the best poster presentation.

Oral Presentations

**Basic Science**
- **James CM Wang:** Histone Modification in the Hypoxic Microenvironment of Pancreatic Cancer

**Clinical**
- **Melissa Yu:** Change in Diastolic Function as a Predictor of New Onset Atrial Fibrillation Following Coronary Artery Bypass Graft Surgery

**CREMS Scholar and First Year**
- **Hala Muaddi and Vanessa Zanella:** Reprogramming Metabolism with Metformin Improves Tumour Oxygenation and Radiotherapy Response

**MD/PhD**
- **Jared Wilcox:** Evaluating Neural Stem Cell Transplantation in a Bilateral Conusion-Compression Model of Cervical Spinal Cord Injury

Best Poster Presentation Awards

**Determinants of Community Health**
- **Janet Nguyen:** What Can We Learn From Peer Leaders’ Experiences? Qualitative Findings From a Community-Based Cervical Breast Cancer Screening Program for Under/Never Screened Women

**First Year**
- **Laureen Hachem:** An Analysis of Major Surgical Bleeding in Kidney Transplantation: Incidence, Risk Factors and Outcomes
- **Brian Ballios:** An Injectable Hydrogel Improves the Survival and Functional Integration of Stem Cell Progeny Transplanted into Adult Retina

**International Health**
- **Jessica Harper and Jennifer Hunter:** No Evidence of Neurodevelopmental Delay in HEU Infants Exposed to HAART In Utero and During Extended Breastfeeding

**Health Care**
- **Michelle Yee:** Development of a Discharge Instruction Software Tool for Limited English Proficient Patients at the Toronto Western Hospital Emergency Department.
Included below are peer reviewed publications as well as poster presentations, oral presentations and workshop facilitations at national and international conferences from 2013-14 by teachers and staff who have major leadership roles in UME.

**PEER REVIEWED PUBLICATIONS**


**CONFERENCE POSTERS**


**CONFERENCE PRESENTATIONS**


Chow, C.M., Jenkins, J., Law, M., Kubaski, W., and Verma, S. (2014, April). Development of an educational information technology summer student program to promote e-learning projects development among faculty members and students. Canadian Conference on Medical Education, Ottawa, Canada.
Teaching (ART) program

Students and faculty partnering in innovation:

Selecting MD/PhD applicants using a modified the development of the Accessible Resource for

The effects of physical attractiveness on rater

Identification of students with clinical skills

deficiencies: the iOSCE

Does medical student financial need impact academic performance?

The World Professional

Association for Transgender Health Biennial

CONFERENCE WORKSHOPS


Nickell, L., Bandiera, G., Costes, P., and Bajcar, J. (2014, April). Faculty development to support transition to residency: what is an effective reference letter for CaMRPs and who should be writing them? Canadian Conference on Medical Education, Ottawa, Canada.


Richardson, L., Allan, R., Pennington, J., and Hanson, M.D. (2014, April). Decolonizing the academy reflections on the creation of an Office of Indigenous Medical Education. Canadian Conference on Medical Education, Ottawa, Canada.


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Nickell, L., Bandiera, G., Costes, P., and Bajcar, J. (2014, April). Faculty development to support transition to residency: what is an effective reference letter for CaMRPs and who should be writing them? Canadian Conference on Medical Education, Ottawa, Canada.


