



**MEETING OF FACULTY COUNCIL  
OF THE FACULTY OF MEDICINE**

A meeting of Faculty Council will be held on **Monday, February 8, 2021**, from 4:00 p.m. to 6:00 p.m. via **Zoom Virtual Meeting**.

**AGENDA**

- |   |   |                           |
|---|---|---------------------------|
| 1 | <b>Call to Order</b>  | Speaker                   |
| 2 | <b>Minutes of the previous meeting of Faculty Council – October 19, 2020</b>                            | Speaker                   |
|   | 2.1 Business Arising  |                           |
| 3 | <b>Report from the Speaker</b>  | Speaker                   |
| 4 | <b>Reports from the Dean’s Office</b>   |                           |
|   | 4.1 Report from the Dean’s Office   | T. Young                  |
|   | 4.2 Vice Dean, Strategy and Operations  | L. Robinson               |
|   | 4.3 Vice Dean, Research and Innovation and GLSE   | R. Reithmeier             |
|   | 4.4 Vice-Dean, Clinical and Faculty Affairs   | L. Wilson                 |
|   | 4.5 Vice-Dean, Medical Education  | P. Houston                |
| 5 | <b>Items for Approval</b>   |                           |
|   | <b>5.1 The Education Committee of Faculty Council recommends the approval of the following motions:</b> |                           |
|   | “THAT the proposal to establish a combined MD-MBA degree program be approved as submitted.”             | P. Houston                |
| 6 | <b>Standing Committee Annual Reports</b>  |                           |
|   | Appeals Committee   | B. Papsin<br>D. Templeton |
|   | Undergraduate Medical Education Board of Examiners  | B. Bleakney<br>B. Papsin  |
| 7 | <b>Faculty Council Forum</b>  | L. De Nil                 |
|   | Online Assessment of Practical Clinical Skills  | P. Houston                |
| 8 | <b>Adjournment</b>  | Speaker                   |

**NEXT MEETING: April 26, 2021**

**FACULTY COUNCIL  
TEMERTY FACULTY OF MEDICINE**

Meeting Materials – February 8, 2021

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Faculty Council of the Temerty Faculty of Medicine  
Minutes of the October 19, 2020 meeting  
4:00 p.m.  
Via Zoom Videoconference

**Members Present:** Boris Steipe (Chair), Todd Coomber, Alis Xu, Lynn Wilson, Luc De Nil, Nicolas Santi, Jonathan Pirie, Martin Beaulieu, Peeter Poldre, Margarete Akens, Trevor Young, David Tannenbaum, Nick Reed, Tao Chan, Sara Mirali, Gina John, Patricia Houston, Sarah Crome, Jenna Roher, Vincenzo Deluca, Wusun Paek, Beverley Orser, Brenda Mori, Allan Kaplan, Calandra Li, Michael Farkouh, Glen Bandiera, William Tran, Karl Zabjek, Sean Kidd, Modupe Tunde-Byass, Jack Barkin, Paul Cantarutti, Juan-Carlos Zúñiga-Pflücker, Dev Chopra, Mario Ostrowski, Reinhart Reithmeier, Meg Connell, Sal Spadafora, Pascal van Lieshout, Sami Chadi, Suzan Schneeweiss, Paolo Campisi, Helen Yang, Vanessa Rambihar, Brenda Mori, Sarah Rauth, Arthur Mortha, Sachin Kumar, Derek Muradali

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## 1 Call to Order

## 2 Report from the Speaker

The Speaker indicated that he had no report at this time.

## 3 Reports from the Dean's Office

### 3.1 Dean's Report

Dean Young noted the work members of the Faculty have done to keep the Faculty running smoothly despite the on-going Covid-19 pandemic. He indicated that clinical trainees are going into clinical placements and learning labs every day. Dean Young noted that he had a (socially distanced) conversation with some medical students who had just come from an anatomy lab and how excited they were to be learning in person and doing meaningful work and they seemed up for the challenge of being here. He noted how everyone needs to enjoy the small snippets of the positive energy we come across.

Dear Young expressed immense gratitude to the Temerty Family for their remarkable gift to the Faculty. This gift will support the strategic plan and to fund things that were important to the Temerty Family and also the Faculty. The AI Institute and already launched and will be having its first series of talks this week. Many other things will be happening in the near future including the work on the West Wing of the Medical Sciences Building.

Dear Young noted that both the MD Program and the PGME Program will be undergoing accreditation so it is a busy time for the Faculty and that not even Covid-19 can stop the Faculty's forward progress. Dean Young again expressed his gratitude for the members of the Faculty whose efforts have pushed the Faculty through these difficult times and asked everyone to take care take be safe.

### 3.2 Vice Dean, Strategy and Operations

Dr. Sal Spadafora indicated his remarks would be brief as he will be presenting the Faculty Council Forum this evening. Dr. Spadafora noted that he and Dean Young have endeavored to keep everyone apprised of all of the changes that have been going on at a brisk pace since March. He indicated that he recently read an article in Times Higher Education titled Why Adaptive Universities Will Emerge Stronger from Times of Change and they have three major recommendations that Dr. Spadafora believes we are doing

but there are areas for improvement. The three practical steps that universities can take to ensure that they become stronger and more adaptive rather than regress in the time of Covid are to ensure that the operating models prioritize student, staff, and faculty requirements and focus on what makes the most impact and what most what has the most value; create a balance between designing solutions that tackle the most immediate problem today, but that still works towards a solid and pre-determined future goal; and to learn and share our successes and embed those successes in how we move forward together.

Dr. Spadafora noted that we are currently in modified stage two of the Province's reopening plan. He noted that a number of the changes didn't impact post-secondary institutions due to exemptions. He noted that people shouldn't leave their homes unless for essential business and University has taken this order seriously in determining what constitutes "essential".

Dr. Spadafora noted that the UCheck system implementation was delayed but now anyone coming to campus must complete a UCheck screening before coming. The university is taking an approach of education, rather than punitive enforcement of the UCheck system but it is being mandated by the province.

### **3.3 Vice Dean, Research and Innovation**

Dr. Reinhart Reithmeier expressed his thanks to everyone who has been involved in getting research back up and running after the initial shut down. He noted that the Faculty has been a leader across the country in the approach to the restart with 20% capacity initially and now 50% capacity. A key to the success has been allowing leaders to schedule their own lab to maintain their own research integrity. These people are the best judges of who should be in the lab and when so depending on them has been working extremely well and the scheduling allows for contact tracing.

The Research and Innovation office is operating remotely and things are working very well. Many activities within the Faculty have ongoing importance to researchers and services such as the microscope imaging laboratory or the animal facility continue to be managed. Dr. Reithmeier estimates that most research unites are working at 80% capacity. Research continues to be driven forward by all those putting grant applications Canada Research Chair renewals.

Dr. Reithmeier noted that the Temerty gift has been a ray of sunshine in a very dark time and his office has been moving very quickly on some of the key elements of the Temerty gift with pathway grants that have already been awarded. These are grants to faculty members who just missed the cut for a CIHR grant so it keeps their research going. Most of these grants have been to young investigators who have been struggling to get grants. The pathway grants are \$100,000 awards for a year.

### **3.4 Vice-Dean, Partnerships**

Dr. Lynn Wilson noted that faculty wellness has been a priority during the past eight months or so during the pandemic The Health Professions working has been doing extraordinary work. With some early funds released by the Temerty foundation, work has been done to try to support faculty across our three sectors to help them with what is going on during the pandemic. A faculty wellness coordinator has been hired and two working groups have been established (Julie Maggi chairs the clinical group and Bonnie Kirsch chairs the basic science and rehab group). A quick needs assessments was done regarding the immediate needs of faculty and then the groups created and curated a number of resources for issues such as child care or counseling. A wellness webinar series has been established with seven webinars on topics such as mental health during Covid, parenting during the pandemic, etc. There were 200 to 650 people in attendance for each session.

Dr. Wilson noted that her office continues to work on professional values with ongoing revisions to the Standards of Professional Behavior for medical clinical faculty. Work is also being done to develop education resources, including an online module. Work is also being done with the Rehabilitation and Basic Science sectors around the same issues of professional behavior while being respectful of collective agreements and the status of tenured faculty.

Dr. Wilson noted that more research will be conducted over the coming year to aid in leading for wellness for Chairs, Vice Chairs, and Program Directors. This will also include leaders from the hospitals because often people are coming to them in distress and they're not always sure how to deal with that distress or the distress manifests itself saying in a lapse of professionalism.

### **3.5 Vice-Deans, Education**

Dr. Patricia Houston and Dr. Allan Kaplan referred members to the written report available in these minutes beginning on page 6.

In addition, Dr. Patricia Houston noted that the MD program accreditation virtual site visit will begin on November 2 with the program learning this evening after Council whom the accreditors want to meet. This will leave two weeks to arrange a weeklong schedule of meetings. Following that, on November 22 the PGME accreditors will conduct a two-week virtual site visit. Finally, on December 7, the MD accreditors will return. Dr. Houston indicated that, despite this hectic six week period of accreditation, the Faculty is very well prepared. The Faculty has excellent programs, fantastic faculty, inspiring learners, and great staff.

Dr. Houston noted that the Temerty gift is going to make a huge difference to the Faculty's educational programs in many ways including the plans to build a new building, which will have a focus on education space and space for communities to come together for Wellness for events. The gift will also allow a focus on MD plus programs which are planned for the next few years.

Dr. Houston outlined how the medical education program adapted to the Covid pandemic. The MD Program year 1 and 2 Foundations curriculum was transitioned to remote learning and assessments with additional clinical skills learning sessions for year 2 students, including virtual clinical skills "boot camp" sessions, virtual workshops, and virtual OSCE prep sessions. Clerkship year 3 students received an adapted, four-week Transition to Clerkship (TTC) course delivered over August 24 to September 18, 2020 and began core clerkship rotations on September 21, 2020. Other learning activities (e.g. Portfolio, Transition Education Days) and assessments are being delivered remotely. There is a seven week double cohort of outgoing and incoming clerks in year 3, from September 21 to November 9, 2020. Clerkship year 4 students received Return to Clerkship curriculum and Academy-based learning donning and doffing sessions delivered in June prior to clinical reintegration on July 6, 2020. Clinical reintegration (July 6 to November 6): eight-week rotations are being truncated to six weeks and six-week rotations truncated to four or five weeks. Electives will be between November 9, 2020 and February 26, 2021. All visiting electives are cancelled nationally and CaRMS match day is April 20, 2021.

Postgraduate Medical Education is providing support and subsidization for housing displacement and transportation costs. Guidelines have been developed for Trainees at Risk during COVID-19 to support accommodation. There will be PPE training with initial focus on redeployed residents, and second focus on moving back to program-based approach.

Continuing Professional Development rapidly developed capacity and expertise in the delivery of digital conferences and programs. A COVID-19 Webinar Series was developed with 44 different webinars including a variety of specialty-specific clinical topics. CPD also developed a COVID-19 Website to serve as resource hub and a COVID-19 Resource Library (searchable database constraining 180 curated resources and clinical supports from trusted sources).

## **4 Items for Approval**

### **4.1 Education Committee**

**THAT the proposal to close the Collaborative Specialization in Human Development be approved as submitted.**

Moved: B. Mori, Seconded: B. Orser

Dr. Allan Kaplan indicated that the Collaborative Specialization in Human Development was the primary educational arm of the Fraser Mustard Institute for Human Development which has been inactive for several years. There has not been any new graduate students enrolled in this collaborative specialization since 2017 and there aren't any currently in the program. The funding that supported the program came from the Fraser Mustard Institute which is in the process of closing so the funding stream has ceased. The Collaborative Specialization is no longer doing what it originally set out to do which is educate graduate students in a trans disciplinary manner and a lot of the focus of the specialization has been taken up by other graduate units in the area of human development.

The motion passed.

**THAT the Guidelines for Appropriate Use of the Internet, Electronic Networking and Other Media be approved as submitted**

Moved: B. Mori, Seconded: G. Bandiera

Ms. Melissa Hynes indicated that the original document was approved in 2008 and that it was time for an update. It is her hope the new document will be approved and in place in advance of PGME accreditation which is taking place at the end of November. This documents revisions have been approved by PARO (February 2020), PGMEAC (February 2020), UG Curriculum Committee (March 2020), and HUEC (March 2020).

The primary goal of the update were to align the Guidelines with policies, procedures and guidelines set out by out by the CPSO, CMPA, the Royal College and CFPC and the University of Toronto as they refer to Internet, Electronic, Networking and Other Media. In addition, the document was evaluated and validated by legal council, PGMEAC, HEUC, and the University of Toronto Governing Council.

The content of the document was not changed significantly but there were updates to the language of the documents and the resource web links. In addition, the foundational principles of the guidelines were updated to include the importance of professional behaviour in and around electronic platforms.

The motion passed.

#### **4.1 Education and Research Committees**

**THAT the By-laws of the Faculty of Medicine be amended as submitted**

Moved: B. Mori, Seconded: M. Ostrowski

Mr. Todd Coomber noted that there are a number of minor amendments throughout the By-Laws and he could answer any questions but only the more significant amendments would be addressed in detail. Throughout the document titles and committee roles have been updated based on the new decanal portfolios. Sole responsibility for the approval of EDU-Ds has been downloaded to the Research Committee. In addition, the provisions for electronic meetings and voting has been moved from the rules governing Standing Committee to the section on Faculty Council procedure to ensure they also apply to Council.

Mr. Coomber noted that the proposed amendments would enable Teaching Staff positions on Council and Standing Committees to be held by Other Academic Appointees from clinical departments. Other Academic Appointees are, in essence, part time Teaching Staff who hold less than 50% appointment to the Faculty. This is different than full-time Teaching Staff who hold less than a 50% appointment to the Faculty. For example, a physician in one of the hospitals with a 20% appointment to the Faculty and the rank of Assistant Professor is an Other Academic Appointee and is eligible to serve on Faculty Council. An Assistant Professor in the Dalla Lana School of Public Health who holds a 20% appointment in the Faculty of Medicine is neither an Other Academic Appointee nor a member of the Teaching Staff (in the Faculty of Medicine) and is ineligible to serve on Council

## 5 Standing Committee Annual Reports

### 5.1 MRS Board of Examiners

Dr. Sarah Rauth indicated that the Medical Radiation Sciences Board of Examiners reviews cases of students in academic difficulty and determines the appropriate course of action, which may include promotion, remediation, failure, suspension and dismissal.

The MRS Board of Examiners met twice in 2020 and reviewed the cases of 6 students this year. In a typical year, the Board would meet four times and consider more than twice as many cases.

Four students were placed on Remediation for course failure. Of these, two students failed required courses and were placed on leaves of absence until the next course offering. One student failed a clinical course which had to be repeated at a time arranged by the Program. The last student failed an elective course and had the option to use a transfer credit rather than repeat an elective course.

Two students were dismissed from the MRS Program. One dismissal was the result of ongoing academic difficulty and the other was due to ongoing professional and patient safety issues. Both dismissals occurred in January 2020 so the student performance issues were in no way a result of the coronavirus pandemic.

## 6 Faculty Council Forum

Dr. Salvatore Spadafora presented the Faculty Council Forum on the Faculty's response to the Covid-19 pandemic.

## 7 Adjournment

The meeting was adjourned at 5:55pm

## 8 Electronic Approvals

During the week of September 1, 2020, the Faculty Council considered the following motion:

**THAT the proposal to rename the Centre for Machine Learning in Medicine to the Centre for AI Research and Education in Medicine be approved as submitted effective immediately.**

Moved: M. Farkouh, Seconded: P. van Lieshout

The motion passed.

During the week of November 23, 2020, the Faculty Council considered the following motion:

**THAT the proposal to close the Fraser Mustard Institute for Human Development be approved as submitted.**

Moved: S. Kumar, Seconded: N. Mehta

The motion passed.

# Council of Education Deans

## Faculty Council Briefing Report

October 5, 2020

Submitted on behalf of:

Patricia Houston, Vice Dean, Medical Education

Allan Kaplan, Vice Dean Graduate and Academic Affairs

Lynn Wilson, Vice Dean, Clinical and Faculty Affairs

Glen Bandiera, Associate Dean, Postgraduate Medical Education

Suzan Schneeweiss, Associate Dean, Continuing Professional Development



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## A. Integrative Activities and Awards

### External Education and Teaching Awards | Call for Nominations

Each spring and fall, the Faculty's Teaching and Education Awards Committee has the privilege of recognizing individuals who are making significant contributions to medical education.

We are currently calling for nominations for the following **Local, National and International awards**:

- [AAMC Abraham Flexner Award](#)
- [AAMC Alpha Omega Alpha Robert J. Glaser Award](#)
- [STLHE 3M Fellowship](#)
- [University of Toronto Presidents Teaching Award](#)

If you are interested in nominating someone for any one of these awards, please submit [the online nomination form](#) and supporting documentation to Lindsey Fechtig, Project and Administrative Manager, Office of the Education Deans ([medicine.awards@utoronto.ca](mailto:medicine.awards@utoronto.ca)) by 5PM on Monday, November 9, 2020. Nominations require:

1. A letter of support from the nominee's Departmental Chair;
2. 1-2 page nomination brief completed by the nominator\* that speaks to the specific award criteria, and;
3. The nominee's current CV and Teaching and Education Report (if available).

*\*Nominator can be different from the Chair.*

For more information, contact the Office of the Education Deans at [medicine.awards@utoronto.ca](mailto:medicine.awards@utoronto.ca) or at (416) 946-8067.

### CAME Certificate of Merit

We are also currently calling for nominations for the CAME Certificate of Merit. Details are as follows:

Nomination Criteria (CAME Certificate of Merit ONLY)

1. All contributors to medical education in each school are eligible (undergraduate, postgraduate, CME/CPD and Faculty Development).
2. Recipients will have made a contribution to medical education deemed to be valuable within their medical school (teaching, assessment, evaluation, educational leadership, course coordination, education, research).
3. Recipients should not have already been nationally awarded for this contribution.

4. Members currently serving on the CAME Executive or CAME Board of Directors are not eligible.

### **Nomination Procedures (CAME Certificate of Merit ONLY)**

Each Department and Education Centre of the Faculty of Medicine at the University of Toronto is eligible to nominate **one** faculty member for a Certificate of Merit Award. Nominations should include:

1. A letter from the Department Chair or Vice-Chair Education, or Education Centre Director as appropriate outlining the specific contributions of the faculty member in the area of education. Letters should not exceed two pages, and
2. A Curriculum Vitae of the candidate. *This will only be used by the selection committee if clarification of the details in the nomination letter are needed.*

Nomination letters and CVs should be submitted electronically by **11:59pm on November 16, 2020** to Dr. Suzan Schneeweiss, Temerty Faculty of Medicine's CAME Representative, c/o the Office of the Education Deans at [medicine.awards@utoronto.ca](mailto:medicine.awards@utoronto.ca).

## B. MD Program

### CaRMS – 2020 Match Results

2020 was a highly successful match year for U of T medical students. 97% (256 of 264) of U of T medical students who applied to Canadian residency positions matched in the first iteration, which was a slightly higher match rate than the national average (95.2%). After the second iteration, the match rate for U of T medical students was 98.1% (259 of 264).

The Office of Health Professions Student Affairs (OHPSA) will continue to provide personalized support to each of those students who went unmatched as they work towards their goals.

### Admissions

MD Program			
	2018 Entry	2019 Entry	2020 Entry
Applications	3262	3555	3943
Full file review	2048	2216	2655
Interviews	639	636	636*
Offers	301	307	311
Acceptances	254	268	268**
Yield	84.2%	87.3%	86.1%

\* Interviews for 2020 entry

- 400 participated in Modified Personal Interviews (in-person)
- 236 participated in Video Modified Personal Interviews (virtually)

In addition to acceptances by domestic applicants for 2020 entry, offers were accepted by:

- 5 international applicants
- 1 Department of National Defense (DND) Military Medical Training Plan (MMTP) applicant

Alternative Admission Pathways									
	MD/PhD			ISAP			BSAP		
	2018 Entry	2019 Entry	2020 Entry	2018 Entry	2019 Entry	2020 Entry	2018 Entry	2019 Entry	2020 Entry
Applications	131	139	170	16	11	11	92	104	139
Full file review	86	111	130	7	6	4	52	56	89
Interviews	48	48	48	5	6	4	31	31	52
Offers	9	10	9	5	5	4	17	15	26
Acceptances	8	9	8	2	4	2	15 (+ 1 deferral)	15	24

## Accreditation

In view of the COVID-19 outbreak and the rapidly evolving situation, the Committee on Accreditation of Canadian Medical Schools (CACMS) in consultation with the U of T Faculty of Medicine decided to postpone the MD Program's accreditation site visit that was scheduled to take place May 3 – 7, 2020.



That [site visit](#) has been rescheduled to take place over November 2 – 6, 2020, and will be conducted remotely, utilizing videoconferencing technology for meetings with faculty, staff, and students. Because of the remote nature of the visit, a one-day follow-up visit is tentatively scheduled for Monday, December 7, 2020.

The MD Program has submitted updates to complement its initial submission of required accreditation documents, which were provided to the [external review team](#) on February 3, 2020. The updates included documenting how we have responded to [medical school self-study](#) findings and quality improvement recommendations as well as [Independent Student Analysis](#) (ISA) recommendations. Given the remote nature of the site visit, the meetings held over November 2 – 6, 2020 will focus on and be organized according to accreditation elements identified by the external review team as requiring further discussion. Those meetings will be scheduled 1 - 2 weeks prior to the date of the site visit.

It is anticipated that the external review team's final report will be finalized in early February 2021, with decisions regarding the U of T medical school's accreditation status being determined at the May/June 2021 Committee on Accreditation of Canadian Medical Schools (CACMS) and Liaison Committee on Medical Education (LCME) meetings.

## Curriculum (Covid Adaptations)

Included below is a summary of curricular adaptations implemented by the MD Program for the 2020-2021 academic year.

### Foundations Curriculum: Year 1 (2T4) and Year 2 (2T3) students

- Delivery of the Foundations curriculum has (and continues) to be adapted based on the evolving situation with COVID-19, advice from public health authorities, University of Toronto, and our teaching hospitals. The fall term (until end of 2020) includes remote learning and assessments. The situation will be reassessed in November 2020 with respect to delivery of the curriculum in the winter term.
- In order to support current Year 2 (2T3) students who lost three months of in-person clinical skills teaching at the end of the 2019-2020 academic year, the MD Program developed and delivered learning sessions to ensure that students have attained the required clinical skills competencies, such as history taking and physical examination skills. These activities included virtual clinical skills "boot camp" sessions, virtual workshops, and virtual OSCE prep sessions.

## **Clerkship Curriculum**

The MD Program has and continues to work with hospital education leaders through the Toronto Academic Health Science Network (TAHSN) and our community partners to plan for reintegrating learners into hospital and physician office activities while prioritizing the safety of staff, learners, and patients.

### **Current Year 3 (2T2) students**

- In order to support current Year 3 (2T2) students who lost three months of in-person clinical skills teaching at the end of the 2019-2020 academic year, the MD Program delivered an adapted, four-week Transition to Clerkship (TTC) course in over August 24 to September 18, 2020 to help ensure that students are prepared for their core clerkship rotations.
- Due the pause in 2019-2020 to the Year 3 core clerkship rotations effective March 16, 2020 and subsequent return on July 6, 2020, planning for the 2T2 rotation schedule had to take into account a seven week double cohort of outgoing and incoming clerks in Year 3, from September 21 to November 9, 2020. This planning included a partial rotation order rematch with additional rotations to help mitigate capacity pressures in the clinical learning environment.
- Following the four-week TTC course noted above, 2T2 students started their core clerkship rotations on September 21, 2020.
- Other learning activities (e.g. Portfolio, Transition Education Days) and assessments are being delivered remotely.

### **Current Year 4 (2T1) Students**

- In order to support current Year 4 students whose Year 3 core clerkship rotations were paused on March 16, 2020, the MD Program delivered a Return to Clerkship (RTC) curriculum for 2T1 students. RTC, which included coverage of COVID-related topics relevant to clinical learning, was delivered over the last two weeks of June 2020, prior to the clinical reintegration of the 2T1 students on July 6, 2020. In addition to RTC, Academy-based donning and doffing sessions took place during the weeks of June 8 and June 15, 2020.
- In order to ensure that the 2T1 students successfully achieve the Year 3 clerkship learning objectives but are still able to complete the Year 4 program requirements and graduate on time to transition to postgraduate education in July 2021, the former eight-week clerkship rotations have been truncated to six weeks and courses that were six-weeks in length are running for four or five weeks depending on where they fall in the rotation schedule. A seventh rotation was added to ensure Paediatrics, Family Medicine, Psychiatry and Obstetrics and Gynaecology courses are always running. As noted above, 2T1 students were reintegrated into their core clerkship rotations on July 6, 2020, which will run until November 6, 2020.
- Scheduling of the Year 4 curriculum for 2T1 students was informed by clinical reintegration schedule summarized above as well as the 2021 CaRMS timeline, with match day scheduled to occur on April 20, 2021. The Year 4 curriculum for 2T1 students includes the following adaptations:

- Students will have 14 weeks of electives between November 9, 2020 and February 26, 2021, with two weeks mandatory vacation during the Christmas holidays. Students are required to successfully fulfill a minimum of 10 elective and are expected to continue to meet the graduation requirement of electives and selectives in a minimum of three CaRMS entry level disciplines. Students will not be required to complete at least selective in a community setting.
- The Undergraduate Medical Education Deans across Canada have agreed to cancel all visiting electives for the class of 2021.

## **Governance & Leadership**

*Recent (since October 2019) MD Program leadership appointments.*

- Dr. Susanna Talarico was appointed as the MD Program Faculty Lead for Faculty Development, effective November 1, 2019.
- Dr. Shaan Chugh was appointed as the MD Program Quality and Patient Safety Theme Lead, effective November 1, 2019.
- Dr. Chase McMurren was appointed as the MD Program Indigenous Medical Education Theme Lead, effective January 1, 2020.
- Dr. Michelle Hart was appointed as the MD Program Geriatrics and Care of the Elderly Theme Lead, effective April 1, 2020.
- Dr. Robert Goldberg was appointed as the Course Director, Foundations, Concepts, Patients and Communities – 1 (CPC1), effective July 1, 2020 .
- Dr. Clare Hutchinson was appointed as the Clerkship Competency/Consolidation Lead, effective August 1, 2020.
- Dr. Jordan Tarshis was appointed as the Faculty Lead, Simulation Education Integration, in the Faculty of Medicine, effective July 1, 2020.
- Drs. Maria Wolfs, Penny Yin, Yashi Yathindra, Natalie Clavel and Michelle Yee were appointed as the inaugural MD Program Academy Career and Transitions (ACT) Leads, effective August 1, 2020.
- Dr. Nanky Rai was appointed as the MD Program 2-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Intersex and Asexual + (2SLGBTQIA+) Education Lead, effective September 1, 2020.
- Dr. Nirit Bernhard's role as Portfolio Course Director has been revised to MD Program Faculty Lead, Portfolio and Theme Integration to include as integration of the theme leads in the MD Program in addition to existing responsibilities for the Portfolio component of the MD Program curriculum.



## C. Postgraduate Medical Education

### **Governance, Leadership and Staffing**

Dr. Sal Spadafora completed his term as Vice Dean Post MD Education. We thank him for his dedication, commitment and innovations over the past 10 years in PGME – first as Vice Dean Postgraduate Medical Education and then as Vice Dean Post MD Education – Postgraduate Medical Education and Continuing Professional Development. We wish Sal the best in his new role as Vice Dean Strategy and Operations for the Faculty of Medicine.

We welcomed Dr. Patricia Houston as Vice Dean, Medical Education, a new role within the Faculty of Medicine.

Dr. Jordan Tarshis was appointed as Faculty Lead, Simulation Education Integration and is Chair of the Simulation Education Advisory Committee (SEAC).

Dr. Reena Pattani was appointed Director, Learner Experience in the Faculty of Medicine and is leading the Learner Experience Advisory Council.

After 20 years at PGME, Loreta Muharuma retired as Director of Operations at the end of February 2020. Maureen Morris was appointed to the Director of Operations position from her previous role as Associate Director, Operations.

Carolina Rios assumed the role of Project Manager, Learner Systems Integration in the Policy, Analysis, and Systems unit. As a result of staff transitions Amy Widdifield, Cheryl Song, and Yin Chen are now part of the Policy, Analysis, and Systems unit under Caroline Abrahams.

PGME saw the following staff departures:

Glenys Babcock, Manager, Data & Analytics Policy

Teddy Cameron, Instructional Technology Design Analyst

Jessica Fillion, Coordinator, Visa Trainees

Jean Morran, Acting Administrative Assistant CMBE Faculty Development

We were pleased to welcome back two staff members from maternity leave – Laura Lysecki, Research & Information Systems Analyst and Rebecca Saunders, Administrative Assistant CMBE Faculty Development.

Marcella Fiordimondo accepted a secondment in the Dean's Office to replace Katiana Kotobelli's maternity leave.

### **COVID-19 Response**

#### **Housing and Transportation**

In March 2020 the need for trainees to isolate from their families and avoid public transportation became a necessity as COVID-19 cases climbed. [PGME soon partnered](#)

[with Staywell](#) to leverage lower fees and share the trainees' financial burden of the costs associated with being displaced from their homes and/or the need for private transportation to limit exposure to the Toronto community. Through a generous donation from the [Temerty Foundation the Dean's COVID-19 Priority Fund](#) was created and a portion of the funds were allocated to fully subsidize the costs associated with housing and transportation. From April 2020 to June 2020 we covered the costs associated with accommodations and car rentals for trainees. In an effort to extend the availability of funds for as long as possible, as of July 1, 2020 the parameters were changed so only support mandatory isolation needs.

Below is a high-level breakdown of who the funds helped as of September 30, 2020:

#### **Received over 400 inquiries in total**

- 132 International trainees received support for 14-day quarantine
- 62 Trainees received support while displaced from their homes while in hospital
- 25 Trainees received support for car rentals to avoid community contact on public transportation
- 7 Trainees were provided parking on St. George Campus
- 4 Trainees were referred to Postgraduate Wellness
- Remaining inquiries from trainees were not pursued by trainee further or need fell outside of the parameters

#### **Accommodation**

During the COVID-19 pandemic, the Postgraduate Wellness Office supported the development and implementation of accommodations for postgraduate trainees at increased risk for serious health consequences from COVID-19. This represented an immediate response to the health needs of our trainees. More recently with increased knowledge regarding COVID-19 transmission and risks, an expert panel lead by Dr. Matthew Muller has established Guidelines for Trainees at Risk during COVID-19 and the Postgraduate Wellness Office is working to ensure that trainees are supported in line with these guidelines.

The Postgraduate Wellness Office developed a workshop for postgraduate trainees, "Residency during the COVID-19 Pandemic: Coping with Uncertainty and Change" which has become the most frequently subscribed workshop by residency training programs during the pandemic. Additionally, the Office created a video introduction for use by any programs during the pandemic (or after) to orient trainees to the services offered. Finally, the Postgraduate Wellness Office has continued to provide consultation to programs as they navigate the wellness needs arising during the pandemic.

#### **Redeployment Activity and Planning**

COVID-19 presented many challenges to our clinical educational environment and beyond. Our acute response involved a three-phase redeployment plan guided by the [Principles for Redeployment](#) and [Procedural Memo](#).

1) *Principles for Redeployment:*

PGME developed principles for Redeployment and shared them with all stakeholders (Trainees, Hospitals, Programs, Clinical Departments) on March 23, 2020. They are available here: <https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/redeployment-principles-Mar16-2020.pdf>

2) *Redeployment Algorithm:*

An algorithm has been designed to align with the principles document and reflect a proposal to collaboratively manage re-deployment as the pandemic evolves. This was proposed and widely accepted at TAHSN. The algorithm can be found here: <https://pg.postmd.utoronto.ca/wp-content/uploads/2020/04/Redeployment-Procedural-Memo-April-3.pdf>

At the onset of the Pandemic, many programs depended on internal redeployments, developing centralized cross-divisional and/or creative approaches as Residents started to move into isolation and quarantine. The approach that had been taken allowed for necessary flexibility for sites and departments to respond to emerging needs in the acute phase. The Departments of Medicine and Anesthesia largely proactively reallocated their residents to support and bolster their ICUs. Surgery and Family Medicine also provided additional supports.

During **phase 1**, approximately **250 residents across 34 departments and programs were identified to PGME as ready for redeployment on short notice**. This group was largely comprised of Surgical residents, as well as Ophthalmology, Dermatology, Psychiatry, Diagnostic Radiology, Obstetrics, Family Medicine.

Moving forward, in preparation for **phase 2**, a balanced and systematic approach will be taken as the availability of residents for redeployment will decrease as clinical activities resume. Existing protocols for redeployment will continue to be relied upon. PGME has worked collaboratively with program directors to identify one block of availability per resident over the next academic year. With this proactive preparation, it is hoped that the rotating redeployment roster will be effective and help to address and meet any future needs during a potential second wave.

### **PPE Training**

The PPE training using simulated practice in donning, doffing and protected code blue was done in collaboration with the simulation centre teams at Mount Sinai Hospital, Sunnybrook Health Sciences Centre, and Unity Health systems. The PGME content and processes were developed with the guidance of Dr. Filipe Santos, an Anesthesiologist at SMH who provided PGME with technical advice and training oversight. The focus of training was on residents involved in internal redeployment and those on the PGME redeployment list which included the following departments: Anesthesia,

Otolaryngology/Head & Neck Surgery, Department of Surgery, Neuroradiology, Obstetrics, Ophthalmology, Diagnostic Radiology, Family Medicine, Medical Genetics and Dermatology. A total of 338 residents were trained during phase 1 of our redeployment activities.

- Over 300 residents/fellows trained in comprehensive simulated training program on PPE Safety
- PPE Safety Resources developed that went to approximately an additional 100 residents/fellows
- PPE Safety Resources developed
  - <https://www.youtube.com/watch?v=PsFGhvlhbXs&feature=youtu.be>
  - [https://pg.postmd.utoronto.ca/wp-content/uploads/2020/05/PPE-COVID-Tips\\_20apr20\\_FS1700.pdf](https://pg.postmd.utoronto.ca/wp-content/uploads/2020/05/PPE-COVID-Tips_20apr20_FS1700.pdf)
- Second focus was on (as of June 2020)
  - moving back to a program based approach with
    - Online course with the built resources
    - Connecting programs to the training sites to meet their training needs.

## **Competency Based Medical Education (CBME)**

### **Program Implementation – Update & Plans for 2019-2020**

The staged implementation of the Royal College's Competence By Design (CBD) model continued for its third year in 2019-20, with fourteen postgraduate programs newly onboarded (the largest cohort yet). Simultaneously, our dedicated PGME CBD Education & Systems team were shepherding the next wave of programs to their July 1, 2020 national launch date. Through a series of CBD mini-conferences and one-on-one meetings, they engaged in curriculum and assessment mapping and assessment tool development activities, to integrate the new CBD standards into their programs. The COVID-19 pandemic response saw a significant impact to programs' readiness, however, leading eight programs to defer their launch to July 2021 nationally. The Royal College permitted launched CBD programs flexibility to meet their program's education and assessment expectations, in response to the difficulties in completing assessments and large-scale resident redeployment that occurred during this time.

### **CBME - Faculty and Learner Development**

The faculty and learner development work is collaboratively planned with the input and guidance of departmental and divisional education leaders, the PGME team, and the newly established Faculty Development Resources Integration Committee. Centrally, the focus remains to support departments and programs to identify the resources needed to meet their CBME faculty and learner development needs. Lisa St. Amant and Amy Wong from the PGME CBME implementation systems team are working very closely to provide targeted and responsive support to programs as they implement. The ongoing partnership between PGME and the Centre for Faculty Development (CFD) continues to provide implementation support on a local level through the CBME Faculty Development Leads' Network and the Competence Committee Special Interest Group, facilitated by Dr. Susan Glover Takahashi.

In November, the 4th CBME/CBD Implementation Symposium, Data informed performance decisions: The Art and Science for Competence Committees, was co-hosted by PGME and the CFD. Dr. Janet Corral, an international expert in this area from University of Colorado was the keynote, and we also heard from local program experts about their experiences leading competence committees: Dr. Alayne Kealey (Anesthesia), Dr. Fok-Han Leung (Family Medicine), Dr. Paolo Campisi (Otolaryngology-Head & Neck Surgery), and Dr. Julie Johnstone (Core Pediatrics).

With the pandemic, some additional activities were undertaken. The PGME team collaborated with the CFD, MD and CPD programs to use an integrated approach to gather and curate the needed resources to support learners and faculty during the COVID-19 pandemic. This included considerable efforts to support online resources and virtual teaching practices. Notably, Dr. Susan Glover Takahashi, Dr. Anne Matlow, & Dr. Filipe Santos worked together in a project to ensure residents received safe and effective PPE training, especially when redeployed.

For CBME, there was a broad consultation that led to the refinement of the Entrustment scale that was implemented in the summer of 2020. A survey of residents and faculty identified key elements that needed improvement, and with the input of the Best Practices in Education and Assessment (BPEA) Committee the refinement of the overall EPA assessment scale addresses previous issues. Additionally, many print, web and video resources were developed, as well as providing various workshops and training sessions for learners, faculty and administrators.

### **CBME - Systems**

PGME is continuing to enhance the on-line platform, Elentra, to support the assessment of Entrustable Professional Activities (EPAs) and other workplace-based assessment tools. As of October 2020, there are 32 programs launched in Elentra, plus Family Medicine. Notwithstanding the complications of COVID 19, 9 out of a planned 17 programs newly launched in July 2020. Over the course of the 2019-20 academic year, a total of 29,900 EPAs were initiated and 24,000 completed; and an additional 9782 field notes. PGME is also piloting rotation scheduling with the Department of Obstetrics/Gynecology and planning to pilot with the Department of Family and Community Medicine. This will facilitate ITARs, teacher assessments and rotation evaluations in Elentra. The pilot will integrate both MD and Post MD for a more seamless user experience for faculty and administrators.

Tableau continues to be used as a data visualization platform for Competency Committees to view the progress of learners with EPAs and associated targets. We expect data visualization and assessment plans to be available for both Competency Committees and Learners within the Elentra platform in early 2021.

### **Best Practices in Evaluation and Assessment Committee (BPEA)**

After assembling informal feedback from key informant discussions, analysing results of user (faculty and learners) surveys, and convening a targeted working group to propose solutions, PGME deployed a new Entrustable Professional Activity assessment scale across

all programs in July. The new scale included updated framing statements, procedural instructions and scale anchors to better align with the evolving thinking around entrustability and address challenges observed in the early phases of the CBD rollout at the University of Toronto.

Based on observations from our monitoring of data, PGME also deployed two tactical changes to functionality – the ability for learners to send blank assessment forms to faculty was removed, and a staledate function was added to disallow assessments to be completed after 7 days. Both of these changes were implemented to increase fidelity of assessments and address some deficiencies in completion percentages.

The qualitative information derived from extensive user surveys has recently been reviewed and the BPEA committee will bring forward recommendations in the ear future.

## **Accreditation**

PGME is in the process of preparing for our accreditation visit from the Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada that will take place from November 22 – December 4, 2020. The visit will be conducted virtually and will include a review of the PG Institution, Royal College Residency programs, Family Medicine Programs and Areas for Focused Competence Programs. As the schedules are being finalized, committees, faculty, residents and administrators are being confirmed for their various timeslots. PGME leadership is communicating with stakeholders through committee meetings, residency program committee meetings, workshops and regular electronic communications including our accreditation newsletter. Outcomes from the accreditation visit should be available later in the winter of 2021.

## **Conference, Workshops, Projects and Initiatives**

General Note: Events planned and organized to occur between March 12, 2020 and June 24, 2020 have been postponed or cancelled if not offered virtually. Any events that were to be rescheduled will be offered again after the Accreditation 2020 Site Survey. Updates will be provided on these events in the next Faculty Council Report.

## **Conferences, Symposia, Meetings and Sessions**

CBD Implementation Mini-Conference 1 – Tuesday, October 2, 2019

### Full + Partial Launch CBD Mini-Conference

1-2 – Thursday, October 10, 2019

2-1 – Monday, October 28, 2019

2-2 – Wednesday, October 30, 2019

3-1 – Monday, November 25, 2019

3-2 – Thursday, December 5, 2019

4-1 – Monday, February 24, 2020

4-2 – Thursday, February 27, 2020

### Continued Launch CBD Mini-Conference

1 – Monday, November 25, 2019

2 – Monday, February 24, 2020

2021-2022 CBD Implementation Workshops – September 14, 2020, October 1, 2020

CBME/CBD Feedback & Coaching Training Program – Tuesday, October 2, 2019,  
Wednesday, October 23, 2019, Wednesday, November 13, 2019

### **Best Practices on Application and Selection (BPAS)**

BPAS: File Review – Tuesday, November 12, 2019

BPAS: Interviews – Tuesday, January 14, 2020

These sessions cover best practices for faculty, staff and residents who participate the CaRMS selection process.

### **Simulation Education Advisory Committee (SEAC) Symposium**

Thursday, November 14, 2019

The 2<sup>nd</sup> Annual SEAC Symposium was held at the Faculty Club. The SEAC Symposium aims to foster collaboration and discussion of education, research and technology within the medical simulation sphere. We hosted a stimulating half-day discussion and networking event bringing together physicians, health professionals, educators and researchers to discuss the latest developments in the simulation education community. Over 100 physicians, faculty, staff and allied health professionals attended.

### **4th Annual CBME/CBD Symposium - Wednesday, November 27, 2019**

Co-hosted by Post MD Education at the University of Toronto and the Centre for Faculty Development, Unity Health (St. Michael's Hospital), this symposium is focused on: Data informed performance decisions: The art and science for Competence Committees. We are delighted to welcome our keynote speaker, an international expert in this area from University of Colorado: Dr Janet Corral Associate Professor, University of Colorado Denver - Anschutz Medical Campus. The agenda also included speakers from within the TAHSN and PGME communities to bring their perspectives. Almost 100 attendees joined this annual event.

### **Meet and Greet with Dr. Janet Corral – Thursday, November 28, 2019**

CBME/CBD Leads were invited to attend a focussed conversation with the plenary speaker, Dr. Janet Corral, from the previous evening's 4<sup>th</sup> Annual CBME/CBD Symposium.

### **All Program and Family Medicine Site Directors' Meeting**

Friday, December 13, 2019

Updates on CBME, Elentra, Accreditation and PAAC were provided. Dr. Gaetan Tardif delivered a presentation on CMA's Practice Management Curriculum Seminar offerings. There was a panel discussion on "Residents enabling CBME: Examples and ideas from PDs and Residents" with representatives from Obstetrics & Gynaecology, Psychiatry and Otolaryngology – Head and Neck Surgery.

## **All Program and Family Medicine Site Directors' Meeting**

Friday, May 22, 2020 – offered via Zoom

Updates on Postgraduate Wellness, SMART, Visa Trainees, Elentra and Accreditation 2020 were provided in light of the impacts from the COVID-19 pandemic. Dr. Melyn Leszcz from Sinai Health System spoke on "Leadership in Tough Times" and Dr. Dan Cass from Sunnybrook provided his "Perspectives from the Nerve Centre of Toronto COVID Planning".

## **Preparing for the Accreditation Visit**

Offered five times between September 15 to October 6, 2020

This workshop is designed to prepare programs for the virtual RCPSC and CFPC Accreditation visit in Nov 2020. This will include how to prepare your documents for an on-line review as well as how to prepare your faculty and residents for the virtual review. Use of the virtual platform will be discussed as well as other logistics of the review.

## **Physician Wellness Symposium (Planning)**

This biennial symposium is currently in the planning stages for the upcoming June 2021 symposium. We will be adjusting the format and delivery for this symposium.

## **Resident Education, Development and Forums**

**Health Humanities Writing Group** – Monthly workshops facilitated by Damian Tarnopolsky from September 2019 to May 2020. Began in-person and transitioned to online offering. Typical workshop sessions will include some combination of: in-class writing exercises; discussion of a published health-related piece (short story, personal essay, etc.); discussion of theory and practice of narrative medicine as related and experienced by participants; sharing of written work by participants with guided feedback on same; visits by guest speakers working in other artistic genres and cognate fields. There will also be ongoing discussion of and collaboration on related opportunities and events in the health humanities.

## **Resident Leadership Forums**

Find your 'Why' – November 12, 2019

This session was led by Stephen Shedletzky, who spoke on "Find your 'Why'" - how to find your personal 'why' and bring it into your career and organization. Stephen Shedletzky works in a leadership position with Simon Sinek, author of Start With Why: How Great Leaders Inspire Everyone to Take Action, and other notable books.

A Conversation with Dr. David Naylor – Tuesday, February 4, 2020

This session was led by Dr. David Naylor, who spoke on the elements of both big and small L leadership, particularly as they apply to medical training and beyond, based on his 30 years of experience in medical leadership positions. Dr. Naylor (OC FRCPC FRSC) is former Dean of the Faculty of Medicine and President of the University of Toronto. He is ICES scientist emeritus and founding CEO. In 2016, he was inducted into the Canadian Medical Hall of Fame.

## **Cinema Medica**

Adaptations of Aging: Torching the Dusties & Piano Lessons – Tuesday, November 26, 2019



This event featured a screening of two short films about aging, featuring adaptations of literary texts by Margaret Atwood and Alice Munro. Filmmaker and educator Marlene Goldman joined us after the screening for a conversation about the art of adaptation, person-centered narratives of aging and, and film as a vehicle for knowledge translation and empathy.

### **Workshop: A New Way of Seeing — How to Read & Discuss Film**

Saturday, December 7, 2019

Film and television are powerful media for storytelling, making use of a wide range of expressive tools to convey meaning and to evoke emotional responses. This workshop offered a practical introduction on how to engage more deeply with film in both individual and group settings. Through a series of interactive exercises and guided viewing, learn strategies and descriptive language for performing a close reading of a film—examining aspects of form and narrative—and leading, or participating in, group discussions about film. This session was facilitated by Elyse Leonard, TIFF

### **University of Toronto Resident Accreditation Workshop**

Wednesday, February 19, 2020 & Thursday, February 20, 2020

RDoC and PARO partner with PGME in the delivery of an accreditation workshop for resident doctors took place in advance of the comprehensive accreditation review of the University of Toronto that will happen in November 2020. Broadly, the goal of this workshop was to inform and empower residents to maximize the opportunity accreditation presents, including by working with their programs to make them the best they can be ahead of the on-site visit.

### **New Resident Reception – Thursday, June 25, 2020**

Our annual event was moved online to welcome our incoming trainees to the University of Toronto community.

### **Chief Resident Leadership Workshop – Tuesday, August 11, 2020**

The 15<sup>th</sup> Annual Chief Resident Leadership workshop was offered online this year.

Dr. Patricia Houston delivered the Welcome Address and Dr. Isaac Bogoch joined us from Infectious Diseases at Sunnybrook to deliver the keynote address. Dr. Reena Pattani spoke on her new role in Learner Experience and Dr. Julie Maggi from Postgraduate Wellness spoke on supporting trainees as the Chief Resident. PARO representatives covered common questions and issues and Dr. Linda Probyn, the academic lead for this event, gave an overview of the responsibilities of the Chief Resident in an Accreditation year. Break out rooms gave attendees the opportunity to speak with a few of speakers in a more private non-recorded format.

### **Program Administrator Development and Information Sessions**

**Royal College & CaRMS – Friday, November 8, 2019**

Representatives from the Royal College and CaRMS joined these sessions. The Royal College provided an in-depth overview of the different pathways to credentialing. CaRMS provided an overview of recent systems changes and newly released help resources. Both representatives were available to answer specific questions from attendees.

### **PARO & CBME/CBD Panel – Monday, November 18, 2019**

PARO representatives provided an overview of their association and an interactive question and answer period addressing common questions and issues. Program Administrators from programs that have implemented CBD brought their perspectives on implementation and management of the new responsibilities required.

### **Wellness Retreat – Tuesday, February 25, 2020**

The morning will focus on navigating trainee wellness and will be facilitated by Drs. Maggi and Flett from Postgraduate Wellness. After lunch, we'll focus on personal wellness and stress management, providing you with an opportunity to get out of your chairs with an active wellness break and wrap up the afternoon with a session on mindfulness.

### **New to PGME for Administrators – Thursday, March 5, 2020**

Program Administrators who have been in their positions for less than 6 months or are new to supporting postgraduate medical education are invited to attend an overview of the key functional areas in PGME as well as an introduction to PAAC.

### **POWER – Preparing for the 2020-2021 training session**

Thursday, May 28, 2020 & Friday, June 5, 2020 – Offered virtually

This session was offered twice to prepare program administrators for the incoming cohort and reappointments in POWER.

### **Meeting with the Survey Team**

Offered eight times between October 13 and October 30, 2020

This workshop is designed to prepare Program and Site Administrators for the virtual RCPSC and CFPC Accreditation visit in Nov 2020. This will include how to prepare for the 15 minute meeting with the Survey Team and will review what questions are likely to be asked.

### **Leadership Certificate Program**

The Postgraduate Medicine Leadership Certificate Program (PGLC) is founded on the understanding that all physicians are leaders and play an important leadership role in health care. The PGLC, now in its second year, has built on the successes of the inaugural year in many ways. Applications for the 2020/2021 program were triple those compared to last year, attesting both to positive reports relayed by last year's participants, as well as increasing recognition across trainees in all programs that leadership capabilities are paramount to optimizing quality health care for individual patients and for society as a whole. This year we expanded our program to include fellows in addition to residents, for a total of 30 participants in the course, and we have introduced a facilitated near-peer mentorship program. As with much of medical education in the COVID world, we have successfully adapted to a virtual platform, and continue to feature a combination of informal fireside chats with medical leaders and interactive workshops. The virtual venue has given us the opportunity to open the fireside chat up to all undergraduate and postgraduate medical learners, as well as to launch a satellite program at Queen's University where we have 6 trainees and a local supervisor who participate remotely in

all our sessions. The University of Toronto's Postgraduate Medicine Leadership Certificate Program is unique in Canada and we are proud of its role in fostering medical leadership.

### **Graduation Ceremonies**

Due to the COVID-19 pandemic, all graduation ceremonies for exiting residents and fellows were changed to a virtual ceremony. This year, four departments held their graduation ceremony via a virtual platform, with the other departments postponing to future dates. Drs. Bandiera and Probyn provided welcoming remarks at these events. In previous years, graduation events were held in May and June at Hart House, The Faculty Club, Victoria University, Arcadian Court and other locations. Funding support for the events organized by clinical departments is provided in partnership with the Faculty of Medicine's Advancement Office.

### **Awards and Publications**

PGME continues to recognize members of our medical education community who are committed to the Faculty and Postgraduate Medical Education by acknowledging their efforts through various awards.

Recipients of the Fall 2019 **Medical Humanities Grant** are Dr. Najma Ahmed, Department of Surgery; Dr. Adelle Atkinson, Department of Pediatrics; Dr. Suze Berkhout, Department of Psychiatry; Dr. Eva Knifed, Department of Family and Community Medicine and Dr. Jory Simpson, Department of Surgery.

#### **Other Awards:**

- Excellence in Postgraduate Medical Education – Development and Innovation: Dr. Rafael Alonso-Gonzalez, Department of Medicine and Dr. Shirley Tse, Department of Pediatrics
- Excellence in Postgraduate Medical Education – Teaching Performance, Mentorship and Advocacy: Dr. Ian Johnson, Dalla Lana School of Public Health and Dr. Scott Walsh, Department of Medicine
- Charles Mickle Fellowship Award: Dr. Richard Reznick, Faculty of Health Sciences, Queen's University
- Sarita Verma Award for Advocacy and Mentorship in Postgraduate Medicine: Dr. Sharon Straus, Department of Medicine
- Robert Sheppard Award in Postgraduate Medical Education: Dr. Katherine Rouleau, Department of Family and Community Medicine

To review all of the PG award winners for 2019-20, please see <http://pg.postmd.utoronto.ca/about-pgme/awards/>

### **Publications**

McIntyre M, Alavinia SM, **Matlow A**. Implementation of a Pilot Leadership Curriculum for Physical Medicine and Rehabilitation Residents. Am J Phys Med Rehabil. 2020 Jun 9. doi: 10.1097/PHM.0000000000001482

The following were presented at CCME

- [https://mededconference.ca/sites/default/files/2020-CCME-VIRTUAL-Program\\_en.pdf](https://mededconference.ca/sites/default/files/2020-CCME-VIRTUAL-Program_en.pdf)
- [No resident left behind: Establishing the need for targeted mentorship for underrepresented residents in Canada -Mariela Ruetalo, Glen Bandiera 50887 Oral](#)

- [Are We Ready For What's Coming? Scholarship, Leadership and Continuing Professional Development - Paula Rowland, Walter Tavares50954Poster](#)
- [Effect of Station Format on the Psychometric Qualities of Multiple Mini-Interviews - Walter Tavares 50984 Poster](#)
- [How do healthcare professions develop competency frameworks?- Walter Tavares 51476 Poster](#)
- [A 'systems thinking' conceptual framework to explore clinical practice - Walter Tavares 51489Poster](#)
- [A 'systems thinking' conceptual framework to explore clinical practice - Walter Tavares 51489Poster](#)
- [Coping with Imposter Syndrome in Medical Training - Anita Gupta, Jaylin Bradbury 51744 Workshop](#)
- [University of Toronto \(U. of T.\) Postgraduate Medical Education: Competency-Based Medical Education Faculty Development Survey - Susan Glover-Takahashi 51815 Poster](#)
- [How do healthcare professions develop competency frameworks?- Walter Tavares 51476 Poster](#)
- [Arts and Humanities in Medicine: an Expanding Canadian Tapestry- Allan Peterkin Plenary](#)
- [Bringing the Patient Voice to Professionalism in Medical Education -Paula Rowland 51737 Oral](#)

## CaRMS

### PGY1 and Subspecialty Matches:

PGME had a very successful PGY1 CaRMS match in February 2020 and filled all of its 407 (337 CMG and 70 IMG) positions in the first iteration. An additional 2 supernumerary family medicine positions, targeted for students in military programs did not fill. In total 159 PGY1 positions were filled in Family Medicine and 248 in Royal College Specialties.

The Medicine Subspecialty Match (MSM) occurred in November 2019, with 68 positions filled across 12 subspecialties. Currently underway are the MSM and the Pediatric Subspecialty Match for 2021 with match dates of November 4 and November 18 respectively.

### CaRMS Initiatives:

CaRMS successfully implemented two new initiatives for 2020: 1) Best Practices in Applications and Selection to enhance transparency and clarity of selection processes based on more detailed program descriptions and (2) On-line interview notification system to improve the reliability of communications to applicants about their application status. Both initiatives were received very well and are being reviewed for further improvements.

### CaRMS Planning for 2021

As a result of COVID-19, the AFMC Residency Matching Committee, through working groups have developed: (1) a new compressed PGY1 CaRMS timeline, (2) a Virtual Promotion Guide to assist residency programs in promoting their features (3) an online Residency Promotion tool (CanPREPP) and a web-based Event Scheduling platform for programs to publicize events related to their CaRMS activities.

## **Best Practices in Applicant Selection (BPAS)**

PGME continues to implement the best practices and principles of the BPAS report. An audit of selected programs was completed in 2019 to ensure compliance with the guidelines, and PGME will continue with ongoing audits of our programs. We have begun work on BPAS 2.0 which will incorporate changes to the selection including modifications of the interview process to virtual interviews. PGME has scheduled BPAS workshops for the File Review and Interview in 2021 to align with the new PGY1 entry CaRMS timeline that has been adjusted due to COVID. An additional workshop was given to the Family Medicine Enhanced Skills Program Directors, as the Category 1 programs have transitioned to using the CaRMS process for the first time. Since the adoption of BPAS by the Association of Faculties of Medicine of Canada (AFMC), Faculties of Medicine continue to report on their progress regarding progress of implementation in their programs.

## **PGME International**

PGME continues to focus on the diversification of the sponsorship portfolio, and our concierge service to sponsored applicants for postgraduate training. One on one sessions are ongoing with prospective applicants focusing on engagement, support and advising on applications. Relationships with international partners continue to evolve, and new relationships developed. PGME will continue digital engagement strategies while building on long lasting relationships.

Due to COVID-19, many of our incoming international trainees were unable to travel to Toronto to begin their training programs. This affected programs across our system with trainees not being able to enter Canada and outgoing trainees unable to return home. PGME and the Central University Government Relations Team collaborated in advocacy efforts for Immigration Refugee and Citizenship Canada (IRCC) to deem our incoming trainees essential workers. The advocacy efforts proved successful, but still left many of our incoming doctors unable to cross the border due to airport closures and application centre closures.

Thanks to a generous donation to the Faculty of Medicine from the Temerty Foundation, the "Dean's COVID-19 Priority Fund", PGME was able to seek support to assist our incoming trainees with housing for the 14 day self-isolation period upon their arrival in Toronto and additionally assist programs in extending trainees to stay in Toronto who were unable to return home.

We are proud of our PGME staff who worked diligently to assist our trainees and programs during this difficult time, and were able to do so while working remotely and keeping safe.

## **Global Health**

[Global Health \(GH\) at Postgraduate Medical Education](#) delivers innovative training programs and provides educational for post-graduate trainees across all residency and fellowship programs at UofT. Our goal is to develop leaders in global health education, research and practice, reflecting the Faculty of Medicine's commitment to local and

global social responsibility and accountability.

Global Health at PGME is led by Judy Kopelow, Global Health Manager, Strategic Initiatives, and Dr. Barry Pakes, Global Health Academic Lead. The PGME Global Health Education Sub-committee, which reports to the Postgraduate Medical Education Advisory Committee (PGMEAC), provides oversight and facilitates collaboration by engaging global health leaders from across the Faculty of Medicine. Our leadership, guidance and training initiatives include: the Global Health Education Initiative (GHEI), Global Health Day, the Global Health Research Symposium, postgraduate Global Health Electives support, including pre-departure training and preparation, and a COVID-19 Global Health Series. The PGME GH portfolio also supports the development and adjudication of Global Health related awards, including the Sheppard Humanitarian Award and Social Responsibility Awards for both faculty and trainees.

All PGME GH education initiatives seamlessly transitioned to virtual learning on March 16. While we look forward to the return of in-person collaborative learning, virtual learning has created opportunities for more residents and fellows to engage with Global Health concepts and approaches; especially during these challenging times.

## **New Initiatives**

### **Global Health and COVID-19 Series**

The [Global Health COVID-19 series](#), was developed offered early in the pandemic from March through July 2020. Residents and fellow from across disciplines, all working front-line, participated in the sessions by global health leaders, and faculty with expertise in mental health and wellness, among others. Evaluations of the COVID-19 sessions confirmed that the series provided not only critical information, but also a supportive learning community for residents, fellows and faculty, during the early COVID-19 response period.

### **Global Health Education Program for MD Students**

Building on the success of the GHEI program for residents, the PGME GH leadership was asked to engage with the MD program to assess the need for, and develop a Global Health program for medical students. After completing a needs assessment, and with contribution from a medical student working group, Ms. Kopelow and Dr. Pakes developed the Global Health Education Program (GHEP). The program has launched as a 16 module certificate program for 1<sup>st</sup> and 2<sup>nd</sup> year medical students. The call for Application and program details can be seen [from this link](#).

### **Ongoing Programming**

The PGME GH Education Initiative (GHEI) is now in its 11th year. This 2-year certificate program includes 29 modules (2-3 sessions per module) offered annually. Over 120 residents are current participants and our program engages over 100 faculty in delivering sessions each year. Many of our faculty are GHEI graduates eager to share their experience and knowledge with the next generation. The full program can be seen [from](#)

[this link](#). New offerings in 2020-2021 include Modules on Pandemics, Indigenous Health and Diversity, Equity and Allyship. We also continue to support and offer continuing global health education and leadership opportunities for GHEI alumni and PGME community.

As PGME transitions to Competency Based Medical Education, residents are encouraged to include competencies met during the GHEI program in their training portfolios. Examples of activities that demonstrate competence are: completion of self-reflections related to GHEI sessions, description of leadership roles, participation in the PGME Global Health Research Showcase and PGME Global Health Day. Participating in the GHEI program allows residents to achieve competency in areas of global health and meet the training objectives as detailed [from this link](#).

The annual PGME Global Health calendar includes a variety of [education events](#) including the Annual Resident Global Health Research Showcase (February 4, 2021), the Annual Global Health Day (May 26, 2021) and regular GHEI Alumni events with keynote speakers and discussions. Each of these events engage resident leaders through a resident planning committee. Visit Global Health at PGME [from this link](#).

## D. Continuing Professional Development

### 2019-2020 Enrollment

During the 2019-2020 academic year, CPD accredited 307 programs and conferences that reached a total of 48, 434 learners.

### COVID-19 Response

With support from the Dean's COVID-19 Response fund, the CPD team pivoted to support physician education around COVID-19. CPD established an internal working group who worked closely with the CPD leads in the clinical departments to coordinate efforts and develop general and specialty-specific education initiatives. Activities included:

- The development of a **COVID-19 Website** to serve as hub for education and clinical resources (<https://www.cpd.utoronto.ca/covid-19/>)
- Creation of a **COVID-19 Resource Library**, a searchable database constraining 180 curated resources and clinical supports from trusted sources; includes both general and specialty-specific resources as well as information to support virtual care and wellness
- Delivery of a **COVID-19 Webinar Series**, which offered 44 different webinars on a range of topics including variety of specialty-specific clinical topics related to COVID-19, virtual care, wellness, COVID-19 impact on care for adults with IDD, and the EDI implications of COVID-19
- Establishment of a special **CPD Response to COVID-19 Fund** (CPD-CRF) to support research and innovation in education (see below)



- Support for Program Directors and Conference Chairs in **Transitioning to a Virtual Learning Environment** (see below)

## Pivot to Digital

### Digital Programs and Conferences

COVID-19 resulted in the cancelation and postponement of many live conferences and programs. As the extent of the pandemic became apparent, CPD rapidly developed capacity and expertise in the delivery of digital conferences and programs. Recognizing the importance of delivering a high-quality learner experience that replicated attending a live in-person activity, CPD procured a conference platform that allowed for integrated live-streaming of sessions, workshops, attendee networking, posters, and sponsor exhibit halls. Program Directors and Conference Chairs looking to take their CPD programs online are encouraged to contact Christopher Chipman, CPD's Business Development Officer at [chris.chipman@utoronto.ca](mailto:chris.chipman@utoronto.ca).

### Resource Development

CPD has been actively engaged in developing tools and resources useful for Faculty to make a successful pivot to digital delivery of programming. Starting prior to the physical closure of the Faculty in March, CPD initiated support to the CPD community through development of a [Quick Tip](#) resource about accreditation requirements for online programming, and followed with a number of other newly developed Quick Tips related to the digital pivot.

CPD has also been able to provide consultation to Program Directors and Conference Chairs through both our Education Consultant Dr. Kate Hodgson and our newly appointed Faculty Lead, Educational Technology in CPD, Dr. Heather MacNeill. One of the strengths of CPD is our ability to provide helpful and meaningful consultation to aid in the development of robust and successful programming. To date, there have been over 100 consultations, the majority supporting program directors pivot to digital delivery.

Dr. MacNeill has also been foundational in developing a soon-to-be-released collection of online videos about transitioning to online learning. Based on a COVID-19-series webinar titled: *Virtual Synchronous Teaching Using Zoom*, the new expanded series will offer best practices and practical tips to CPD developers on the development of synchronous online learning.

## Awards, Research and Development Grants

### Research and Development Grants

Supported by the Dean's Covid-19 Fund and with additional funds made available by CPD, a call was sent out for applications to the CPD COVID-19 Response Fund aimed at projects related to COVID-19 and CPD. The response from the community was impressive, with 26 applications received for funding. In May, an announcement was made for the following [7 projects](#) that received funding:

1. *Re-Deployment in Response to COVID-19: Knowledge Mobilization for Occupational and Physiotherapy*. PI: Dr. Sylvia Langlois. Team: Mylopoulos M, Switzer-McIntyre S, Tassone M.
2. *Awareness and capacity strengthening of African rehabilitation professionals on COVID-19 to optimise health services in African contexts*. PI: Dr. Lynn Cockburn.



Team: Ngeh E, Chigbo N, Whitehouse Z, Mukaruzima L, Sichela J, Musago K, Kitur R, Lindelwa, Belay M, Kamere C, Shirima R.

3. *Creating and Sustaining the Pivot to Virtual Primary Care: Implementation and Evaluation of the Virtual Care Competency Training Roadmap (ViCCTR)*. Pls: Drs. Nikki Woods, Risa Freeman. Team: Kulasegaram M, Mylopoulos M, Rowland P, Rojas D, Murdoch S, Grundland B, Papadacos T, Paul R, Moaveni A, Whitehead C.
4. *Rapid Knowledge Mobilization in Response to the COVID-19 Pandemic*. PI: Dr. Paula Rowland. Team: Lowe M, Tripp T, Richardson J, Anderson M, Oja L, Tavares W, Woods N, Ng S.
5. *Evaluating Rapid Implementation of Educational Resources During a Pandemic: The Case of the Quick ICU Training for COVID-19 Initiative*. Pls: Drs. Ryan Brydges, Dominique Piquette. Team: Ng S, Onurya B, Spring J, Cuthbertson B.
6. *Experiencing Covid-19 through virtual reality: The patient's perspective*. PI: Prof. Lisa DiProspero. Team: Thomson H, Legere L, Harth T, Parzanese M, Rashleigh L.
7. *Rapid Upscaling of Psychiatric Virtual Care Education in Response to COVID-19*. PI: Dr. David Rojas. Team: Paul R, Whitehead C, Vigod S, Wasserman L, Barker L, Wright E.

### **CPD Awards**

CPD annually recognizes and celebrates faculty members who demonstrate excellence in research, teaching, scholarship, innovation, teamwork, and long term commitment to CPD. CPD congratulates the following 2018-2019 [CPD award winners](#) for their impactful contributions to CPD:

*Mark Feldman – Rene Wong – Kenneth Fung – Savithiri Ratnapalan – Anupam Thakur – Claire Acton, Kate Hayman and Evelyn Dell – The Centre for Interprofessional Education and EHPIC Faculty – Branka Agic and the Provincial System Support Program (PSSP) Project Team*

### **Appointment Announcements**

CPD welcomed two new faculty members. Dr. David Wiljer is a Professor, Department of Psychiatry and Radiation Oncology in the Faculty of Medicine and Executive Director, Education, Technology & Innovation at University Health Network. He joined CPD in March 2020 as the Academic Director, CPD with a focus on advancing CPD scholarship and research. Dr. Heather MacNeill was appointed Lead, Educational Technology, CPD in July 2020. She is an Associate Professor in the Department of Medicine and a Staff Psychiatrist at Bridgepoint Active Healthcare.

## E. Graduate and Life Sciences Education (GLSE)

### Undergraduate Life Sciences Education

#### Events

##### **Special Session for Domestic & International Undergraduate Students Considering Course-Based & Professional Master's Programs**

We have a captive audience of domestic and international students at U of T (across 3 campuses) and GLSE is organizing a special event to meet representatives from our course-based and professional programs that are offered in the Faculty of Medicine. This recruitment session will start with Dr. Allan Kaplan, Vice Dean, Graduate and Academic Affairs, giving opening remarks, followed by a representative from the School of Graduate Studies to talk about services for domestic and international students. Each department will have a chance to present their program and field questions. The event will be held on October 14, 2020 at 12:00 pm-1:30 pm via zoom.

#### **Programs include:**

Biomedical Communications  
Applied Immunology  
Medical Genomics  
Genetic Counselling  
Laboratory Medicine and Pathobiology  
Medical Physiology  
Applied Clinical Pharmacology  
Physical Therapy  
School of Graduate Studies  
Speech-Language Pathology  
Translational Research

##### **Ninth Annual Graduate Recruitment Fair in the Faculty of Medicine**

In collaboration with the Human Biology Student Union, the recruitment fair will be held on November 4, 5, 2020 via zoom at 10:00 am – 4:00 pm. Exhibitors in attendance will include our undergraduate and graduate units, and the School of Graduate Studies.

##### **Graduate and Professional Schools Fair**

GLSE attended the Tri-Campus University of Toronto Mississauga and University of Toronto Scarborough Graduate and Professional Schools Fair on September 22, 2020. We provide support to the 13 graduate departments.

##### **Additional Recruitment Fairs**

National Institute of Health (NIH) August 5, 2020  
University of British Columbia September 25, 2020

## **Discussion in Best Practices in Applying to Summer Research, Jobs and Graduate schools**

The GLSE Seminar will be presented by Dr. Nana Lee. Students will learn how to construct a research-focused resume or CV and enhance their academic career perspectives – for grad school, research opportunities, and beyond on January 15, 2021 11:00 am – 12:00 am via zoom.

## **Awards**

### **Undergraduate Faculty Teaching Awards**

Graduate and Life Sciences Education, Faculty of Medicine in partnership with the Basic Science Departments and Institutes in the Faculty will award four annual Undergraduate Teaching Awards in Life Sciences in four categories. The purpose of these awards is to honour outstanding and sustained contributions by faculty members to undergraduate Arts and Science teaching and the undergraduate experience in Life Sciences. The awards carry a cash value of \$1,000 each and will be presented at the Faculty of Medicine Annual Education Achievement Celebration. Award Deadline: January 29, 2021

- Excellence in Undergraduate Teaching in Life Sciences  
2019-2020 - Douglas Tweed, PhD, MD -Department of Physiology
- Excellence in Undergraduate Laboratory Teaching in Life Sciences  
2019-2020 - Nohjin Kee, MSc, PhD - Department of Physiology
- Excellence in Linking Undergraduate Teaching to Research in Life Sciences  
2019-2020 - Denise Belsham, PhD, MD - Department of Physiology
- Sustained Excellence and Innovation in Life Sciences Education  
2019-2020 - Carin Wittnich, DVM, MSc - Department of Physiology

### **GLSE Undergraduate Leadership Awards**

Graduate and Life Sciences Education, Faculty of Medicine awards three annual Undergraduate Student Leadership Awards in Life Sciences. The purpose of these awards is to provide opportunities for our undergraduate students in the Faculty of Medicine, Arts and Science Programs to be recognized for their leadership and scholarship. Deadline TBA. Awardees this past year include:

Michael Lee, Laboratory Medicine and Pathobiology  
Laura Tang, Laboratory Medicine and Pathobiology  
Mindy Lam, Biochemistry

### **GLSE Undergraduate Summer Research Project Studentship**

GLSE awards eight annual summer research project studentships per summer to support third or fourth year specialist and/or major students in our Basic Science departments and in Laboratory Medicine and Pathobiology. This is a 12 full week summer program, normally between May 1 and August 31, 2020. Starting 2018, support from GLSE is set at \$2,000 per student and the student must be guaranteed at least an additional \$2,000 in

compensation from other sources managed by sponsoring department. Deadline: TBA

### **Undergraduate Research Opportunity Program (UROP)**

UROP awards TBA will be allocated to 9 departments within the Faculty of Medicine. Support is set at \$2,000 per student. The students must be guaranteed at least an additional \$2,000 in compensation from other sources managed by the sponsoring department / centre / institute / program, and are expected to engage in full-time research for at least 12 weeks in the summer. Deadline: TBA

### **University of Toronto Excellence Awards (UTEA NSERC & SSHRC)**

University of Toronto Excellence Award (UTEA) program is funded by the Vice-President Research. The UTEA program provides eligible undergraduate students with opportunities to conduct summer research projects under the supervision of eligible U of T faculty members research term required is 14 weeks.

The value of a UTEA-NSE award this year is \$6,000 of which \$4,875 is covered by funding from the Vice-President Research and Innovation. Divisions are required to provide minimum \$1,125 top-up funding for each UTEA-NSE award. Research Services may request backup documents demonstrating this matching requirement is met at the time of award.

The value of a UTEA-SSH award this year is \$6,000, all of which is covered by funding from the Vice-President Research and Innovation. Top-up funding for UTEA-SSH Awards is optional. Deadline: TBA

Pharmacology and Toxicology (2)

Molecular Genetics (2)

Speech-Language Pathology (2)

### **Mentorship Program - Undergraduate and Graduate**

**GLSE Undergraduate Shadowing Program** Graduate and Life Sciences Education is committed to organizing events that will help undergraduate students discern their future career paths. The program aims to give undergraduate students in the Life Sciences an opportunity to appreciate the innovative research conducted in the Faculty of Medicine. We will be pairing graduate students from across the 13 different graduate programs offered in the Faculty of Medicine.

Graduate mentors will give an overview of the nature of their research and how it may tie in with concepts undergraduate students have learned in their lectures. Additionally, students will have an opportunity to shadow graduate students as they perform their experiments and daily tasks. The shadowing program will be held in February 2021 and will happen again in June and July 2021.

### **Creating Mentorship Impact: Graduate Student Mentorship Program**

This Program is in partnership with Dr. Nana Lee, Director of Graduate Professional Development in order to improve graduate mentorship at the Faculty of Medicine. This program aims to give mentees an opportunity to appreciate the innovative research

conducted in the Faculty of Medicine and learn from senior colleagues' perspectives in graduate training and developing as a whole scientist and career preparation. Dr. Nana Lee will share best practices of the mentorship programming with other departments and student associations so we can all learn from each other. The seminar will be held on October 2, 2020.

### **Social Media**

The GLSE Instagram Working Group (@ScienceTOu, established in November 2017) is comprised of staff and undergraduate and graduate students in the Basic Sciences and Rehab, working together to showcase outstanding scientists at the Faculty of Medicine. Several new students were recruited for 2020-2021.

### **GLSE Talks: One Minute Video Competition**

GLSE video competition is for all undergraduate and graduate students undertaking a research project. The competition invites students to showcase their ongoing (or potential) research projects in a brief and creative one-minute video presentation. The competition winner Saba Sadeghi, Nutritional Sciences and Human Biology (4th year undergraduate), Limited Ultrasound for Appendicitis and Marina Nikolopoulos, Institute of Medical Science (1st year MSc), Designing tools to predict tumour progression in glioblastoma.

### **Canadian AMGEN Summer Program**

The Amgen Scholars Canada Program is a fully-funded opportunity for undergraduate students across Canada to participate in innovative biomedical research with world-renowned faculty at the University of Toronto. Over the course of this 10-week program, Amgen Scholars will develop the skills necessary for graduate school and for careers in science through a combination of hands-on research alongside faculty, post-doctoral fellows and graduate students, participation in lab and professional development activities, and relationship building.

During the program, the 15 Amgen Scholars will be housed at U of T's historic St. George campus in downtown Toronto. Amgen Scholars will be encouraged to explore the remarkable diversity of the city and the surrounding region through social and community-building events. This past summer's program was cancelled due to COVID. Deadline for Summer 2021: TBA.

## **Graduate Education**

### **Graduate Awards**

#### **a) Faculty of Medicine (FoM) OSOTF, GSEF, PPEF, Departmental Endowed Awards and Expendable Awards**

- 23 FoM-wide OSOTF, Expendable and Other Endowed Funds were adjudicated by the FoM Graduate Awards Committee (and 4 sub-committees) chaired by the Vice Dean, Graduate and Life Sciences Education (GLSE) in June and July

2020 with over \$764,000 awarded to graduate students for the 2020-21 academic year.

- 268 OSOTF, GSEF, PPEF, Departmental Expendable and Endowed Funds with over \$16.1 million was distributed to 20 graduate units and centres, 11 clinical departments, and 8 affiliated hospitals (total 39) for distribution for the 2020-21 academic year.
- A total of \$3,670,735 University of Toronto Fellowships was distributed in May 2020 to 10 graduate units for 2020-21 graduate students funding.
- 68 QEII-GSST (49 doctoral-stream awards and 19 clinician/surgical-scientist trainee awards) at \$15,000 each were distributed for the 2020-21 academic year (total \$1,020,000).
- \$423,922 Doctoral Completion Award (DCA) has been allocated to 10 graduate units for 2019-20 academic year. The DCA is to support full-time PhD students who are beyond the funded cohort and within time-limit for the degree.
- \$210,378 plus additional \$824,242 (in lieu of the UTAPS program) was distributed to 5 graduate units with professional masters programs and 3 graduate units with course based masters in June 2019. Effective July 1, 2017, the Professional Master's programs (not including course based) in the Faculty of Medicine has phased out of the University Advanced Planning for Students (UTAPS) and transitioned to a divisionally managed program.

#### **b) FoM GSEF Merit Scholarships for International Students**

The Office of the Vice-Dean, GLSE, adjudicated the fifth year of merit-based scholarships valued at \$5,000 each to international master's students entering their second year of studies in 2020-21. Four scholarships were awarded.

#### **c) External Studentships**

Over 25 graduate studentships, including CIHR CGS D and other external doctoral research awards are paid through GLSE via ROSI to doctoral-stream students with Principal Investigators affiliated with the Faculty of Medicine.

#### **d) Graduate Faculty Teaching Awards**

The Graduate Faculty Teaching Award Competition deadline will be December 1, 2020. Six awards will be adjudicated by the FoM Graduate Awards Committee in three categories:

- Early Career Excellence in Graduate Teaching & Mentorship
- Mid-Career Excellence in Graduate Teaching & Mentorship
- Sustained Excellence in Graduate Teaching & Mentorship

Each awardee will receive a framed certificate and \$1,000 cash prize.

### **e) Postdoctoral Fellowships**

The Faculty of Medicine Postdoctoral Fellowships Review Committee adjudicated the 2020 Banting Postdoctoral Fellowships in August 2020 and forwarded 10 nominations to the University for submission to the CIHR and NSERC agencies for nation-wide review. Each Fellowship is worth \$70,000 per year for two years. The Vanier-Banting Secretariat will notify applicants of the results of their application in February 2021. Last year, the following were awarded the Banting (CIHR) Postdoctoral Fellowship:

- Dr. Kyle Burrows supervised by Dr. Arthur Mortha at Immunology
- Dr. Vitor Hugo Balasco Serrão supervised by Dr. Jeffrey Lee at Laboratory Medicine & Pathobiology
- Elise Hovingh supervised by Dr. Stephen Girardin at Laboratory Medicine & Pathobiology

The *Provost's Postdoctoral Fellowship Program: Supporting Researchers from Underrepresented Groups* is announced through the School of Graduate Studies (SGS). This fellowship opportunity will hire postdoctoral fellows from underrepresented groups, specifically Indigenous and Black researchers located on U of T campus. The GLSE Office will widely advertise the program across the Faculty of Medicine in early Fall 2020.

Honorable mention: In the last competition (Winter/Spring 2020), Graduate & Life Sciences Education reviewed and forwarded the following 3 Provost's Postdoctoral Fellowship applications to the Dean of Graduate Studies and Vice-Provost, Graduate Education:

- Dr. Llana James and Dr. De-Lawrence Lamptey supervised by Dr. Stephanie Nixon at Rehabilitation Sciences Institute
- Dr. Chavon Niles supervised by Dr. Karen Yoshida at Physical Therapy

### **f) JJ Berry Smith Doctoral Supervision Award: Honorable Mentions**

The JJ Berry Smith Doctoral Supervision Award recognizes outstanding performance in the multiple roles associated with doctoral (PhD) supervision in the University of Toronto. Two awards are offered annually, one in the Humanities and Social Sciences and one in the Physical and Life Sciences. The FoM Graduate Awards Committee forwarded 2 nominations, Dr. Deirdre Dawson (OS&OT/RSI) and Dr. Catriona Steele (SLP/RSI) to the Dean of Graduate Studies and Vice-Provost, Graduate Education. This year they were not successful in the final competition, but in the past, there have been four winners of this prestigious faculty award in the Faculty of Medicine: Dr. Tania Watts (Immunology) in 2018, Dr. Ori Rotstein (IMS) in 2017, Dr. Eleftherios Diamandis (Laboratory Medicine & Pathobiology) in 2014, and Dr. Brenda Andrews (Molecular Genetics), the inaugural winner in 2012. Winners are celebrated the annual Governor General's Gold Medals and the JJ Berry Smith Doctoral Supervision Award Reception in May.

## Curricular Changes (as of September 2020)

### a) New Programs

Two new programs successfully started this Fall. Both the Master of Health Science in Laboratory Medicine and the Master of Health Science in Medical Physiology met its respective enrolment targets (i.e.  $n = 10$  and  $n = 15$ , respectively).

### b) Major Modifications

The PhD and MSc programs in Laboratory Medicine underwent a curriculum renewal exercise resulting in a major modification that was approved by Faculty Council in April 2020. One of the primary changes is the establishment of a foundational course, LMP1005H - Fundamentals of Research Practice, which will focus on providing practical information to help students navigate graduate school and succeed in their thesis.

The Department of Biochemistry is currently undergoing a curriculum review which will also see the establishment of at least one foundational course. It is anticipated this proposal will start governance in November 2020 and be approved by Faculty Council in Spring 2021.

### c) Modules

As part of its commitment to innovative curriculum, some graduate units in the Faculty of Medicine have successfully adopted "module-based learning" over the last 8 years. These modules are typically 6 weeks in duration and focus on a specialized topic to facilitate more customized and diversified student learning experiences. The number of modules has been growing across these basic sciences departments to provide individualized tailored learning opportunities to allow our students to thrive academically.

Historically, the student database, ROSI (Repository of Student Information) was not built to formally recognize courses that are less than the standard 13-week duration of a 0.5FCE course. However, an environmental scan was conducted in Summer 2019 to reveal that ROSI can now accommodate non-standard courses with varying course weights (e.g. 0.17 and 0.33 in Rotman).

In 2019/20, the GLSE embarked on converting over 40 existing, eligible modules into 0.25FCE courses. This decision was based on the following rationales:

- To increase the consistency and accountability for course quality as these courses can now be included in the University wide course evaluation on-line system
- To allow students to get acknowledgement for the course work they were completing as part of their program.
- To have the course formally appear on a student's transcript

The first phase of this project began with three departments (Laboratory Medicine and Pathobiology, Medical Biophysics and Institute of Medical Science). The second phase, starting Fall 2020, will include Biochemistry with the hope to include Molecular Genetics in the near future.



## Growth in Graduate Enrolment and Report on Fall 2020 Graduate Enrolment

Over the course of 7 years, the graduate student population has increased by 30% (measured in headcount). The most significant growth was seen in Professional Masters programs (both domestic and international) due to the start of two new programs (see above). The second highest growth was seen in international PhD students (17.7%) and domestic PhD students (6.8%).

There continues to be negative growth in international MSc students. This trend is expected to continue for two reasons:

- 1) The higher tuition rates for international MSc students relative to domestic MSc students and compared to international PhD students; currently there is a \$18,750 variance. Due to the Harmonized Stipend Agreement, PIs are responsible to cover this variance, one of several reasons why international PhD students are more favourable for recruitment.
- 2) GLSE's focused recruitment of doctoral students, both international and domestic. There was negative growth in MSc programs (both domestic and international).

Below is a breakdown of headcount by degree program for the last seven years.

### PhD Total Headcount (Domestic and International)

	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020
<b>Domestic (DOM)</b>	834	832	841	867	882	926	989
<b>Annual % Change</b>		-0.2%	1.1%	3.1%	1.7%	5.0%	6.8%
<b>7 YR % Change</b>							18.6%
<b>International (INTL)</b>	115	119	125	134	153	192	226
<b>Annual % Change</b>		3.5%	5.0%	7.2%	14.2%	25.5%	17.7%
<b>7 YR % Change</b>							96.5%
<b>Total PhD</b>	<b>949</b>	<b>951</b>	<b>966</b>	<b>1001</b>	<b>1035</b>	<b>1118</b>	<b>1215</b>

### MSc Total Headcount (Domestic and International)

	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020
<b>Domestic (DOM)</b>	650	715	793	885	844	846	767
<b>Annual % Change</b>		10.0%	10.9%	11.6%	-4.6%	0.2%	-9.3%
<b>7 YR % Change</b>							18.0%

<b>International (INTL)</b>	57	68	73	62	48	32	19
<b>Annual % Change</b>		19.3%	7.4%	-15.1%	-22.6%	-33.3%	-40.6%
<b>7 YR % Change</b>							-66.7%
<b>Total MSc</b>	<b>707</b>	<b>783</b>	<b>866</b>	<b>947</b>	<b>892</b>	<b>878</b>	<b>786</b>

### Professional Masters Total Headcount (Domestic and International)

PMAS	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020
<b>Domestic (DOM)</b>	476	495	524	549	606	608	744
<b>Annual % Change</b>		4.0%	5.9%	4.8%	10.4%	0.3%	22.4%
<b>7 YR % Change</b>							56.3%
<b>International (INTL)</b>	2	1	1	2	7	14	22
<b>Annual % Change</b>		-50.0%	0.0%	100.0%	250.0%	100.0%	57.1%
<b>7 YR % Change</b>							1000.0%
<b>Total PMAS</b>	<b>478</b>	<b>496</b>	<b>525</b>	<b>551</b>	<b>613</b>	<b>622</b>	<b>766</b>

In Fall 2016, the Faculty of Medicine pursued a 3-year focused effort to expand the graduate programs in Occupational Therapy, Physical Therapy and Speech-Language Pathology. The target was 20% and in Fall 2019, this goal was surpassed. This was possible through the expansion of the MScOT program to UTM, as well as the collective efforts of each department, both faculty and staff.

Rehabilitation Sector	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020
<b>Domestic (DOM)</b>	475	479	485	505	552	602	607
<b>Annual % Change</b>		0.8%	1.3%	4.1%	9.3%	9.1%	0.8%
<b>7 YR % Change</b>							27.8%
<b>Rehabilitation Expansion Plans (Fall 2016 – Fall 2019)</b>						<b>24.1%</b>	

## **FOM Rehabilitation Sector Strategic Planning Working Group**

Three reports have been submitted to reflect the activities pursued by three subcommittees:

- Curriculum Initiatives
- Clinical Teaching and Rehabilitation
- Expanding Rehabilitation Research

These reports will be aggregated for one final report, which will be finalized by end of October 2020.

## **Graduate Supervisory Experience Project**

Due to COVID-19, the Provost and Vice Provost – Students decided to delay all faculty evaluations until the changes related to COVID-19 would be mitigated. This includes the Graduate Supervisory Evaluation Experience Project. This will be revisited in Fall 2020, with the hope to administer the survey in early 2021.

## **Graduate Student Wellness Grant**

This grant was established in March 2020, with funds from the Office of Health and Wellness. Its primary goal is to support student lead measurable initiatives to improve or explore the well-being of graduate students. It encourages graduate students and faculty to work collectively across graduate units, to facilitate student mental health and well-being by developing innovative and sustainable initiatives to improve the overall graduate student life experience in the Faculty of Medicine.

A total of ten applications were received. After being reviewed by the Adjudication Committee, some applications were combined due to overlapping themes. In the end, all but one application received funding. The title of each project and a short description are provided below:

### **a) Graduate Peer Support Network**

**Participating Departments:** Immunology, Institute of Bioengineering, IMS, Laboratory Medicine and Pathobiology, Medical Biophysics, Nutritional Sciences and Pharmacology and Toxicology

**Description:** Creation of a faculty-wide peer support network with an accompanying seminar series on aspects of graduate life (i.e. challenges faced by graduate students) and physical exercise.

### **b) Let's Talk About Wellness**

**Participating Departments:** IMS, Pharmacology and Toxicology, Biochemistry and Physiology

**Description:** To provide informed expectations and tools for graduate students and supervisors in the Faculty of Medicine (FoM) that promote a healthy lab environment, specifically by facilitating a strong student-supervisor relationship and helping both students and supervisors develop the skills to contribute to a healthy lab environment.

**c) UT Grad Well**

**Participating Departments:** IMS, Molecular Genetics, Institute of Bioengineering

**Description:** Creation of a mobile application (i.e. UT GradWell) that uses a checklist-style interface that follows along with a student's degree timeline. It will serve to raise awareness of common issues in graduate school (beginning with supervisor-student relationships) and equip students with the skills and resources to become resilient to stress associated with them.

**d) The Art of Keeping Well: A Creative-Arts Hub for Graduate Students in Rehabilitation**

**Participating Departments:** Occupational Sciences and Occupational Therapy, Physical Therapy, Speech-Language Pathology

**Description:** To develop an arts-based mental health promotion program aimed at creating a supportive environment for self-expression, empowering students through arts-based, self-care strategies, and fostering meaningful connections through peer support.

**e) Crushing Imposter Phenomenon and Relieving Stress from Physical Distancing**

**Participating Departments:** Molecular Genetics and Medical Biophysics

**Description:** This proposal introduces an innovative initiative aimed towards minimizing patterns of Imposter Phenomenon, through a set of seminars and workshops for graduate students in the Faculty of Medicine. Seminars will focus on diversity in science by encompassing a diverse group of speakers and highlighting minorities.

## F. Medical Radiation Sciences Program

The following is a high-level summary of the activities of the MRS Program between January 2020 and end of the summer semester, July 24, 2020.

### Enrolment Numbers Year 1 Students:

	September 3 <sup>rd</sup> 2019	June 30 <sup>th</sup> 2020	June 30 <sup>th</sup> 2020 withdrawal	June 30 <sup>th</sup> 2020 on leave	June 30 <sup>th</sup> 2020 returning	Attrition (includes LOA)
Radiological Technology	37	36	1	1	1	97%
Nuclear Medicine	19	17	0	2	0	100%
Radiation Therapy	45	44	4	0	3	91%
<b>Total</b>	101	97	5	3	4	96%

At the end of the summer semester, July 24<sup>th</sup>, 2020 the MRS Program had a total of 263 students enrolled:

	Year 1	Year 2	Year 3 (convocated June 2 <sup>nd</sup> 2020)
Radiological Technology	36	38	35
Nuclear Medicine	17	13	12
Radiation Therapy	44	38	35
<b>Total</b>	97	89	82

### Changes to the MRS Program due to COVID-19

#### Clinical Impacts

The third-year clinical students were five weeks away from graduation when the clinical pause occurred on March 16<sup>th</sup> 2020. In consultation and working with our clinical partners to achieve the final competencies, all students were able to graduate on time. There was one exception; a NM student who was experiencing difficulty prior to the pause and was already delayed from graduating. All graduates were eligible to write the national certification exams on May 20/21, 2020, which were proctored.

The first-year radiological technology and radiation therapy students were due to go their first clinical in May and June. The Program declared an academic disruption to alter their program pathway whereby they completed two didactic courses from the winter/summer semesters of 2021. The clinical placement, with some minor changes,

has been moved to July 2021, so that all their clinical practicums will be completed concurrently, to complete April 2022.

The second-year nuclear medicine students were also due to go to clinical placement in May for 12 weeks for 4 days/week. The students reintegrated back into their clinical practicum on July 6<sup>th</sup> 2020 for five days/week. Whilst clinical was paused they continued to take a didactic online selective course.

### **Curriculum Impacts**

On March 16<sup>th</sup> 2020 the faculty transitioned the courses to a completely online format to complete the Winter 2020 term, and plan and deliver the summer didactic courses. With the use of Standardized Patient's and some simulation software, the faculty were able to maintain many of the assessments in line with the University's Policy on Academic Continuity. As technology driven professions delivering curriculum in an online format with no hands-on labs has had its challenges, but the faculty have risen to the occasion and have been creative in their delivery of the material.

### **Admissions Impacts**

When the pandemic was declared the Medical Radiation Sciences (MRS) Program needed to make immediate decisions on several of its activities, including the Multiple Mini Interviews (MMI's), that were scheduled for the end of April. Working in collaboration with the Undergraduate Medical Education (UME) and the Physician Assistant programs, and building on the experiences of the UME, the MRS Program substituted the in-person MMI into online admission interviews. A total of 225 interviewees submitted three videos each over a timed period, raters were recruited and reviewed the videos and the program was able to get the offers out to applicants on time.

### **University of Toronto Quality Assurance Process (UTQAP) Impacts**

The UTQAP review was to take place in October 2020. Due to COVID-19 the review has been set back to September/October 2021 in line with the departmental review of the Department of Radiation Oncology.

## G. Physician Assistant Program

### Admissions

This past January, the PA Program received the highest number of applicants to date, receiving 540 applications for the September 2020 entry. This is the first time since the September 2017 entry that the program has received over 500 applications.

	Jan 2010 Entry	Jan 2011 Entry	Jan 2012 Entry	Jan 2013 Entry	Jan 2014 Entry	Sept 2014 Entry	Sept 2015 Entry	Sept 2016 Entry	Sept 2017 Entry	Sept 2018 Entry	Sept 2019 Entry	Sept 2020 Entry
Applicants	160	152	236	215	259	244	413	388	515	433	465	540
Files Reviewed	117	71	91	90	91	107	190	251	304	317	276	440
Interviews	64	49	59	66	66	66	66	80	84	88	88	106
Admitted	24	14	21	30	30	34	29	30	30	28	32	30
Graduates	17	11	16	27	26	29	26	30	26	26		

### Retention

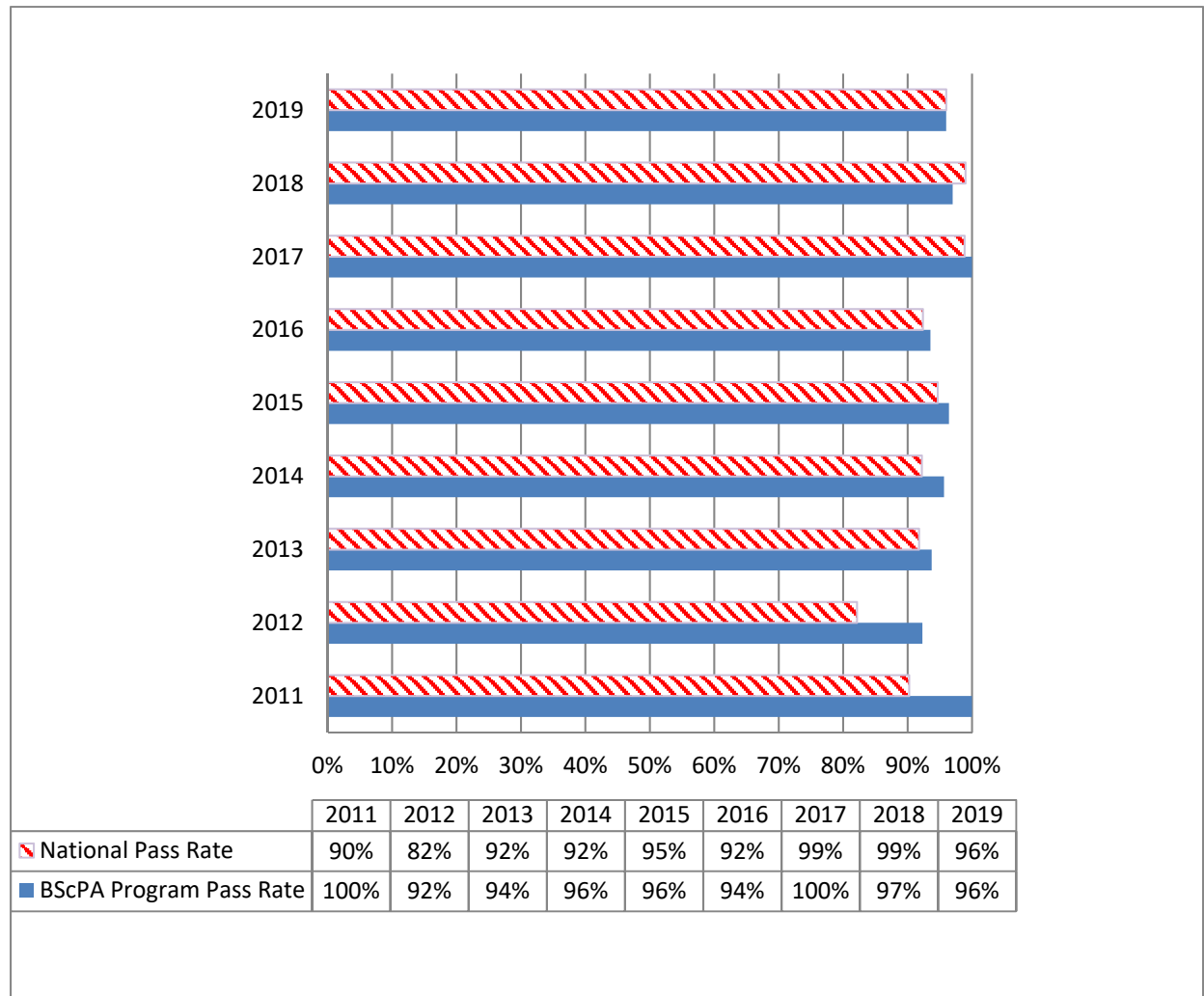
As indicated in the chart below, the retention rate for the program remains high. Students may take a Personal Leave of Absence from their admissions cohort and return to a new cohort should that be necessary for their success in the program.

Class of	# Admits	# Graduates	Retention rate
2011	24	17	71%
2012	14	11	79%
2013	21	16	76%
2014	30	27	90%
2015	30	26	87%
2016	34	29	85%
2017	29	26	90%
2018	30	30	100%
2019	30	26	87%
2020	28	26	93%
2021	32	32	100%
2022	30	30	100%
<b>Total</b>	<b>332</b>	<b>296</b>	<b>89%</b>

# of students active in cohort as of September 2020

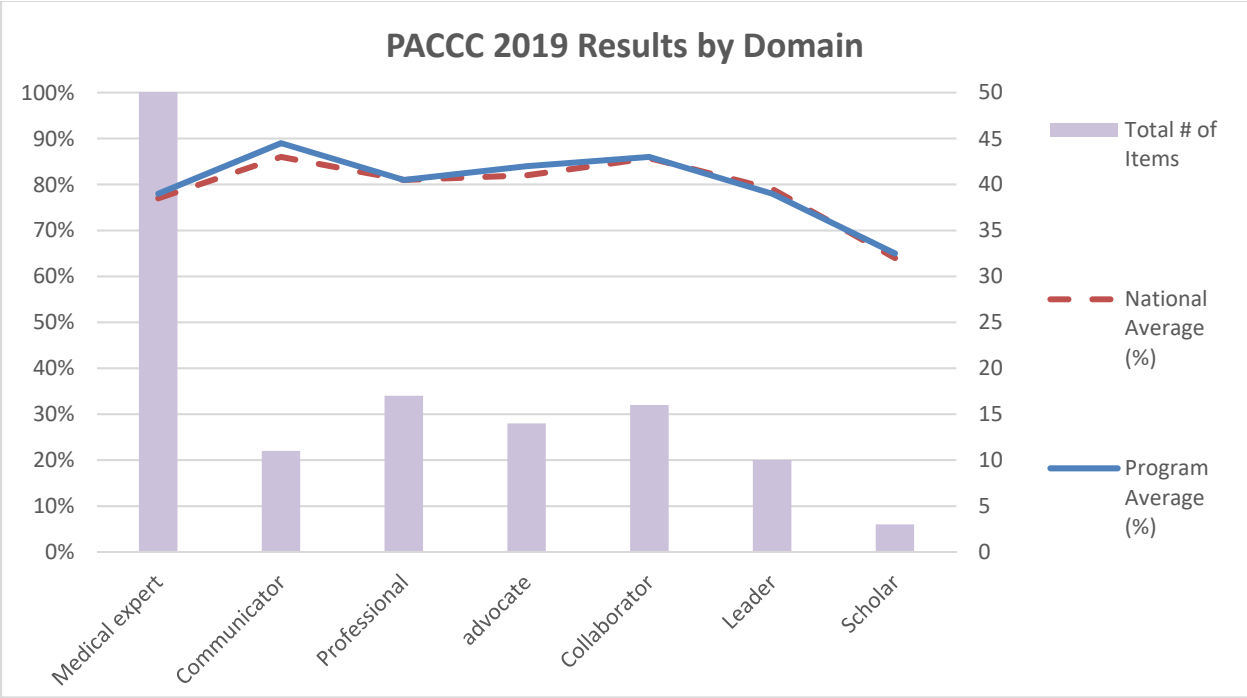
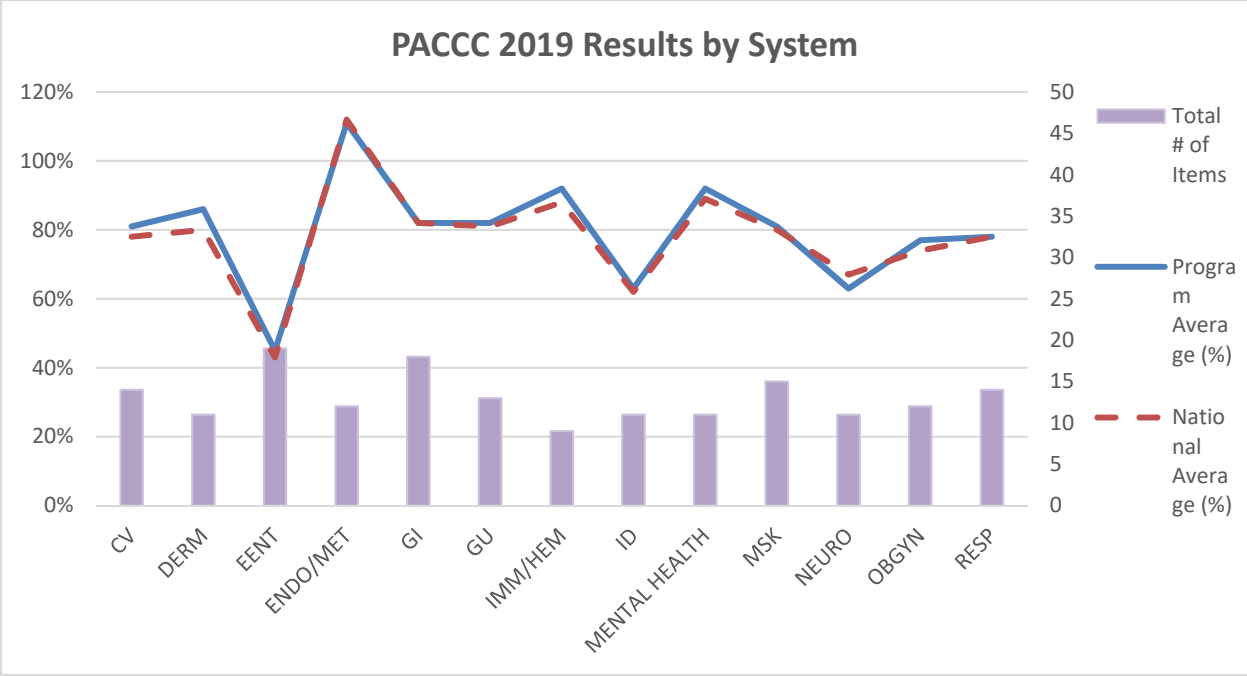
## National Certification Results

Graduates from the four Canadian Physician Assistant programs (three civilian, one military) write the national certification exam in November each year. The BScPA Program graduates represent approximately 30% of the total number of first time exam writers. To date, 96% of all BScPA Program graduates have passed the national certification exam. Due to the pandemic, the exam has been postponed to February, 2021 for the current graduating Class of 2020. The next three graphs have been updated with the results from our Class of 2019 graduates.



Exam data is provided by system as well as competency domain. The BScPA Program reviews this data each year as one of the means of informing curriculum adjustments.





**Graduate Employment**

As of March 17, 2020, we have confirmation that 23 of 26 graduates who completed their program August 2019 (Class of 2019) are employed as PAs.

In November 2019, it was announced that the administration of the Physician Assistant Career Start Program would be transferred from Health Force Ontario to the MOHLTC

Ontario Health, effective December 1, 2019, as per the Connecting Care Act. Career Start posted 75 PA jobs in November 2019. Since 2011, 78% of our graduates have secured their first job through the Career Start program. Provincially, we appear to have reached a situation of demand outweighing supply for physician assistants.

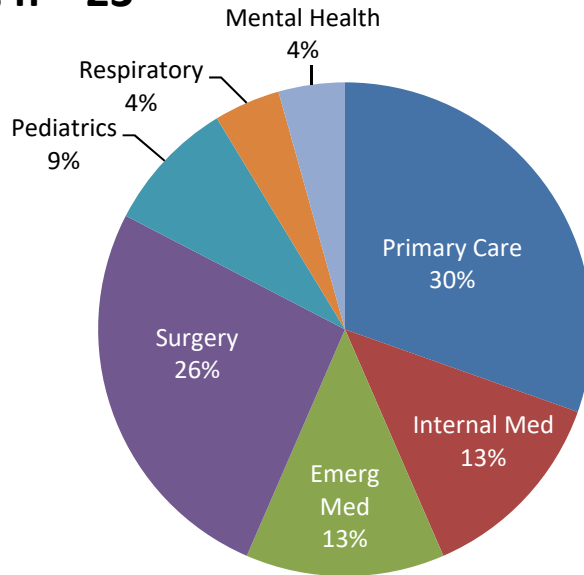
Program Completion year	Total # Grads	# Grads employed as PA within 6 months*	Known* Employment rate within 6 months
2019	26	23	88%
2018	30	29	97%
2017	26	22	85%
2016	29	28	97%
2015	26	17	65%
2014	27	26	96%
2013	16	15	94%
2012	11	11	100%
2011	17	17	100%

\*as known by the Program

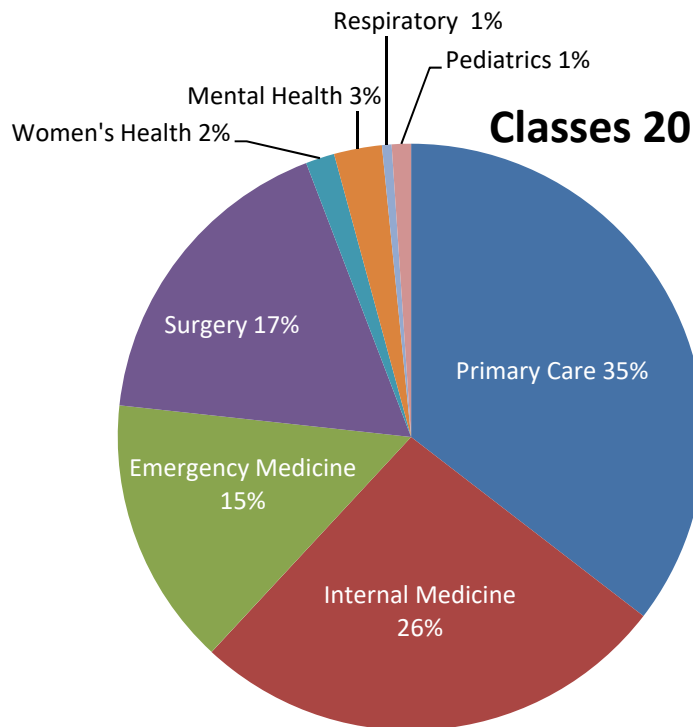
Primary Care consistently employs about 30% of our graduates, however an increasing number of our graduates are employed in Surgery, Internal Medicine and Emergency. Positions in many different disciplines have been emerging in recent years. Approximately 14% of our alumni are employed in Northern/rural areas.

Figure 1. Graduate Employment dispersion by discipline: Class of 2019 vs. all Graduates

**Class of 2019, n = 23**



**Classes 2011-2019 (n=188)**



## **COVID's Impact on Curriculum**

The last 6 months presented unprecedented challenges with the COVID-19 pandemic. Although our didactic curriculum is delivered primarily in an on-line distributed model, almost every aspect of the program was impacted, forcing us to find innovative ways to ensure learning objectives were met and program requirements were fulfilled. Some of these changes have been so successful that we will be implementing them permanently into the program.

With clinical placements being suspended across the country for three months, it was important to continue to advance clinical skill and knowledge as much as possible for our year two Clinical students. We provided an interactive, case-based simulation learning platform, for students to work through cases in each core discipline. We introduced student-initiated rounds where students virtually presented to each other on actual cases they had previously encountered. Two of our first-year in-person campus blocks were transformed into innovative virtual sessions where students learned clinical skills and procedures through on-line teaching methods, led by our Course Directors. We developed and ran a very successful end of program integrated virtual OSCE containing 14 stations. This assessment was mapped to all of the Entrustable Professional Activities required of competent graduated Physician Assistants. These stations were all recorded and now have the added advantage that students requiring remedial support can review their performance with a faculty member. We successfully conducted our first virtual multiple mini interviews as part of the admissions process. A well-received virtual Stethoscope Ceremony was held for our current incoming class of 2022. Although technically complex, the event went smoothly and enabled personal connections for the students and their family/friends.

To ensure the safety of our students and that of their patients, the program created a comprehensive COVID curriculum in collaboration with all the health sciences programs at UofT. Each PA student was required to complete this prior to re-entering the clinical environment in order to prepare them for the pandemic impacts on health care.

## **Human Resources**

The BScPA Program was pleased to welcome Melissa Rodway as the new BScPA Program Coordinator in October 2019. This position replaces the Program Manager role that was held by Elizabeth Whitmell for 10 years.

A PA Research and Academic Scholar role was newly created in 2019. This position's mandate is to advance our program's scholarship and student scholarly activities, as well as contribute to the PA Profession scholarship at large. Sharona Kanofsky assumed the position in July 2019. The introduction of this role increases our core complement of faculty at the central PA office which also includes an Academic Coordinator, Program Director and Medical Director.

# University of Toronto

## Major Modification Proposal:

### Combined Degree Programs

This template should be used to bring forward proposals for combined degree programs for governance approval under the University of Toronto's Quality Assurance Process. Combined degree programs normally are founded on a Memorandum of Agreement between the parties. The Office of the Vice-Provost, Academic Programs has a template which includes all relevant issues to be addressed.

## Combined Degree Programs (CDPs) Proposed

	<b>Campus</b>	<b>Undergraduate Program Option (Specialist in..., Major in ....)</b>	<b>Undergrad Degree</b>	<b>Second-Entry Undergrad Degree Program<sup>1</sup></b>	<b>Graduate Degree and Program (#1)</b>	<b>Graduate Degree and Program (#2) if applicable</b>
1	St. George			MD		FT MBA offering
2	Mississauga <sup>2</sup>			MD		FT MBA offering

<b>Faculty(s):</b>	Faculty of Medicine & Joseph L. Rotman School of Management
<b>Dean's office contact in both Faculties:</b>	Patricia Houston Vice Dean, Medical Education

<sup>1</sup> A "second-entry undergrad degree program" refers to the fact that most students enrolling in the MD program must have already completed a portion of an appropriate undergraduate degree in order to apply.

<sup>2</sup> Note that UT Scarborough does not have an MD program.

	Professor, Department of Anesthesia & Pain Medicine Faculty of Medicine, University of Toronto  Joe Milner Professor of Operations Management and Statistics Vice-Dean, MBA Programs Rotman School of Management
<b>Department(s)/unit(s) if applicable:</b>	
<b>Department/unit contacts:</b>	Paul Tonin & Rosemary Hannam
<b>Version date of proposal:</b> please change as you edit this proposal.	October 28, 2020

## 1 Summary

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Please provide a brief overview of the proposed CDP(s) listed in the cover chart, highlighting the critical points including:

- ▶ the academic rationale for the CDP(s)
- ▶ the impetus for its development (including student interest and demand) and how it fits with the unit's and division's academic plans
- ▶ any important or distinctive elements.

The MD Program is a formative opportunity to blend the highest-quality technical knowledge with the values and empathy needed to care for patients, as well as gain the leadership and management skills needed to deliver care effectively and drive positive change.

As evidenced by the COVID-19 pandemic, effective leadership and management within the health-care system is necessary to plan for and respond to health-care crises. Just as importantly, that leadership and management skillset is necessary to address issues that exist independent of such unprecedented crises, such as: increased patient complexity, system fragmentation, long wait times and limited access to care, rising costs, and burnout and mental illness among health-care providers. Overall, increasing demand combined with fiscal constraints and greater

complexity in the sector is creating a heightened need for highly capable health sector leaders who can effectively navigate through what promises to be a lengthy period of strategic change and innovation ahead.

A Combined Degree Program (CDP) is a program category that allows a student to be registered in two approved degree programs at the same time and complete the requirements of both in a manner that provides a benefit to the student beyond what would result from completing the two degree programs separately. The proposed MD/MBA combined degree program is intended for a small number of medical students who have an interest in becoming those leaders. These roles require deep leadership and management competencies that go beyond the MD Program's core curriculum. Graduates of the program will be well positioned to act as the health care executives of tomorrow, in both the public and private sectors, as the MBA coursework, combined with their MD curriculum, will prepare them for significant leadership opportunities throughout their career. The official name will be Combined Degree Program: Doctor of Medicine / Management, Full-Time Option, Master of Business Administration.

The proposed MD/MBA combined degree program is a collaborative education initiative intended to build upon and amplify the impact of two globally recognized programs. As such, the proposed combined program is consistent with the Faculty of Medicine Academic Strategic Plan 2018-2023, which identifies the following three strategic domains: Ecosystem of Collaboration; Groundbreaking Imagination; and Excellence through Equity.

It is also consistent with the Rotman School of Management's Academic Plan. Inviting MD students to join and learn within the MBA community contributes to two five-year goals specifically:

1. Goal #3 — "Take insight to Impact," in which the Rotman School aims to "help to shape broader public conversations and address major challenges facing business, government and society."
2. Goal #4 — "Harness the Power of Community." By partnering with other divisions across the University, "we will connect and grow our global community to bring added perspective, support and meaning to what we do — and to further accelerate Rotman's impact."<sup>3</sup>

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<sup>3</sup> Rotman School of Management: A Catalyst for Change: Academic Plan 2019-2024

Academic synergies exist between the MD and the MBA programs with respect to several competency areas in the MD curriculum, namely: The Leader Role, which includes manager/management key and enabling competencies; Collaborator Role, which includes a focus on communication among team members, Health Advocate Role; and the Professional Role, which includes a focus on ethics.

The MBA degree includes and builds on these competencies, providing the MD student with an opportunity to develop these roles beyond what they would learn in the MD program. The MBA program recognizes the MD student would have achieved a sub-set of some learning objectives during the MD program in these areas that will cover 1.34 full-course equivalents (FCEs) of MBA course content. Given this, CDP students will be exempt from 1.34 FCEs of MBA requirements and will complete 9.96 instead of 11.3 FCEs of the MBA requirements. This means that students will complete the two programs in a shorter time than enrolling in the degrees sequentially (see Section 5.1).

Note that the proposed CDP includes the Full-Time MBA offering only, as it is the only MBA offering that allows the MD student to complete the requirements in the time available before the MD Residency begins, and for which the MD student would meet the entry requirements. The MD student would not have the relevant work and management experience for the Rotman Executive MBA or Global Executive MBA for Healthcare and the Life Sciences programs.

This proposed program is unique. We expect only a handful of students will apply, likely those with previous business, entrepreneurial and volunteer experience.

There are two similar programs in Canada, one at University of Alberta, and the other at the University of Calgary, and each has approximately 2 to 5 students in their combined MD/MBA program. We anticipate a similar number. As indicated in Appendix B, these existing offerings reduce the graduate MBA requirements in the MD / MBA combinations.

The proposed combined program is distinct from other degrees that teach leadership and innovation at U of T in that the MBA provides a broader and deeper dive into business and management capabilities.



It is also important to note the proposed combined degree program is not competition for the Global Executive MBA for Healthcare and the Life Sciences, Rotman's MBA customized for the health sector, as the GEMBA-HLS program is for senior leaders from across the health sector, with a range of clinical and administrative backgrounds (not only physicians) as well as a minimum of 3 years of management experience.

## 2 Effective Date

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First date students will apply to the CDP: February 2021.

The date the first cohort will be registered in the CDP: September 2021.

The first year CDP students will be unconditionally in the graduate degree program: September 2021.

## 3 Academic Rationale

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What are the academic reasons for the CDP(s) and how does this fit with the unit's and division's academic plans?

Context:

- ▶ Provide an academic rationale for combining the two degrees: what synergies exist between the two; how will this support student learning?
- ▶ Describe the consistency of the CDP(s) with the University's mission and the unit's and division's academic plans and priorities.

Expected benefits of the proposed CDP(s).

Describe any distinctive elements.

## Overarching Academic Rationale

Undergraduate (MD) medical education is a defining force in shaping the practitioners and the health system of the future. The MD Program is a formative opportunity to blend the highest quality technical knowledge with the values and empathy needed to care for patients, as well as gain the leadership and management skills needed to deliver care effectively and drive positive change.

As evidenced by the COVID-19 pandemic, effective leadership and management within the health care system is necessary to plan for and respond to health care crises. Just as importantly, that leadership and management skillset is necessary to address issues that exist independent of such unprecedented crises, such as: increased patient complexity, including an aging population and rise in chronic and complex diseases; system fragmentation or “silos” that makes the system difficult to navigate even for those who have high levels of health literacy; long wait times and limited access to care; rising costs that are not reflected in better patient outcomes (Canada is in the top third of the 34 Organisation for Economic Co-operation and Development (OECD) countries when it comes to health care spending — but average (21st) with regards to death from stroke and 20th in cancer<sup>4</sup>); gaps in translating knowledge into better care, and; burnout and mental illness among health care providers. Overall, increasing demand combined with fiscal constraints and greater complexity in the sector is creating a heightened need for highly capable health sector leaders who can effectively navigate through what promises to be a lengthy period of strategic change and innovation ahead.

The proposed MD/MBA combined program is intended for a select number of medical students who have an interest in becoming those leaders. These roles require deep leadership and management competencies that go beyond the MD Program’s core curriculum. Graduates of the program will be well positioned to act as the health care executives of tomorrow, in both the public and private sectors, as the MBA coursework, combined with their MD curriculum, will prepare them for significant leadership opportunities throughout their career.

Graduates of the proposed MD/MBA would also be well positioned to take on other challenging roles in the health sector that demand advanced competencies in management, such as running large clinical practices, and engaging in entrepreneurial

activities focused on critical medical fields such as drug delivery, diagnostic processes, biotechnology and devices.

The proposed combined degree program is distinct from other degrees that teach leadership and innovation at U of T in that the MBA provides a broader and deeper dive into business and management capabilities. The Full-Time MBA foundational curriculum (first year) covers the core competencies needed to be effective leading the full “enterprise” (e.g., a hospital, department, program, division, organization), including strategy, economics, marketing, organizational behaviour, operations, finance and accounting. The second year allows the student to specialize according to their interests, and develop complementary skills in health-care management, analytics, innovation, design, entrepreneurship, commercialization, and behavioural economics, among other specializations.

The MD/MBA student also has access to all MBA leadership development opportunities, including the Self-Development Lab and Leadership Development Lab, both of which hone the interpersonal skills needed for impact.

It is also important to note the proposed combined degree program is not competition for the Global Executive MBA for Healthcare and the Life Sciences, Rotman’s MBA customized for the health sector, as the GEMBA-HLS program is for senior leaders from across the health sector, with a range of clinical and administrative backgrounds (not only physicians) as well as a minimum of 3 years of management experience.

## **Context: Alignment with Faculty of Medicine Strategic Plan**

The MD Program strategic plan is grounded in four high-level priority areas (Diversity, Curriculum Innovation, Learner Experience, Teaching & Partnerships) and corresponding strategic objectives. These priority areas and strategic objectives provide the roadmap for MD Program strategic planning, including the identification, prioritization, development and implementation of specific strategic initiatives. One of the strategic objectives listed under Curriculum Innovation is: *Provide clinically*

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<sup>4</sup> OECD (2019), Health at a Glance 2019: OECD Indicators, OECD Publishing, Paris, <https://doi.org/10.1787/4dd50c09-en>.

*relevant and adaptive curricular pathways and programmatic options.* The proposed MD/MBA combined degree program is a programmatic option informed by and consistent with this strategic objective. Further, as detailed below under Academic Synergies, leadership is one of the MD Program's key competencies.

The proposed MD/MBA combined degree program is a collaborative education initiative intended to build upon and amplify the impact of two globally recognized programs. As such, the proposed combined degree program is consistent with the Faculty of Medicine Academic Strategic Plan 2018-2023, which identifies the following three mutually related strategic domains of focus intended to enable the amplification of existing strengths and achievements:

**Ecosystem of Collaboration:** Promote, incentivize and support a new level of collaboration among our faculty, staff, learners, academic health science partners and community that fuses the diverse strengths of our network and creates new possibilities for research, education and solutions for better health in our communities. Everything we do will set us up for exponential impact that draws on the diverse voices in our unparalleled research, learning and clinical network.

**Groundbreaking Imagination:** Amplify our discoveries and academic excellence, escalate the real-world impact of our research and teaching and make space for novel collaborations that produce the extraordinary. We will cultivate and bring to life ideas that impact scholarship and society.

**Excellence through Equity:** Make inclusion and equity essential components of how we define and foster excellence in scholarship, practice and health outcomes. Individuals across the Faculty of Medicine, regardless of how they identify, will be invited to have a voice and be empowered to effect change. Our environment will draw in and draw on a global outlook through diverse perspectives from a range of disciplines. Our graduates will be internationally recognized as a change force for equity.

## **Context: Alignment with the Rotman School's Academic Plan**

The proposed MD/MBA combined program also supports the Rotman School's Academic Plan. Inviting MD students to join and learn within the MBA community contributes to two five-year goals specifically:

3. Goal #3 - “Take insight to Impact,” in which the Rotman School aims to “help to shape broader public conversations and address major challenges facing business, government and society.”
4. Goal #4 – “Harness the Power of Community.” By partnering with other divisions across the University, “we will connect and grow our global community to bring added perspective, support and meaning to what we do — and to further accelerate Rotman’s impact.<sup>5</sup>”

## Context: Academic Synergies

Informed by a commitment to social accountability and collaboration that focuses on the health needs of Canadians, the following high-level education goals articulate the MD Program’s aspiration to prepare graduates who are:

- Clinically competent and prepared for life-long learning through the phases of their career;
- Ethical decision-makers dedicated to acting in accordance with the highest standards of professionalism;
- Adaptive in response to the needs of patients and communities from diverse and varied populations;
- Engaged in integrated, team-based care in which patient needs are addressed in an equitable, individualized and holistic manner;
- Reflective and able to act in the face of novelty, ambiguity and complexity;
- Resilient and mindful of their well-being and that of their colleagues; and
- Capable of and committed to evidence-informed practices and scholarship, and a culture of continuous performance improvement.

In order to support achievement of these goals, the MD Program curriculum is grounded in the Canadian Medical Education Directions for Specialists (CanMEDS), which is a physician competency framework developed by the Royal College of Physicians and Surgeons of Canada (RCPS) and endorsed by the Association of Faculties of Medicine (AFMC). CanMEDS (and the U of T MD Program competency framework) is organized according to seven roles: Medical Expert; Communicator; Collaborator; Leader; Health Advocate; Scholar; and Professional. Learning within each of these CanMEDS roles is facilitated by pursuing the relevant key competencies,

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<sup>5</sup> Rotman School of Management: A Catalyst for Change: Academic Plan 2019-2024

and each of the key competencies is in turn supported by achievement of several enabling competencies.

In addition to the Leader Role (which includes manager/management key and enabling competencies), there are synergies between the MD and MBA programs with respect to the non-Medical Expert or intrinsic Roles, in particular Collaborator (which includes a focus on communication among team members, and is supported in the MD Program through an Interprofessional Professional Education curriculum), Health Advocate and Professional (which includes a focus on ethics).

The CanMEDS definitions for the Leader, Collaborator, Health Advocate and Professional Roles are as follows:

**Leader:** As Leaders, physicians engage with others to contribute to a vision of a high-quality health-care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars or teachers. They function as individual care providers, as members of teams, and as participants and leaders in the health-care system locally, regionally, nationally and globally.

**Collaborator:** As Collaborators, physicians work effectively with other health care professionals to provide safe, high-quality, patient-centred care. Collaboration skills are broadly applicable to activities beyond clinical care, such as administration, education, advocacy and scholarship.

**Health Advocate:** As Health Advocates, physicians contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change. Advocacy often requires engaging other health-care professionals, community agencies, administrators and policy makers.

**Professional:** As Professionals, physicians are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, accountability to the profession and society, physician-led regulation and maintenance of personal health. Professionalism is the basis of the implicit contract between society and the medical profession, granting the privilege of physician-led regulation with the understanding that physicians are accountable to those served, to society, to their profession and to themselves.

The MBA degree includes and builds on these competencies, providing the MD student with an opportunity to develop these roles beyond what they would learn in the MD program. The MBA program recognizes the MD student would have achieved a sub-set of some learning objectives during the MD program in these areas and will cover 1.34 full course equivalents (FCEs) of MBA course content. Given this, CDP students will be exempt from 1.34 FCEs of MBA requirements and will complete 9.96 instead of 11.3 FCEs of the MBA requirements.

Note that the graduate program (MBA) requirements that are waived (1.34FCEs) are a small portion (approximately 12%) of the MBA Full-Time requirements. Even so, this reduction will allow students to complete the two programs in a shorter time period than enrolling in the degrees sequentially (see Section 5.1).<sup>6</sup>

Please see Appendix A which includes a full nomenclature table for the CDP(s) proposed (to be filled out by the VPAP Office).

## 4 Need and Demand

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Provide a brief description of the projected interest in and demand for the proposed CDP(s), focusing on how it benefits students beyond what would result from completing the two degree programs separately.

Provide details regarding the anticipated yearly intake.

This proposed combined degree program is unique. We expect only a handful of students will apply, likely those with previous business, entrepreneurial and volunteer experience.

There are two similar programs in Canada, one at University of Alberta, and the other at the University of Calgary, and each has approximately 2 to 5 students in their combined MD/MBA program. We anticipate a similar number.

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<sup>6</sup> While normally coursework completed in an undergraduate program would not be counted towards a masters-level program, because the MD degree is a second-entry undergraduate degree program, the level of instruction is more aligned to the master's rather than the undergraduate level.

The closest program currently in place at the Rotman School is the combined JD/MBA program, similar in the sense the JD is also second entry undergraduate program<sup>7</sup> paired with the MBA. This has been in place since the late 1990s and continues to attract strong students every year. The students perform consistently well; average GPA is 3.67 for the last 10 years.

Rotman also has successful combined degree programs with the Munk School of Global Affairs (MGA/MBA), the Faculty of Applied Science and Engineering (BASc/MBA) and with the Faculty of Pharmacy (PharmD/MBA).

Another indicator of demand for business learning from the MD student population is the number of MD students that have taken our electives. Over the last 10 years, 82 students have taken second-year electives at Rotman, the only courses available to them.

It is also relevant to note the number of MD/MBA programs currently in place in the United States — a summary is provided in the accompanying document. Harvard, Stanford, Columbia, Cornell, UCLA, University of Chicago, Duke, Dartmouth and several others all support a combined MD/MBA program.

## 5 Program Requirements

Describe the academic requirements of the CDP(s) with attention to how the CDP(s) will satisfy the requirements of the two original programs. (Proponents may find it helpful to use the table below in 5.1 to compare the requirements of the two original programs and the requirements of the CDP). Please be very explicit in identifying and explaining any double counting.

Clarify the time to completion and describe specifically which degree program students will be registered in, and when.

In summary, the normal time to completion for both degrees separately is six years (4MD + 2 MBA (Full-Time)). The CDP will allow the MD student to reduce this duration by one year, and complete both degrees in 5 years.

<sup>7</sup> A “second-entry undergrad degree program” refers to fact that majority of students enrolling in the JD or MD program will have already completed all or a set portion of one undergraduate degree.



## 5.1 Comparison of Curricular Path

Please note that the VPAP Office is happy to work with you to complete these tables, which are critical to the proper implementation of the CDP(s).

### The Programs Taken Separately

		Term	FCE	Registration in ROSI: FT or PT
MD	Year 1	F	2.5	MD – FT
		W (Jan to May)	3.5	MD – FT
		S (June to third week of Aug)	0.0	MD – FT
	Year 2	F	2.2	MD – FT
		W (Jan to May)	2.8	MD – FT
		S (June to third week of Aug)	0.0	MD – FT
	Year 3	F to S (All year: third week of Aug to end of Aug in the following year)	27.5	MD – FT
	Year 4	F to W	7.5	MD – FT
		S	0.0	
MBA	Year 1	F (mid-August to December)	5.63	MBA - FT
		W (January to April)		MBA - FT
		S (May to August)	5.67	MBA - FT
	Year 2	F (mid-September to December)	5.67	MBA - FT
		W (mid-January to April)		MBA - FT
		S (May to August)		
			11.3	Total MBA-FT FCE

### Proposed Combined MD/MBA

MD/MBA students will pay tuition fees (and be enrolled) in the MD Program during the usual program length (four years). MD/MBA students will pay tuition and be enrolled in the MBA program for four rather than the usual program length of five MBA terms. Students will pay approximately the same amount of tuition for each program. The timing of payment will be slightly different for the MBA as students will pay tuition in the summer of year 4 of the CDP, and will not be registered or pay tuition in the MBA FT during the fall term of year 5.

See table below for information on CDP students' academic requirements; program registration pathway, and when tuition for each program will be paid.

There are three major dimensions to the **MD Program Foundations (Years 1 & 2)** curriculum and schedule: courses, components, and themes. The components and themes are integrated into the six courses, which are listed below by year level.

The integrated components are:

- **Toronto Patient-Centred Integrated Curriculum (TOPIC):** In TOPIC, content is delivered through lectures, workshops, eLearning materials and anatomy labs, as well as case-based learning (CBL) sessions. In CBL, students work through a patient case in small groups of 8 to 10 students in two sessions each week: the first one is on their own; the second is with a faculty tutor. Over the 72 weeks, the cases introduce students to all aspects of clinical medicine.
- **Integrated Clinical Experience (ICE):** ICE occupies two half days per week. One half day provides students with instruction in groups of six on how to take a patient's history and perform a physical examination. The second half day for ICE provides students with opportunities for early clinical exposure in a variety of settings, include doctors' offices, hospitals, community health agencies and home care visits.
- **Portfolio:** In Portfolio, students reflect on their previous experiences and their experience as first- and second-year medical students and the resulting effects on their professional development. Students also use guided self-assessment to develop individualized learning plan related to program assessments to help ensure students are staying on track and receiving help where it is needed. Portfolio takes place half day every three to four weeks in a small group with a faculty tutor.
- **Health Science Research (HSR):** HSR provides students with lecture, tutorial and eModule-based learning on two major topics: (i) how to participate in health research projects and (ii) how to apply the findings of health research to patient care.

Multiple themes that support longitudinal, integrated teaching in areas that cut across the curriculum are embedded in the Foundations curriculum and taught throughout all four years of the MD Program. These thematic areas are coordinated by designated faculty leads, with teaching carried out by a variety of teachers. The themes can be grouped into three major categories: related to priority population groups, to CanMEDS roles (including Leader, Collaborator, Health Advocate and Professional), and to specific content areas, such as ethics.

## CDP Pathway: Requirements; Registration & Tuition fees Information

Year	Program Student will be registered in	Notes	Tuition Fees
1	MD	<ul style="list-style-type: none"> <li>• Introduction to Medicine [MED100H — Weeks 1 through 11]</li> <li>• Concepts, Patients &amp; Communities 1 [MED120H — Weeks 12 through 25]</li> <li>• Concepts, Patients &amp; Communities 2 [MED130H — Weeks 26 through 36]</li> </ul>	MD fees
2	MD	<ul style="list-style-type: none"> <li>• Concepts, Patients &amp; Communities 3 [MED200H — Weeks 37 through 52]</li> <li>• Life Cycle [MED210H — Weeks 53 through 61]</li> <li>• Complexity and Chronicity [MED220H — Weeks 62 through 72]</li> </ul>	MD fees
3	MD	<ul style="list-style-type: none"> <li>• Transition to Clerkship [TTC310Y — two weeks]</li> <li>• Core clinical rotations:               <ul style="list-style-type: none"> <li>○ Anesthesia [ANS310Y — two weeks]</li> <li>○ Dermatology [DER310Y — 1.5 days during TTC]</li> <li>○ Emergency Medicine [EMR310Y — four weeks]</li> <li>○ Family &amp; Community Medicine [FCM310Y — six weeks]</li> <li>○ Internal Medicine [MED310Y — eight weeks]</li> <li>○ Obstetrics &amp; Gynaecology [OBS310Y — six weeks]</li> <li>○ Ophthalmology [OPT310Y — one week]</li> <li>○ Otolaryngology – Head &amp; Neck Surgery [OTL310Y 1 wk]</li> <li>○ Paediatrics [PAE310Y — six weeks]</li> <li>○ Psychiatry [PSS310Y — six weeks]</li> <li>○ Surgery [SRG310Y — eight weeks]</li> </ul> </li> </ul>	MD fees

		Portfolio — Year 3 [PFL310Y — six themed sessions as well as three Transition Education Days that incorporate the CanMEDS roles] Integrated Objective Structured Clinical Examination (iOSCE) [OSC310Y & OSC410Y] Apply to the MD/MBA.	
4	MBA 1st Year, Fall Term	<p>Core curriculum.</p> <ul style="list-style-type: none"> <li>• RSM1201H Fundamentals of Strategic Management (0.33)</li> <li>• RSM1210H Managerial Economics (Micro) (0.33)</li> <li>• RSM1215H Decision Making with Models &amp; Data (0.33)</li> <li>• RSM1220H Financial Accounting &amp; Reporting: A Global Perspective (0.33)</li> <li>• RSM1231H Finance I: Global Capital Markets and Valuation (0.33)</li> <li>• RSM1250H Managing Customer Value (0.33)</li> <li>• RSM1260H Leading People in Organizations (0.33)</li> <li>• RSM1282H Statistics for Management (0.33)</li> </ul> <p>Credit granted for one first-year core course:</p> <ul style="list-style-type: none"> <li>• RSM1165 Leveraging Diverse Teams (0.17)</li> </ul>	MBA fees (Fall, Winter, Summer. Note that CDP students will be charged MBA tuition at 50% of the annualized program fee in the summer of year 4.)
	MBA 1st Year, Winter (January to April) Term	<p>Core curriculum.</p> <ul style="list-style-type: none"> <li>• RSM1211H Economic Environment of Business (Macro) (0.33)</li> <li>• RSM1222H Managerial Accounting (0.33)</li> <li>• RSM1232H Finance II: Corporate Finance (0.33)</li> <li>• RSM1240H Operations Management (0.33)</li> <li>• 3 electives (0.5 each)*</li> </ul>	

	MBA 1st Year, Summer Term 1a (early May) & 1b (late May to Aug)	Up to 5 electives.* Credit granted for the following: <ul style="list-style-type: none"> <li>○ One second-year elective (0.5 FCE)</li> <li>○ RSM1380 Applied Management Placement (Internship, 0.5 FCE)</li> </ul>	
5	MD 4 <sup>th</sup> Year (Sept 1 to Dec 31)	Electives [ELV410Y — 15 weeks during which students complete at least 13 weeks of clinical electives to gain experience in aspects of medicine beyond the core curriculum, and to study subjects in greater depth.] Portfolio: Year 4 [PFL410Y: two themed sessions & progress review meeting] Transition to Residency [TTR410Y — 14 weeks composed of two “campus weeks” which contain both independent and classroom-based learning activities, three selectives clinical placements over nine weeks, and a fusion period which brings the students back together for review of previously learned clinical material in preparation for the Medical Council of Canada Qualifying Examination (MCCQE) Part 1].	MD fees (Fall Year)
	MBA 2 <sup>nd</sup> Year, Winter (Jan to April): Parts 2a (end Jan to April) & 2b (Mar to April) <sup>8</sup>	Up to 5 electives.* MD students would return to Rotman after finishing CaRMS, end of January/ beginning of February. Credit granted for one second-year core courses: <ul style="list-style-type: none"> <li>○ RSM1160 Business Ethics (0.17)</li> </ul>	MBA fees charged for the (Winter term only)

\*MD/MBA students would take 12 electives at Rotman in total.

Total MBA credits = 9.96FCE

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<sup>8</sup> CDP students would be eligible to take electives from our list for second year students (end January to April) and our electives for first year students (March-April) depending on their interests/schedule.

## 6 Admission Process

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When do students normally apply to the CDP(s) and what is the pattern of registration (i.e., conditional, and full admissions to the graduate program in the case of undergrad/grad)?

MD students would apply in January of the third year of their MD program to the MBA, Full-Time option and the MD/MBA FT option CDP through the SGS Online Admission Application system, indicating the CDP so Rotman can identify their application and apply the adjusted admission requirements (see next section). The Rotman School will review all applicants with Faculty of Medicine and mutually agree on who would be offered a place in the CDP.

Admission will be conditional upon achieving good standing for the remainder of their third year of the MD program. A final check before the start of the MBA curriculum will be included in the work flow to ensure admitted students are in good standing. If so, the condition will be lifted, and if not, the student will be withdrawn from the CDP.

## 7 Admission Requirements

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What are the admission requirements of the CDP(s)? Note that the admission requirements may be more strenuous through the CDP than if the programs are applied to separately.

- ▶ Please consider any specific courses that students must complete in the first program(s) to be eligible for the CDP(s), and any requirements unique to the combination.
- ▶ Are there any conditions on admissions to the second program(s) that must be met?

Please ensure you complete the specific questions in the box below.

## **MD Program Admission Requirements (no change)**

The [admission requirements](#) for the MD Program consist of academic requirements and prerequisites as well as non-academic requirements, as follows:

### **Academic requirements:**

Completion of at least 3 years (or 15.0 full-course equivalents [FCEs]) of undergraduate study toward a Canadian university bachelor's degree by June 30 of application year (or, for students who studied outside of Canada, completion of a non-medical bachelor's degree equivalent to a four-year bachelor's degree in Canada)

GPA: Minimum GPA of 3.6 for applicants with undergraduate study only and 3.0 for applicants with a completed graduate (master's or doctoral) degree.

MCAT: Threshold score of 125 in each section, with an allowance of 124 in one section.

Prerequisites: Completion of 2.0 FCEs in Life Sciences and 1.0 FCE in Social Science, Humanities and/or Language.

### **Non-academic requirements:**

Four original brief personal essays, with each essay answering a specific question related to the Faculty's mission and values. Each brief personal essay must be 250 words or less.

Autobiographical sketch and statements.

References.

The non-academic materials are evaluated according to four attribute clusters (Professional, Communicator/Collaborator/Leader, Advocate and Scholar) that are based on the CanMEDS Framework.

## **MBA and CDP Program Admission Requirements (changes noted)**

1. An appropriate bachelor's degree, or its equivalent, with a final year average of at least mid-B from a recognized university – remains the same.
2. A minimum GPA of 3.0 in the final year of a bachelor's degree from a recognized university – remains the same.

3. GMAT or GRE Score — waived, MCAT score will be used
4. Recommend at least two years of full-time work experience — removed. Similar to the JD/MBA and Skoll/MBA students, the work experience requirement will be waived as we recognize that the MD students will be pre-experience.
5. Two professional references — adjusted; in the case of the MD students, the references can be related to their MD experience, pre-MD experience, and volunteering, in addition to professional experiences.
6. Essay responses and video questions — remain the same
7. English language proficiency — remains the same
8. Candidates being considered will be interviewed — remains the same
9. Additional requirement — the MD student must be in good academic standing at the end of Year Three of the MD.

Consequence if student does not fulfil the CDP & MBA FT admission condition to maintain “good standing” in the third year of the MD: The offer of admission to the CDP and MBA will be withdrawn.

Consequence of FZ in any MD course(s): If a student receives an FZ in one or more MD courses during the CDP, the student will no longer be in good academic standing and will be withdrawn from the CDP. In this case, the student would need to complete the 1.34 FCE of MBA FT requirements formerly counted through the MD. Whether the students could continue in the MBA FT would be considered by the Academic Director on a case by case basis.

Consequence of FZ in any MBA course(s): If a student receives an FZ in one or more MBA course the student will need to obtain special permission from the MBA program to continue from the Academic Director of the MBA program, as is normal practice.

## 8 Calendar Copy

Please insert draft undergraduate Calendar copy as applicable.

Please complete the highlighted yellow section in the *SGS Calendar* template below.



## Doctor of Medicine calendar copy

The MD-Master of Business Administration (Full-Time) Combined Degree Program (MD-MBA FT CDP) is offered jointly by the Faculty of Medicine and the Rotman School of Management. The MD-MBA FT CDP is intended for a small number of medical students who have an interest in becoming health sector leaders with management competencies. Graduates of the combined degree program will be well positioned to act as the health-care executives of tomorrow, in both the public and private sectors. The MBA FT coursework, combined with the MD Program curriculum, will prepare students for significant leadership opportunities throughout their career.

Applicants to MD-MBA FT CDP must be enrolled, and in good academic standing, in Year 3 of the MD Program, and must meet the MBA admission requirements for the MD-MBA FT CDP. Medical students registered in the MD-MBA FT CDP must maintain good academic standing in the MD Program to continue in the CDP.

Students who successfully complete the MD-MBA FT CDP will be awarded both the MD and MBA degrees.

The MD-MBA FT CPD is designed such that the requirements can be completed in five years rather than the six years it would take to acquire the degrees independently, as follows:

Year	Progression/Registration	Requirements
1	Year 1 MD Program	Year 1 MD Program requirements
2	Year 2 MD Program	Year 2 MD Program requirements
3	Year 3 MD Program; Apply to MD-MBA FT CPD	Year 3 MD Program requirements
4	Year 1 MBA	Year 1 MBA FT course requirements (Students in the MD-MBA FT CPD granted credit for RSM 1165H Leveraging Diverse Teams; RSM 1380H Applied Management: Placement; one MBA Year 2 0.5 FCE elective)
5	Year 4 MD Program Year 2 MBA	Year 4 MD Program requirements Year 2 MBA FT course requirements (Students in the MD-MBA FT CPD granted credit for RSM 1160H Business Ethics)

The MD-MBA FT CPD path to completion summarized above requires completion of MBA courses in the summer of Year 4.

## **SGS Calendar copy STG, Medicine, Doctor of / Management, Full-Time Offering, Master of Business Administration**

### **Overview**

The Combined Degree Program (CDP): STG, Medicine, Doctor of / Management, Full-Time Option, Master of Business Administration is offered jointly by the Faculty of Medicine and the Rotman School of Management. The MD/MBA FT CDP is intended for a small number of medical students who have an interest in becoming health sector leaders with management competencies. Graduates of the combined degree program will be well positioned to act as the health-care executives of tomorrow, in both the public and private sectors. The MBA FT coursework, combined with the MD curriculum, will prepare students for significant leadership opportunities throughout their career.

Students will complete both programs in five years rather than the six years it would take to acquire the degrees independently.

For a general description of CDPs, see [General Regulations section 1.4.3](#).

### **Contact**

Doctor of Medicine / Master of Business Administration Program

Faculty of Medicine

Web: [md.utoronto.ca](http://md.utoronto.ca)

Email: [reception.registrar@utoronto.ca](mailto:reception.registrar@utoronto.ca)

Rotman School of Management

Web: [rotman.utoronto.ca](http://rotman.utoronto.ca)

Email: [ro@rotman.utoronto.ca](mailto:ro@rotman.utoronto.ca)

### **Application Process**

Applicants must apply to the Doctor of Medicine (MD) program, the Master of Business Administration (MBA) Full-Time option degree program, and the CDP.

Qualified students in year 3 of the MD degree program apply to the MBA Full-Time option and the CDP.

## Minimum Admission Requirements

Applicants must meet the admission requirements of the [MD program](#), the School of Graduate Studies, and the FT [MBA program](#). Applicants will meet the same admission requirements as regular FT MBA applicants, except where noted below:

Applicants must obtain a satisfactory score on the Medical College Admission Test (MCAT). Graduate Management Admission Test (GMAT) and GRE General Test scores will be waived.

Provide two references: these can be related to applicants' MD experience, pre-MD experience, and volunteering, in addition to professional experiences.

MD students must be in good academic standing.

## Academic Path to Completion

Every CDP involves a specific combination of approved degree programs. The CDP requirements build on those of the two separate degree programs. Each CDP has a unique pattern of academic activity year by year.

Year	Progression	Specific Requirements
1	Year 1 MD program requirements.	Complete Year 1 courses in the MD program: 6.0 full-course equivalents (FCEs).
2	Year 2 MD program requirements.	Complete Year 2 courses in the MD program: 5.0 FCEs.
3	Year 3 MD program requirements. Students apply to the CDP.	Complete Year 3 courses in the MD program: 27.5 FCEs.
4	Year 1 MBA program requirements (including Summer).	Complete Year 1 courses in the MBA program: 7.96 FCEs. Credit will be granted for one Year 1 core courses: RSM 1165H <i>Leveraging Diverse Teams</i> (0.17 FCE; Credit/No Credit) Students may take up to five electives. Credit will be granted for: One Year 2 elective (0.5 FCE) RSM 1380H <i>Applied Management: Placement</i> (0.5 FCE).
5	Year 4 MD program requirements.	Complete Year 4 courses in the MD program: 7.5 FCEs. MD students complete the Canadian Resident Matching Service (CaRMS) process.

	Year 2 MBA program requirements.	Complete Year 2 courses in the MBA program: 2.5 FCEs. Credit will be granted for one Year 2 core course: RSM 1160H <i>Business Ethics</i> (0.17 FCE) Students may take up to five electives <sup>9</sup> .
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## 9 Consultation

Outline the discussions that have taken place between the partners which underpin this proposal. Attach as an Appendix an MOU outlining the basis on which the program will be offered including registration, BIUs, tuition, and any resource requirements with implications for the units and Faculties. The VPAP Office will assist with Planning and Budget in financial modelling and interdivisional agreements.

In 2018 the Faculty of Medicine and the Rotman School of Management recognized an opportunity to create a combined degree program for a select number of medical students who have the potential to become the healthcare executives of the future. Leadership from each division came together to set objectives and co-design the key elements. Division staff developed further details and consulted over several months with relevant staff, and faculty to build and refine the proposal.

Division leadership will also communicate with students (Faculty of Medicine in September, and the Rotman School in October) and with the Dalla Lana School of Public Health to share the intentions and goals of the CDP and clarify the unique nature of the program.

The CDP was discussed with the U of T Medical Society (MedSoc, the elected medical student governing body) at the October 2020 Class Presidents meeting, which included the Medical Society president as well as class presidents for each of the four years of the MD Program plus the MD/PhD class presidents. The proposal was also discussed at a MD Program Curriculum Committee meeting in September 2020 prior to begin brought back to the committee for formal endorsement in October 2020. The Curriculum Committee includes medical student representatives for each of the four years plus for the MD/PhD Program. The medical students at those meetings expressed strong support for the CDP.

<sup>9</sup> CDP students are subject to the same limits on experiential electives as FT MBA students at the RSM.

## 10 UTQAP Process

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The UTQAP pathway is summarized in the table below.

<b>Steps</b>	<b>Approvals</b>
Development of proposal in close consultation between Dean's offices	
Vpap consultation and sign-off	September 17, 2020
Unit-level approval as appropriate	
Faculty/divisional councils	Faculty of Medicine: [Faculty Council approval date: February 8, 2021] Joseph L. Rotman School of Management: [Faculty Council approval date: October 28, 2020]
Submission to Provost's office	February 12, 2021
Report to AP&P (by Provost's office)	May 2021
Report to Ontario Quality Council (by Provost's office)	July 2021

## Appendix A

This table will be completed by the VPAP Office.

<b>New Formal Full Name</b>	<b>SGS Calendar Name</b>	<b>SGS Calendar Short Form</b>	<b>Unique Identifier—ROSI Subject Post</b>	<b>ROSI Title C</b>	<b>ROSI Title F</b>	<b>ROSI Title T</b>
Combined Degree Program: Doctor of Medicine / Management Full-time option, Master of Business Administration	Combined Degree Program: STG, Medicine, Doctor of / Management Full-time Option, Master of Business Administration	STG, Medicine, Doctor of / Management, Full-time option, Master of Business Administration	GSCOBMDMB	Combined Degree Program: Doctor of Medicine / Management, Full-time Option, Master of Business Administration	Combd Prog MD/MBA FT	Combined Degree Program: Doctor of Medicine / Management, Full-time option, Master of Business Administration

## Appendix B

### MD/MBA — Canadian Programs

University	Admission Requirements	Combined Program Structure	MBA Course Requirements	Fees
<p><b>University of Alberta</b> Alberta School of Business</p> <p>Chris Lynch Director, Recruitment Alberta MBA Program Tel: 780-492-5877 <a href="mailto:clynch@ualberta.ca">clynch@ualberta.ca</a></p>	<p>MD/MBA applicants would follow the same application process as all other MBA applicants, with two key differences:</p> <ol style="list-style-type: none"> <li>1. MD/MBA applicants can submit their MCAT score, rather than a GMAT or GRE score; and</li> <li>2. MD/MBA applicants can be considered for admission without two years of post-graduation work experience.</li> </ol>	<p>Combined program established in 2014. Usually 2 to 5 MD/MBA students per year. 5 years of study in total.</p> <p>Years 1 &amp; 2 — MD. Year 3 (11 months) — MBA. Years 4 and 5 — MD.</p> <p>The MBA year is designed to be completed in 11 months, beginning with MBA Orientation in August and completing with elective courses in the following Spring term (May to June).</p> <p>There are no changes to the MD degree requirements other than adding an extra year to the overall requirements and allowing a break between the pre-clinical and clinical years. Students enter into the MBA program after finishing the first two years of the MD program.</p> <p><a href="https://cloudfront.ualberta.ca/-/media/business/programs/the-ualberta-mba/documents/degrees/mdmba2017.pdf">https://cloudfront.ualberta.ca/-/media/business/programs/the-ualberta-mba/documents/degrees/mdmba2017.pdf</a></p>	<p>The MBA for the MD program is 42 credits/14 courses, whereas the regular full-time MBA is 20 courses.</p>	<p>During the MBA year, students are assessed MBA tuition. Tuition is assessed on a per course basis.</p> <p>The cost to complete the entire MBA portion of the MD/MBA combined degree is approximately \$19,000.</p> <p>MD/MBA students are eligible for scholarships and awards in the MBA program during their MBA year.</p>

University	Admission Requirements	Combined Program Structure	MBA Course Requirements	Fees
<p><b>University of Calgary</b> Cumming School of Medicine &amp; Haskayne Business School <a href="mailto:mba@haskayne.ucalgary.ca">mba@haskayne.ucalgary.ca</a></p> <p><b>Amanda Ramsey</b> Senior Recruitment and Admissions Specialist Email: <a href="mailto:amanda.ramsey@ucalgary.ca">amanda.ramsey@ucalgary.ca</a> Tel: 403-220-8872</p>	<p><b>Admissions</b> The application requirements for combined MBA degrees are the same as for the regular Daytime/ Evening MBA. Students admitted to the Doctor of Medicine program are eligible for a GMAT waiver based on satisfactory performance in the MCAT.</p>	<p>5 years of study in total. Usually 1 to 2 students per year. Year 1 — MD. Year 2 — MBA. Years 3, 4, 5 — MD with MBA electives.</p> <p>MD/MBA students are typically admitted into the Doctor of Medicine program and apply to the MBA program during the first year of studies.</p> <p>MD/MBA students typically complete their first year of studies in the Department of Medicine, the second year in Haskayne and the third and fourth year combining their studies. The day MBA option normally takes 20 months to complete.</p>	<p>To complete the MD/MBA degree students must complete 15 MBA courses (instead of 20), including the 14 required core courses: <a href="#">“The Faculty of Graduate Studies has approved guidelines for Combined Degree Programs. A Combined Degree Program is a formal arrangement between two units offering programs whereby students may be registered simultaneously in two graduate programs (or in one master’s program and one professional program such as JD or MD that normally admits students with undergraduate degrees). The University of Calgary presently offers the following combined degree programs: JD/MBA, JD/MPP, MBA/MPP, MBT/MBA, MN/MBA, MPlan/MBA, MSW/MBA, MSc/MBA, PhD/MBA, MD/Master’s and MD/PhD.”</a></p>	<p>Based on fee calculator MBA fees would be \$1623 X 15 = \$24,345.</p> <p><a href="https://www.ucalgary.ca/sites/default/files/teams/14/Graduate Tuition and Fees-2020 2021.pdf">https://www.ucalgary.ca/sites/default/files/teams/14/Graduate Tuition and Fees-2020 2021.pdf</a> <a href="https://www.ucalgary.ca/pubs/calendar/grad/current/gs-fees-expenses.html">https://www.ucalgary.ca/pubs/calendar/grad/current/gs-fees-expenses.html</a></p>



University	Admission Requirements	Combined Program Structure	MBA Course Requirements	Fees
<p><b>McGill MD &amp; MBA</b></p> <p><b>Not currently running. No plans to reinstate in the near future.</b></p> <p>Tel: 514-398-4066 Fax: 514-398-2499 Email: <a href="mailto:mba.mgmt@mcgill.ca">mba.mgmt@mcgill.ca</a></p> <p>Desautels Faculty of Management</p>		<p>Five Years. Year 1 — MBA. Years 2 to 5 — MD, with MBA electives.</p> <p>For the first year of the program students will undertake studies in the Desautels Faculty of Management where they will be exposed to core business concepts as well as “the integrated thinking managers need to solve multidisciplinary problems” and to the necessary skills to work in teams, lead and manage others and “easily adapt to non-structured, constantly changing situations.”</p> <p>The remaining 4 years of the MBA/MD degree will be spent on studies in the Faculty of Medicine. Once students successfully complete the Program, they will be awarded “an MBA from the Desautels Faculty of Management, and MD and CM degrees from the Faculty of Medicine.”</p>	<p>Students enrolled in the MD/MBA complete 51 MBA credits (normally students would complete 57).</p>	

## Appendix C

### MD/MBA — US Programs

USA	Summary	Tuition
<p><a href="#"><u>University of California, Los Angeles</u></a></p> <p><a href="#"><u>Anderson School of Management</u></a></p> <p><a href="#"><u>David Geffen School of Medicine</u></a></p> <p>Jessica Chung Associate Director of Admissions Coordinator Medical Leadership Program, UCLA Anderson (310) 825-6944 <a href="mailto:jessica.chung@anderson.ucla.edu"><u>jessica.chung@anderson.ucla.edu</u></a></p> <p>Amy Frazier, David Geffen School of Medicine (310) 267-0443 <a href="mailto:afrazier@mednet.ucla.edu"><u>afrazier@mednet.ucla.edu</u></a></p> <p>Faculty Advisors available for further consultation:</p>	<p><a href="#"><u>Concurrent MD MBA</u></a> 5-year program:</p> <p>Given the increasing presence of a more organized, business-oriented style of medical practice and management throughout the country, exposure of even a small number of medical students to the issues addressed in the MBA program is highly beneficial</p> <p>The trends in health care that began in California 20 years ago are now accelerating and spreading throughout the rest of the nation, and it can be argued that today's health-care system is increasingly dominated by business and administrative demands.</p> <p><b>Admission:</b> UCLA medical students may only apply to the MBA Program during the third year of medical school. UCLA Anderson makes independent admissions decisions on all concurrent degree program applicants.</p> <p><b>Curriculum:</b> The following competencies are developed in the program because they encompass the unique health care environment skills necessary for a physician executive.</p> <ol style="list-style-type: none"> <li>1. Develop the attitude and skills necessary to succeed as a physician leader in the management of health-related organization: a. Peer management; b. Consensus building in a non-hierarchical manner with non-physicians; c. Managing organizations during periods of uncertainty and change; d. Integration of systems and services.</li> </ol>	<p><a href="#"><u>Anderson</u></a></p> <p><a href="#"><u>David Geffen School of Medicine</u></a></p>

USA	Summary	Tuition
<p>Dr. Victor Tabbush, Adjunct Professor                      Carl Stevens, MD, MPH                      UCLA Anderson Chair, Medical Leadership College  <a href="mailto:victor.tabbush@anderson.ucla.edu">victor.tabbush@anderson.ucla.edu</a>  <a href="mailto:carlstevens@mednet.ucla.edu">carlstevens@mednet.ucla.edu</a></p>	<ol style="list-style-type: none"> <li>2. Describe common business competencies (such as economics and finance) as applied to the public and private health-care industry.</li> <li>3. Analyze the U.S. health-care delivery structure from a business perspective: a. Historical development and financing of organized medicine; b. Perspective on potential future models of health-care delivery; c. Familiarity with all types of organizations that are involved in the health-care sector (pharmaceuticals, venture capital, etc.).</li> <li>4. Understand the development and role of public policy in shaping health-care delivery.</li> <li>5. Understand the ethical duties of physician leaders in health care and develop an internal framework for ethical decision-making.</li> <li>6. Demonstrate a population perspective in medical management and healthcare planning.</li> </ol> <p>The program is comprised of formal training in both the medical and the management schools culminating in an integrated fifth year of study.</p> <ul style="list-style-type: none"> <li>• The first three years are spent in the Medical School, where basic sciences and clinical applications are the foundation of the curriculum.</li> <li>• During or before year 3, students take the GMAT examination and in year 3 apply to UCLA Anderson School of Management.</li> <li>• Fourth-year students spend the majority of their time in UCLA Anderson completing management core curriculum and elective classes, as well as participating in essential socializing, team-building and leadership development experiences.</li> <li>• The fifth year is invested in: clinical electives; management electives; an integrated clinical elective that provides opportunity to further management skills (e.g., working with clinician leaders and studying medical management domains); the Anderson Applied Management Research (AMR) project, a summer experience applying clinical and management skills in a team project setting by identifying a “real-life” business case project in a company or institution. This project satisfies six weeks of medical school academic nonclinical credit.</li> </ul>	

<p><b>University of Chicago:</b>  <a href="#">Chicago Booth School of Business</a> or  <a href="#">University of Chicago Harris School of Policy</a>  <a href="#">Pritzker School of Medicine</a></p> <p><b>Contacts:</b>                  Current Pritzker School of Medicine students interested in applying for the joint MBA degree or joint public policy masters should make an appointment with <a href="#">Dr. Jim Woodruff</a>, Associate Dean of Students. Prospective students interested in exploring the MD/MBA or MD/AM degree should contact the <a href="#">Pritzker Admissions Office</a>.</p> <p>Students who pursue the MD/MBA may participate in the <a href="#">Graduate Program in Health Administration and Policy (GPHAP)</a>. This program allows students to earn a Certificate in Health Administration and Policy while earning a master's degree at Chicago Booth, the Harris School of Public Policy</p>	<p><b><u>Joint MD MBA Degree:</u></b>                  MD/MBA students complete both degrees in 5 to 6 years.</p> <p>Pritzker School of Medicine students who are interested in utilizing their medical degree in a business application, or in the field of public policy, have the unique opportunity to pursue a <a href="#">dual degree program</a> in conjunction with the <a href="#">University of Chicago Booth School of Business</a> or University of Chicago Harris School of Policy.</p> <p><b><u>Admissions:</u></b>                  Students are encouraged to complete their first two years of medical school prior to applying to this joint-degree program. If interested in pursuing the MBA/MD, current students should reach out to <a href="#">Dr. Jim Woodruff</a>, associate dean of students at the Pritzker School of Medicine. Prospective students should contact the Pritzker Admissions office to learn more about exploring their MBA/MD degree options.</p> <p>These degrees are administered separately and require two separate admissions and financial aid applications. Interested Pritzker applicants are encouraged to complete their first two years of medical school before applying to the business school.</p> <p>MD/MBA students at the University of Chicago typically complete the first two years of medical school before applying to the Booth School of Business (application is submitted during the third year clerkships).</p> <p>If accepted, the student takes a year-long leave of absence after third year to pursue full-time coursework at Chicago Booth. Following the year of full-time MBA work, students return to the medical school for their fourth year of medical school. During that final year of the MD degree, MD/MBA students take electives in both the Pritzker School of Medicine and Chicago Booth.</p>	<p><b><u>Chicago Booth:</u></b>                  The school determines the tuition charges. The School of Medicine charges tuition at a flat rate, regardless of how many courses are taken. Chicago Booth charges tuition on a per-course basis. Students pay Chicago Booth tuition for 1400 units of course credit.</p> <p><a href="#">Pritzker Medical School</a>.</p>
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<p>Studies and the School of Social Service Administration.</p>	<p><b>Program Structure:</b></p> <p>To earn a dual MBA/MD degree, students complete 1400 units of Booth-only course credit (+LEAD) and required coursework at the <a href="#">University of Chicago Pritzker School of Medicine</a> over a five-year period. Students complete their first two years of residency in the medical school. Students are encouraged to complete their first two years of medical school prior to applying.</p> <p>During their third year at the medical school, they complete their clerkship/rotations during all four quarters. During their fourth year, students spend Summer Quarter at the medical school and Autumn, Winter and Spring Quarters at Chicago Booth, where they typically complete 1200 units of course credit plus LEAD. Their final year consists of a business internship in the Summer Quarter followed by their remaining quarters spent in the medical school, where they incorporate their remaining 200 units of course credit at Chicago Booth to complete the joint degree requirements.</p> <p>Y1 MD, Y2 MD, Y3 MD/Clerkship Rotations, Y4 MD 1 semester — 3 semesters Booth, Y5 Booth Internship, MD 2 semesters and MD Post Med 1 semester.</p> <p><a href="#">Pritzker Curriculum.</a></p>	
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<p><b>Columbia:</b>  <a href="#">Columbia Business School</a>.            Columbia Vangelos College of Physicians &amp; Surgeons.</p>	<p>Join the ranks of the next generation of health-care system leaders in the MD-MBA program with Columbia Business School. Medical students who pursue this path may envision a career as a hospital executive, a health-care system CEO, or as the dean or chair of an academic department at a medical school.</p> <p>Medical students begin the MBA program in the January after their major clinical year or during the Differentiation and Integration portion of the MD program. They are required to take their first two business school terms (spring and summer) consecutively and then have the option to continue straight through and finish their third business school term in the fall, or return to medical school in the fall and finish their MBA requirements in the next spring.</p> <p><b>Columbia Vangelos College of Physicians &amp; Surgeons</b></p> <p><a href="#">Dual Degrees</a>.</p>	<p>Columbia Business School - \$110,978</p> <p><a href="#">Vandelos Tuition</a>  <a href="#">Vangelos Budget</a>            Vangelos Full Tuition — \$283,606.</p>
<p><b>Cornell:</b>  <a href="#">SC Johnson College of Business</a></p> <p>Cornell MBA Admissions,  <a href="mailto:mba@johnson.cornell.edu">mba@johnson.cornell.edu</a>,            607.255.4526.</p> <p><a href="#">Cornell Tech</a></p>	<p>Johnson offers a dual-degree MD/MBA program in collaboration with the Cornell Weill Medical College.</p> <p>Many alumni have developed entrepreneurial ventures in medically related fields such as drug delivery, diagnostic processes, biotechnology, and nanotechnology. For these individuals, our robust core curriculum provides a critical foundation of knowledge and skills that enables them to develop successful ventures.</p> <p>Other alumni, who establish large practices, find that having a business perspective and developing strong leadership and management skills helps them to run efficient, smooth-running practices that achieve high levels of patient and employee satisfaction and financial success in an environment fraught with constant change.</p>	<p>SC Johnson School of Business — \$158,447.</p> <p><a href="#">Cornell Weill Medical College</a> — \$235,040.</p>

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<p><a href="#">Cornell Weill Medical College</a></p>	<p><b><u>Admissions:</u></b></p> <p>Johnson offers MD students from <a href="#">Cornell Weill Medical College</a> the opportunity to undertake our <a href="#">One-Year MBA program</a>, a rigorous one-year MBA program beginning in May and graduating in the following May. Typically, medical students enroll in the One-Year MBA program between the third and fourth year of medical school.</p> <p>The Johnson One-Year MBA program is distinctive in that it is <a href="#">designed</a> for individuals who already have advanced degrees in scientific or technical fields and have strong quantitative skills as well as proven leadership ability. Here you will find peers who stimulate and challenge you, both among One-Year MBAs and our Two-Year MBA students, and you will become part of a lifelong network of engaged Cornell alumni.</p> <p>Learn more about the <a href="#">Lee Family MD/MBA and PhD/MBA dual degree program</a> offered through Cornell Weill Medical College.</p> <p><a href="#">Online Brochure</a></p> <p><a href="#">Weill Cornell Medicine</a></p> <p><b><u>Dual Degree Program:</u></b></p> <p>Weill Medical College of Cornell University has partnered with <a href="#">The Johnson School of Management at Cornell University</a> to offer medical students the option of earning an MBA degree in just 12 months. The MD-MBA dual degree is designed for students who want to pursue a career in medicine and business, preparing them</p>	

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	<p>for leadership roles in major health organizations, pharmaceutical companies, biotechnology firms, and other health-related businesses.</p> <p>Dual degree students will begin their program in the medical college and take a one-year leave of absence between the third and fourth years. They then join the Johnson School's Accelerated MBA (AMBA) program in May of their third year of medical school and complete their MBA requirements by the following May. An MBA degree is granted after a student completes their fourth year of medical school and obtains an MD degree.</p> <p>Please note that third year medical students must complete their Surgery and Medicine clerkships before they begin the accelerated MBA program in May.</p> <p>Medical students in their fourth year may apply for the Accelerated MBA program, which they will begin in May of their fourth year. They will complete their fourth year after completing the AMBA program the following May.</p> <p>Students interested in the MD-MBA program will apply to the AMBA program through the Johnson School, which is responsible for all admission decisions.</p>	
<p><u>Dartmouth:</u> Tuck School of Business</p> <p><b>Michael Zubkoff</b> Professor and Chair of Community &amp; Family Medicine, Geisel School of</p>	<p>The MD-MBA program matriculates up to 6 students per year and is typically completed in five years, or five years plus a portion of year six.</p> <p>Health care is one of the most crucial issues facing our nation today. There is a pressing need for leaders who have an in-depth understanding of the complexity of both medical and management issues. Innovative solutions will come from those professionals with interdisciplinary expertise of a high order—leaders trained in medicine and equipped with the skills of management. As health care evolves, there is a growing need for</p>	



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<p>Medicine at Dartmouth, Professor of Economics and Management, Tuck School of Business at Dartmouth, <a href="mailto:michael.zubkoff@dartmouth.edu">michael.zubkoff@dartmouth.edu</a>.</p> <p><b>Donald P. Conway MD, MBA (T'72)</b>            Director of Health Care Initiatives (and Adjunct Associate Professor), Tuck School of Business at Dartmouth, Adjunct Associate Professor of Community &amp; Family Medicine Geisel School of Medicine at Dartmouth, 603-646-3741, <a href="mailto:donald.p.conway@dartmouth.edu">donald.p.conway@dartmouth.edu</a></p> <p><a href="#">Geisel School of Medicine</a></p> <p>Geisel School of Medicine at Dartmouth            3 Rope Ferry Road            Hanover, NH 03755-1404            603-650-1505</p> <p><a href="#">Office of Admissions website</a>            Tuck School of Business at Dartmouth            Office of Admissions</p>	<p>people with backgrounds both in medicine and management. The MD-MBA program at Dartmouth promotes clinical credibility while promoting managerial and administrative excellence.</p> <p>Two of the country's most distinguished and established educational institutions, Dartmouth's Geisel School of Medicine and Tuck School of Business offer a joint MD-MBA degree in medicine and management to health-care leaders. Both schools are noted for academic rigor, emphasis on teamwork, communication skills, and leadership development.</p> <p><b>Admissions:</b>            There are no specific prerequisite courses for admission to the Tuck School. However, undergraduate courses that are highly contributory to preparation for graduate business school might include a two-course sequence each in economics and college mathematics and a course each in finance and computing.</p> <p>Although most Tuck students have some management background before they enroll, this is not a prerequisite for admission to the MD-MBA. The applicant must however show clear evidence of the ability to understand group dynamics and the capacity to function as a member of a team. Both schools require a high level of maturity, responsibility, and commitment to a career involving both disciplines, with an understanding of the issues and challenges in both fields.</p> <p>As the program is seen as an honors program, students need to be in good academic standing at Geisel having passed all their course work at Geisel to date.</p> <p>For more information on <a href="#">Geisel Admissions</a>. For more information on <a href="#">Tuck admissions</a>.</p>	

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<p>100 Tuck Hall                      Hanover, NH 03755-9030  <a href="http://www.tuck.dartmouth.edu/mba">www.tuck.dartmouth.edu/mba</a></p>	<p><b>Applicants to the MD-MBA program must be enrolled students in good standing at the Geisel School of Medicine at Dartmouth. Students apply to the Tuck School during their second year of medical school. The MD-MBA program admits up to 6 students per year and is typically completed in either five or six years.</b></p> <p><u>Curriculum:</u>                      Educational plans vary, though students typically spend the first three years matriculated at the medical school, during which time they complete the first and second year basic science courses and the third year clinical clerkships. Students then matriculate at Tuck for the full Tuck first year curriculum. The remaining fourth year medical school credits and second year business school credits are subsequently completed according to students’ individualized schedules.</p> <p>The Dartmouth MD-MBA Program offers both five and six year program options. We recommend the five-year program but understand that some will choose the six year option. When at all possible, we encourage a 5.5 year program rather than a full six years, so you do not have to pay the full six years of tuition. In most cases with a 5.5 year program the student completes the Tuck graduation requirements and graduates with his/her Tuck class and then receives his/her medical degree once the remaining medical school credits are completed.</p> <p>The five year program is tightly scheduled with very few breaks, allowing candidates to earn the joint degree in five rather than six years, thereby reducing their financial commitment and enabling them to launch their careers at an accelerated pace.</p> <p>The six year track allows the student to experience the full impact of both programs, including a Tuck summer internship, while allowing some cross-course credits to be applied to each school and a little more scheduling flexibility for the student.</p>	

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	<p><b>Y 1 to Y3 Geisel</b>  <b>Y 4 — Tuck School of Business.</b></p> <p>Classes at Tuck begin at the end of August and wrap up at the end of May. This will be a fun but scholastically packed year and it goes by fast. We encourage you to be proactive in your engagement with your business school classmates, health care leaders who visit campus, and the multitude of projects and opportunities available to deepen your understanding of health care management and to broaden your exposure to other managerial roles and skills.</p> <p>The Tuck Healthcare Initiative (HCI), one of several research centers at Tuck, can support MD-MBA students in this engagement. The HCI enhances the education and industry of Tuck students in the classroom and beyond through coursework, independent studies, consulting projects, internship support, and exposure to experts in business and health policy. It brings together the expertise of its affiliated Tuck faculty, as well as resources from across the Dartmouth College campus, including the Dartmouth Institute for Health Policy and Clinical Practice, the Geisel School of Medicine, and the Thayer School of Engineering. For students looking to expand their education to other industries, there are several other research centers, elective courses, and project opportunities to foster this learning.</p> <p>Additionally, we strongly encourage you to complete your TuckGO global experience requirement during the Tuck first year spring break in March.</p> <p>The summer months of June, July, August, and half of September after the Tuck first year curriculum ends can be used for completion of medical school credits. Students generally complete Geriatric &amp; Ambulatory Medicine in June and sub-internships or clinical electives in July, August, and sometimes September. For students taking six years to complete the MD-MBA program, a business internship can also be completed</p>	

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	<p>during this time. We also encourage you to do a two week sub-internship or elective during part of the Tuck winter break in December to keep your clinical skills fresh.</p> <p><b>Year 5:</b> In year five of the program, students will complete their remaining medical school Core Clerkships, elective credits, and required non-clinical courses as well as the remaining Tuck elective credits required for graduation. This year allows students to integrate the medical and business experiences of the previous four years and apply them to areas of their own special interest.</p> <p>Most students spend the fall term of the fifth year at Tuck, the winter term on the residency interview trail and completing the final required non-clinical medical school coursework, and the spring term at Tuck.</p> <p><b>Y 5 Plan vs. Y 6 Plan:</b> There are considerable benefits to either the five or six year plan. Exceptional students dedicated to a clinical career have found the five-year program to be the most efficient track to residency.</p>	
<p><b>Duke:</b></p> <p><a href="#">Fuqua School of Business</a></p> <p><a href="#">Duke University Medical Center</a></p>	<p><b>MBA Fuqua School of Business — 5 years.</b></p> <p>The program was developed to keep MD/MBA graduates within the health care field and to create future physician-executives. Unlike many MD/MBA degree programs, the Duke program does not require you to give up clinical practice to complete your business coursework. The emphasis is not on one discipline or the other but preparing you to become a leader in both.</p> <p>The MD/MBA degree program also has a first-of-its-kind, MBA-like rotational residency, called Duke's Management and Leadership Pathway. Over 15 to 18 months, you get rigorous clinical exposure along with</p>	<p>The first 2 years of tuition are paid to the School of Medicine.</p> <p>The next 3 years of tuition (seven semesters) are a blended rate, split between Fuqua and the School of Medicine.</p>

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	<p>mentorship and rotational opportunities in management to develop critical leadership skills in all facets of medicine, including care delivery, research, and education.</p> <p><b>Admissions:</b>                      Students typically apply to Fuqua during their second year at the School of Medicine.                      Indicate your interest in a dual degree upon admission to the School of Medicine.                      Admission to one school does not guarantee admission to the other.</p> <p><b>Curriculum:</b>                      Y1 &amp; Y2 Medicine, Y3: Medicine + Fuqua core + Health Sector Management courses, Y4: Medicine + Fuqua electives + thesis, Y5: Medicine + Fuqua electives.</p> <p><b>Fuqua's Health Sector Management (HSM) Concentration:</b>                      Focus on the entire health care ecosystem and gain a deeper appreciation of the dynamics between policymakers, providers, insurers, device manufacturers, health information systems, and bio-pharmaceutical companies. You'll master a spectrum of skills that will enable you to effect change for the better. Created in 1999, the program now ranks among the top health industry business school concentrations in the world. In addition to HSM, you will have the option to complete one additional <a href="#">concentration</a> or certificate at Fuqua.</p> <p><b>Day-to-Day Schedule:</b>                      Fuqua courses are usually held on a Monday/Thursday or Tuesday/Friday schedule.                      The Medical School's courses are usually held on a Monday/Wednesday or Tuesday/Thursday schedule.                      The Medical School and Fuqua follow different academic calendars and semester schedules. Fuqua semesters are divided into two terms each. When scheduling a semester-long Medical School course, be sure to consider both of Fuqua's terms so that there will not be a conflict.</p>	

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	<p>Tuition Rate</p> <p>Duke University's Medical Center and Research Triangle Park, both located in Durham, <a href="https://fmch.duke.edu/">https://fmch.duke.edu/</a> Family Medicine and Community Health.</p>	
<p><a href="#">Harvard</a></p> <p>Contact:                      HBS Email: <a href="mailto:admissions@hbs.edu">admissions@hbs.edu</a>                      Admissions: 617.495.6128  <a href="#">HMS</a> Harvard University information, call 617-432-1000.</p>	<p><b>Admission Requirements:</b></p> <p>Applicants interested in the MD/MBA Program apply to HBS and HMS separately and are selected independently.</p> <p>Students currently enrolled in the HMS MD Program can <a href="#">apply to HBS</a> only during their second year at HMS and in the second of two rounds of HBS admissions. A student must first be admitted to the standard, two year MBA degree program, after which they will be considered for endorsement by HMS to join the five year, joint degree program. Endorsement decisions will be based on a student's academic performance while at HMS.</p> <p>Students currently enrolled at HBS must <a href="#">apply to HMS</a> before its October deadline. Once a student has been admitted to and enrolled in the joint MD/MBA program, the student must complete both degrees successfully in order to achieve graduation from Harvard.</p> <p><a href="#">Curriculum</a></p> <p>Curriculum Overview:                      The curriculum of the MD/MBA program is rigorously grounded in fundamental management concepts — including strategy, economics, finance, marketing, operations, and more — and the core science and clinical</p>	<p><a href="#">Harvard Tuition</a></p> <p><b>2020-2021 MBA Program Cost of Attendance:</b> \$111,102.</p> <p><b>Tuition and Financial Aid:</b>                      In Years 1, 2, and 3 of the MD/MBA program, students are registered at HMS pursuing core medical curricular requirements and pay full HMS tuition and fees.</p> <p>In Year 4, students are registered at HBS pursuing the MBA Required Curriculum and pay full HBS tuition and fees. Students apply to the HBS Financial Aid Office for financial aid in Year 4 and follow standard <a href="#">HBS financial aid</a> policies. View a <a href="#">student budget</a> for the HBS MBA Class of 2018.</p>

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	<p>disciplines of medicine. Further, the MD/MBA is designed as an integrated curriculum, rather than simply a sequence of MBA classes added to the standard medical education.</p> <p><a href="#">Course Catalogue</a></p>	<p>In Year 5, students' primary school of enrollment is HMS, and students pay HMS full-year tuition and fees. Students apply to the HMS Financial Aid Office for financial aid in Year 5.</p> <p>Students in the joint degree program will be limited to a total of five years of financial aid from HMS and HBS toward the MD/MBA degrees.</p>
<p><b>University of Michigan:</b></p> <p>Ross Business School  <a href="mailto:rossadmissions@umich.edu">rossadmissions@umich.edu</a></p> <p><a href="#">Rackham Graduate School</a></p>	<p><a href="#">Dual Degree Programs</a> — A Dual Degree is an integrated program. In recognition of the interdependency of the degrees, the University confers the Master’s degree only after the completion of both school degree requirements.</p> <p>Admissions — <a href="#">Rackham Graduate School</a>.</p> <p><b>Admission to the Graduate School</b> is a separate application process. For most master’s degrees, students must complete the application process through the <a href="#">Rackham Graduate School Admissions (link is external)</a> office. The exception, MBA must apply directly to the <a href="#">Ross Business School Admissions (link is external)</a> MSI must apply directly to the <a href="#">School of Information (link is external)</a> MPH dual degree application process: <a href="#">School of Public Health Application PDF (link is external)</a></p>	<p><b>Tuition (Per Term)*</b></p> <p>Michigan Resident (in-state): \$33,024.                      Non-Resident (out-of-state): \$35,524.</p> <p>For tuition rate/fees, please visit: <a href="#">Tuition Rate/Fees (link is external)</a>  <a href="https://ro.umich.edu/tuition-residency/tuition-fees">https://ro.umich.edu/tuition-residency/tuition-fees</a></p>

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	<p><b>University of Michigan Medical School:</b>                      UMMS provides flexibility for students who wish to combine their medical education with a second advanced degree in many fields including biomedical sciences, business, public health, public policy, and science information.</p> <p>For medical students seeking a master’s degree through the Dual Degree Program, they must first receive the endorsement from the Office of Medical Student Education’s (OMSE) Competency Committee (CC). This endorsement is <b>not automatic</b>. Applicants are expected to have demonstrated outstanding academic achievement and professionalism in Medical School. The endorsement process includes a rigorous review of the applicant’s overall medical school performance and application materials.</p> <p>ALL Medical Students must successfully complete ALL clinical requirements (Sub-I, ICU, EM) and clinical electives in the Branches.</p> <p><b>Master in Business Administration (MD/MBA):</b>                      ROSS BUSINESS SCHOOL: The M.B.A. portion of the dual degree is 45 credit hours. Students typically take a leave of absence from medical school between the third and fourth years of study to complete their business administration coursework. Students are able to complete the MBA summer internship between the fourth and fifth program years. During the student’s 5th year, they will spend one semester completing the MD requirements, and the other semester completing the MBA requirements. <b>~The GMAT/GRE requirement is waived for University of Michigan Medical School students. On the Business School application, please answer "Yes" to the question, "Are you a current Law or Medical student at the University of Michigan?"</b></p> <p>Detailed information regarding the MBA requirements for MD dual degree student:                      Link to: <a href="#">Master in Business Administration (MD/MBA) (link is external) Curriculum</a></p>	



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<p><b>New York University:</b></p> <p><a href="#">NYU Stern</a></p> <p><a href="#">NYU School of Medicine</a></p>	<p>The dual MD/MBA degree takes five years to complete.</p> <p><b>Admission:</b>                      Applicants to the MD/MBA Dual Degree Program must currently be third year full-time students at the NYU School of Medicine. Candidates must complete the NYU Stern Dual Degree Application Supplement by the MD/MBA application deadline.</p> <p>MD/MBA dual degree applicants must use NYU Stern’s dual degree application. They cannot apply using the Consortium application or NYU Stern’s MBA application.</p> <p><b>Curriculum:</b>                      Students enroll in the School of Medicine on a full-time basis for the first three years before taking a dedicated year to enroll full-time at Stern to begin the MBA program. Enrollment at Stern begins in the fourth year and extends through the fall and spring semesters. Students then return to the medical school for the summer and fall of the fifth year, followed by a final semester of MBA coursework in the spring of the fifth year. Students are awarded the MD in May of the fifth year and the MBA upon successful completion of the final semester of the program. To view a sample schedule, visit the <a href="#">MBA Academic Affairs website</a>.</p>	<p>MD/MBA students pay full tuition and fees at the school through which they are registered each semester. If a student exceeds the maximum number of per-semester credits and/or courses permitted by the school in which she/he is registered, the tuition and fees for the additional credits must be paid to that school.</p> <p>The MBA portion of the MD/MBA dual degree is not covered by the NYU Medical School's full-tuition scholarship. All students matriculated at Stern must pay for the MBA portion of the degree. All applicants admitted to Stern are automatically considered for merit-based scholarships. Both schools offer a variety of additional loan and scholarship programs. View information on <a href="#">Stern MBA financial aid</a> and <a href="#">School of Medicine financial aid</a>.</p>

USA	Summary	Tuition
<p><b>North Carolina/Chapel Hill:</b></p> <p>MBA Kenan Flagler  MBA <a href="https://www.kenan-flagler.unc.edu/programs/mba/">https://www.kenan-flagler.unc.edu/programs/mba/</a>  Dual degree <a href="https://www.kenan-flagler.unc.edu/programs/mba/dual-degree-mba/">https://www.kenan-flagler.unc.edu/programs/mba/dual-degree-mba/</a>    <a href="mailto:mba_info@unc.edu">mba_info@unc.edu</a>    Dr. Georgette Dent  <a href="mailto:georgette_dent@med.unc.edu">georgette_dent@med.unc.edu</a>    <a href="#">UNC School of Medicine</a></p>	<p>MBA <a href="https://www.kenan-flagler.unc.edu/programs/mba/">https://www.kenan-flagler.unc.edu/programs/mba/</a>  Dual degree <a href="https://www.kenan-flagler.unc.edu/programs/mba/dual-degree-mba/">https://www.kenan-flagler.unc.edu/programs/mba/dual-degree-mba/</a>  The first cohort of M.D./M.B.A. of classes began in Fall 2012  Curriculum: Y1-Y3: Medical School, Y4: Kenan-Flagler + Summer Internship, Y5: Kenan-Flagler &amp; Medical School (joint year)    <b>Admissions</b> <a href="mailto:mba_info@unc.edu">mba_info@unc.edu</a>    <u>Dual Degree</u>    <a href="https://www.kenan-flagler.unc.edu/programs/mba/full-time-mba/admissions">https://www.kenan-flagler.unc.edu/programs/mba/full-time-mba/admissions</a>  <a href="https://www.med.unc.edu/education/combined-programs/md-mba/">https://www.med.unc.edu/education/combined-programs/md-mba/</a>    UNC School of Medicine    <a href="https://www.med.unc.edu/mdphd/nuts-and-bolts/faqs/">https://www.med.unc.edu/mdphd/nuts-and-bolts/faqs/</a>  <a href="https://www.med.unc.edu/education/combined-programs/md-mba/">https://www.med.unc.edu/education/combined-programs/md-mba/</a></p>	<p><b>Tuition:</b>  The <b>UNC</b> online <b>MBA</b> program costs about \$1728 per credit, bringing the total tuition cost to \$114,078 for both in-state and out of state students.</p>
<p><b>Northwestern:</b></p> <p>Kellogg School of Management  <a href="mailto:MBAadmissions@kellogg.northwestern.edu">MBAadmissions@kellogg.northwestern.edu</a>    Feinberg School of Medicine</p>	<p><b>Kellogg School of Management - Doctor of Medicine/Master of Business Administration</b></p> <p>MBA — 9 months.</p> <p>NW Feinberg medical students can combine their medical training with an MBA from Kellogg through Northwestern's joint degree program.</p>	<p><b>Tuition -</b>  <i>Whereas other executive MBA programs' tuition may only include the cost of courses, our program costs are designed to be comprehensive and all-inclusive.</i></p>

USA	Summary	Tuition
	<p>Students will apply during their third year of medical school.</p> <p>After completing the third year, students will enroll at Kellogg and spend approximately 9 months completing their core courses through the MS in Management studies program based on the Chicago campus.</p> <p>The remainder of the MBA degree requirements can be completed at the Chicago or Evanston campuses.</p> <p>A GMAT or GRE score is required for all candidates applying to the MD-MBA joint degree program.</p> <p>Admissions: <a href="mailto:MBAadmissions@kellogg.northwestern.edu">MBAadmissions@kellogg.northwestern.edu</a></p> <p>Curriculum: <a href="https://www.kellogg.northwestern.edu/programs/full-time-mba/md-mba-program.aspx">https://www.kellogg.northwestern.edu/programs/full-time-mba/md-mba-program.aspx</a></p> <p>Program Highlights:</p> <ul style="list-style-type: none"> <li>• Earn two prestigious degrees</li> <li>• Gain foundation, depth, and expertise</li> <li>• Select courses from the <a href="#">Healthcare at Kellogg (HCAK)</a> pathway. Building on the established strength of core curriculum, the HCAK pathway is a uniquely integrated, cross-functional sequence of courses designed with healthcare management in mind.</li> <li>• Build a stellar network</li> </ul> <p>Kellogg One-Year students enroll with business fundamentals and immediately build on this foundation. The summer quarter begins with required courses in Strategy and Management and Organization and is supplemented with courses in Accounting and Finance appropriate for your level. Accounting and Finance courses may be waived with successful completion of an exam. The remainder of your academic journey at</p>	<p>\$127,563 USD (Historically, tuition has increased 3 to 4 percent annually)</p> <p>Tuition <a href="#">Feinberg Tuition Info</a></p>

USA	Summary	Tuition
	<p>Kellogg is focused around advanced electives to accelerate your career. We offer a flexible curriculum to fit your needs and future plans. Our catalog contains more than 200 courses, and like the business landscape, our offerings constantly evolve.</p> <p>After completing your third year at Feinberg, students will enroll at Kellogg at the start of summer quarter and spend approximately one year completing courses on the Evanston campus. MD-MBA students take core coursework alongside full-time MBAs in the Kellogg Global Hub and have access to the full catalog of program coursework.</p> <p>Kellogg’s approach to majors gives our students the flexibility and guidance they need to carve out a unique intellectual experience that is relevant to their specific educational and career goals.</p> <p>You may opt to choose from seven majors: <a href="#">Accounting</a>, <a href="#">Economics</a>, <a href="#">Finance</a>, <a href="#">Marketing</a>, <a href="#">Operations</a>, <a href="#">Strategy</a> and <a href="#">Managing Organizations</a>. A major requires that a student complete the core course for the major and a minimum of four electives.</p> <p>If you choose not to elect a major, “General Management” will be noted on your transcript.</p> <p>In addition to majors, Kellogg provides “pathways” to our students who are interested in building expertise in emerging areas and evolving industries.</p> <p>A pathway is an integrated, cross-functional sequence of courses designed to address a particular skill set or industry for which there is active student and recruiter demand. You have the flexibility to pursue any number of pathways and go as deep as you’d like into each one.</p> <p>Explore pathways for <a href="#">Data Analytics</a>, <a href="#">Growth and Scaling</a>, <a href="#">Healthcare at Kellogg</a>, and <a href="#">Social Impact</a>. <a href="#">Learn more.</a></p>	

USA	Summary	Tuition
	<p>Northwestern, Feinberg School of Medicine <a href="https://www.feinberg.northwestern.edu/md-education/index.html">https://www.feinberg.northwestern.edu/md-education/index.html</a>  <a href="#">Department of Medical Education</a></p> <p>Center for Bioethics and Medical Humanities <a href="https://www.bioethics.northwestern.edu/education/ma-students/prospective-students/index.html">https://www.bioethics.northwestern.edu/education/ma-students/prospective-students/index.html</a></p> <p>Feinberg Admissions <a href="https://www.feinberg.northwestern.edu/admissions/md-education/index.html">https://www.feinberg.northwestern.edu/admissions/md-education/index.html</a></p> <p>MD Curriculum:  M1-10 months, M1 AOSC (1month) M2-8 mos, M2 Phase Two (2 mos), M3 (11 mos)</p> <p><b>Prospective Students:</b>  Our program is intended for the working professional or full-time student who is interested in contemporary issues in bioethics. It is valuable to those in or interested in pursuing any profession that intersects with biomedical and health fields. Our students may include: Feinberg MD students, Graduate students: including those in the fields of genetic counseling, biomedical research, law, or journalism, Individuals in healthcare-related professions: those interested in expanding their understanding of medical humanities and bioethics as they relate to their careers in medicine, research, law, journalism, etc.; Pre-med applicants: those interested in developing their experience in bioethics and humanities prior to applying to medical.</p>	
<p><b>University of Pennsylvania:</b></p> <p><a href="#">Wharton MBA</a></p> <p>Contact: Amy Nothelfer  <a href="mailto:nothelfe@penmedicine.upenn.edu">nothelfe@penmedicine.upenn.edu</a></p>	<p><a href="#">Wharton MBA</a> MD/MBA Degree Completion Time: 5 years</p> <p><a href="#">Wharton Admission:</a>  All applicants must submit results of a Graduate Management Admissions Test (GMAT) or a Graduate Record Examination (GRE) that are no more than five years old. For the Fall 2020 entering class, tests taken between September 17, 2014 and March 23, 2020 will be accepted. Scores may be self-reported.</p>	<p><b>Wharton MBA Program Tuition and Cost Breakdown:</b>  First year — \$114,896, which includes tuition and fees (\$81,378), room &amp; board (\$22,670), books and supplies</p>

USA	Summary	Tuition
<p><a href="#">Perelman School of Medicine</a></p>	<p><b>Program Details:</b>                      MBA Program Length: 20 months, including a 3.5 month summer internship (recommended)                      Class Schedule: Year 1: early August to May; Year 2: early September to May. Monday to Thursday (exams may be scheduled on Fridays).                      Majors and Program Customization: You have a choice from <a href="#">18 majors</a>. Approximately 40% of students complete their degree with two majors.                      Global Experience: Take part in a dual-degree program, or choose study abroad, a <a href="#">Global Modular Course</a>, <a href="#">Global Immersion Program</a>. <a href="#">Check out all of Wharton’s global offerings</a>.                      Campus Locations <a href="#">Philadelphia</a>, with the opportunity to study for one semester in <a href="#">San Francisco</a> by application.</p> <p><a href="#">Perelman School of Medicine:</a>                      Admission to the program is competitive and not all Perelman medical students who apply are accepted. Candidates seeking admission are evaluated based on academic and personal accomplishments, emphasizing demonstrated leadership, managerial potential, motivation and capacity to pursue a rigorous management graduate program. Professional development, diversity of background and outside interests, depth of self-appraisal and commitment are especially valued.</p> <p><b>Perelman Admissions Process:</b>                      There are two steps to applying:                      1. Apply to the Master of Business Administration Program.                      Perelman medical students who wish to enroll in the MD/MBA program must take the GMAT or GRE exam and must submit an application directly to the Wharton School for the MBA program. Please see the <b>Wharton Admissions</b> for further information.</p>	<p>(\$1,494), and additional personal expenses (\$9,354).                      The estimated total program budget is \$224,948.                      Students are responsible for their own housing, meals, and course materials.</p> <p><b>Wharton Scholarships:</b>                      All applicants, including Penn Med applicants, are automatically considered for Wharton Fellowships. There is no special application required.</p>

USA	Summary	Tuition
	<p>2. Submit <a href="#">Master's Program Registration Form</a> to the Combined Degree Office.</p> <p>In addition to submitting an MBA application to Wharton, Perelman medical students must also submit a Master's Program Registration Form to <a href="#">Amy Nothelfer</a>, Associate Director of the Combined Degree and Physician Scholar Programs Office (6th Floor JMEC).</p> <p><b>Perelman MD/MBA Curriculum:</b> MD/MBA Degree Completion Time: 5 years.</p> <p>Perelman medical students interested in the MBA program may opt to take a MBA course in the Fall or Spring of their first year or Fall of their second year of Medical School, before applying to Wharton, so they have a better understanding of what the program entails.</p> <p>Students are enrolled in the MD program full time for the first three years and in MBA course work full time during year 4. During the summer between year 4 and 5, typically students participate in a business internship. However, some students have elected to do research or additional clinical rotations during the summer. Then in year 5, students will do a semester at Wharton and a semester at the Medical School — students can choose to do either one in Fall and the other in Spring.</p>	
<p><b>Stanford:</b> <a href="#">Stanford Business</a></p> <p><a href="#">Stanford Medicine</a></p> <p><a href="mailto:mba_admissions@gsb.stanford.edu">mba_admissions@gsb.stanford.edu</a></p>	<p><b>Stanford Business:</b> Stanford's five-year dual-degree <a href="#">MD/MBA program</a>.</p> <p><b>Admissions:</b> You must apply separately, and be accepted, to both the <a href="#">School of Medicine</a> and Stanford GSB. You may apply to the MBA Program during your first, second, or third year at the School of Medicine. However, we strongly advise that you apply to the MBA Program in your third year. Stanford Dual Degree Requirements — MD/MBA Time to Complete 17 quarters (5 years).</p>	<p><b>Graduate School of Business Tuition:</b> MBA \$74,706. (M.B.A. program — first year)* \$24,354. Graduate School of Business (M.B.A. program — second year)* \$23,530.</p>

USA	Summary	Tuition
<p>Staff members Allison Davis and Mary Oleksy. Stanford University School of Medicine <a href="mailto:mdadmissions@stanford.edu">mdadmissions@stanford.edu</a></p>	<p>The MD/MBA dual degree program allows the student to pursue an MBA at Stanford GSB and an MD from the <a href="#">Stanford School of Medicine</a> in five academic years of residence.</p> <p><b>Preferred Path to Completion:</b></p> <p><b>Curriculum:</b>  <b>Y1 School of Medicine Pre-clerkship/scholarly concentration</b>  <b>Y2 School of Medicine Pre-clerkship/scholarly concentration</b>  <b>Y3 School of Medicine Core clinical rotations, including surgery and medicine plus selective sub</b>  <b>Y4 Stanford GSB*</b> *Per Stanford School of Medicine policy, students must receive an overall pass on Step 1 of the USMLE within 12 months of the start of clinical clerkships. It is highly recommended that MD/MBAs take their STEP 1 exam prior to starting at the GSB.  <b>Y5 Fall Quarter School of Medicine Clinics, core, and electives</b>  <b>Y5 Winter/Spring Quarters Stanford GSB</b></p> <p><b>Study Opportunities Outside Stanford:</b>  Stanford MBA students may also pursue degrees with selected professional schools at other universities. Check with each school regarding its policy and timeline.  Requirements for Study Opportunities Outside Stanford.  Degree Programs at Schools Outside of Stanford University.</p> <p><b>Completing two degrees</b> in a shorter amount of time while also saving on tuition.  Expanding one’s network outside of Stanford GSB.  Enhancing marketability for certain career opportunities.  Personalizing and individualizing your academic experience to meet your specific learning goals.</p>	<p><b>School of Medicine (M.D. Program)*</b> \$20,078.</p>



USA	Summary	Tuition
<p><b>University of Virginia:</b></p> <p><a href="#">Darden School of Business</a></p> <p><a href="#">UV School of Medicine</a></p>	<p><a href="https://med.virginia.edu/financial-aid/wp-content/uploads/sites/196/2020/01/2021-COA-MDMBA.pdf">https://med.virginia.edu/financial-aid/wp-content/uploads/sites/196/2020/01/2021-COA-MDMBA.pdf</a> tuition</p> <p><a href="https://med.virginia.edu/student-affairs/policies/pursuit-of-a-second-degree/m-d-m-b-a/">https://med.virginia.edu/student-affairs/policies/pursuit-of-a-second-degree/m-d-m-b-a/</a> page under construction</p> <p><a href="#">Darden</a> M.D./M.B.A. — 5 years</p> <p>The School of Medicine and the Darden School of Business offers a dual degree program in which a student may obtain both the M.D. and the M.B.A. degrees in 5 years. The student is obligated to secure separate admission to both schools. Once admitted to the School of Medicine, the student may apply to the Darden School of Business for admission.</p> <p>Students in the dual degree program begin their M.B.A. curriculum after completing the first three years of the medical curriculum. The total duration is 5 years.</p> <p><a href="#">MD Admissions</a></p> <p><b>Curriculum:</b></p> <p>At the UVA School of Medicine, you will be engaged and challenged from the outset by the system-based “Next Generation” Cells to Society curriculum. “NxGen” combines the practice and science of medicine to educate and train physicians to provide patient-centered care, practice evidence-based medicine and engage in lifelong learning.</p> <p>The “Next Generation” curriculum eschews the traditional split of basic and clinical sciences and instead employs an integrated system-based learning experience throughout the four year MD program. You will be exposed to a balance of active and experiential activities, clinical cases and patients, problem-based learning,</p>	<p><a href="#">School of Medicine Tuition Breakdown</a></p>

USA	Summary	Tuition
	<p>small group and team-based experiences, hands-on laboratories, self-directed learning, lectures and hospital and community-based clinical experiences.</p> <p>The educational experiences and assessments are all competency based. We recognize the diversity of interests in our student body and offer an MD/MBA, MD/PhD (MSTP), several tracks of MD/MPH and an MD/MS in Clinical Research through our dual degree programs. You can also take courses or get an additional degree through one of the other graduate programs at the University. We have an 18 month pre-clerkship phase, which integrates clinical performance development and service learning foundations and integrated organ systems. The clerkship phase is devoted to clinical training in the hospitals and clinics. Finally, the post-clerkship phase provides opportunities for you to engage in advanced clinical skills training and tailor your educational experience to your own interests and career aspirations. International opportunities and travel stipends are available through the Center For Global Health and other programs. This offers you the opportunity to immerse yourself in another culture, learn other languages and pursue clinical or research interests worldwide.</p>	
<p><b>Yale:</b></p> <p><a href="#">Yale School of Management</a></p> <p><a href="#">Yale School of Medicine</a></p>	<p>Yale <a href="https://som.yale.edu/programs/joint-degrees/mba-md-yale-school-medicine">https://som.yale.edu/programs/joint-degrees/mba-md-yale-school-medicine</a></p> <p><a href="#">Yale Joint Degrees</a></p> <p>A decade in, the joint five-year program trains students to be leaders in the increasingly corporate world of medicine. Yale's joint-degree programs are intended to prepare leaders who will bring a broad understanding and analytical thinking to whatever industry they work in.</p> <p>Yale MBA <a href="https://som.yale.edu/programs/mba">https://som.yale.edu/programs/mba</a></p>	<p><a href="#">MBA Tuition: \$76,980</a></p> <p><a href="#">MBA/MD with Yale School of Medicine</a></p>

USA	Summary	Tuition
	<p><b>Admissions:</b></p> <p>Joint-degree applicants must apply to and be admitted to both programs independently. In general, we recommend applying to both programs simultaneously in order to have a more integrated learning experience throughout both programs. In some cases, applicants may also apply to another graduate program during their first year at Yale SOM, or apply to Yale SOM during their first year in another graduate program (or during the second year of a four-year program). Please review the requirements for the specific program you are interested in, as they vary.</p> <p>Students must be admitted to the Yale School of Management and the Yale School of Medicine independently. Applicants may apply to Yale SOM during their third year at the School of Medicine, or apply to the School of Medicine during their first year at Yale SOM.</p> <p>Yale students considering the joint degree program are encouraged to meet with the MD/MBA program director prior to beginning the application process.</p> <p><a href="#">Learn more about admission to the Yale School of Management.</a></p> <p><a href="#">Learn more about admission to the Yale School of Medicine.</a></p> <p><b>Curriculum:</b></p> <p>Most joint-degree students spend the first three years at the Yale School of Medicine; the fourth year at Yale SOM, during which they take the integrated MBA curriculum; and the fifth year taking electives at both schools.</p> <p>The primary care clerkship requirement at the School of Medicine is completed between the end of the second year and the end of the fourth year. The thesis and other graduation requirements at the School of Medicine are completed in the fifth year.</p>	

USA	Summary	Tuition
	<p>During the fifth year, among other electives at Yale SOM and elsewhere at Yale, students are encouraged to take part in the Healthcare Management Colloquium, a year-long series of small group sessions with leaders from throughout the healthcare industry. The colloquium is designed to acquaint the students with the many opportunities available for the physician and non-physician healthcare leader.</p> <p>The educational program is designed to develop physicians who are highly competent and compassionate practitioners of the medical arts schooled in the current state of knowledge of both medical biology and patient care. It is expected that Yale-trained physicians will establish a lifelong process of learning the medical, behavioral, and social sciences by independent study. The aim is to produce physicians who will be among the leaders in their chosen field, to sustain and improve health and to alleviate suffering caused by illness and disease, and to provide outstanding care and service for patients in a compassionate and respectful manner.</p> <p>Yale MD Curriculum <a href="https://medicine.yale.edu/education/curriculum/">https://medicine.yale.edu/education/curriculum/</a></p> <p>MD Program <a href="https://medicine.yale.edu/education/financialaid/mdprogram/">https://medicine.yale.edu/education/financialaid/mdprogram/</a></p> <p>The joint MD/MBA degree program develops physician managers capable of pursuing careers that balance clinical care with managing change in a tumultuous healthcare environment.</p>	