UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

MEETING OF FACULTY COUNCIL
OF THE FACULTY OF MEDICINE

A meeting of Faculty Council will be held on **Monday, May 5, 2014**, from 4:00 p.m. to 6:00 p.m. in the **Red Room, Donnelly Centre**, University of Toronto.

AGENDA

1	**Minutes of the previous meeting of Faculty Council – February 10, 2014**		Speaker
	1.1	Business Arising	
2	**Report from the Speaker**		Speaker
	2.1	Report on External Reviews	
	2.2	2014-2015 Standing Committee Membership	
3	**Reports from the Dean's Office**		
	3.1	Report from the Dean's Office	C. Whiteside
	3.2	Vice-Dean, Research & International Relations	A. Buchan
	3.3	Vice-Deans, Education	S. Spadafora J. Rosenfield
4	**New Business**		
	4.1	Graduate Education Committee	R. Cockerill
	4.1.1	*"THAT the proposal to establish a new Master of Health Science in Translational Research in the Health Sciences be approved as submitted."*	A. Kaplan J. Ferenbok
	4.1.2	*"THAT the proposal to establish a new graduate PhD collaborative program In Human Development be approved as submitted."*	M. Sokolowski
	4.2	Research Committee	P. Hamel
	4.2.1	*"THAT the proposal to establish the Global Institute for Psychosocial, Palliative and End-of-Life Care as an EDU:C be approved as submitted."*	G. Rodin
	4.3	Executive Committee	Speaker
	4.3.1	*"THAT the proposal to transfer of the Institute of Health Policy, Management and Evaluation from its current home faculty (Medicine) to a new home faculty of the Dalla Lana School of Public Health effective July 1, 2014 be approved as submitted."*	A. Brown R. Cockerill
	4.3.2	*"THAT the proposed amendments to the Faculty of Medicine Constitution be approved as submitted."*	*Speaker*

5	**Standing Committee Annual Reports**		
	5.1	PGME Board of Examiners	S. Brister
	5.2	Education Committee	I. Witterick
	5.3	Research Committee	P. Hamel
	5.4	Graduate Education Committee	R. Cockerill
6	**Faculty Council Forum**		
	Natural Justice and the Boards of Examiners		E. Abner D. McKnight
7	**Adjournment**		Speaker

NEXT MEETING: TBD, Fall 2014

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

Faculty of Medicine
FACULTY COUNCIL

Meeting Materials – May 5, 2014

Table of Contents

Agenda Item		Page
1.	Previous Meeting Minutes – February 10, 2014	4
2.2	2014-2015 Standing Committee Membership	24
3.3	Council of Education Vice-Deans Report	30
4.1.1	Master of Health Science in Translational Research	42
4.1.2	PhD Collaborative Program In Human Development	94
4.2.1	Global Institute for Psychosocial, Palliative and End-of-Life Care	133
4.3.1	Transfer of the IHPME to the DLSPH	150
4.3.2	Faculty of Medicine Constitution – Changes Tracked	168
4.3.2	Faculty of Medicine Constitution	180

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

Faculty Council of the Faculty of Medicine
Minutes of the February 10, 2014 meeting
4:00 p.m. – 6:00 p.m.
Red Room, Donnelly Centre

Members Present: L. De Nil (Speaker), P. Poldre, S. Brister, R. Cockerill, P. Hamel, D. Templeton, J. Carlyle, A. Cochrane, G. O'Leary, C. Streutker, F. Meffe, A. Giacca, A. Jakubowski, S. Verma, S. Langlands, A. Buchan, S. Spadafora, D. Anastakis, T. Young, J. C. Zúñiga-Pflücker, J. Nodwell, M. Connell, T. Coomber, J. MacDougald, J. Hall, S. Huynh, R. Vanner, M. Zyweil, S. Degraff, D. Salonen, R. Hegile, D. McKnight, M. Hanson, G. Bandiera, H. Lipshitz, T. Neff, A. Gotlieb, T. Justince, H. Jo, C. X. Cheng

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Call to Order

The Speaker called the meeting to order and noted that there was a quorum.

1. Minutes of the previous meeting of Faculty Council – October 21 , 2013

The minutes of the meeting of October 21, 2013 had been previously circulated. They were approved on a motion from S. Verma and seconded by G. Bandiera. There was no business arising.

2. Report from the Speaker

Dr. De Nil noted that the University requires each Division to appoint an Investigating Officer and a Hearing Officer to administer the Non-Academic Code of Student Conduct. In the Faculty of Medicine, Non-Academic Code of Student Conduct is rarely used as professionalism is an academic criterion of all of our programs (for graduate students the Non-Academic Code of Student Conduct is administered by SGS) and so breaches of professionalism are dealt with through the Boards of Examiners. The Faculty has made the following appointments to comply with University policy:

Hearing Officer – Professor Michael J. Wiley, Division of Anatomy, Department of Surgery
Investigating Officer – Professor Blake Papsin, Department of Otolaryngology – Head & Neck Surgery

Dr. Wiley is the past Chair of the UME Board of Examiners and Dr. Papsin is the current Chair of the UME Board of Examiners. These appointments fit well with their knowledge and experience in serving the UME Board of Examiners.

Moving forward, Council may wish to consider a By-law change which would tie the roles of Hearing and Investigating Officer to the past and current Chair of the BOE such that these appointments become automatic as the Chair turns over.

Dr. De Nil also noted that, as per the Faculty Council By-Laws, the Executive Committee received and reviewed External Reviews for Family and Community Medicine, Obstetrics and Gynaecology, and the Medical Radiation Sciences Degree Program on behalf of Council. The reports received include the report of the external reviewers, the Chair's response, and the Dean's response.

3. Reports from the Dean's Office

3.1 Report from the Dean's Office

Deputy Dean Sarita Verma spoke on behalf of Dean Whiteside who was not able to attend the meeting. Deputy Dean Verma noted that not only are the departmental external reviews ongoing but that the external review process has also been adopted to look at EDUs and decanal reappointments.

The Faculty is in the midst of a major fundraising campaign and Deputy Dean Verma indicated that Dean Whiteside would likely present a thorough update at a future meeting.

There will be a strategic planning retreat on April 2 to coincide with the midpoint of the Strategic Plan. President Gertler will be attending the retreat to present his vision for the future of health sciences at the University.

The new Associate Dean, Medical Education (Regional) was announced in MedEmail and will be integrated with the Vice President, Education at Trillium Health Partners to establish a senior academic and hospital link in Mississauga.

Deputy Dean Verma noted that former Dean of Medicine, Brian Holmes, passed away two weeks ago and the flags on campus will be at half mast tomorrow.

3.2 Vice-Dean, Research & International Relations

Vice Dean Alison Buchan indicated that CIHR transition is being managed to create the least impact on the Faculty. The results of the final open grant competition which took place in September came out two weeks ago. The results are good for U of T, St. George Campus with a success rate of 28% compared to an overall success rate of 19%. There were 2527 total grants received by CIHR which was an increase of 10% from the annual average. The minimum cut for those who received a grant was 27% and such cuts to finding are expected to continue to get worse in the short term. As there is no September competition this year, bridge funding has been granted to cover the gap until the new open grant process. Over 3000 applications have been received for this competition (a 30% increase). In previous years registrations were received and withdrawn but Dr. Buchan does not expect this to be the case this year due to the lack of alternative funding. Dr. Buchan encourages all researchers to apply as there is no penalty. Successful applications receive 7 years of finding and unsuccessful applications can then be put into the next transition round.

3.3 Vice-Deans, Education

Dr. Sal Spadafora presented the report that is included beginning on page 7 of these minutes.

4. Standing Committee Annual Reports

6.1 BScPA Board of Examiners

Dr. Ronn Goldberg was not able to attend but provided the following report which was read by the Speaker:

The Physician Assistant Professional Degree Program 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 Board of Examiners has met 5 times since the February 2013 report to Council and served primarily as an advisory body during that time. The Program asked the Board to provide guidance on student cases not being brought forward for official review and provided the Board updates on past student

cases and changes to policy. The Board approves all student grades at the conclusion of each semester.

Only one student was brought forward with a request to the Board to take specific action. This student was granted a modified program without a change in academic status.

6.2 Appeals Committee

Dr. Doug Templeton indicated that there have been no appeals in the last year. Dr. Templeton noted that, in his time on the Committee, appeals have continued to drop. He indicated that there was a slight upswing when the MRS program came online but that the decline has continued since. Dr. Templeton believes that the lack of appeals is due to the Faculty as a whole getting better at what they do in terms of remediating students.

Deputy Dean Verma thanked Dr. Templeton and the entire Appeals Committee and noted that their presence and knowledge is invaluable to the Faculty despite the lack of appeals.

5. New Business

5.1 Graduate Education Committee

5.1.1 Applied Clinical Pharmacology Master's Program

The following was moved by R. Cockerill and seconded by S. Spadafora:

"THAT the proposal to close the field of study, Clinical Pharmacology, and establish a new field of study, Applied Clinical Pharmacology, at the master's level of the Pharmacology program be approved as submitted."

Dr. Peter McPherson indicated that the Department of Pharmacology has, at the master's and PhD levels, four fields of study: Clinical Pharmacology, Drug Metabolism / Toxicology, Neuropharmacology, and Drug Mechanisms / Signal Transduction & Regulation. This proposal would close the existing Clinical Pharmacology field at the master's level and replace it with Applied Clinical Pharmacology. Clinical Pharmacology will remain a field of study at the PhD level.

The current students and the applicant pool want a different type of program that is research based but doesn't have the narrow focus of thesis research. Students find it difficult to get a broad research experience with the current thesis program. The new structure would allow students to gain more knowledge on the various aspects of clinical pharmacology through a course-based program.

The new field of study would be a course based curriculum with a major research project and an optional clinical practicum. The major research project would be similarly modeled but more substantial than a fourth year project. Students will have the opportunity to move to the PhD program following the completion of the master's program but would not be permitted to transfer from the Applied Clinical Pharmacology program to the PhD program. The program anticipates 5-10 applicants in the first year with an eventual maximum of approximately 20.

The motion passed.

5.2 Education Committee

5.2.1 Two New UME Courses to Address Learning in Community Health and in Research

The following was moved by D. McKnight and seconded by A. Gotlieb:

"THAT the Proposal for Two New UME Courses to Address Learning in Community Health and in Research be approved as submitted"

Dr. Martin Schreiber indicated that the two new proposed courses will replace the current courses of DOCH-1 and DOCH-2. During UME accreditation a number of issues were identified with the DOCH courses. The courses were criticized for their excessive lecturing, poor alignment of content with exam, and their lack of usefulness in clerkship. Poor organization was flagged as a concern for both courses but particularly DOCH-2. DOCH-2 was also seen to have too many assignments.

The Faculty leadership responded to the feedback. Among the changes in DOCH-1 were the addition of Associate Course Directors, reduction and revision of lectures, revised course manual, the addition of online resources, and the addition of short answer questions to exams. Changes to DOCH-2 included the elimination of lectures, new research methods tutorials, streamlined assignments and greater flexibility in project choice. Despite the considerable efforts for improvement, significant concerns remained in student feedback.

The proposal to deal with the issues is the replacement of the DOCH courses with two new courses: Community, Population and Public Health (CPPH) and Health Sciences Research (HSR).

Dr. Fran Scott, Course Director for DOCH, and Co-Chair of the CPPH working group indicated that the working group looked at the teaching of CPPH in other institutions and the perspectives on the goals and objectives. The working group revised the key objectives and the enabling objectives. The UME Curriculum Committee approved, in principle, approximately 40 half days in pre-clerkship (compared to the current 70), a structure with ttutorials but very few lectures, and a community based scholarly project beginning in first year and completed second year.

The new courses would begin in 2014-2015 with current first year students continuing into DOCH-2 with increased project choices. The Academies are already building on existing infrastructure in terms of tutors, markers, and space.

Dr. Eva Grunfeld, Co-Chair of the HSR Working Group, indicated that the mandate of the Health Science Research Course was that it was to be in line with UME program objective 6.1: "The medical graduate will be able to pose a research question, help develop a protocol, assist in carrying out the research, and disseminate the results. The medical graduate will demonstrate an understanding of ethics as it relates to medical research." The working group was allotted half of the current time given to DOCH which is approximately two hours per week over 2 years.

The primary consideration of the working group was a focus on student learning. They wanted to develop a capacity to integrate medical research in clinical practice and promote evidence-based medicine and quality patient care. They also wanted to develop an understanding of the translational pathway for all clinicians. They wanted to promote the concepts of both critical appraisal which applies to all pathways and human and animal research ethics.

The overarching objectives of the new course would be to have the student be able to demonstrate an understanding of the elements of the human translational pathway including knowledge translation. They would also be able to demonstrate knowledge of critical appraisal, research and analytical methods, knowledge of research ethics and the ability to generate specific elements in a part of the translational research pathway.

The pedagogical approach will have an overall framework with core content (outlined in the proposal) where the student picking their own area of focus. There will also be a practicum characterized by a personalized approach and tailored for each student.

Dr. Grunfeld asked that the motion be split such that each course be approved independently. The Chair asked the approval of the Mover, which was granted, and proposed the following motions:

"THAT the Proposal to establish a new UME Course, Health Science Research, be approved as submitted."

"THAT the Proposal to establish a new UME Course, Community, Population and Public Health, be approved as submitted."

The motions passed.

5.2.2 Guidelines for Procedure - Faculty Of Medicine Appeals Committee

The following was moved by A. Gotlieb and seconded by S. Spadafora:

"THAT the Guidelines for Procedure - Faculty Of Medicine Appeals Committee be approved as submitted"

Dr. David McKnight noted that the document came to the Education Committee a year ago to be amended to bring it in line with the By-Laws of Faculty Council. The Education Committee noted a number of issues that should also be reviewed. The Committee brought the document in line with both the current By-Laws but also the current practice of the Committee. The new document clarifies timeframes and process. Dr. McKnight thanks the student and resident members of the Education Committee for their valuable input and noted that the document has been reviewed by legal counsel.

The motion passed.

5.2.3 Two New UME Courses to Address Learning in Community Health and in Research

The following was moved by A. Gotlieb and seconded by M. Hanson:

"THAT the proposal to establish a pilot Longitudinal Integrated Clerkship program in MD training be approved as submitted"

Dr. Stacey Bernstein, Clerkship Director; and Dr. Raed Hawa, Deputy Clerkship Director indicated that a Longitudinal Integrated Clerkship (LIC) would see medical students participate in the comprehensive care of patients over time while developing a learning relationship with the patients' doctors. The student would meet the majority of the required clinical competencies across multiple disciplines simultaneously through the LIC. The LIC is being proposed as the traditional in-patient setting is a less suitable learning environment than the ambulatory setting which reflects real life practice. Students engaged in LIC learning tend to have higher satisfaction and feel they have a more meaningful role in patient care. Students become better advocates for their patients by developing a deeper understanding of patients' experiences.

The LIC will have the same learning outcomes, curriculum content, and exams as the current Block Clerkship. The overall clinical time in each will be comparable. The key difference is the implementation model. The LIC is designed to provide students with integrated, longitudinal, and patient-centred learning opportunities and to enhance the relationship between students and preceptors through a mentored apprenticeship.

The proposal will see 8 students in Year 3 Clerkship at the Fitzgerald Academy starting September 2014 (note that the proposal provided indicated 8 students at each of the Fitzgerald Academy and the Mississauga Academy of Medicine [MAM] for September 2014, MAM opted for a September 2015 start after the proposal was distributed). With 8 students at each of the Fitzgerald Academy, the Mississauga Academy of Medicine, the Peter-Boyd Academy, and the Whightman-Berris Academy in September 2015 and 10 or more at each of these sites for September 2016.

The challenges facing the LIC are that the current system is seen to work well, the scheduling will be complex and the recruitment of faculty preceptors.

The motion passed.

6. Faculty Council Forum

The Faculty Council Forum was postponed to the Spring meeting due to time constraints.

7. Adjournment

The meeting was adjourned at 6:00pm

Education Vice-Dean Update for Faculty Council

October 21st, 2013

EDUCATION VICE DEANS – INTEGRATIVE ACTIVITIES

Education Achievement Celebration

Planning has begun for this year's education achievement celebration which will be taking place on May 13th, 2014. As in recent years, the Celebration will be held in the Great Hall at Hart House. The keynote address will be delivered by Dean Catharine Whiteside.

Education and Teaching Awards

A call for internal nominations for external education & teaching awards has been made, with a deadline of November 29th, 2013. The Education and Teaching Awards committee will be holding an adjudication meeting in December. Awards for which the committee will be asked to review internal nominations include:

- AAMC Flexner Award
- OCUFA Teaching Award
- STLHE/3M National Teaching Fellowship

The committee's recommendations for nominations will be brought forward to the Vice-Deans, and then to the Dean for approval.

Education Development Fund (EDF) – Poster Presentations

The Education Vice-Deans, in collaboration with the Wilson Centre, have approved a change of venue and timing for the poster presentations required of those who receive funding via the EDF. Rather than presenting their "work in progress" at the Education Achievement Celebration in the Spring, which is traditionally a celebratory event with family and friends, EDF recipients will be asked to share their final findings at the The Richard K. Reznick Wilson Centre Research Day in the Autumn. This is a more appropriate venue for poster presentations, and provides the additional advantage of connecting emerging and developing investigators with the established community of education scholars at the Wilson Centre.

UNDERGRADUATE MEDICAL PROFESSIONS EDUCATION:

Accreditation update

In October 2012, the MD program was informed that it received full accreditation for another eight-year term by the CACMS and LCME. At that time, the accrediting bodies found that of the 128 standards, 119 were in compliance, and the program was asked to provide a status report on actions taken and progress made with respect to three areas of noncompliance and six areas in compliance with monitoring. The program submitted its status report in July 2013. We recently received an oral report from the accrediting bodies, and are very pleased to report that we are now in compliance with all 128 standards. The three standards previously identified as being in noncompliance are now in compliance with monitoring, and one of the six standards previously identified as being in compliance in monitoring is now in full compliance. The program will be required to submit a follow-up report in Spring 2015 regarding the eight standards that require further monitoring, but no follow-up site visit is required. We are still waiting from the formal letter from the accrediting bodies, which will include details about the follow-up report.

Program Enrollment numbers – 2013/14

- Total MD program Enrollment : 1,002
- (figure includes 26 of 51 MD/PhD students)
- Total MD/PhD program Enrollment: 51
- MRSP program Enrollment: 277
    - 108 Radiological technology
    - 22 Nuclear Medicine
    - 147 Radiation Therapy

Physician Assistant Program - No update to provide at this time.

UME Indigenous Medical Education Office and ISAP

The office of Indigenous Medical Education has been established and is managed by two new faculty leads, Dr. Lisa Richardson and Dr. Jason Pennington. The office recognizes the Faculty of Medicine's commitment to social responsibility and building a diverse medical student body. There has been much success in the past year with respect to the Indigenous Student Application Program (ISAP) in increasing the number of Aboriginal candidates moving through our admissions cycle. The office serves the intent to further this agenda and help to engage faculty and students in areas of Aboriginal Health. A UME Program coordinator in conjunction with the curriculum leads will develop and implement a range of innovative and responsive initiatives.

Medical Radiation Sciences (Information taken from July 2012-June 2013 report)
Following approval of proposed curriculum design and program name change via the Michener Institute as well as the Faculty of Medicine Education Committee, Nuclear Medicine and Molecular Imaging Technology, is currently working on the redesign of the program and an active recruitment campaign for an intake in September 2014. The Memorandum of Understanding between the University of Toronto and the Michener expires November 30, 2013. A separate Joint Program Agreement for the MRS Program expires November 30, 2014. Program Leadership from both institutions are aware and are currently reviewing both the MOU and Joint Agreements.
The Canadian Association of Medical Radiation Technologies has been circulating to all stakeholders over the last year, a new professional Competency Profile for each of the three disciplines. Once approved, anticipated for late November, the MRS Program will be responding by ensuring that the curriculum is in full compliance with the new Competency Profiles and subsequently that the program Continues to be in compliance with Accreditation requirements.

POSTGRADUATE MEDICAL EDUCATION
PGME Accreditation – Update

2 year Family Medicine program – Accredited
- Follow up required in 2 years

Family Medicine Enhanced Skills program – Accredited
- Follow up required in 2 years

Conjoint Palliative Medicine Program – Accredited
- Follow up at next regular survey

U of T Pilot
72 Specialty Programs
23 no in person survey (Selection process)
41 selected for in person survey
8 exempt – inactive, new, recent review

Outcome (n=64)
4 programs: Report in 1 year
4 programs: External Review in 2 years
56 programs: Accredited: External Survey in 6 years

In summary, the following were highlighted as strengths of the PGME program:

- Praised for the high level of integration of education between the university and the 27 affiliated hospitals and health facilities (HUEC).

- Leadership and responsiveness to program and site needs were also highlighted.
- Resident centered approach employed by the BOE, the Office of Resident wellness and Board of Medical Assessors.
- Development of and the outcomes from the Office of Integrated Medical Education.
- The Department of Family and Community Medicine's approach to faculty development - an exemplar for faculty orientation, development and support.
- Faculty's matrix leadership approach.
- Integration of inter-professional collaboration and care in the Family Medicine programs and sites.
- The Family Medicine programs and sites 'Red Button' program.
- University of Toronto has an inspiring research environment for faculty and residents.

The following were highlighted as areas of concern:

1. *PGCorEd a web-based approach to address the intrinsic CanMeds and CanMeds-FM roles*

   Potential actions for addressing area of concern:
   - PGCorEd WG analysis, study of issues, recommendations
   - Surveys of learners, PDs and focus groups
   - Focus on Integration, relevance, ownership of PGCorEd
   - Mobile computing
   - Re-Consider unit structure

2. *Uneven support provided to many program directors and especially program administrators requires immediate attention. Exceptions noted were the departments of Pediatrics and radiology.*

   Is currently being addressed via survey. In addition, the following are potential actions for addressing area of concern:
   - Task force on Best Practices in PGME Program Support
   - Recommendations on program resourcing and accountability framework for funds disbursed from PGME to Clinical Depts.

3. *Lack of clinical systems interoperability within the Toronto Academic Health Sciences Network is a continuing and serious weakness from the previous survey in 2007.*

   Potential actions for addressing area of concern:
   - Build on Connect GTA project
   - Discharge summary template project.

4. *Lack of a cohesive Faculty/Postgraduate Medical Education strategy for the effective use and resourcing of the many excellent simulation facilities available throughout the network.*

   Potential action taken to address area of concern:
   - Possible task force, working group or collaborative committee on simulation under TAHSN-E/HUEC

5. *Teacher Evaluations:*
   Variable engagement by residents in program/teacher evaluation.
   Residents required to complete only one evaluation although many faculty involved.
   Evaluations from residents in feeder programs not included until min. of 3 evals received.

   Potential actions for addressing area of concern:
   - Consultations with stakeholders for input including learners, clinical faculty affected.

- System solutions to be considered including restrictions to view ITERs until Teacher and Rotation evaluation completed
- Mobile access to evaluations

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT

Other than moving forward to obtain name change approval (which is a major milestone for the Department's strategic directions), Dr. Anastakis did not have an update – detail below is detail from progress report submitted for Dean's report.

Strategic directions for the new academic year include, but are not limited to CEPD:

1) Renaming and rebranding CEPD
2) Moving forward with initiatives to further engage Faculty of Medicine alumni through a single registration platform for all CEPD events
3) Expanding use of IT-Educational tools in CEPD offerings
4) Expanding impact of CEPD research, and
5) Taking a leadership role in Global and Indigenous Health CEPD.

GRADUATE AND LIFE SCIENCES EDUCATION

Dr. Gotlieb will discuss the Report from the Task Force on Innovation and Transformation in Graduate Education, in greater detail further into the agenda.

In terms of general updates, two new undergraduate initiatives are being developed for 2014 funded by Graduate and Life Sciences Education. The program includes the Undergraduate Student Leadership Award and Summer Research Project Studentship providing eligible undergraduate students with the following opportunities:

- GLSE Undergraduate Student Leadership Award. Up to 3 awards ($500) will be awarded to undergraduate students in the Faculty of Medicine, Arts and Science Programs. The criteria would be full time students in a specialist and/or major program in life sciences who demonstrate excellence in leadership and in academic activities.

- GLSE Undergraduate Summer Research Project Studentships. GLSE would award 8 full summer research project studentships ($4,800 per summer on a slip year basis) for third and fourth year Specialist and/or Major students in our Faculty of Medicine, Life Sciences Departments. Each department would receive one award per year to be awarded on academic merit and interest in future graduate training.

Access Strategies

- Information on how undergraduates access and apply for research opportunities has been developed entitled "How to Find an Undergraduate Research Opportunity in Life Sciences". This has been very popular with undergraduate students.
- Provide undergraduates with access to a Central Repository of Research Opportunities on the St. George Campus, University of Toronto and associated hospital institutions located on the Graduate and Life Sciences Education and Arts & Science websites.

Funding

Developing a strategy for undergraduate research opportunity funding:

- Created a funding document for review by Advancement for undergraduate research opportunity scholarships e.g., summer research programs.

- The Arts & Science Advancement office will be taking the lead as these types of opportunities are essential for our life science students. Support will be received from Medicine, both from the Graduate and Life Sciences Education and Advancement offices. They will aim to have a preliminary alumni/prospective donors list and draft print collateral for review.

Translational Research

- A new emphasis on translational research and commercialization has been introduced into graduate programs to add to the highly successful discovery type research being taught.
- The close associations between basic and clinical sciences at U of T provide for innovative translational research activities, which can have important impact on health care. Interdisciplinary, interfaculty, and international collaborative opportunities available propel the studies that students carry out.

BOARD OF EXAMINERS UNDERGRADUATE MEDICAL PROGRAM
FACULTY COUNCIL REPORT
ACADEMIC YEAR 2012-2013

SUMMARY OF ACADEMIC STANDING
DOCTOR OF MEDICINE PROGRAM

Academic Year	# of Students	# of Students Before the BOE	# Completing Formal Remediation*	# Successfully Remediated	# Required to Repeat**	# Promoted	OTHER
ONE	262	7	7	7		262	
TWO	257	4	1	1	2	254	1 WD
THREE	252	22	20	20		246	5 LOA
FOUR	218	13	13***	13		218	

*Remediation for academic and/or professionalism
** Repeat Year or Specific Course(s)
*** Remediation for the iOSCE is completed during 4th Year

Education Vice-Dean Update for Faculty Council

February 10th, 2014

EDUCATION VICE DEANS – INTEGRATIVE ACTIVITIES

eLearning Task Force:

The Faculty has launched an eLearning Task Force co-chaired by Professors Dimitri Anastakis, Vice Dean of Continuing Professional Development and Jay Rosenfield, Vice Dean of Undergraduate Medical Professions Education. Administrative support will be provided by the Office of the Education Vice-Deans Administrative and Project Manager.

This is an exciting venture and opportunity for the Faculty to better align our curricula, resources and establish future internal and external collaborative relationships.

The Task Force has set out to:

- Define eLearning
- Complete an environmental scan of global leaders.
- Identify and describe the existing strengths, weaknesses, opportunities and threats facing eLearning.
- Complete an eLearning inventory across the FOM and will include all departments, programs and portfolios engaged in eLearning practices.
- Identify who (internal and external) is currently engaged in eLearning initiatives as well as identify key resources that are available to the faculty.
- Identify and account for Future requirements.
- Examine how programs and curriculum are being designed and implemented.
- Help to align resources to ensure sustainable eLearning activity.
- Highlight trends, gaps and successes within eLearning scholarship across the continuum.
- Celebrate eLearning innovations and successes that currently exist.

The Task Force will widely communicate its strategy via a robust web presence, with special emphasis on surveys and open forums for the exchange of ideas.

A progress report will be circulated in April, followed by a final report in June. They will serve to identify gaps in existing practices, and advance a new vision for the creation of sustainable eLearning methods.

Education Development Fund:

The Council of Education Deans is pleased to announce that applications for this year's Education Development Fund (EDF) are now being accepted. This year's application deadline is: **March 14th, 2014, 12:00pm (NOON)**

New Appointment - Chair, Education Development Fund

The Vice Deans, Education are pleased to announce the recent appointment of Dr. Risa Freeman as the Chair of the Education Development Fund (EDF). Dr. Freeman is an Education Scholarship Consultant and Associate Professor with the Department of Family and Community Medicine, University of Toronto. Dr. Freeman will bring an abundance of expertise to this important leadership role as she

understands the significance of the EDF to our young and aspiring educators. At this time we would like to thank Dr. Shiphra Ginsburg for her excellent leadership over the past year.

UNDERGRADUATE MEDICAL PROFESSIONS EDUCATION

Medical Council of Canada Qualifying Exam (MCCQE) Part 1 Pass Rate (Spring 2013 results)

- Pass rate continues to be very high (99%)
- Improvement noted in most subject areas relative to 2012 results as well as relative to 2013 Canadian Medical Graduates (CMG) 1st time test takes
- High scores in Considerations of the Legal, Ethical & Organizational Aspects of the Practice of Medicine (CLEO) and Population Health, Ethical, Legal & Organizational Aspects of the Practice of Medicine (PHELO) are statistically significantly higher than the CMG
- No scores are statistically significantly below the CMG
- Continue to achieve our goal of being above the CMG average
- We are no longer able to determine our rank as data not provided (past differences failed to reach statistical significance)

Admissions

Interviews of candidates for September 2014 entry to the MD program are in progress. The interview dates are: January 25th, February 1st & 2nd, March 1st, 2nd, 29th & 30th.

	September 2012 entry	September 2013 entry	September 2014 entry
Applicants	3052	3153	3462
Files Reviewed	1572	1775	1968 (to date)
Interviews	576	587	560 (planned)

Human Resources

Judy Irvine retired on December 31, 2013 after more than four decades of stellar service to the University and Faculty, most recently as Registrar. We thank her for the many invaluable contributions she has made, including supporting a smooth transition to Janet Hunter, who joined the UMPE team on January 9, 2014 as our new Director of Enrolment Services & Faculty Registrar. Recruitment is underway for a new position – Associate Registrar, Enrolment Management –that was identified as a result of the UME administrative review. The incumbent will provide strategic leadership for all Faculty-led student recruitment initiatives and activities. This new position is an important part of restructuring and closer linkages between the Office of the Registrar and Office of Admissions, Awards & Student Finance.

Academy Membership Framework

Between April and August 2013, Sarita Verma (Deputy Dean and Associate Vice-Provost, Health Professions Education) and Jay Rosenfield (Vice-Dean, Undergraduate Medical Professions Education)

led a series of consultation meetings with the Academy Directors and designated education leads of the University's nine fully-affiliated hospitals and four major community-affiliated hospitals. In general, the focus of those meetings was an Academy Membership Framework consultation document. Development of the Framework consultation document was informed both by current practices within the Academy system and the Report of the Task Force on Medical Academies (TOMA Report). The Framework includes Academy membership type definitions (and corresponding roles and responsibilities) as well as principles and guidelines intended to inform the management and collaborative delivery of the MD program through and within the Academy system.

The designated education leads of the nine fully-affiliated hospitals and four major community-affiliated hospitals who participated in the consultation meetings confirmed that they would like to maintain the current Academy configurations.

In general, the designated education leads of the University's nine fully-affiliated hospitals and four major community-affiliated hospitals who participated in the consultation meetings endorsed the membership type definitions as well as the principles and guidelines expressed in the Framework consultation document. The meetings did, however, reveal some issues, all of which were raised and discussed with an eye to clarifying and strengthening the Framework. Consistent with findings in the TOMA Report, the overall theme of the consultation meetings was: *how can we most effectively enable the existing strengths of the Academy system, but with an eye to greater clarity and transparency in the planning and delivery of shared educational goals, expectations and accountabilities*.

Next steps include:

- "Final" endorsement of the Framework by the designated education leads of the University's nine fully-affiliated hospitals and four major community-affiliated hospitals, and consultation with the education leads of the other community-affiliated hospitals and health care centres
- Development of a customizable Academy letter of understanding template
- Establishment of processes to implement recommendations that grew out of the consultation meetings

Physician Scientist Education

Led by Associate Dean, Dr. Norman Rosenblum and supported by Ms. Nataliya Korchagina, Project Manager, the recommendations of the 2012 Task Force on Physician Scientist Education to create a distinct pathway for the education of research-interested students and residents are presently being transformed into a working model of an integrated training pathway. This, in turn, will provide a basis for the design of specific implementation components. The draft model includes integration of graduate-level and medical curriculum featuring graduate-level seminars that complement specific aspects of the undergraduate curriculum, graduate-level courses that prepare pathway students for intensive graduate-level research, a community of physician scientist mentors and educators, linkage between customized educational pathways in undergraduate and postgraduate education, and customized postgraduate training pathways.

POSTGRADUATE MEDICAL EDUCATION

2013 Accreditation – Final Decisions

The College of Family Physicians of Canada (CFPC) and the Royal College of Physicians and Surgeons (RCPSC) Accreditation Committees met in June 2013 and October 2013 respectively, and made their final decisions for each program from the April 2013 on-site visit. The outcomes are below:

Accreditation Outcomes	2013
Full Accreditation – Follow up at next regular survey	58
Full Accreditation – Progress Reports	9
Full Accreditation – Mandated Internal Review	0
Full Accreditation – Mandated External Review	4
Notice of Intent to Withdraw	0

Upcoming reviews for new programs or programs with progress reports are as follows:

- Child & Adolescent Psychiatry, Geriatric Psychiatry, Internal Review (Spring 2014)
- Forensic Psychiatry, Internal Review (Spring 2015)
- Family Medicine Progress Reports (May 2014)
- Orthopaedic Surgery, External Review (Spring 2015)
- Vascular Surgery (Spring 2015)

PGME Leadership

Dr. Linda Probyn was appointed in September 2013 as Director, Postgraduate Medical Education to assist during Professor Glen Bandiera's secondment as Medical Education Advisor in Mississauga.

Dr. Anne Matlow has been appointed as Academic Lead, Strategic Initiatives for PGME. She will be undertaking initiatives and programs related to quality and safety and will be involved in developing a "community of practice" in the area of leadership for residents.

Task Force on Best Practices for PGME Support

In response to one of the weaknesses identified in the 2013 Accreditation site survey, PGME is examining the issue of supports for both Program Directors and Program Administrators. The Task Force on PG Support to Programs, was established by Dean Whiteside and is chaired by Dr. Patrick Gullane. The Task Force has surveyed program administrators, Program Directors, and Clinical Chairs to investigate existing support from the Faculty and required support and will develop recommendations to address the gap between the two.

Global Health Education

Global Health in PGME training is part of our mandate to be socially responsible citizens of the globe ensuring that what we do abroad causes no harm, and is of benefit to the populations we serve. Through the continued support and stewardship of the Global Health Education Initiative, we have had over 75 residents successfully complete the program and their impact is felt across the globe. Under the leadership of Dr. Barry Pakes, the newly formed PGME Global Health Education Advisory Subcommittee will endeavor to enhance all aspects of this training in our programs, from pre-departure training to post return debriefing, as well as tracking and evaluation of the experiences.

CaRMS

CaRMS Match Day is March 5, 2014. As a result of a pause on expansion, imposed by the MOHLTC, the number of PGY1 positions remains at static levels for the third year in a row at 346 positions for Canadian Medical Graduates and 71 positions for International Medical Graduates. Applications from Canadian Medical Graduates increased by 7% from the previous year.

OFFICE OF GRADUATE AND LIFE SCIENCES EDUCATION

The Graduate Faculty Teaching Award Competition was adjudicated in January 2014 and 6 awardees were identified for graduate education and mentorship in the early, intermediate and senior sustained categories.

The past term has seen the emergence of interesting initiatives and new directions in graduate education aligned with the August 2013 Report of the Task Force on Transformation and Innovation in Graduate Education commissioned by the Dean.

At this meeting you will consider the proposal for a new, course-based field of study within the MSc Pharmacology program developed by the Department of Pharmacology and Toxicology in close consultation with GLSE. The course-based curriculum of this initiative is being considered by other Basic Science departments.

The new Collaborative Program in Human Development, supported by the Faculty and the Fraser Mustard Institute in Child Development, will begin governance soon and will be considered by this committee at its next meeting. The new professional master's program in Translational Research in the Health Sciences, an IMS initiative, which has been developed over the last 18 months, has been favorably reviewed externally, and the Dean's response to the external review has been submitted to the Provost's Office and will shortly begin governance within the Faculty.

The Office continues to focus on recruitment of quality students to the Faculty. Through October and November a staff member attended 4 graduate recruitment fairs in Canada in order to promote

graduate studies in the 14 graduate units. The Office organized and held a highly successful second annual Graduate and Undergraduate Research Information Fair in November 2013 and plans are now underway for the third fair. GLSE is currently planning a Research Day in collaboration with Human Biology which will take place in April, 2014 in the Student Commons in the Medical Science Building.

Occupational Therapy & Occupational Science

Department Review: Has been completed and a final report has been issued. Overall feedback was positive and supportive of the many achievements accomplished by the Department over the past five years. **A key outcome of this external review is that our Department chair, Dr. Susan Rappolt, has been appointed for a second five year term.**

Annual Faculty Assembly: Department held its Annual Faculty Assembly (AFA) on December 4th, 2013. The Assembly was well attended by core, status only, and adjunct faculty members and many of our community partners. The theme of the Assembly was *Entrepreneurialism in Occupational Therapy* with presentations by Dr. Nick Reed and Occupational Therapist Sean Fleming. Nick Reed, who is a Clinician Scientist at Bloorview Research Institute and Status Only Appointee with the Department, spoke on his experience in expanding the boundaries of occupational therapy beyond traditional health care practices.

Research Symposium: Celebrated Dr. Angela Colantonio's award as CIHR Chair in Gender, Work, and Health and to see a showcase of faculty members' research in the fields of Brain and Mental Health, Human Development, Complex Diseases, and Global Health. The event was attended by special guests University of Toronto Chancellor the Honourable Michael Wilson; CIHR Institute for Gender Work and Health Director Dr. Joy Johnson; and Dr. Peter Lewis, U of T Associate Vice-President, Research and Innovation, as well as scientific directors of research institutes, consumer organizations representatives, alumni, teaching faculty and students. Attended by more than 150 people from hospitals, research institutes, service organizations, and universities, the Symposium was a huge success.

Student Admissions: The MScOT program received 831 applications for entry in the September 2014 class, a 2.3% increase year-over-year and a 30% increase in applications over 5 years.

Student Recruitment: Recruitment efforts are being put toward meeting the Faculty of Medicine's Diversity Statement. Currently, the Department is involved in a diversity research study with the FOM and other faculties at U of T to identify the social and demographic characteristics of the entry classes. The data will enable us to identify and set diversity and equity targets for recruitment.

Enrolment Numbers: We exceeded our Faculty of Medicine Graduate Enrolment Expansion target this year (Actual: 172, Projected: 169), and anticipate meeting expansion enrolment targets for the 2014-2015 academic year. Retention rates remain extremely strong as the Department conducts Orientation sessions on Financial Planning and provides much timely support to students through initiatives offered through the Office of Health Professions and meetings with their faculty advisors. The time to completion is extremely high as almost all students complete the full time program in the expected two year time period.

Faculty Awards: Our faculty also continue to receive numerous individual awards. Dr. Angela Colantonio has just been awarded the 2014 Faculty of Medicine Graduate Teaching Award for Graduate Student

Mentorship. This is one of six annual graduate faculty teaching awards to honour and celebrate outstanding contributions to graduate education. Candidates are nominated by their Graduate Department through a student (or recent graduate) initiated process and the awards are adjudicated by the Faculty of Medicine Graduate Awards Committee, consisting of faculty and graduate students. Angela was described in the nomination letters as a truly exceptional professor and exemplary mentor. Angela will be presented with this award at the Faculty of Medicine Education Achievement Celebration on May 13, 2014. In addition, the membership of AOTA Academy of Research has nominated Deirdre Dawson to the AOTA Academy of Research, the highest US scholarly honor that AOTF offers and one of the highest in the occupational therapy community in the USA.

New Hires: We welcome Drs. Mary Stergiou-Kita and Heather Colquhoun as Assistant Professors and new tenure-stream faculty members to the Department. Dr. Kita began her appointment on January 1st. Her research focuses on return to work following traumatic brain injuries, including cancer and other complex conditions and building knowledge and practices in community and workplace integration and inclusive strategies for marginalized populations. Mary previously held a Joint Scientist position in the Department with the Toronto Rehabilitation Institute – University Hospital Network and a status-only and adjunct lecturer appointment. Dr. Colquhoun will be joining the Department on July 1, 2014 when she completes her Canadian Institutes of Health Research post-doctoral fellowship. Heather's research focuses on knowledge translation, which addresses the Department's broad goals of advancing effective and cost-effective occupational therapy practices.

CONTINUING PROFESSIONAL DEVELOPMENT

As Faculty Council may know, the **CPD portfolio** is home to three important units including Continuing Professional Development, the Standardized Patient Program and the newly formed Office of Innovating + Education (i+e).

(1) Continuing Professional Development

We are pleased to inform Faculty Council that CPD has received full CACME accreditation for 5 years. The Report cited the following institutional strengths:

1) The support provided by the dean.
2) Highly educated and committed professional staff.
3) Clear strategic plan with well-defined milestones monitored at 6 month intervals.
4) Continuous investment and re-investment in the operation.
5) Well-developed policies and procedures that are transparent.
6) Well-established and resourced program of research and innovation.

CPD was in exemplary compliance with 10/19 standards and in full compliance with 8/19 standards. CPD was found to be in partial compliance with one standard (Standard 1.1) and cited that the "Centre does not clearly define its target population." In addition, the reviewers identified a strategic opportunity for CPD to better align is educational programming with Ontario's healthcare system needs. Through greater alignment and integration, CPD and the Faculty of Medicine will be positioned as an important and strategic partner in the transformation of Ontario's healthcare system.

A status report is being generated to address the partial compliance and will be submitted before the

September 15, 2015 deadline. CPD is grateful to all our faculty and staff for their contributions to this most successful accreditation.

(2) Standardized Patient Program
Under the leadership of Dr. Brian Simmons, the Standardized Patient Program will soon be finalizing its strategic plan. The four strategic priorities identified in the plan focus on enhancing the program's academic mandate and furthering their position as an international leader in the field of experiential education, achieving long term fiscal stability through improved operational effectiveness and efficiency while retaining an entrepreneurial culture.

(3) Innovating + Education Office (i+e)
The i+e office was established in February 2013. Its purpose is to offer business services support that better enable faculty to develop best-in-class educational products and services. Recent activities and accomplishments include:

(1) Under the leadership of Drs. Rachel Shupak and Katie Lundon (Internal Medicine) MOHLTC funding over 5 years for the Advanced Clinician Practitioner in Arthritis Care Program (ACPAC) has been secured. ACPAC is a post licensure program designed to enhance the skills and scope of practice of allied health professionals in the management and treatment of arthritis. The Program's academic home is in CPD and financial management, administrative and business development support will be provided through i+e. The ACPAC program provides a model for chronic disease management and may be applied in future applications to MOHLTC to support training of allied health professionals in other chronic disease management paradigms (such as, mental health, etc.).

(2) In partnership with the FOM departments in Life Sciences, Division of Teaching Laboratories and Discovery Commons, plans are under way for the development of a Virtual Learning Centre. This centre is envisioned to be a "turn-key" production house for development and sustainable management of online courses. The Centre will support faculty-based initiatives in online education by providing cost-effective services in: media production, scholarship and quality assurance, reputation management, business development and marketing, legal and financial management, and project management. i+e is leading the development of a business case and implementation plan that will see VLC realized in 2014.

(3) Related to the work with the VLC, i+e has been awarded a grant by the Office of the Provost to lead a $30,000 pilot project related to advancing institutional priorities in online learning. The outcomes of this project will include: advancing institutional expertise in the production and management of online course-based assets, enhanced abilities to repurpose current investments in online courses and to access new market opportunities for online courses, and providing institutional leadership in online course production practices.

(4) As part of a suite of business support services i+e offers, the office provides a "turn-key" solution for legal review and contracts management. i+e has developed a process for faculty and departments to access legal services for education related issues in a timely and efficient manner.

APPEALS COMMITTEE – CURRENT MEMBERSHIP

		Year Joined	Term ends
Chair	Doug Templeton	1999 (2007 as Vice-Chair, 2011 as Chair)	2017
11 Faculty Members	Pam Morgan, Anesthesiology	2013	2016
	Nancy Tucker, Ophthalmology and Vision Sciences	2013	2016
	Jolie Ringash, Radiation Oncology	2013	2016
	Lesley Wiesenfeld, Psychiatry	2013	2016
	Golda Milo-Manson, Pediatrics	2010	2016
	Ross Upshur, Family and Community Medicine	2010	2016
	Robert Case, Michener Institute	2012	2015
	Dee Ballyk, Surgery	2014	2017
	Shiphra Ginsburg, Medicine	2011	2015
	Ron Kodama, Surgery	2011	2015
	Lisa Allen, Pediatrics/Obstetrics and Gynaecology	2011	2015

BOARD OF EXAMINERS, Postgraduate Medical Programs

		Year Joined	Term ends
Chair	Stephanie Brister, Surgery	2006 (2010 as Vice Chair, 2013 as Chair)	2016
Vice Dean, Postgraduate Medical Education	Sal Spadafora		ex officio
9 Faculty Members	Leslie Wiesenfeld, Psychiatry	2010	2016
	Jonathan Pirie, Pediatrics	2010	2016
	Kyle Kirkham, Anesthesia	2012	2015
	Dori Seccareccia, DFCM	2013	2016
	Anne Matlow, Medicine	2013	2016
	Andrea Waddell, Psychiatry	2014	2017
	Elizabeth Harvey, Nephrology	2012	2015
	William Halliday, Pathology	2012	2015
	Vacant		

BOARD OF EXAMINERS, Medical Radiation Sciences Program

		Year Joined	Term ends
Chair	Anthony Brade, Radiation Oncology	2012	2015
Vice Dean, UMPE	Jay Rosenfield		ex officio
Chair, Dept. of Rad. Oncology	Fei-Fei Liu (Pam Catton)		ex officio
Vice-President, Michener Institute or delegate	Cathy Pearl		ex officio
8 Faculty Members			
	May Tsao, Radiation Oncology	2013	2016
	Andrea McNiven, Radiation Physicist	2012	2015
	Sophie Huang, Radiation Oncology	2012	2015
	Masood Hassan, Michener	2014	2017
	Ezequiel Ledesma, Michener	2014	2017
	Barbara Ann Millar, Radiation Oncology	2012	2015
	Linda Probyn, Medical Imaging	2012	2015
	Reshika Balakrishnan, Michener	2011	2017

BOARD OF EXAMINERS, Undergraduate Medical Program

		Year Joined	Term ends
Chair	Blake Papsin, Otolaryngology	2006 (2011 as Chair)	2017
Vice Dean, UMPE	Jay Rosenfield		ex officio
9 Faculty Members			
	Bernard Braude, Anaesthesia	2012	2015
	Anita Rachlis , Medicine	2012	2015
	Boris Steipe, Biochemistry	2014	2017
	Linn Holness, Medicine	2008 (2014 as Vice Chair)	2017
	Robert Bleakney, Medical Imaging	2011	2017
	Robert Richardson, Physiology	2011	2015
	Cindy Woodland, Pharmacology	2011	2015
	Vacant		
	Vacant		

BOARD OF EXAMINERS, Physician Assistant Program

		Year Joined	Term ends
Chair	Ronn Goldberg, Medical Imaging	2010	2016
Medical Director for the PA Program	Maureen Gottesman		ex officio, non-voting
Program Director for the PA Program	Elizabeth Whitmell		ex officio, non-voting
Chair, DFCM	Lynn Wilson		ex officio
Michener representative	Sylvia Schippke		ex officio
NOSM representative	Clay Hammett		ex officio
8 Faculty Members	Rahim Valani, Medicine	2010	2016
	Bob Byrick, Anesthesia	2010	2016
	Barney Giblon, DFCM	2010	2016
	Sharona Kanofsky, BScPA	2010	2016
	John Shea, BScPA	2010	2016
	Vacant		
	Vacant		
	Vacant		

CONTINUING PROFESSIONAL DEVELOPMENT COMMITTEE

		Year Joined	Term ends
Chair	Lee Manchul, Radiation Oncology	2013	2016
Vice Dean, CPD	Dimitri Anastakis	ex officio	
Director, Office of CPD	Susan Rock	ex officio	
7 Faculty Members			
	Yvonne Chan, Otolaryngology	2013	2016
	Suzan Schneeweiss, Paediatrics	2011	2017
	Brian Simmons, Paediatrics	2014	2017
	Simon Kitto, Surgery	2014	2017
	Rhona Anderson, Occupational Science and Occupational Therapy	2014	2017
	Vacant		
	Vacant		
1 post-professional trainee	Alexandra Ginty	2013	2016
1 alumnus/alumna	Tina Trinkaus	2012	2015

EDUCATION COMMITTEE

		Year Joined	Term ends
Chair	Ian Witterick, Otolaryngology	2011	2017
Vice Dean, UMPE	Jay Rosenfield	ex officio	
Vice Dean, PGME	Sal Spadafora	ex officio	
Associate Dean, Admissions & Evaluation, PGME	Glen Bandiera	ex officio, non-voting	
Associate Dean, Equity and Professionalism	David McKnight	ex officio, non-voting	
Associate Dean, Admissions and Student Finance	Mark Hanson	ex officio, non-voting	
Associate Dean, Health Professions Student Affairs	Leslie Nickell	ex officio, non-voting	
6 Faculty Members			
Basic Science:	Jeremy Mogridge, Laboratory Medicine and Pathobiology	2013	2016
Basic Science:	David Irwin, Laboratory Medicine and Pathobiology	2014	2017
Clinical Science:	Anita Rachlis, Medicine	2012	2015
Clinical Science:	Rayfel Schneider, Paediatrics	2014	2017
Clinical Science:	Jerry Maniate, Medicine	2014	2017
Community Health:	Tina Smith, HPME	2009	2015
Radiation Science:	Cathryne Palmer, Radiation Oncology	2011	2017
Physician Assistant Program:	Peter Tzakas, DFCM	2013	2016

EXECUTIVE COMMITTEE – CURRENT MEMBERSHIP

		Year Joined	Term ends
Chair/Speaker of Council	Luc De Nil		ex officio
ex officio: Dean, or delegate	Catharine Whiteside		ex officio
Deputy Speaker of Council	David McKnight		ex officio
Chairs of Standing Committees:			
Continuing Professional Development	Lee Manchul		ex officio
Education	Ian Witterick		ex officio
Research	Paul Hamel		ex officio
Graduate Education Committee	Cathy Evans		ex officio
Chief Administrative Officer	Tim Neff		ex officio
Faculty Affairs Officer	Todd Coomber		ex officio
3 Faculty Members (one per sector)			
Basic Sciences	Boris Steipe, Biochemistry	2013	2016
Clinical Sciences	Heather Shapiro, Obstetrics and Gynecology	2013	2016
Rehabilitation Sciences	Yana Yunusova, Speech Language Pathology	2014	2017
1 Administrative Staff	Caroline Turenko	2011	2014

GRADUATE EDUCATION COMMITTEE

		Year Joined	Term ends
Chair	Cathy Evans, Physical Therapy	2008 (2014 as Chair)	2017
Vice Dean, Graduate & Life Sciences Education	Avrum Gotlieb		ex officio
Basic Science:	Scott Heximer, Physiology	2013	2016
Clinical Science:	Howard Mount, Neuroscience	2011	2017
Rehabilitation Sciences:	Dina Brooks, Graduate Department of Rehabilitations Science	2014	2017
At Large:	Harry Elsholtz, Lab Medicine & Pathobiology	2010	2016
At Large:	James Rini, Molecular Genetics	2010	2016

RESEARCH COMMITTEE

		Year Joined	Term ends
Chair	Paul Hamel, Lab Med & Pathobiology	2010	2016
Vice-Dean, Research & International Relations	Alison Buchan		ex officio
8 Faculty Members (at least one from each sector)			
	Steffen-Sebastian Bolz, Physiology	2013	2016
	Paul Krueger, DFCM	2010	2016
	Mario Ostrowski, Immunology	2014	2017
	Karen Yoshida, Physical Therapy	2010	2016
	Martha Brown, Molecular Genetics	2009	2015
	Rebecca Laposa, Pharmacology and Toxicology	2012	2015
	Vacant		
	Vacant		

Council of Education Vice-Deans
Faculty Council Report
May 5th, 2014

Integrative Activities

eLearning Task Force – Update

In January 2014, the Faculty launched an eLearning Task Force, co-chaired by Professors Dimitri Anastakis, Vice Dean of Continuing Professional Development, and Jay Rosenfield, Vice Dean of Undergraduate Medical Professions Education. Task Force membership continues to grow and spans across all of the portfolios, education units and consists of undergraduate, postgraduate, graduate and adult learners. The Task Force includes representatives from the Ontario Institute of Studies in Education, Biomedical Communications, and the University of Toronto Innovations and Partnerships office.

eLearning encompasses a large breadth of technologies and applications, and so the Task Force will first define eLearning for our Faculty and learners. It will then complete an inventory of eLearning efforts and resources across the Faculty. The Task Force will then conduct an environmental scan of other global leaders in this area. With this information in hand, the Task Force will identify the gaps between where we are today, and where we need to be over the next decade and beyond.

Through the recommendations of the eLearning Task Force, we will further position the FOM as the leader in eLearning (i.e., teaching, learning and scholarship) across the education continuum, and we will lay the foundations to ensure we have the competencies and infrastructure to provide the best education for today's and tomorrow's learners. For additional information regarding the Task Force, please contact Lindsey.Fechtig@utoronto.ca.

Education Achievement Celebration

The Education Vice-Deans are pleased to welcome all Faculty and Staff to attend the May 13th, 2014 Education Achievement Celebration which will recognize our Faculty of Medicine award winners and celebrate excellence in teaching and education. This year's Keynote Address will be delivered by Dean Catharine Whiteside.

Details:
Tuesday May 13th, 2014
5:00 pm – 7:00 PM
Great Hall, Hart House (7 Hart House Circle)
RSVP: http://tiny.cc/2014EAC
Additional information can be solicited from the Office of the Education Vice-Deans (edudeans@utoronto.ca).

Undergraduate Medical Education

Admissions

Interviews of candidates for September 2014 entry are now complete. The interviews were held on January 25th, February 1st & 2nd, March 1st, 2nd, 29th & 30th.

MD Program

	September 2014 Entry
Applicants	3463
Files Reviewed	1994
Interviews	600

MD/PhD Program

	September 2014 Entry
Applicants	116
Files Reviewed	88
Interviews	43

The table below provides a detailed overview of the projected capacity at Trillium Health Partners for 2014/15 by program:

Program	**2014/15 Capacity**	**Increase Over 2013/14**
Anesthesiology	100%	-
Otolaryngology	100%	-
Ophthalmology	56%	-
Emergency Medicine	76%	9%
General Surgery	67%	22%
Surgical Subspecialties	100%	-
Medicine	100%	11%
Obstetrics & Gynecology	61%	5%
Paediatrics	67% *	-
Psychiatry	100%	-
Family Medicine	100%	-
Total Overall:	**83%**	**9%**

*Inclusive of 2 placements (12 total) per rotation at William Osler Health System. Paediatrics capacity within Trillium Health Partners is 44%.

This outstanding growth as we launch the second year of core clerkship at MAM is a testament to the ongoing collaboration and commitment from Trillium Health Partners and our university departments and faculty.

UME Program Objectives Review

The inaugural meeting of the UME Program Objectives Review Steering Committee was held on March 27, 2014. The role of the steering committee is to oversee the development of user-friendly competency-based program "objectives" that can be effectively taken into account in curriculum planning and evaluation in general and readily linked to enabling objectives within individual courses in particular. The review and revision of the existing UME program goals and objectives will grounded in the CanMEDS 2015 revisions and informed by FMEC recommendations as well as developments at CFPC and MCC. Each CanMEDS role's objectives will be reviewed and revised by a working group. Leads have been appointed for each of the working groups, and progress is underway to populate the groups. Work on all CanMEDS roles will take place simultaneously over the spring 2014 and 2014-15 academic year, with June 2015 being the tentative timeline for the steering committee to present the final revisions to the appropriate governing bodies. The steering committee will review and provide feedback on working group drafts to ensure integration and limit redundancy as well as facilitate consultation with the wider community. As well, a sub-group of the steering committee will concurrently work on articulating guiding principles intended to inform ongoing curricular planning and learning activities.

Longitudinal Integrated Clerkship

At its February 10, 2014 meeting, Faculty of Medicine Faculty Council approved a proposal to introduce a Longitudinal Integrated Clerkship (LIC) in the MD program. Since that time, work on the project has been progressing nicely and is on schedule.

For the 2014-2015 academic year, eight students from one of our four academy sites (Fitzgerald Academy) applied to and were accepted to complete the LIC. For the 2015-2016 academic year, the LIC will also be made available to 8 students at each of the other three academies (Peters-Boyd, Mississauga Academy of Medicine and Wightman-Berris), for a total of 32 students at the four academies.

Dr. Karen Weyman was appointed as St. Michael's Hospital (SMH) Faculty Lead, Longitudinal Integrated Clerkship, in Undergraduate Medical Education, effective February 1, 2014 for a three year term. Dr. Weyman is an Assistant Professor in the Department of Family and Community Medicine and Deputy Chief of the St. Michael's Hospital Department of Family and Community Medicine. Dr. Weyman's responsibilities include providing leadership for LInC at SMH in the pilot phase with the site administrator and St. George campus LIC coordinator. She will contribute to the design, development, implementation, and evaluation of the LIC program. Dr. Weyman will chair and provide support to related committees, and will work closely with other Course Directors, the Academy Director, and Clerkship site Supervisors, involved in the teaching of competencies related to LInC.

A LIC site administrator (Jasmine Palaheimo) has also been appointed at St. Michael's Hospital.

Important next steps include preceptor recruitment. We have been in communication with the clinical chairs of various departments, and have also been engaged with the Fitzgerald Academy faculty and course coordinators to identify potential preceptors.

Work has begun on developing schedules for the eight students for the 2014-15 LIC offering.

Preclerkship Renewal

Under the leadership of Drs. Pier Bryden, Marcus Law and Martin Schreiber, work has begun on a significant renewal of the MD program's preclerkship curriculum. A formal proposal regarding the preclerkship curriculum renewal will be presented to the Faculty Council Education Committee and, from there, to Faculty Council in the near future. Included below is a summary of the renewal process.

During the summer and fall of 2013, the preclerkship leadership conducted a series of meetings with students, faculty, course directors and faculty leads, Academy Directors, recent graduates, Associate Deans, and stakeholders and partners from the Wilson Centre, the Centre for Faculty Development, all academies, and designated education leads from several TAHSN hospitals and other affiliated teaching sites. The goal of the process was to review the current preclerkship curriculum and identify areas that require or would benefit from further development, enhancement and/or adaptation to innovative curriculum delivery models.

While the strengths of the preclerkship curriculum identified as part of the MD program's most recent accreditation were acknowledged and endorsed as part of the consultation process, certain barriers to necessary change were identified, including: a rigid course structure that makes introduction of new material and teaching methods a challenge; lack of integration between courses; lack of early, relevant clinical exposure; an excessive reliance on lectures and more passive learning; insufficient faculty development; and, a high-stakes, infrequent, exam-based assessment process that was perceived to contribute to a "study to the test" student culture.

A process of preclerkship curriculum renewal was subsequently proposed to and endorsed by the UME Executive Committee and UME Curriculum Committee.

The proposed preclerkship curriculum renewal is founded upon four major pedagogic themes:

- Integration and individualized learning
- Increased clinical relevance
- An assessment model that supports learning and early identification of difficulty
- Teaching of competencies pertinent to developing cognitive capacity

The curriculum model consists of six discrete but integrated components:

- Preparation Phase: A six-week introduction to medical school, during which students will receive instruction to ensure all have a sufficient foundation of competence in biomedical and social sciences pertinent to medicine, together with an introduction to small group work and relevant medical education theory.
- Integrated Clinical Experience (ICE): A one-day per week experience which will elaborate on the current Art and Science of Clinical Medicine courses with early exposure to patient contact and to interactions with the multidisciplinary team.
- Toronto Online Patient-Centered Integrated Curriculum (TOPIC): The largest portion of each week will involve case-based learning with extensively curated online materials supporting small group, faculty-led learning, together with carefully selected large group sessions.
- Portfolio: A program of small-group, faculty-led portfolio meetings every two weeks to promote reflective capacity, and to provide a framework within which repeated formative assessments can take place.
- Health Sciences Research (HSR): The new HSR course will be integrated into the renewed preclerkship curriculum.
- Transition to Clerkship: An expanded program to facilitate the transition into the full-time clinical

setting will be created.

Students entering the MD program in August 2014 will be introduced to a three-week introductory version of the renewed preclerkship curriculum during the existing first year Structure and Function course by means of a new virtual patient case-based module, which emphasizes integration and reflective practice, and is being developed according to the four platforms. In 2015, students in the second year will complete a similar integrated module in the Mechanisms, Manifestations, and Management of Disease course. Both modules will be developed and evaluated in collaboration with the Wilson Centre for Research in Education.

Building upon student and faculty experiences with these initial modules, expansion of an integrated virtual patient case-based curriculum with a longitudinal portfolio assessment model bringing together multidimensional assessments, will occur in an iterative fashion over the course of 2015-16 and 2016-17.

Integrated Physician Scientist Training Pathway (IPSTP)

In 2012, Faculty of Medicine Faculty Council approved the Task Force Report on Physician Scientist Education, which recommended creating an integrated physician scientist educational pathway. In follow up to this approval, a preliminary vision of an Integrated Physician Scientist Training Pathway (ISPTP) has been being designed on the basis of extensive consultations with various stakeholders. To oversee the IPSTP development at the level of guiding principles, objectives and conceptual framework, decision-makers across undergraduate and postgraduate medical education and graduate studies, and physician scientist faculty and students constituted an IPSTP Steering Committee. Currently, the IPSTP Steering Committee is developing a set of priority actions to be undertaken to effectively design and construct all the IPSTP components. The Steering Committee is also finalizing its work on forming working groups that will focus on implementation of specific projects and activities within the proposed IPSTP.

Diversity Mentorship Program

On March 28, 2014 the establishment of a new program in diversity mentorship was announced to students in the MD program. Administered by the Office of Equity & Professionalism, the program will match students with faculty members who identify with the same diversity community. Consistent with the Faculty of Medicine Diversity Statement, three diversity communities have been identified for the initial phase of this program: the indigenous peoples of Canada (First Nations, Inuit, and Métis), people of African ancestry, and people who identify as LGBTQ (lesbian, gay, bisexual, transgender, and queer.) Faculty members from these communities have volunteered as mentors. Early response has been very positive.

Summer Mentorship Program: Enhanced Indigenous Component

Since 1994, the Faculty of Medicine, through the Office of Health Professions Student Affairs and in partnership with several other Faculties (Social Work, Pharmacy, Dentistry, Nursing) has run a 4 week long Summer Mentorship Program (SMP) for students from under-represented communities (African-Canadian and Aboriginal). This coming summer, the SMP will include an enhanced Indigenous component. There has been a 225% increase in the number of Indigenous student applications (to 14) for the summer 2014 offering of the SMP. To support the enhanced Indigenous component, an Indigenous student coordinator and two indigenous student programmers have been hired. The enhanced Indigenous component will include a more meaningful and culturally relevant curriculum that includes unique perspectives on health, Aboriginal medicine practices led by Elders, significant ceremonies and Indigenous physicians, and mentors to match students for their clinical experiences.

Faculty of Medicine "Fulfilling Our Potential" Strategic Planning Retreat

UME contributed three posters to the Faculty of Medicine "Fulfilling Our Potential" Strategic Planning Retreat held on April 2, 2014. The three posters were:

- UME Future Directions (2014-2017) – This poster includes four high-level priority areas and corresponding strategic directions that represent the program's vision of how it plans to implement the education goals expressed in the Faculty of Medicine Strategic Plan as well as recommendations found in *The Future of Medical Education in Canada MD Project Report* and *Health Professionals for a New Century.*
- Curriculum Renewal & Interdisciplinary Integration – This poster includes some of the many UME strategic activities that have supported achievement of the curriculum renewal and interdisciplinary integration themes articulated in the Faculty of Medicine Strategic Plan.
- Student Diversity & Social Responsibility – This poster includes some of the many UME strategic activities that have supported achievement of the student diversity and social responsibility themes articulated in the Faculty of Medicine Strategic Plan.

Governance & Leadership

Dr. **Mark Hanson** has been reappointed **Associate Dean, Undergraduate Medicine Admissions and Student Finances** for a second five-year term beginning on April 1, 2014. Dr. Hanson is an Associate Professor in the Department of Psychiatry at the University of Toronto, a Clinical Associate Professor in the Department of Psychiatry and Behavioural Neurosciences at McMaster University, and a Staff Psychiatrist at the Hospital for Sick Children. Dr. Hanson's leadership highlights during his first term include redesigning the admissions processes with an evidence-based lens, increasing the representation of Indigenous students within our applicant pool, and advancing the integration of student financial aid activities and bursaries into the admissions cycle. He has published widely on the innovative changes he is leading.

Dr. **Leslie Nickell** has been reappointed **Associate Dean, Health Professions Student Affairs** for a second five-year term beginning on April 1, 2014. Dr. Nickell is an Associate Professor in the Department of Family and Community Medicine at the University of Toronto, and a Medical Director at Bridgepoint Active Healthcare. Dr. Nickell's leadership highlights during her first term include significantly increasing the profile of student wellness and resilience initiatives and expanding services for students in all domains; personal, career, and academic counselling. Professor Nickell has provided national leadership of the AFMC Student Affairs committee for the past 3 years, which has evolved into a cohesive, practice group sharing and developing best practices for student affairs in medicine. She is the recipient of teaching awards, and has successfully published in peer reviewed publications.

Jessie Metcalfe joined UME on March 13, 2014 as the **Associate Registrar, Enrolment Management**. This new role will provide strategic leadership for all Faculty-led student recruitment initiatives and activities. Jessie will develop and implement strategies aimed at attracting the top students that enter into the Faculty of Medicine's Undergraduate Medical Education Program, the Physician Assistant Program, and the Medical Radiation Sciences Program. Jessie will develop and implement an information and digital technology strategy to support and lead enrolment management, policy and planning, and communications. We welcome Jessie from the Faculty of Engineering where she has had a great impact on outreach, recruitment, admissions, and the student experience.

Medical Radiation Sciences Program

The Nuclear Medicine and Molecular Imaging stream of the **MRS Program** is undergoing a full curricular renewal and the program is on track to have an intake in September 2014.

The MRS Program is currently mid-admission cycle with applicants due to attend for the Multiple-mini interviews (MMIs) the week of April 28th to May 2nd, 2014. Two hundred (200) applicants are academically qualified and have been invited to attend the MMI.

In January 2013, the MRS Program undertook the University of Toronto Quality Assurance Process (UTQAP). On April 1st 2014 the UTQAP review summary, the Chair's response and the Dean's response were presented to the Committee on Academic Policy and Programs of Governing Council and was favorably received.

Physician Assistant Program

The Inaugural Ontario Physician Assistant (PA) Symposium was held on October 21st, 2013 with the purpose to create opportunities for networking, collaboration and planning around PA initiatives in Ontario. The following report has been included to provide an update regarding the PA program, here at the University of Toronto, Faculty of Medicine as well as an overall report of the state of the profession. The perspective provided in the proceedings are particularly pertinent for Faculty Council and all are encouraged to view the report available at the link below.

Ontario Physician Assistant Symposium 2013, A Think Tank for Networking, Collaboration and Planning: Proceedings and Recommended Next Steps available here:
http://capa-acam.ca/wp-content/uploads/2012/04/ON-PA-Symposium-2013_Proceedings.pdf

Postgraduate Medical Education

CaRMS Results, 2014

All 417 PGY1 positions plus one Family Medicine position, sponsored by the Department of National Defence, filled in the first iteration. The University of Toronto was the only medical school to fill all of its positions in the first round. Of the 417 filled positions, 346 were filled by Canadian medical graduates and 71 were filled by International Medical Graduates. The breakdown of our filled positions is below:

U of T - 2014 1st Iteration PGME CaRMS Match Results

Discipline	CMG Positions	IMG Positions	Total
Anesthesia	13	4	17
Anesthesia - CIP	2	0	2
Cardiac Surgery	1	0	1
Dermatology	6	1	7
Diagnostic Radiology	9	2	11
Emergency Medicine	7	3	10
Family Medicine - GTA	115	20	135
Family Medicine - Barrie/Newmarket	14	4	18
Family Medicine - Rural	8	0	8
General Surgery	11	3	14
Internal Medicine	56	14	70
Laboratory Medicine	2	4	6
Medical Genetics	1	0	1
Neurology	5	2	7
Neurology - Pediatric	1	1	2
Neurosurgery	4	1	5
Obstetrics & Gynecology	11	1	12
Ophthalmology	4	0	4
Orthopedic Surgery	7	2	9
Otolaryngology	5	0	5
Pediatrics	17	4	21
Physical Med & Rehab	3	0	3
Plastic Surgery	4	0	4
Psychiatry	27	4	31
Public Health and Preventive Medicine	3	0	3
Radiation Oncology	4	0	4
Urology	4	1	5
Vascular Surgery	2	0	2
Subtotal	346	71	417

The 346 U of T PGME positions for Canadian Medical Graduates were filled by:
126 U of T graduates
139 from other Ontario medical schools
74 from other Canadian medical schools
7 from the U.S.

This is the 4th time in the last six years that PGME at U of T has filled in the first iteration.

PGME Leadership

Dr. **Salvatore Spadafora** has been reappointed for a second five-year term as **Vice Dean, Postgraduate Medical Education** starting January 1, 2015. Dr. Spadafora is an Associate Professor in the Department of Anesthesia, serves as a member of the University's Governing Council and holds an appointment at Mount Sinai Hospital.

Maureen Morris has been appointed to the newly created position of **Associate Director, Operations**. As the previous Manager of the Postgraduate Medical Education Office at Western University's Schulich School of Medicine & Dentistry, Maureen brings over 15 years of experience and ability in the management of projects and relationships with multiple and varied stakeholders in the PGME world.

Global Health

The first annual PGME Global Health Day will be held on Tuesday May 27th at the Li Ka Shing Knowledge Institute. The purpose of the day is to meet the needs of residents who are increasingly interested in global health by providing a half-day of knowledge and skill-enhancing small group sessions, world-class speakers and mentorship opportunities.

PGME Graduation Events

Building on the very successful Graduation Event launched last year with the Department of Medicine, PGME is working with Advancement to celebrate the completion of training of our residents and fellows in the Departments of Radiation Oncology, Obstetrics and Gynecology, and Paediatrics. These events will take place at various venues chosen by the departments and will include a keynote address, distribution of certificates, and photo opportunities for families of the trainees.

Graduate and Life Sciences Education Report for Faculty Council

Undergraduate

Awards

- 8 GLSE Summer Undergraduate Research Project Studentships awarded for the first time this summer.
- 3 GLSE Undergraduate Leadership Awards awarded for the first time this academic year.
- 127 Undergraduate Research Opportunity Program Awards.
- 3 Undergraduate Faculty Teaching Awards.
- University of Toronto Excellence Awards, 4 NSERC, 5 SSHRC to undergraduate summer students.

Human Biology Undergraduate Research Day

On April 4, 2014, the GLSE office worked with the Human Biology Program to organize a research poster day and provide sponsorship.
GLSE has entered into an agreement with the Human Biology Program to commit to three years of funding for the annual research day for 2014-15, 2015-16, 2016-17. The commitment will be renegotiated toward the end of the third year based on the success of the program.

Plans for graduate recruitment

GLSE will attend the following Graduate and Professional School Fairs for the 2014-15 academic school year, McGill University (returning), University of British Columbia (returning), University of Alberta, University of Calgary, McMaster University and Waterloo University. The University of Toronto fairs (St. George, UTM, UTSC) will be attended by the graduate departments.

Life Sciences Review

GLSE participated in the external reviews of Physiology and Nutritional Sciences. This year is the first time the Faculty of Medicine and Faculty of Arts and Science collaborated on undergraduate reviews as part of the 5-year medicine review of our Basic Science Departments and Laboratory Medicine and Pathobiology, carried out in compliance with the new University of Toronto Quality Assurance Program (UTQAP).

Graduate

This spring a number of creative approaches to graduate education have moved from the development stage to governance. In particular, the Faculty Council will consider today the new Master of Health Science in Translational Research in the Health Sciences and the new Collaborative Program in Human Development. Both programs represent innovative cutting edge academic programs that have been developed with expertise within the Faculty of Medicine and across the University at large.

At the Faculty Council meeting in February 2014 the new Applied Pharmacology field of study within the MSc in Pharmacology was approved. This term the graduate courses associated with this new field are being approved and the field is on target to begin in September 2014.

Continuing Professional Development is pleased to inform Faculty Council of the following updates:

The CPD website has been updated to align closer with the University of Toronto brand and reputation and highlights our recent name change to Continuing Professional Development, Faculty of Medicine. The CPD website has been refreshed with new content, design and feature technology adapted to our key users: healthcare professionals who wish to find out about and register for any of the over 300 CPD courses we offer each year, and the Course Directors who create those courses and want to know more about the accreditation, management, services and online tools available through CPD.

A record number of faculty applicants were received for the eight annual Continuing Professional Development Awards that recognize excellence in research, scholarship, innovation, teamwork and long-term commitment to CPD in the Faculty of Medicine. The 2013 recipients will be awarded at the annual Education Achievement Celebration scheduled for May 13, 2014.

A strategic planning retreat is scheduled for June 18, 2014. The agenda for this event will in part address the CACME accreditation standard that was in partial compliance (Standard 1.1) and cited that CPD did not clearly define its target population. CPD will better align its educational programming with Ontario's healthcare system needs.

CPD is proud to support and manage the inaugural Indigenous Health Conference. Directed by Dr. Anna Banerji, CPD Global and Indigenous Health, the conference will be unique in bringing together the voices and direction of Indigenous peoples. The target audience will represent a range of healthcare providers including physicians, nurses, nurse practitioners, midwives, social workers, community health representatives, rehabilitation specialists and other health professionals to facilitate the translation and dissemination of knowledge about Indigenous health issues in Canada. The interdisciplinary Indigenous Health Conference is being held at the University of Toronto's Conference Centre on November 20 and 21, 2014.

Progress Report: Office of Integrated Medical Education, University of Toronto

February 27, 2014

Recent key developments:

- ***3rd Annual OIME Summit:***
  The 3rd Annual Office of Integrated Medical Education Summit took take place in December of 2013. This year's theme focused on faculty development, and was attended by over 110 participants representing various health professions, clinical departments, and our 25 affiliated hospitals. This IME Summit was delivered in an integrated fashion with our Centre for Faculty Development (CFD) and Health Sciences Education Sub-Committee.

- ***TACT: Teaching and Academic Capacity in Toronto***
  With project management services provided by the OIME, the Faculty of Medicine has established a Steering Committee to examine teaching and academic capacity in our affiliated hospitals, public health units, independent offices, and clinics. A report will be completed in late 2014.

- ***Preceptor Payment Budget for 2013-2014:***
  We received formal confirmation from the Ministry of Health and Long-Term Care (MOHLTC) that our preceptor payment budget/base allocation has been increased to over $5.5 million for 2013-2014 onwards. As noted previously, we forecasted increased funding needs primarily due to growth, ROMP's withdrawal from Newmarket and Markham Stouffville and the new clerks at the Mississauga Academy of Medicine (MAM). Although funding for travel and accommodations was also withdrawn by ROMP, the UofT does not currently have funding for learner travel or accommodations.

- ***OIME Communications Programs and Reports:***
  The 5th edition of the OIME Newsletter was published in November of 2013. As well, our first KPIs for IME Report was published during the fall of 2013, and a "dashboard" was created on the OIME website. The 6th edition of the OIME Newsletter will be published in late April 2014.

- ***Learner Experience Initiatives:***
  The T-IME Learner Experience working group continues to work on a series of projects to streamline the learner experience (clerks and residents at this time), as they move across our affiliated hospitals, public health units and office-based teaching settings. This year, the implementation of common pagers as well as new process around the pre-distribution of Security/ID badges will be a focus. The group also engages with others on the implementation of ONE Mail, e-orientation and e-registration modules.

- ***New Staff, OIME:***
  We hired a new Project Assistant in October of 2013, and we are currently recruiting for a full-time Research Officer.

- ***Research Programs, Integrated Medical Education:***
  Our new Research Officer will work closely with the Deputy Dean, Faculty of Medicine, and Manager, OIME to implement a wide range of research programs on IME including a wider range of KPIs, the DME-COFM evaluation studies, and socioeconomic impact studies.

For further details, please contact: Wendy Kubasik, Manager, OIME (wendy.kubasik@utoronto.ca)

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

FOR APPROVAL

TO:	Faculty Council
SPONSOR:	Avrum Gotlieb, Interim Vice-Dean, Graduate and Life Sciences Education, Faculty of Medicine
CONTACT INFO:	Avrum.Gotlieb@utoronto.ca
DATE:	May 5, 2014
AGENDA ITEM:	4.1.1
ITEM OF BUSINESS:	New Master of Health Science in Translational Research in the Health Sciences

JURISDICTIONAL INFORMATION:

The University of Toronto Quality Assurance Process (UTQAP) New Degree Program Approval Protocol requires new graduate programs to be approved by Divisional Governance prior to University Governance Approval.

The Graduate Education Committee of the Faculty of Medicine Faculty Council reviews and recommends to Council for approval, subject to the approval of the appropriate body of Governing Council, proposals for new academic programs.

GOVERNANCE PATH:

1. Graduate Education Committee [For approval] – March 18, 2014
2. Research Committee [For information] – March 20, 2014
3. Faculty Council [For approval] - May 5, 2014
4. Committee on Academic Policy and Programs [For approval] - May 13, 2014
5. Academic Board [For approval] – June 2, 2014

CONSULTATIVE PATH:

1. Institute of Medical Science Curriculum Committee – Approved, February 8, 2014
2. Institute of Medical Science Executive Committee – Approved, February 14, 2014
3. Faculty of Medicine Graduate Curriculum Committee – Approved, February 27, 2014

HIGHLIGHTS:

The Translational Research in the Health Sciences program is a professional master's degree intended for highly trained personnel who have backgrounds relevant to the health sciences, such as clinical researchers, medical professionals, basic or social scientists; and who want to help mobilize research discoveries, and medical knowledge into medical, social or policy innovation.

The new program is designed to bring together the strengths and resources across the University of Toronto and the Faculty of Medicine to facilitate translational research and medical innovation. The program centers on the themes of breadth, deployment and integration in Translational Research. The new program is a two year masters comprised of 8 FCEs with a focus on foundations in Translational Research (MSC1000H), modular topics in Translational Research (MSC4010Y), exposure to communication skills (MSC1003H), foundations in design thinking (KMD1001H,1002H), project management and development skills (MSC2001Y) and a major capstone project (MSC4000Y).

PROPOSED MOTION:

> *"THAT the proposal to establish a new Master of Health Science in Translational Research in the Health Sciences be approved as submitted."*

University of Toronto
New Graduate Program Proposal

Name of Proposed Program:	Translational Research in the Health Sciences (TR)
Degree Name and Short Form:	Master of Health Science (M.H.Sc.)
Professional Program (yes/no)	Yes
Graduate Unit (if applicable) where the program will reside:	Institute of Medical Science (IMS)
Faculty / Academic Division:	Faculty of Medicine
Faculty / Academic Division Contact:	Avrum Gotlieb, Interim Vice Dean, Graduate and Life Sciences Education
Graduate Unit Contact:	Allan S Kaplan MD FRCP(C), Director, IMS
Anticipated start date of new program:	September 2016
Version Date:	February 27, 2014

New Graduate Program Proposal

Professional Master's Program in Translational Research in the Health Sciences
Institute of Medical Sciences
Faculty of Medicine

Table of Contents

Please include all sections with page numbers and a full list of appendices.

Table of Contents

Executive Summary 3
Program Rationale 5
Program Requirements: 9
Need and Demand 12
Admission Requirements 14
Program Requirements 15
Program Description 16
Fields 18
Degree Level Expectations, Program Learning Outcomes and Program Structure 18
Master's DLE 18
Assessment of Learning 22
Consultation 24
Resources: 25
Quality and other indicators 26
Governance Process: 28
Appendix A: List and description of courses 29
Appendix B: Faculty Complement 32
Appendix C: Library Statement 38
Appendix D: List of Elective Courses 41
Appendix E: Sample MSC 4010Y Module Description 49

Section 2

Executive Summary

Today the dominance of the metaphor of the lone researcher translating knowledge in isolation has been eclipsed by models of interdisciplinary networks and collaborative teams as drivers of sustained innovation. Today's research in the medical sciences is increasingly driven by labs and networks of interdisciplinary researchers who collaborate, exchange information, and disseminate research. However, this clustering of research and the sheer volume of information being produced in the medical sciences, has created knowledge silos even within specializations that present new and significant obstacles to the flow of knowledge across boundaries—limiting the potential for research exchange, innovation, dissemination and translation.

A new kind of professional is required to meet the challenges in the volume of research and the long road to its successful implementation. Not a lone researcher who works in isolation, but a new kind of health care professional whose breadth of knowledge bridges specialized areas and who has the skills to abstract and translate research and knowledge from one context to another. This type of professional is increasingly a vital component for expediting innovation in the health sciences. This area of practice, called translational research, "involves moving knowledge and discovery gained from the basic sciences to its application in clinical and community settings"--from laboratory bench to patient bedside. Individuals who are able to make connections across disciplinary silos and mobilize research across varied intellectual and practical topographies are vital components of an infrastructure necessary to stay at the forefront of health research, innovation and commercialization.

Translational Research fosters an environment of innovation and interdisciplinary collaboration that encourages the 'translation' of basic scientific findings into patient benefits aimed at reducing the burden of human disease. The mobilization of medical knowledge, from the bench to the bedside, is a process that involves the abstraction and translation of the research, its communication and dissemination, and its application and evaluation at the new context. This mobilization of knowledge explores needs and develops potential solutions to test in clinical settings based on laboratory research and discovery. Mobilization involves not only the movement of research to be tested and applied to routine practice, but also involves how these findings may be deployed effectively, efficiently and in an acceptable form to promote update and optimal use of new insights. This concept is often summarized by the phrases "bench-to-bedside" and "bedside-to-community" (Westfall et al. JAMA, vol 297, no 4, pp 403-406, 2007) research. The work of understanding and translating laboratory research into clinical settings requires individuals who: have existing research or practitioner medical backgrounds and are able to collaborate with others, move contexts and communicate – individuals who are "bilingual" in the language of research and the design of its translation.

The new program is designed to bring together the strengths and resources across the University of Toronto and the Faculty of Medicine to facilitate translational research and medical innovation.The program centers on the themes of **breadth**, **deployment** and **integration** in Translational Research. The new program is a two year masters comprised of 8 FCEs with a focus on foundations in Translational Research (MSC1000H), modular topics in Translational Research (MSC4010Y), exposure to communication skills (MSC1003H), foundations in design

thinking (KMD1001H,1002H), project management and development skills (MSC2001Y) and a major capstone project (MSC4000Y). The program components are designed to augment the student's scientific training with practical and conceptual *breadth* in biomedical and translational practices ranging from wet lab research, clinical and population-based research to knowledge translation, development and commercialization. The program also provides students with the skills for designing an effective TR project *deployment* by stressing collaboration, communication, and iterative (repeated and process driven) interdisciplinary problem solving. Finally, students are challenged to *integrate* their knowledge and skills, to propose, refine, and execute an original project in Translational Research as part of the program's capstone project. By design, this new proposed program will provide students with a broad understanding of specific topics in medical sciences; foundational tools for design, information media communication and criticism; and opportunities to apply the learned knowledge through practical research driven projects. These projects, supervised by Institute of Medical Science (IMS) faculty will help students gain practical experience while contributing to the department and university's translation and innovation of ongoing cutting edge medical research.

With a strong background in broad, often interdisciplinary biomedical research, the University of Toronto's Faculty of Medicine's Institute of Medical Science is the ideal graduate unit to offer such a program. The program will provide the opportunity to fill Canada's need for highly qualified professionals with varied backgrounds and experience in the medical sciences who can make connections between research and care, are able to work with professionals from other backgrounds in interdisciplinary collaborative teams, and are able to design techniques that move research towards application.

The Translational Research in the Health Sciences program is a professional master's degree intended for highly trained personnel who have backgrounds relevant to the health sciences, such as clinical researchers, medical professionals, basic or social scientists; and who want to help mobilize research discoveries, and medical knowledge into medical, social or policy innovation. The program is ideal for: students with existing research agendas who wish to broaden or translate their activities to other domains; or students who wish to apply or translate existing or ongoing pure research or discoveries into clinical settings, social change or policy action. The program allows these students to expand the range of their knowledge, shift career trajectories, or learn to apply research and discoveries across domains.

By working on iterative ideation—the process of defining and refining ideas, design thinking, prototyping and evaluation, students in the program will gain experience to help abstract and communicate knowledge and develop and plan Translational Research projects to help move discoveries out of the lab towards experimentation and implementation at the bed-side. The program will focus on providing students with an introduction to a breadth of topics, depth in student-chosen areas, and the skills to integrate, communicate and iteratively design Translational Research projects in collaborative interdisciplinary teams. These skills will help graduates throughout the various phases of Translational Research from implementation, to rigorous assessment and continuous iterative improvement of the design. Students will be advised and formally mentored by IMS faculty throughout the program. Students will also have the opportunity to work with IMS faculty during their capstone projects, and in doing so, will also be contributing to the mobilization of discoveries at the university.

Training professionals who are able to 'translate' medical knowledge is instrumental to the future development, quality and sustainability of health care and its delivery. While there are a

few such programs in the USA, at Harvard, Yale and Duke University in a growing field in Translational Medicine, there is currently no professional master's program in Translational Research offered in Canada.

Program Rationale

The growth of biomedical research institutions in Toronto has helped position IMS to serve a larger role in promoting both basic and clinical research and the translation of this work between research disciplines and into changes in practice and better care of patients. IMS offers a range of opportunities to do multidisciplinary research in basic and clinical medical science. Our graduate supervisors are world-calibre researchers doing original work in research centres, teaching hospitals and basic science departments throughout Toronto. IMS has a long history of innovative training and research that has placed it at the forefront of clinical training in Canada. IMS has a large pool of expertise, access to hundreds of labs and researchers, and experience delivering modular courses. Through this diverse campus- and hospital-based faculty, IMS can provide access to infrastructure and the capacity to lead globally in the training of professionals in the Translational Research in the Health Sciences program.

Translational Research requires professionals who have a breadth of knowledge; are able to communicate using a variety of media channels and methodologies; and can apply iterative—repetitious refining processes, through design thinking in multidisciplinary teams across multiple knowledge silos. The training program of professionals focused on Translational Research will require researchers with a capacity to observe, and reflect while implementing change--individuals who are able recognize how the needs and autonomy of groups and individuals in all of their diversity are served by health care innovation. In Canada there is currently no professional master's program in Translational Research.

Integration of Degree Program with the University, Divisional and Unit Strategic Plans

As a unique program that will address a need in medical research to train professionals who can help deploy and integrate interdisciplinary projects is clearly aligned with the "University of Toronto Strategic Research Plan, 2012-2017: Excellence, Innovation, Leadership". Specifically, the University's priority to Promote: Healthy People, Healthy Communities, Healthy World. The Translational Research in the Health Sciences program will also contribute to Human Development and Health Through the Lifespan and Global Health, and to Public Health, which are sub-themes of the University's Strategic plan.

At the divisional level, the U of T Medicine Strategic Academic Plan, 2011-16 is embodied by core concepts of Integration, Innovation and Impact. A key overarching goal of the plan is to translate discoveries to improve health, equity and prosperity in our community and around the world, which fits well with this program's goal of training students to better understand and manage the interplay between innovation and implementation. In fact, integration is a key pedagogical pillar of curriculum design. This program will contribute to the Faculty's and University's international reputation for helping the 'translation' of clinical discoveries into tested innovations, by educating health researchers who bridge the gap between discovery and application.

Finally, the Translational Research in the Health Sciences program also plays a central role in the

IMS strategic plan (2012-2017) to advance Translational research and teaching. This program will train students to be more interdisciplinary and generate new project ideas and research that will ultimately strengthen Translational Research at the University of Toronto, Canada and the world.

Academic rationale

Translational Research has been identified as a key element of the medical innovation ecosystem. The Translational Research in the Health Sciences program will train professionals who help bridge the gap between basic discoveries and their integration into existing and related clinical and bedside practices, technologies and policies. The new program will take students with academic and professional backgrounds in the health sciences, health science research, and related scientific fields and provide them with the skills and experiential learning opportunities to move and translate research and scientific knowledge from 'benches' in labs, to clinical domains and or positive policy outcomes that improve the patient experience.

In essence the program provides the infrastructure to help students who understand health science research, or who are already involved in health science research to develop idea, projects or new research based on existing work and discoveries and expertise at IMS and the Faculty of Medicine. The program is intended for: those students who want to enter Translational Research and students engaged in Translational Research. For students who have an established trajectory, the program provides unique opportunities to extend or pivot research. The program allows students to supplement their lab skills with communication and design thinking; and provides the infrastructure to support new project ideas that extend or mobilize existing research. For those students who are new to Translational Research, the program is designed to provide both the practical and theoretical perspectives.

The proposed curriculum is based on a foundation of research excellence at IMS that will inform students on advances in clinical research and allow them to contribute to leading innovations by helping to translate the research in the labs into care at the bedside. To develop necessary theoretical frameworks and experiential skills the program will offer students:

1. an introduction to a range of health science areas (**breadth**);
2. skills to design and communicate translational projects (**deployment**); and
3. practical opportunity to learn by doing (**integration**).

These primary elements form the basis for the pedagogic pillars that establish the program and are discussed below.

Nomenclature

Since Translational Research spans a range of disciplines across the health sciences, the new program should be part of the existing graduate degree, Master of Health Science (MHSc). As a 'bridging' program it makes academic and pedagogical sense for the Translational Research in the Health Sciences program to be a path towards a Master of Health Science rather than being designated its own degree. We propose the new program in Translational Research in the Health Sciences offer a Master of Health Science degree.

Mode of delivery

The Translational Research in the Health Sciences program is a mentored cohort-based program. The courses are a blended delivery model including a range of delivery modes including: face-to-face seminars and lectures, mediated collaborative work, one-on-one discussions and online seminars. The program is predicated on a curriculum founded on three main themes:

1. **Breadth** of knowledge;
2. **Deployment** of knowledge; and
3. **Integration** of knowledge through Experiential Learning

The themes will be explored through a series of modules and seminar courses that culminate in a major capstone project. Each theme extends to the mode of delivery. Breadth of knowledge addressed by seminars, flexible modules and elective courses; deployment of knowledge is stressed through communication and design thinking; and integration is developed through group work, projects and the execution of a final capstone project.

Breadth

Translational Research in Medicine requires a background or understanding of a range of scientific and clinical practices, techniques and technologies. The program incorporates avenues for students to expand their training online, in the class-room as well as laboratory and clinical settings. Students coming into the program will bring with them a core skill-set in health science research—scientific or professional experiences that will enable them to function and participate in graduate curriculum that includes technical and disciplinary knowledge in the health sciences. Students will be expected to demonstrate laboratory skills and an educational background in the health sciences or equivalent professional experience. The program allows these students to apply their knowledge to other related Heath Science domains through Translational Research and design. Students will do this by taking required modules and elective courses which supplemented their abilities to move outside of their primary discipline or research concentration.

The students will first be challenged by a range of issues and flavours of Translational Research in MSC1000H: Foundations in Translational Research (.5 FCE), a case-based seminar on the translational topography. The students in the Translational Research in the Health Sciences program will also be challenged to push outside their established academic or professional backgrounds to engage with a wide range of material from a variety of modular content already established at IMS. The modular structure of the second foundation course, MSC 4010Y (2.0 FCE) will be required students to select 8 modules from a list to complete course credit. The modular approach allows students to select their own paths through the program that best help add to their individual learning outcomes. These pathways include online and face-to-face delivery models and are flexible enough to accommodate student needs (see Appendix E for a sample student initiated module outline).

This introduction to a range of researchers, research and sub-disciplines is pivotal to providing the breadth of knowledge necessary to create professionals who are able to move across and beyond established disciplinary boundaries. Students are also required to extend the breadth of their knowledge base further with 1.0 FCEs–of electives to be taken in research stream graduate programs in the Faculty of Medicine. See Appendix D for a list of electives.

Deployment

Students who are able to make connections between research and practice also require the tools to be able to communicate and interactively rethink the knowledge gained to translate it into other contexts and domains. Today, communication means more than penmanship and written skills. Effective deployment of innovation increasingly is mediated by the internet and other forms of media, but deployment is more than just communicating basic science. It is also about envisioning applied clinical research and design of improved systems, policies and even community engagement based on laboratory research. Professionals who are involved in helping to mobilize basic discoveries increasingly require the familiarity with multiple channels of communication and novel deployment or design strategies of how to translate research into new contexts, applications and ways of doing things. The program will provide students with 0.5 FCEs of media and communication in the Health Sciences; and 1.0 FCEs in Knowledge Media Design for iterative design thinking for applied projects.

Integration

Advancing knowledge and ideas across research silos into applied projects requires integration of knowledge. Professionals that can translate and test research and help (re)integrate the outcomes back into research design, are the goal of Translational Research in the Health Sciences program. It is a bidirectional process, whereby, insights from the application of ideas are iteratively fed back across disciplines to inform fundamental research design. Moving ideas forward requires this integration of knowledge. In MSC2001Y (1.0 FCE) students will be provided with the tools and skills to manage a TR project and students will have opportunity to integrate knowledge through a collaborative capstone project (2.0 FCE). Guided by IMS Graduate Faculty mentors, students work directly in ongoing biomedical research, to develop group projects that explore application in other contexts and attempt to reintegrate back into research design. The integration of knowledge from the first year into Translational Research projects in the second provides students the chance to integrate theoretical frameworks with applied experiential learning.

Content

The content of the program has been structured around breadth, deployment and integration. The first year will be seminar and module based courses, selected with input from IMS faculty advisors, to provide students with breadth of scientific knowledge along with in-depth communication and design thinking skills. Students will grapple with the definitions and case-studies of Translational Research in MSC 1000H: Foundations in Translational Research, which provides students with the intellectual framework and context to move through the program. The course helps distinguish between predominant areas of basic and Translational Research and articulate the knowledge skills necessary to conduct TR research. Students will be introduced to the key issues facing Translational Research and will be provided with an overview of the tools and strategies involved in moving discoveries from “bench to bedside” and the community. The program builds on this foundation in MSC 4010Y, where students will customize their experience, by assembling a selection of 8 modular short courses from 3 core domains. The program then builds on this foundation and students are then provided with opportunities for

collaboration, iterative design and problem solving to integrate seminars and lectures with experiential learning by doing.

Students will also receive foundational introductions to communication and knowledge media design through seminars in KMD1001H, KMD1002H, and MSC1003H. These compulsory courses will provide students with breadth of domain specific knowledge alongside communication and design strategy skills that will supplement their scientific training and stress 'translating' basic research into applied innovation.

In MSC2001Y, students will be involved in a series of small project oriented workshops on topics, like ideation and ethics protocols. These workshops will provide students with the tools to approach TR projects and provide the scaffolding on which the subsequent capstone course is based. The workshop format allows students to work through problems through a project design cycle and be designed to help with cohort building and professional development. In the second year, students will be immersed in a major capstone project (2.0 FCE) that will allow them to apply the theoretical frameworks and skills established in the first year towards a project in Translational Research. Students will also have the opportunity to increase the breadth and depth of their knowledge while working on their projects through 1.0 FCE of approved electives.

Program Requirements:
Year 1 (4.0 FCEs)

MSC1000H: Foundations in Translational Research (0.5 FCE): This case based course looks at the different 'flavours' of Translational Research across the health sciences. Students will be introduced to the key issues facing Translational Research and be provided with an over view of the tools and strategies involved in moving discoveries from "bench to bedside". (**new course**)

MSC 1003H: Technology-mediated Scientific Communication (0.5FCE): Technology, both traditional and digital, mediates the communication between communicants. This course will be developed in consultation with the Institute for Communication, Culture and Information Technologies, a University of Toronto institute, and examines existing research about the use of both traditional and digital technologies in uni-directional and interactive communication. Students will also actively develop text-based communications content for traditional and digital media. The course will also investigate the necessity to be aware of the context of communication and its importance in developing communication in rich interactive environments.**(new course)**

MSC 2001Y: Projects in Translational Research(1.0 FCE):
This course is designed as a series of workshops that help the students plan and execute the capstone project. To complete the course students will have to complete 6 IMS and KMDI developed workshops (4-6 contact hours each) and participate in skill building seminars. The themes of these workshops will include: ideation, problem design, ethics, prototyping, evaluation and redesign, and integration through commercialization or innovation; and will be designed to help students advance their TR projects. For credit, each project team must submit a capstone project proposal, prototypes, a project poster and any presentation slides for evaluation. IMS will provide the direction and support for the student projects, but we envision sharing some of the supporting workshops that are planned as part of the Master of Information Knowledge Media

Design concentration in the Faculty of Information starting in Sept 2014.

MSC4010Y: Core Modules in Translational Research (2.0 FCE): Students will be able to customize their experience, by assembling a selection of 8 modular short courses from 3 core domains: A) Wet lab Research B) Clinical and Population-based Research and C) Knowledge Translation, Development and Commercialization, including ethical issues in translational research. Students will be required to pick course modules from all 3 research domains. Each course module involves ~12-20 h contact time. Completion of 8 modules will qualify for 2 FCE. For a sample of a module description see Appendix E: Sample MSC4010Y Module Description. (new course)

KMD1001H Core Seminar in Knowledge Media Design I – Fundamental Concepts/KMD1002H Core Seminar in Knowledge Media Design II – Contexts and Practices (1.0 FCE): These introductory knowledge media design courses (worth 0.5 FCE each) allow student teams from different program backgrounds (e.g. Engineering, Sociology, Education, Medicine, and Computer Science) to explore a problem from a variety of perspectives, and develop prototype approaches to the selected design issue. Mentors and advisers will be drawn from a pool of IMS affiliated instructors. Students will be provided resources to represent and model their ideas, so that the implications of their designs can be critically examined.

Year 2 (4 FCEs)

MSC4000Y: Capstone Project in Translational Research (2.0 FCE): All students will be required to complete a capstone project in translational research. Students will be assigned to a group of 3 – 5 students. Groups will have to work through a process of ideation to generate a project idea in Translational Research either based on IMS faculty research, or any other medical research context where there is appropriate mentorship or supervision, as determined by the Program Committee or designate. Groups will be required to establish clear individual and shared responsibilities and must submit self / peer evaluations as part of the final project deliverables.

Electives (1.0 FCE): For further breadth, students will select 1.0 FCE of courses in subjects of their own choosing. Typically this would be done in parallel with the Capstone Project to support synergies. Students will also be allowed to take electives outside the approved list with a pre-approval from the Translational Research in Health Scieincesprogram Director or designate.

Distinctiveness

The proposed program will provide students with a unique combination of Breadth, Deployment and Integration to help students acquire skills to translate clinical research and develop projects around research that can then be integrated into medical practices. Currently no other similar program in Translational Research exists in Canada. The proposed program is unique in the sense that the concentration is new to Canada, but it is also unique in its flexibility and curricular content. The delivery is designed to be flexible and customizable while contributing to core skills necessary to move research between benches and bedsides. The individually customized module requirements contribute to the programs breadth and will allow students to develop understanding of key principles in research areas outside, but complementary to, their personal

domains of research or professional practice. Core modules can evolve with research interests of faculty and student selection.

The critical feature of this program is its focus on interdisciplinary thinking and working in collaborative teams for the communication or deployment of translational research. Diverse disciplinary perspectives in the program can be seen in the varied body of students we anticipate the program will attract. Since Translational Research spans many modalities in medicine and the health sciences, and is being extended to other areas including social sciences, the type of student this program will attract may range across the health sciences and related disciplines. Clinicians, graduate researchers, medical health professionals and students from basic sciences may all potentially be attracted to the Translational Research in the Health Sciences program. They will benefit from the program's distinctive elements like iterative problem solving and experiential learning.

We feel strongly that students from social sciences in fields like Psychology, Communication, Education, or Sociology, with appropriate experience and health science interests, may also be attracted to medical focus of the Translational Research in the Health Sciences program. The flexibility and range of the Translational Research in the Health Sciences program has also been designed to accommodate and ensure their success. Suitable students will benefit from the programs flexibility and may, for example, wish to take their electives at other graduate units on campus—which has been built into the program design with the permission of the Director. Also, the modular structure of the core course allows students to get overviews of a range of medical disciplines, practices and skills. These students will be attracted by the access to a diverse range of ongoing research and diverse participating units, students and professors.

All students in this program will engage with a range of potential collaborators. The program will draw upon faculty from IMS, Joint Center for Bioethics, the Department of Pharmacology and Toxicology, the Department of Laboratory Medicine and Pathobiology, the Institute of Health Policy Management and Evaluation, the Dalla Lana School of Public Health, MaRS, Knowledge Media and Design Institute, the Institute of Biomaterial and Biomedical Engineering, the Faculty of Information, and the Institute for Communication, Culture and Information Technology.

A distinct feature of the program is the communication piece. To innovate it is not enough to make discoveries, researchers need to communicate their discoveries to multiple audiences across multiple domains to advance the health sciences. Communication skills and media literacy are increasingly necessary skills for the dissemination of knowledge, research and ideas in general. Students in the program will take part in a communication class that both discusses the larger questions of how media is changing, but also provides practical written and oral communication skills. MSC1003 will mentor students in the clear and effective exposition of ideas to diverse interdisciplinary audiences.

Another distinct element is the integration of design thinking as a way of collaborative problem solving. The Knowledge Media Design Institute at the University of Toronto advocates human-centred participatory design of media. KMDI has agreed to a memorandum of understanding to collaborate with IMS to develop workshops on key aspects of the design process. These

workshops and KMDI classes in general, are designed to address multidisciplinary audiences interested and involved in the design of knowledge media. During the courses and workshops offered by the Knowledge Media Design Institute, students will get opportunities to work in interdisciplinary teams from across University of Toronto disciplines, faculties and departments. Students will have the opportunity to discuss and reflect on human-centred design and iterative design thinking to 'translate' knowledge.

Finally, core to the experience, is the capstone project. Students will be guided through a process of planning and executing a project in TR. Students will work in collaborative teams to define, and propose a Translational Research project that the group can execute in one year that meets the rigorous guidelines of the Translational Research Program Committee. The committee, chaired by the Director of the TR Program, will report to the IMS Curriculum Committee and will be responsible for reviewing content, evaluation, mentorship, project proposals and project deliverables. The Program Committee will include IMS Faculty and domain experts as needed. Though the nature of each specific project may vary based on the team skill sets and backgrounds, each team will be encouraged to work with one (or more) of over 500 IMS associated faculty. The goal of the final project is not only to provide the mechanisms and didactic opportunities that allow students to collaboratively learn the skill-sets required to undertake Translational Research, but also provide students with access to working with labs and hospitals to help deploy their knowledge. The group capstone projects will require that students direct and contribute to the process of flexibly accommodating the insights of peers, as they envision, plan and model their own translational project ideas across disciplinary boundaries.

IMS will work with KMDI to develop a series of workshops designed to support students through the capstone project. These workshops will include set topics and themes like: Ideation, Prototyping, and Writing an Ethics Proposal. For example, during the Ideation workshop, each student group will have an opportunity to present their problem and associated ideas, and have the workshop group as a whole contribute to the brainstorming process to refine and redesign the ideas to improve the quality of the projects moving forward. These workshops will also be flexible enough to respond to the needs of the students as they progress with their capstone projects and the needs of the program as it develops. More broadly, the KMDI-led inter-divisional courses and workshops will introduce students to iterative design thinking skills and then help students implement those skills during their final projects. In KMD1001 and KMD1002 students are introduced to the fundamentals of media design as well as the contexts and methodological frameworks. Students are encouraged to go outside of their disciplinary comfort zones and will be introduced to a range of design thinking concepts with students from across campus. Students will also be able to brainstorm and design prototypes in collaborative times.

Need and Demand

In Canada, a number of institutes clearly identify Academic Faculty and Research Support Staff employment opportunities in Translational Research. Examples include: the Child & Family Research Institute in B.C; the Rick Hansen Institute—whose mandate includes translating

science into solutions for Canadians; and the Alliance of Translational Research Centres established to accelerate global drug development. All support projects in or employ research or clinical staff in Translational Research. Since the Obama administration prioritized Translational Research in 2010 the National Institute of Health in the United States has committed billions of dollars to Translational Research in Medicine. Growing numbers of TR programs across North America and the EU and the increased funding for Translational Medicine suggests a strong growth area in research centres, on interdisciplinary clinical teams, in teaching hospitals and the biotech and pharmaceutical industries for students in TR. The increasing number of Translational Research programs, institutes and funded projects in Canada, suggests a growing demand for professionals in this area.

The Translational Research in the Health Sciences program arises in part from the acknowledgement that the current pathways from research to application are fraught with inefficiencies. Bridging the divide between discoveries in laboratories and their implementation as clinical, policy or social innovation maximizes their social benefit. This bridging requires a new type of flexible and creative thinking professional whose expertise in the health sciences is leveraged to move knowledge between the “bench” and the “bedside”. The program essentially tries to teach students how to apply medical research towards projects that will innovate or advance health science research, practices or policy. To ensure that the students receive support and direct supervision from IMS faculty and to ensure high-quality supervision for the capstone projects, the program will initially accept 20 students per year at steady state.

Currently, there is no program in Canada in Translational Research. In the USA, there are very few such programs and they are all at elite universities. Examples include the Mayo Clinic's Center for Translational Science Activities, the Brown University Master's Degree in Clinical and Translational Research, the Master of Science in Medicine Degree Program at Stanford University, and the University Of Pennsylvania School Of Medicine Howard Hughes Medical Institute Graduate Scholars Program. In addition, a number of training programs exist in TR, but they are not part of graduate training programs. Examples include the Harvard Catalyst- Harvard Clinical and Translational Scientific Center (offers a two week “Introduction to Translational Medicine” course) and the Duke University Translational Medicine Institute. An example in Europe is the Master of Science in Translational Medical Research Program at Heidelberg University. In summary such programs are nonexistent in Canada and only a few exist in the USA, though many are planned. There is certainly a need in Canada for such a new training program.

Graduates of the program will be able to demonstrate a depth of knowledge around Translational Research and its core contributory practices; the ability to understand and engage with ongoing laboratory or clinical research; the ability to communicate complex research to different audiences; and the ability to contribute to the design of novel research projects. Graduates will be able to demonstrate breadth across sub-disciplines, as well as the ability to communicate, design and research across a range of health care related fields. These Translational Research professionals can work with labs to ‘translate’ discoveries into applied research. These professionals will also be suited for teaching approaches to Translational Research in departments, hospitals, and research centres. Individuals with health science backgrounds who are able to communicate and translate basic research are also in demand by organizations such

Sickkids and MaRS to help facilitate innovation, evaluate new projects and work. Graduates may also find employment working in clinical settings to implement new projects, in institutions to set and communicate policy, with government or in the private sector as Chief Scientific Officers and policy advisors.

Table 1: Graduate Enrolment Projections

Year in program	*Academic year*	*Academic year*	*Academic year*	*Academic year*	*Academic year*
	2015/16	*2016/17*	*2017/18**	*2018/19*	*2019/20*
1	*10*	*20*	*20*	*20*	*20*
2	*0*	*10*	*20*	*20*	*20*
Total	*10*	*30*	*40*	*40*	*40*

**Steady state*

Admission Requirements

The Translational Research in the Health Sciences program is designed to accommodate advanced students in the health sciences with scientific training. This may include clinical researchers and medical practitioners, but will represent a rhizomic-heterogeneous effort from a diverse group working collaboratively. The ideal student for this program will already have relevant training in the health sciences and related fields; will be interested in a master's to augment their education or advance their research or career; be open and eager to collaborate to implement discoveries into research projects; and aspire to supplement or redirect their existing skills through a mentor driven modular (and customizable) program that leads to a Master of Health Science.

Applicants will be admitted on the basis of academic preparation, references, and motivation. All applicants must demonstrate in a statement of interest and through their CVs exceptional scholarly achievement and significant research experience and provide at least three letters of reference. During the admissions process weight will be assigned to the applicants statement of interest in addition to the minimal requirements that will include a 4-year Honours BSc or MD from a recognized university program and a minimum A- (3.7/4, 80% or First Class Distinction) average in three of the four years (including final year) of the undergraduate degree. Applicants with significant research experience and/or academic research master's or PhD in related areas of study will be considered. Applicants with related research experience in professional health science or related social science may also be considered and are encouraged to apply.

Our goal is to attract a large, high-caliber, and diverse pool of students so that the effective requirements for acceptance are higher than admission requirements. This will allow the Program Committee to select from the pool of candidates who have a wealth of experience, creative interests and an enthusiasm for non-traditional collaborative work that produces translational outcomes. We expect this to be a key challenge for the selection process: the selection, from a large pool of qualified candidates, the individuals who will be judged the best fit to facilitate activities related to Translational Research in Health Sciences.

Students who have received their previous degree from a university where English is NOT the language of instruction must complete one of the following tests within the last year. Students, who took one of these tests more than one year prior to application, must take the test again.

Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE)

These two tests are taken together. Minimum scores are as follows:

	Internet Based Exam	Paper Based Exam
TOEFL	Overall - 93 Writing Score - 22 Speaking Score – 22	600
TWE	Not applicable	5

See the TOEFL website for more information.

Program Requirements

All students would be required to complete a total of 8.0 full-course equivalents (FCEs) as follows:

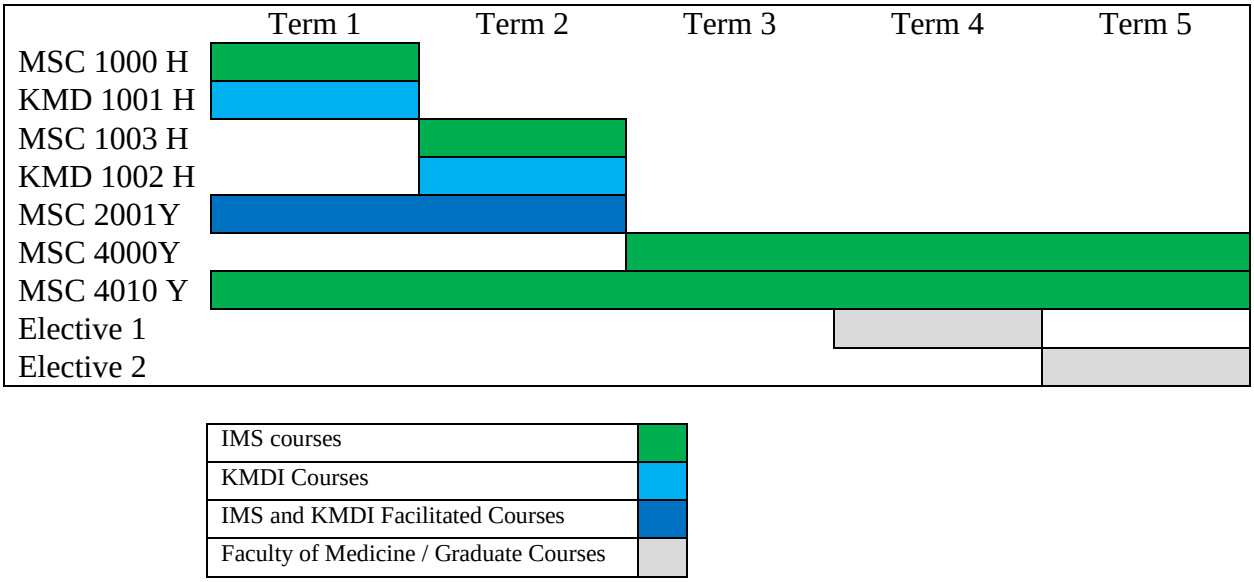
1) a course on the foundations in Translational Research (MSC1000H; 0.5 FCE);
2) a continuous modular “core” course in translational research (MSC4010Y; 2.0 FCE);
2) a course in advanced written and oral communication skills (MSC1003H; 0.5FCE);
3) two half-courses in interdisciplinary design (KMD1001H,1002H; 1.0 FCE);
4) a planning TR projects workshop course (MSC2001Y; 1.0 FCE);
5) capstone project course (MSC4000Y; 2.0 FCE); and
6) two half-courses of qualifying electives(1.0 FCE).

Table 1: Translational Research Program Curriculum

Term	**Course**	**Title:**
Term 1: Fall Term	MSC 1000 H	Foundations in Translational Research
	KMD 1001 H	KMD Fundamental Concepts
	MSC 2001Y	Projects in Translational Research
	MSC 4010 Y	Modules in Translational Research (2.0 FCE)
Term 2: Winter Term	MSC 1003 H	Information, Media and Communication Literacy for the Sciences
	KMD 1002 H	KMD: Contexts and Practice
	MSC 2001Y	Projects in Translational Research
	MSC 4010 Y	Modules in Translational Research cont’d

Term 3: Summer Term	MSC 4000Y	Capstone Project in Translational Research (2.0 FCE)	
	MSC 4010 Y	Modules in Translational Research cont'd	Projects in Tra
Term 4: Fall Term	MSC 4000Y	Capstone Project in Translational Research (2.0 FCE)	
	MSC 4010 Y	Modules in Translational Research cont'd	
	Elective 1	From List or With Approval (.5 FCE)	
Term 5: Winter Term	MSC 4000Y	Capstone Project in Translational Research cont'd	
	MSC 4010 Y	Modules in Translational Research cont'd	
	Elective 2	From List or With Approval(.5 FCE)	

Table 2: Typical Program Path by Term



IMS courses	
KMDI Courses	
IMS and KMDI Facilitated Courses	
Faculty of Medicine / Graduate Courses	

See Appendix A for a full list of courses and descriptions.

Program Length:5 sessions full-time (Fall,Winter,Summer/Fall,Winter),
Time Limit: 3years

Program Description

Distinctive elements of the Program
To fulfil the depth, deployment and integration themes, the curriculum will be developed and

delivered in modular seminars and workshops with small group learning and discussion, problem-based learning, individual and team project assignments. Elements of the design have been woven throughout the program curriculum. The program has been distinctively designed to incorporate modular, collaborative, and mentorship-based experiential-learning.

Modular Structure
The modular structure of the curricular components of this program will provide for student selection, individual flexibility and interest driven learning opportunities. Modular structure allows for flexible and responsive content. The course Modules in Translational Research (MSC4010Y) allows students to select 8 modules throughout their tenure in the program to customize their learning. The modules will be student and faculty initiated, and approved and reviewed by the IMS Curriculum Committee to ensure thematic consistency and rigor. The narrow themed modules and course electives provide both breadth and depth in a student-driven learning model.

Collaborative
The program has been designed with collaboration in mind so MSC2001Y and MSC 4000Y allow students learning opportunity to develop a novel TR project guided by IMS faculty. Although each project and course will incorporate elements of individual assessment, they will also involve group presentations and deliverables. Each group assignment will incorporate peer and self-review mechanisms to provide for appropriate assessment of learning.

Mentored
The program incorporates mentored experiential-learning specifically through the main Translational projects students work on. Students are provided guidance and mentorship while shaping their project as they engage with IMS faculty in the planning stages, and work with a specific member or group to execute and evaluate project outcomes. The capstone project marks a unique opportunity for student to work with ground-breaking researchers to execute real-world "translational research" projects.

Flexible
In addition to the program core elements and experience, students have the opportunity to choose individuated paths through the program. Students can choose individual modules during MSC 4010Y and are provided with two half-courses of electives that can help either supplement their TR project or expand their individual interests.

These elements make a distinct program that has individual paths, but involves group work; has mentorship, but allows for original proposals and projects; and incorporates breadth, development and integration.

This program will initially be offered on a full-time basis, but may evolve to allow other program lengths. The initial recommended full-time program length is 20months (or five sessions) and a total of 8.0 FCEs at the graduate level.

Whereas the Province's Quality Assurance Framework requires that students complete a minimum of 2/3 their courses at the graduate level, the University of Toronto requires graduate

students to complete all of their course requirements from amongst graduate level courses. This proposed program complies with this requirement.

The Master of Management of Innovation (MMI, an existing program offered by the Institute of Health Policy Management and Evaluation (IHPME), in the Faculty of Medicine and the Dept. Management, UTM) shares some similarities with the proposed program insofar as both target the scientifically trained applicant and both focus on developing skill sets that are required to translate and develop innovation. However, whereas the MMI program is designed for individuals who are pursuing management careers in technology-focused organizations, the TR program is research and clinically oriented for individuals focussed not on the management of research, but on its mobilization and movement from laboratories into different contexts to directly benefit and improve patient care. Whereas the MMI is concerned chiefly with the mechanics of managing, the proposed program will focus on envisioning new solutions to health problems through interdisciplinary engagement in the acts of mobilizing knowledge to improve medical care, delivery and policy. The Translational Research in the Health Sciences program includes scientifically oriented courses like MSC1000H and MSC4010Y, in combination with communication and design skills which are entirely distinct from the MMI programs management focus. There is significant pedagogical and disciplinary differentiation.

Tuition will be consistent with all other professional MHSc programs in the Faculty of Medicine and we anticipate being eligible for government grant funding in order to help support the program.

For a more detailed description of core courses see Appendix A.
For a detailed description of elective courses see Appendix B.

Fields

There are no fields in the program.

Degree Level Expectations, Program Learning Outcomes and Program Structure

Master's DLE

MASTER'S DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLE'S]	MASTER'S PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
EXPECTATIONS: *This MHSc in Translational Research is awarded to students who have demonstrated:*		
1. Depth and Breadth of Knowledge A systematic understanding of	Depth and breadth of knowledge is defined in Translational Research as knowledge of a broad range of scientific and medical disciplines coupled with	The program design and requirement elements that ensure these student outcomes for depth and breadth of knowledge are:

MASTER'S DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLE'S]	MASTER'S PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of the academic discipline, field of study, or area of professional practice.	individual domain expertise and skills necessary to help mobilize knowledge and discoveries to other domains. This is reflected in students who are able to: **Breadth** 1. Identify a range of issues, methods and case-studies in Translational Research that distinguish between predominant areas of basic and Translational Research. Evaluate information across domains to appreciate broader implications and limitation of Translational Research. **2.** Describe, appraise and integrate range of scientific and clinical practices and research. **Deployment** **3.** Illustrate and identify Translational Research question, problem or strategies in a specific context. **4.** Demonstrate design thinking and communication skills specific to translating and articulating research between contexts (e.g. Design projects, trials, communicate key understandings to stakeholders). **Integration** 5. Demonstrate the ability to assess and synthesize knowledge using data and literature to inform new applications and strategies for care delivery. **6.** Formulate the hypothetical setting up of appropriate experiments, trials or design probes to test a hypothesis in the translation of research in the health sciences.	**Breadth** 1. MSC1000 is designed to allow students to examine a range of understandings of Translational Research across disciplines. The course introduces students to key issues and encourages a meta-analysis of the field through case-studies and analysis. 2. MSC4010 is designed as a series of modules that allow students to sample a range of topics from 3 core domains: A) Wet lab Research B) Clinical and Population-based Research and C) Knowledge Translation, Development and Commercialization, including ethical issues in translational research. The program also incorporates two course equivalents for breadth and depth in a range of approved 'electives' that allow students to focus on individual areas of interest in several areas across the faculty. **Deployment** 3. MSC1000 uses case-studies to model to study the deployment of Translational Research. 4. KMD1001/1002 and MSC1003 provide the foundations for design thinking and communication in the health sciences, and form core skill sets that help students manage and articulate Translational Research activities. **Integration** 5. MSC2001 is designed to allow students to demonstrate the ability to assess and synthesize knowledge in order to apply it towards a Translational Research project. 6. MSC4000 appraises the ability of students to formulate real and conceptual approaches to setting up of appropriate experiments, trials or design probes to test a hypothesis in the translation of research in the health sciences.
2. Research and Scholarship	For this **professional master's program**, research and scholarship is defined in	The program design and requirement elements that ensure these student

MASTER'S DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLE'S]	MASTER'S PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
A conceptual understanding and methodological competence that i) Enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline; ii) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and iii) Enables a treatment of complex issues and judgments based on established principles and techniques; **and,** on the basis of that competence, has shown at least one of the following: i) The development and support of a sustained argument in written form; or ii) Originality in the application of knowledge.	Translational Research as experiential and applied mixed method oriented problem solving. This is reflected in students who are able to: **Breadth** 1. Define and describe a variety of translational research practices and cases-studies. 2. Associate the analysis of results with their broader significance. **Deployment** 3. Develop a research question or problem, help develop a protocol, assist in carrying out Translational Research, and disseminate the results. 4. Apply iterative design thinking to Translational Research. 5. Demonstrate the ability to effectively interact and collaborate with others across interdisciplinary research contexts. **Integration** 6. Formulate actual or conceptual research, policy, clinical or community initiatives that demonstrate Translational Research thinking. 7. Explain research contributions to a range of community through written form.	outcomes for research and scholarship are: **Breadth** 1. MSC1000 and MSC4010 are both designed to provide students with a variety of perspectives on Translational Research practices. MSC 1000 is a lecture style course while MSC 4010 allows students to take a range of individually selected modules. 2. In MSC1000 students are required to review and critically evaluate recent research and scholarship both in the sciences and in all the disciplines related to strategies and methodologies for Translational Research, specifically intended to provide students with real-world case studies to demonstrate the broader significance of TR. **Deployment** 3. In MSC2001 students are required to design and present their own research project in TR. 4. Students are required to demonstrate iterative design thinking in KMD 1001/KMD1002 to solve complex problems. 5. In KMD1001 & KMD1002 students are required to effectively interact and collaborate. In MSC2001 students will have to collaborate across contexts to assess potential projects in TR. **Integration** 6. MSC4000 requires students to propose their own TR projects intended to mobilize research. The capstone projects mentored and evaluated require students to demonstrate translational thinking.
3. Level of Application of Knowledge Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.	Application of Knowledge is defined in the professional master's program of Translational Research as the ability to understand research and be able to work with others to help communicate it and facilitate its translation into a clinical context. This is reflected in students who are able to: 1. Demonstrate the roles and expertise as members of an interdisciplinary	The program design and requirement elements that ensure these student outcomes for level and application of knowledge are: 1. KMD1001and KMD1002 require students to engage with interdisciplinary teams to achieve goals. Students are required to demonstrate these skills during MSC2001 and MSC4000 as they plan and work on their capstone project. 2. MSC1000 requires students to analyse

MASTER'S DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLE'S]	MASTER'S PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
	team, required to optimally achieve a goal related to an appropriate translational research problem. 2. Propose and evaluate a project plan for investigation that critically, translates a discovery or body of knowledge into a new question in a new setting.	case-studies in Translational Research, critically approach best practices and test ideas for new questions and projects.
4. Professional Capacity/Autonomy a. The qualities and transferable skills necessary for employment requiring i) The exercise of initiative and of personal responsibility and accountability; and ii) Decision-making in complex situations; b. The intellectual independence required for continuing professional development; c. The ethical behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d. The ability to appreciate the broader implications of applying knowledge to particular contexts.	Professional Capacity/Autonomy is defined in Translational Research as the ability to understand the processes that help develop ideas and strategies that bridge research and clinical trials. This is reflected in students who are able to: 1. Work collaboratively to communicate complex ideas using varied communication and design strategies; 2. Demonstrate initiative, responsibility and team accountability in executing design projects; 3. Demonstrate appropriate project management and lab management skills. 4. Ability to synthesize and abstract information across domains to appreciate broader implications and limitation of Translational Research.	The program design and requirement elements that ensure these student outcomes for professional capacity/autonomy are: 1. KMD 1001/1002 allow students the opportunity to discuss interdisciplinary collaboration, iterative design thinking and varied strategies to communication. MSC1003 looks at scientific communication beginning with grants and moving to communication of research results using new media. MSC 4000 allows students the opportunities to apply skills towards a large collaborative project; 2. Demonstrate initiative, responsibility and accountability (group work throughout but especially during MSC2001 and MSC4000). 3. Planning and evaluating projects particularly in KMD1002 and MSC 2001 allow students to learn about the implementation of research projects, develop intellectual independence and use of appropriate infrastructures to research and implement projects such as ethics review boards, etc. 4. KMD1001 and MSC1003courses are generally structured around the synthesis and abstraction of information for appropriate audiences as primers for students. The MSC 4000 Capstone Project course is the opportunity for students to apply knowledge, analyse a specific problem domain and demonstrate an understanding of the broader goals and implications of Translational Research.
5. Level of Communications Skills The ability to communicate ideas, issues and conclusions clearly.	Communications Skills is defined in Translational Research as the ability to discuss and provide feedback to people beyond ones discipline; and the ability to effectively target specific audiences using appropriate media strategies.	The program design and requirement elements that ensure these student outcomes for level of communication skills are: 1. MSC1003 is specifically designed

MASTER'S DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLE'S]	MASTER'S PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
	This is reflected in students who are able to: The graduate will be able to: 1. Present effectively research in such a way that it is easily understood, encourages discussion and promotes participation and collaboration in research and decision-making, through verbal, written and other non-verbal means/of communication, respecting the differences in beliefs and backgrounds. 2. Demonstrate the importance of cooperation and communication among health professionals so as to maximize the benefits to patient care and outcomes, and minimize the risk of errors. 3. Organize relationships with appropriate communities that are characterized by understanding, trust, respect, empathy and confidentiality.	around strategies of communication of scientific and biological knowledge. The MSC1003 and KMD 1001/1002 courses are the specific mechanisms designed to promote effective verbal and non-verbal communication and design practices. 2. Cooperation and collaboration is built into the program design, but is particularly evident during group workshops and seminars, the KMD courses and as an integral aspect of the MSC4000 Capstone project. 3. The advisory committee for each student is the specific mechanism by which students will be able to establish professional relationships and communities, but the program also gives students opportunities for interdisciplinary collaboration through interactions with KMD students, a range of mixed student groupings in MSC4010, and the relationships between labs and clinics established by the Capstone projects.

Assessment of Learning

The evaluation of students will be based on traditional assignments, participation in workshops and modules, and presentations of research through papers and presentations. The ability to integrate knowledge will be assessed through the requirement to develop comprehensive projects.

Assessment of Learning

Student performance in the program will be assessed through a variety of methods including: reports, presentations, assignments and project portfolios.

Students will receive grades for their performance in each course.

Table 3: Correlating program learning outcomes and assessed skills and competencies

Learning Outcomes	Assignments	Projects	Capstone Portfolio	Presentations
1.Depth and Breadth of Knowledge				
☐Display expertise in at least one area related to health sciences	✓	✓		
☐Critically assess a problem that is complex and has alternative design approaches.	✓	✓	✓	
☐Adjust communications to address different audiences	✓	✓	✓	✓
☐Identify key debates that result from conflicting stakeholder views	✓	✓	✓	
2. Scholarship				
☐Conceptualize, design, implement a Translational Research project	✓	✓	✓	
☐Make informed judgments on complex issues in the context of TR	✓	✓		
☐Articulate those strategies and judgments		✓	✓	✓
3.Application of Knowledge				
☐Assess a complex Translational Problem	✓	✓	✓	
4.Professional Capacity				
☐Complete the degree requirements in a timely manner	✓	✓	✓	
☐Demonstrate project management skills		✓	✓	
5.Communication Skills				
☐Communicate Complex ideas effectively	✓	✓	✓	✓
☐Communicate with interdisciplinary groups	✓	✓	✓	
☐Establish professional networks and communities		✓	✓	

Assessing Experiential Learning

Through its modular and flexible structure, the program has been designed to be responsive and accommodating to student interests and creativity. This responsive nature of the program necessitates an infrastructure for assessing learning that ensures rigor, consistency and meaningful standards across the potentially diverse outcomes anticipated. Central to this tension between flexibility and consistency is the capstone project. Evaluating student performance as part of the capstone project is a key feature of this program. This will be done on several levels to assure the quality of the student experience and the rigor of the projects and their outcomes. The Translational Research Program Committee (TRPC) will leverage existing departmental standard operating procedures (where applicable) and institute project specific measures for quality assurance and assessment.

As part of MSC2001 students will be required to draft a project proposal and select a Project Advisory Committee (PAC) for approval by the Translational Research Program Committee (TRPC). The project proposal will be required to include a rubric and metric for individual and group evaluation that will be negotiated between students and their PAC, and will be approved by the Program Committee to ensure rigor across projects and the means for final capstone assessment and evaluation. This apparatus will provide project specific flexibility to define deliverables and outcomes, and a program wide system for assessing quality and student achievement, and it will be the responsibility of the program Director and departmental Graduate

Coordinators to help students navigate the program and address any flagged issues.

During the Capstone project itself students will be required to provide their PACs project updates every three months to ensure ongoing feedback and review before final deliverable(s) are evaluated. Finally, the PAC will be required to submit a grade and an assessment of the project with clear demarcations of individual student contributions (in the case of group projects) to the TRPC for review.

On a departmental level, the TRPC will report to the established IMS Curriculum Committee and will forward any student issues or appeals that cannot be resolved at the program level to the department committees on standing. At the program level, the Director, IMS Graduate Coordinators, and the TRPC will be responsible for approving the student admissions, capstone proposals, PAC composition and final project evaluations. Students and student progress through the program as a whole will be closely monitor by program administrators to ensure appropriate progress and that all programmatic requirements are met.

Consultation

This program has been developed in consultation with the Faculty of Medicine, Faculty of Information, Institute of Medical Science, Knowledge Media Design Institute and the Institute for Communication, Culture and Information Technology.

Preliminary meetings between the group began in early 2011. At the Faculty of Medicine, discussions included:
Avrum Gotlieb, Vice Dean Graduate Affairs
Harry Elsholtz, Graduate Coordinator, LMP
Denis Grant, Chair, Dept. Pharmacology & Toxicology
Norman Rosenblum, Associate Dean, Physician Scientist Training
J. Paul Santerre, Director, IBBME
Barbara Secker, Director, Education & Practice, Joint Centre for Bioethics

Throughout 2011-2012 IMS engaged in discussions with potential program collaborators including ICCIT, KMD and the Faculty of Information. These preliminary discussions included:

Faculty of Information:
Seamus Ross, Dean, Faculty of Information
Andrew Clement, Interim Director, Knowledge Media Design Institute, Faculty of Information
Joseph Ferenbok, Assistant Director, KMDI, Faculty of Information

UTM:
Anthony Wensley, Director, ICCIT, UTM, Dept. Management, UTM and Rotman

Faculty of Dentistry:
Peter Pennefather, Leslie Dan Faculty of Pharmacy

In line with the University of Toronto Quality Assurance Process, this proposal has been developed in close consultation with the Office of the Vice-Provost Academic Programs and the SGS. In October, 2012, IMS had consultations with Avrum Gotlieb, Interim Vice Dean Graduate and Life Science Education and were given feedback on the initial ideas and provided guidance for moving forward. A sub-committee of the IMS Curriculum committee was established to help provide guidance for the development of the program moving forward and held its inaugural meeting January, 2013.

IMS has contacted Prof. Alberto Galasso, the Director of the MMI at the University of Toronto Mississauga. The MMI program does not incorporate a science research focus during the program, but may have synergies both for the students and the TR projects they execute. IMS will work with the MMI program to work on these and other future possible synergies. Of particular interest is to see whether MMI and TR program students can work together on aspects of the capstone projects.

Prof. Nick Woolridge, Director of the IMS professional masters in Biomedical Communication (BMC) is based at UTM and has served as a liaison between the IMS and the ICCIT. IMS and the ICCIT envisage a close working relationship between the proposed master's program in Translational Research and plans for future offerings at ICCIT involving medical and scientific communications. Dr. Joseph Ferenbok, who is the Assistant Director of KMDI, has helped developed this collaborative model for the two programs. Dr. Ferenbok is currently a lecturer in the IMS core seminar series in Translational Research.

The developers have also consulted with Allyson Hewitt, Advisor, Social Innovation and Director, Social Entrepreneurship, MaRS for a sense of Employment opportunities and collaboration with policy and industry partners in Translational Research. MaRS and other institutes whose mission is governed by social innovation and policy change will likely also be a significant area of potential employment for students with translational skills in medical research.

Resources:

Faculty Complement

The professors and clinical experts who will be core participants in this program are highlighted in Appendix B demonstrating the depth and breadth of research conducted at the Knowledge Media Design Institute, the Institute for Communication, Culture and Information Technology and Institute of Medical Science at the University of Toronto. The corresponding curricula vitae demonstrate their tremendous and collective expertise. It is significant to stress that the IMS graduate faculty will provide advisory expertise for students both individually and in the context of advisory panels on Capstone projects. IMS will be required to develop the 0.5 FCE foundations course, MSC1000, and fine tune expand the current MSC1010Y modular offerings to accommodate more modules for the MSC4010Y TR students. KMDI will provide access to KMD1001/1002 as part of an institutionally established MOU and ICCIT will co-develop the Communication In Health Sciences course, to be offered at the St. George Campus—effectively

coordinating interdepartmental synergies to leverage existing resources and expertise.

Administration
At full capacity the program will require a 0.6 FTE academic course director and 1 FTE administrative support to look after admissions, finances, graduation reviews, industry liaison, marketing and program coordination. The administrative support will also be key to supporting student access to modules and providing administrative support to capstone project groups.

Financial Support for Graduate Students
Financial support is not anticipated other than scholarships typically available to professional master's graduate students.

Space/Infrastructure
In steady state, it is expected that there will be up to 40 students (full-time) enrolled in any one term. Currently, IMS has teaching facilities include access to rooms that are appropriately configured for medium sized groups with large tables and chairs that can be rearranged for lectures, group discussions and small team projects. Most rooms have built-in projection system, speakers, blackboards and plenty of natural light. Wireless internet access is available for students as needed. These will generally suffice for most lecture-based courses such as MSC1000 and MSC1003.

Since no laboratory space is needed for the core courses in this program, and The TR students will not be affiliated with specific labs, the program will require a multipurpose specialized teaching space which will play a central role in helping to establish a sense of cohesion and execute their applied research projects. The hybrid classroom and ideation lab will provide students with the tools necessary to imagine, brainstorm and move forward their translational projects. The multipurpose space will allow the program to run its specialized workshops and seminars, and will become central to idea exchange and interaction to stimulate momentum and exchange for TR innovation.

Additional office space will house the two new staff for this program (Director and Administrative Assistant).

Quality and other indicators

Key aspect of the strength of the proposed program is the blending of expertise from across the University of Toronto. The Faculty of Information and the Knowledge Media Design Institute contribute expertise in information management and media design. Their interdisciplinary faculty provides a range of scholars concerned with knowledge curation and representation. ICCIT and Biomedical Communications contribute another range of collective faculty expertise that range from pervasive mobile computing to 3D animation rendering. The Institute of Medical Science brings a network of hundreds of laboratories and faculty whose collective expertise range across three key domains: A)Wet lab Research B) Clinical and Population-

based Research and C) Knowledge Translation, Development and Commercialization, including ethical issues in translational research.

Through the combined research and teaching assembled above from across the university students will have the opportunity to learn from these world-class researchers and bring that knowledge to bear when bridging the gap between the bench and the bedside.

Governance Process:

	Levels of Approval Required
Consultation with Provost	*June and September 2012*
Decanal and Provostial Sign Off	April, 2013
	Graduate unit approval
	Faculty/Divisional Governance
Submission to Provost's Office	
	AP&P
	Academic Board
	Executive Committee of Governing Council
Program may begin advertising as long as any material includes the clear statement that "No offer of admissions will be made to the program pending final approval by the Quality Council and the Ministry of Colleges Training and University (where the latter is required).""	
	Ontario Quality Council
	Submitted to MTCU (in case of new graduate degrees and programs, new diplomas)

Developed by the Office of the Vice-Provost, Academic Programs
June 26, 2012

Appendix A: List and description of courses

FCEs	**Title**	Description
0.5	**MSC1000H: Foundations in Translational Research**	This case based survey course looks at the different 'flavours' of Translational Research across the health sciences. The course helps distinguish between predominant areas of basic and Translational Research and articulate the knowledge skills necessary to conduct TR research. Students are introduced to the key issues facing Translational research and be provided with an over view of the tools and strategies involved in moving discoveries from "bench to bedside" and the community.
0.5	**MSC 1003H: Technology-mediated Scientific Communication**	Technology, both traditional and digital, mediates the communication between communicants. This course examines existing research about the use of both traditional and digital technologies in uni-directional and interactive communication. Students will also actively develop text-based communications content for traditional and digital media. The course will also investigate the necessity to be aware of the context of communication and its importance in developing communication in rich interactive environments.
1.0	**MSC 2001Y: *Projects in Translational Research***	This course is designed as a series of workshops that help the students plan and execute the capstone project. To complete the course students will have to complete 6 TR project workshops (4 - 6 contact hours each). The themes of these workshops will include: ideation, problem design, ethics, prototyping, evaluation and redesign, and integration through commercialization or innovation; and will be designed to help students advance their TR project proposals. For credit, each project team must establish an advisory committee and submit a capstone project proposal, prototypes, a project poster and any presentation slides for evaluation.
2.0	**MSC4000Y: Capstone Project in Translational Research**	All students will be required to complete a capstone project in translational research. Students will be assign groups of 3 – 5 students. Groups will have to work through a process of ideation to generate a project ideas in Translational Research either based on IMS faculty research, or any other medical or scientific research context where there is appropriate mentorship or supervision. To complete the project course students will have to complete 6 KMD workshops (4 contact hours each). Each project team must submit a proposal, prototypes, project poster and presentation slides for evaluation.

2.0	**MSC4010Y: Core Modules in Translational Research**	Students will be able to customize their experience, by assembling a selection of 8 modular short courses from 3 core domains: A) Wet lab Research B) Clinical and Population-based Research and C) Knowledge Translation, Development and Commercialization, including ethical issues in translational research. Students will be required to pick course modules from all 3 research domains. Each course module involves ~12-20 h contact time. Completion of 8 modules will qualify for 2 FCE.
0.5	**KMD1001H: Fundamental Concepts**	Knowledge media are systems incorporating computer and communications technology that enhance human thinking, creativity, communication, collaboration, and learning. Examples include the Web, email, instant messaging, blogging systems, knowledge management systems, digital libraries, collaborative virtual environments, video conferencing environments, and webcasting systems. This course reviews the emerging field of knowledge media design, and the use of digital media for communication, collaboration, and learning. The course includes topics in human-centred design; knowledge media technologies; social implications of knowledge media; examples and applications of knowledge media; and the future of knowledge media, and is organized via themes of design, media, and knowledge.
0.5	**KMD1002H Knowledge Media Design: Contexts and Practice**	This course is a theme-based Pro-seminar course for KMD Collaborative Program students combining lectures, public seminars, and participation in online discussions. Students who successfully complete the course will receive a Credit on their transcript rather than a specific grade. If students outside of the KMD Collaborative Program would like to take the course, they require special permission from the course Instructor. What are knowledge communities and how are their practices shifting in response to new media practices? This course addresses the past and current understanding of "persistent knowledge" that is defined by formal communities like school boards or graduate seminar courses, to less informal communities like fantasy sports or local folk music societies. We will consider the representations of such knowledge, its role within communities, and how it may be translated into new knowledge within and across community boundaries.

		These introductory KMD Collaborative Program core courses allows student teams from different program backgrounds (e.g. Engineering, Sociology, Education, Medicine, Computer Science,) explore a problem from a variety of perspectives, and develop prototype approaches to the selected design issue. Mentors and advisers will be drawn from instructors affiliated with the program through IMS. Students will be provided resources to represent and model their ideas, so that the implications of their designs can be critically examined.
1.0	**Electives**	For further breadth, students will select 1.0 FCE of courses in subjects of their own choosing from an approved list of courses. Typically this would be done in parallel with the Capstone Project to support synergies. Students will also be allowed to take electives outside the approved list with a pre-approval from the graduate coordinator.

Appendix B: Faculty Complement

Name	***Home Department / Unit***	***Rank***	***Graduate Faculty Membership Status (eg. Associate/ Full privileges)***	***Commitment to other programs***	***Hospital***	***Nature of contribution to this program (CI, TS, C/PS)****
Tenured						
Dr. Dina Brooks	*Physical Therapy*	*Professor*	*Full*	*Cardiovascular Science Collaborative Programs*	*Physiotherapist, West Park Hospital*	*C/PS*
Dr. Mark Chignell	*Mechanical Industrial Engineering*	*Professor*	*Full*	*Knowledge Media Design Institute*		*C/PS*
Dr. Peter Pennefather	*Pharmacy*	*Professor*	*Full*	*Knowledge Media Design Institute*		*C/PS*
Dr. Anthony Wensley	*Institute of Communication, Culture, and Information Technology*	*Associate Professor*	*Full*	*Knowledge Media Design Institute*		*C/PS*
Non-Tenure Stream (ie. CLTA)& Others (ie. Adjunct, status only, clinical faculty, visiting or other)						
Dr. Howard Mount	*Medicine*	*Assistant Professor*	*Full*	*Director of Education, IMS*		*CI, C/PS*
Dr. Joseph Ferenbok	*Knowledge Media Design Institute*	*Assistant Professor*	*None*	*Assistant Director, Knowledge Media Design Institute*		*CI*
Dr. Alan Bocking	*Department of Obstetrics and Gynaecology*	*Professor; Department Chair*	*Full*	*IMS,MSc, PhD Physiology,*	*Director, AMPATH (Academic Model Providing Access to Healthcare), Reproductive Health*	*C/PS*
Dr. Albert Wong	*Psychiatry*	*Associate Professor*	*Full*	*Full Member IMS; Pharmacology*	*Research Scientist, Centre for Addiction and Mental Health*	*C/PS*
Dr. Allan Kaplan	*Psychiatry*	*Professor*	*Full*	*Director, Institute of Medical Science; Chief of Clinical Research,*	*CAMH*	*C/PS*

				Center for Addiction and Mental Health; Vice Chair Research, Department of Psychiatry		
Dr. Andrea Furlan	*Medicine*	*Assistant Professor*	*NA*	*IMS; Clinical Fellow, Dep. of Medicine, Division of Psychiatry*	*Scientist, University Health Network*	*C/PS*
Dr. Anthony Joshua	*Medicine, Faculty of*	*Assistant Professor; Clinician Scientists*	*Associate Member*	*IMS*		*C/PS*
Dr. Berge A. Minassian	*Paediatrics and Neurology*	*Associate Professor*	*Full*	*Full Member IMS; Staff Paediatric Neurologist*	*Senior Scientist, Research Institute, The Hospital for Sick Children*	
Dr. Bernard Le Foll	*Family and Community Medicine*	*Associate Professor*	*Full*	*MSc, PhD IMS; Pharmacology; Psychiatry*	*Head, Translational Addiction Research Laboratory, CAMH; Independent Research Scientist, Centre for Addiction and Mental Health*	*C/PS*
Dr. Claudia dos Santos	*Medicine*	*Assistant Professor*	*Associate Member*	*IMS; The Collaborative Graduate Program in Genome Biology and Bioinformatics*	*Staff Intensivist, St. Michael's Hospital*	*C/PS*
Dr. Daniel Cattran	*Department of Medicine*	*Professor*	*Full*	*IMS;*	*Staff Nephrologist, UHN, Toronto General Hospital*	*C/PS*
Dr. Daniel Mueller	*Psychiatry*	*Associate Professor*	*Associate Member*	*IMS*	*Clinician Scientist, CAMH*	*C/PS*
Dr. David Kaplan	*Department of Medical Genetics and*	*Professor*	*Full*	*IMS; Neurosciences, Program in*	*Senior Scientist, The*	*C/PS*

	Microbiology				*Hospital for Sick Children*	
Dr. Donald Branch	*Laboratory Medicine and Pathobiology,*	*Associate Professor*	*Full*	*IMS*	*Director, Comprehensive Research Experience for Medical Students (CREMS) Program*	
Dr. Gideon Koren	*Paediatrics, Pharmacology, Pharmacy & Medicine.*	*Professor*	*Full*	*IMS*	*Director, Motherrisk Program, Division of Clinical Pharmacology and Toxicology*	*C/PS*
Dr. Jaques Belik	*Paediatrics*	*Professor*	*Full*	*IMS*	*Hospital for Sick Children*	*C/PS*
Dr. Jeffrey Medin	*Medical Biophysics*	*Professor*	*Full*	*IMS*	*Senior Scientist, UHN*	*C/PS*
Dr. Joseph Beitchman	*Public Health Sciences*	*Professor*	*Full*	*IMS; Child Psychiatry;*	*Head, Adolescent Service, CAMH*	*C/PS*
Dr. Karen Davis	*Surgery*	*Professor*	*Full*	*IMS*	*Associate Scientific Staff, Mount Sinai Hospital*	*C/PS*
Dr. Karen Gordon	*Department of Otolarynology*	*Associate Professor*	*Full*	*IMS*	*Scientist, The Hospital for Sick Children*	
Dr. Kirk Cheng Lun Lo	*Surgery*	*Associate Professor*	*Full*	*IMS, Associate Member*	*Consulting Urologist, UHN*	*C/PS*
Dr. Maria Carmela Tartaglia	*Medicine*	*Assistant Professor*	*None*		*Fellow, Affiliation universitaire ou postsecondaire hors Québec*	*C/PS*
Dr. Michael Fehlings	*Surgery*	*Associate Professor*	*Full*		*Medical Director, UHN*	*C/PS*

Dr. Michelle Adrienne Hladunewich	*Nephrology*	*Assistant Professor*	*None*		*Director, Division of Obstetrical Medicine, Sunnybrook Health Sciences Centre*	*C/PS*
Dr. NigilHaroon	*Medicine, Faculty of*	*Clinician Scientist, UHN*	*NA*		*Clinical Research Fellow, UHN*	
Dr. Norman Rosenblum	*Paediatrics, Physiology, Laboratory Medicine and Pathobiology*	*Professor*	*Full*	*Associate Dean, Physician Scientist Training, Medicine*	*Senior Scientist, Hospital for Sick Children*	*C/PS*
Dr. Paul Andrew Lam Sum Hwang	*Neurology; Paediatrics & Medicine*	*Associate Professor*	*Full*	*IMS;Co-Director University of Toronto Epilepsy Research Program; Head, Division of Neurology*	*Co-Director University of Toronto Epilepsy Research Program; Head, Division of Neurology*	*TS, C/PS*
Dr. Paul Arnold	*Psychiatry*	*Associate Professor*	*Full*	*IMS*	*Head, Anxiety Disorders Program; Staff Psychiatrist, Hospital for Sick Children*	*C/PS*
Dr. Richard Aviv	*Medical Imaging*	*Associate Professor*	*Associate Member*	*IMS; Biomedical Physics, Adjunct Professor, Ryerson University*	*Neuroradiology Divisional Head of Research, Sunnybrook Health Sciences Centre*	*C/PS*
Dr. Robert Inman	*Immunology,*	*Professor*	*Full*	*IMS*	*Visiting Professor in Medical Research, Royal College Physicians and Surgeons of*	*C/PS*

					Canada	
Dr. Robert Macdonald	*Surgery*	*Professor*	*Full*	*IMS*	*Head, Division of Neurosurgery, St. Michael's Hospital, Department of Surgery*	*C/PS*
Dr. Rupert Kaul	*Immunology*	*Associate Professor*	*Full*	*Visiting Lecturer, Department of Medical Microbiology, University of Nairobi*	*Medical Staff, Mount Sinai Hospital, UHN*	*C/PS*
Dr. Sophie Grigoriadis	*Psychiatry, Medicine*	*Associate Professor*	*Full*	*Associate Member, IMS*	*Adjunct Research Scientist, Women's College Research Institute*	*C/PS*
Dr. Steven Gallinger	*Surgery*	*Professor*	*Full*	*IMS*	*Head, HPB Surgical Oncology Community of Practice, Cancer Care Ontario*	*C/PS*
Dr. Tomas Paus	*Psychology and Psychiatry*	*Professor*	*Full*	*IMS; Adjunct Professor, Department of Neurology and Neurosurgery, McGill University*	*Tanenbaum Chair in Population Neuroscience, Senior Scientist, Rotman Research Institute*	*C/PS*
Dr. Tony George	*Endowed Chair and Head in Addiction Psychiatry;*	*Professor*	*Full*	*IMS*	*Clinical Director, Schizophrenia Program, CAMH*	*C/PS*
Professor Alan Moody	*Medical Imaging*	*Professor*	*Full*	IMS; Medical Biophysics	*Department of Medical Imaging, Sunnybrook Health Sciences Centre*	*C/PS*
Professor Arun	*Psychiatry*	*Professor*	*Full*	IMS; Psychology	*Clinical*	*C/PS*

Ravindran					*Director, Centre for Addiction and Mental Health*	
Dr. Sandra Black	*Department of Medicine (Neurology)*	*Professor*	*Full*	IMS; Institute of Biomaterials & Biomedical Engineering; Graduate Department of Rehabilitation Sciences	*Executive Director, Toronto Dementia Research Alliance*	*C/PS*
Dr. Ming F Agnes Wong	*Department of Ophthalmology*	*Professor*	*Full*	IMS, Department of Otolaryngology, Head & Neck Surgery Adjunct Professor Biology, York University; Adjunct Associate Professor, Washington University in St. Louis	*Staff Physician and Senior Scientist, Hospital for Sick Children*	*C/PS*
Dr. Sean Rourke	*Psychiatry*	*Professor*	*Full*	IMS, Psychology, Adjunct Professor, University of Windsor	*Scientific and Executive Director, Ontario HIV Treatment Network (Ministry of Health and Long-Term Care)*	*C/PS*
Professor Mingyao Liu	*Surgery/Medicine/Physiology*	*Professor*	*Full*	*IMS; Department of Physiology*	*Senior Scientist, Latner Thoracic Surgery Research Laboratories, UHN*	*C/PS*

Appendix C: Library Statement

University of Toronto Libraries Report for
Proposed Master of Health Science in Translational Research

Context: The University of Toronto Library (UTL) system is the largest academic library in Canada and is currently ranked fourth among academic research libraries in North America, behind Harvard, Yale and Columbia.[1] The research and special collections, together with the undergraduate libraries comprise almost 11.5 million print volumes, nearly 5.5 million microform volumes, more than 17,000 journal subscriptions, in addition to a rich collection of manuscripts, films, and cartographic materials. The system also provides access to approximately 900,000 electronic resources in various forms including e-books, e-journals, and online indices and increasingly supports access via personal handheld devices.[2] There are numerous collection strengths in a wide range of disciplines reflecting the breadth of research and instructional programs at the University. The strong collections, facilities and staff expertise attract unique donations of books and manuscripts from around the world, which in turn draw scholars for research and graduate work.

Major North American Research Libraries[3]					
	1998-1999	**2006-07**	**2007-08**	**2008-09**	**2009-10**
ARL RANK	**UNIVERSITY**	**UNIVERSITY**	**UNIVERSITY**	**UNIVERSITY**	**UNIVERSITY**
1	Harvard	Harvard	Harvard	Harvard	Harvard
2	Yale	Yale	Yale	Yale	Yale
3	Stanford	Columbia	**Toronto (3rd)**	Columbia	**Toronto (3rd)**
4	**Toronto (4th)**	**Toronto (4th)**	Columbia	**Toronto (4th)**	Columbia
5	California, Berkeley	California, Berkeley	California, Berkeley	Michigan	Michigan

Top 5 Canadian Universities in the ARL Ranking of Major North American Research Libraries					
	1998-1999	**2006-07**	**2007-08**	**2008-09**	**2009-10**
	RANK/ UNIVERSITY	**RANK/ UNIVERSITY**	**RANK/ UNIVERSITY**	**RANK/ UNIVERSITY**	**RANK/ UNIVERSITY**
	4/ Toronto	**4/Toronto**	**3/Toronto**	**4/Toronto**	**3/Toronto**
	30/Alberta	19/Alberta	12/Alberta	16/Alberta	11/Alberta
	31/British Columbia	25/British Columbia	25/British Columbia	26/British Columbia	24/British Columbia
	57/McGill	33/Montreal	26/McGill	34/Montreal	31/Montreal
	76/York	36/McGill	33/Montreal	40/McGill	37/McGill

[1] Chronicle of Higher Education, "Library Investment Index at University Research Libraries, 2009 – 2010." In the Almanac of Higher Education, 2012.
[2] Figures as of 2010 taken from UTL's "What's new in E-Resources" page http://main.library.utoronto.ca/eir/EIRwhatsnew.cfm and UTL's annual statistics http://discover.library.utoronto.ca/general-information/about-the-library/annual-statistics
[3] Association of Research Libraries Statistics.

Space and Access Services: The Library system provides a variety of individual and group study spaces for both undergraduates and graduates in the 10 central and 23 divisional libraries on the St. George, Mississauga, Scarborough and Downsview campuses. Study space and computer facilities are available twenty four hours, five days per week at one location, Robarts Library. Web-based services and electronic materials are accessible at all times from campus or remote locations, through the U of T based Scholars Portal and other leading edge digital services.

Instruction & Research Support: The Library plays an important role in the linking of teaching and research in the University. To this end, information literacy instruction is offered to assist in meeting medical research degree level expectations in the ability to gather, evaluate and interpret information. These services are aligned with the Association of College and Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education.[4]

Program Specific Instruction: Instruction occurs at a variety of levels for graduate students and is provided by librarians at the Gerstein Science Information Centre and local hospitals. The Library facilitates formal instruction integrated into the class schedule and hands-on tutorials related to course assignments. Librarians at the Gerstein Science Information Centre provide one-to-one consultations with graduate students who are conducting literature, scoping or systematic reviews for their theses. The Library, through its liaison librarians, customizes feeds of library resources. These appear prominently in Portal/Blackboard course pages. Example: Bioinformatics: http://guides.library.utoronto.ca/content.php?pid=363517&sid=2975086 and Systematic Reviews in the Sciences and Health Sciences: http://guides.library.utoronto.ca/systematicreviews
Also, the liaison librarian for the Institute of Medical Science presents a seminar for graduate students called Tools in Informatics: advanced Information Searching.

Collections: All college and campus libraries collect materials in support of medical research; the largest collection of materials is centrally located in the Gerstein Science Information Centre. Collections are purchased in all formats to meet the variety of preferences and styles of our current students and faculty. The University of Toronto Library is committed to collecting both print and electronic materials in support of medical research at the University of Toronto.

Journals: The Library subscribes to 22 of the top 25 journals listed in Journal Citation Reports (JCR)[5] in subject area Medicine, Research and Experimental. Of these titles, all are available electronically to staff and students of the University. The three journals that we don't have current access to are: Journal of Biological Regulators and Homeostatic Agents; Current Molecular Medicine; and Journal of Biomedical Nanotechnology. The Library is investigating a subscription to these journals.

Monographs: The University of Toronto Library maintains comprehensive book approval plans with 53 book dealers and vendors worldwide. These plans ensure that the Library receives academic monographs from publishers all over the world in an efficient manner. For medical research, monographs are purchased in electronic form where possible. The Library currently receives all current e-books directly from the following publishers: Springer, Elsevier, Informa Healthcare, Wiley, and Oxford University Press.

[4]Association of College & Research Libraries.*Information Literacy Standards*.ACRL, 2006.
[5] 2008 Journal Citation Reports® (Thomson Reuters, 2009)

Preservation, Digitization, and Open Access: The University of Toronto Library supports open access to scholarly communication through its institutional research repository (known as T-Space), its open journal and open conference services, and subscriptions to open access publications. In addition to acquiring materials in support of medical research, the Library is also, in cooperation with the Internet Archive, digitizing its monograph holdings published before 1923. These books are available without charge to anyone with access to the Internet through the Scholar's Portal e-Book platform.

Key Databases: Medicine: Embase, Medline
Multi-disciplinary: Web of Science, Scopus

Special Collection Highlight: To support program commitments in medical research, the Library purchases and subscribes to a variety of protocols and methods resources. E.g. http://guides.library.utoronto.ca/protocols?hs=a

Prepared by: Gail Nichol, Selector for Life and Health Sciences, March 5, 2013

Submitted by: Larry Alford, Chief Librarian, University of Toronto Libraries, Date

Appendix D: List of Elective Courses

FCEs	Course	Description
0.5	**MSC1040H - Physiologic Basis of Disease**	This is a half-year lecture course designed for M.Sc. and Ph.D. students in the IMS who wish to gain an in-depth understanding of the basic mechanisms of disease, how these processes lead to the clinical syndromes and how medical research in these areas leads to effective therapy. The course will consist of twelve 2-hour lectures by faculty members of the University of Toronto who are authorities in the areas under discussion. The course's aim is to integrate fundamental knowledge at a basic molecular and cellular level with whole organ physiology in animals and humans to elucidate the processes by which derangements of physiology lead to the manifestations of disease. Finally, the processes by which this fundamental knowledge is used to advance the treatment of disease will be discussed. Where appropriate, epidemiologic studies and clinical trials related to a particular disease will be discussed as well. Topics that could be covered in this course include diabetes, atherosclerosis, coronary artery disease, congestive heart failure, asthma, acute lung injury, cystic fibrosis, Alzheimer's disease, inflammatory bowel disease, peptic ulcer disease, rheumatoid arthritis, organ transplantation, critical care-from bench to bedside, etc.
0.5	**MSC1051H - Research Bioethics**	The objective of this course is to familiarize students with ethical, regulatory and practical concerns that they will face as investigators, members of Research Ethics Boards, and in any other capacity that involves research and research review. The course offers a theoretical and practical introduction to the field of research ethics and the review of research protocols. The course materials that deal with the history of research ethics and with some of the theoretical concepts will be addressed in direct connection with some of the major themes in the ethics and regulation of medical research. Topics may include, but are not limited to: different approaches towards the protection of research subjects and the review and regulation of medical research; value and validity of research and the role of REBs; demarcating research from therapy; clinical equipoise and placebo controls; proportionate review and risk/benefit analysis; challenges to informed consent; vulnerability; inclusion of women and members of minority groups; research in developing countries; monitoring; integrity in research and conflict of interest. In addition, the course may address specific topical controversies
0.5	**MSC1085H - Molecular Approaches to Mental Health and Addictions**	This course investigates the neuroscience knowledge and research strategies underlying major psychiatric disorders. There will be an emphasis on human molecular genetic and genomic studies. Lectures will also discuss insights gained from other areas of research such as neuroimaging, pharmacology and animal models. Particular attention will be paid to how these studies have refined our understanding of clinical phenomena. Each faculty member will deliver a lecture for approximately 90 minutes describing their research work, including an introduction to their field, major methodological issues and key discoveries. Then, 30

		minutes will be dedicated to discussion. The oral presentations will be attended by two faculty members who will generate a consensus grade for the presentation. Similarly, each written assignment will be evaluated by two faculty members and consensus grades will be assigned.
0.5	**MSC1089H - The Biopsychosocial Basis of Mental Health Addictive Disorders**	We will review the biopsychosocial basis of mental health and addictive disorders from the perspectives of etiology, pathophysiology, clinical phenomenology and diagnostics, genetics, neuroimaging, and treatment which have all contributed to our increasing understanding of psychiatric and substance use disorders from a biomedical ("disease") concept. The role of stigma and recovery would also be discussed from a biobehavioural and social determinants of health perspective, to produce an integrated perspective on mental health and addictive disorders. The contemporary approach to treatment of these disorders would also be discussed which emphasizes biological, psychological and social policy and prevention perspectives.
0.5	**MSC1090H - Introduction to Clinical Biostatistics**	The course emphasizes issues related to the comparison of two samples using tests of significance and confidence intervals and also covers linear regression and analysis of variance. Multiple regression models: linear, logistic, Poisson and Survival, are covered in my winter term graduate course MSC1060H.The course is designed for students in nutrition, pharmacy, nursing, dentistry, health economics and other clinical sciences. Weekly computer labs train students in the use of the statistical package SAS for data management and statistical analysis. During interactive Web based sessions students are able to access randomly generated datasets to practice and be examined on their ability to perform statistical analyses The heavy emphasis on the use of SAS for data management and analysis and the use of the Web to support intensive practice in the analysis of simple datasets is perhaps unique on this campus. This course is the first of a two-course sequence that introduces important concepts of statistical design and analysis along with an introduction to a very popular and powerful statistical package. The course is important for students who need to carry out their own data analyses.
1.0	**MSC2010Y - Advanced Concepts in Human Genetic Disease**	This course should encourage students to develop an approach to the genetic analysis, investigation and treatment of human disease. *Introduction to molecular approaches*: Students will be introduced to useful tools and concepts that enable the study of a wide spectrum of human diseases. These include such topics as: population identification and sample collection; genome scanning with subsequent linkage analysis; mutation detection methods; copy number variation analysis and the use of animal models. *Specific examples of the genetics of human disease:* In the body of the course, a series of 16 lectures will cover the genetic analysis of specific diseases. Lecturers will be encouraged to discuss: a brief description of

		the disease they intend to cover (eg: the basic clinical presentation and pathophysiology); the approach to the study of this disease; and the molecular changes that occur. Integration with animal models and the potential for human gene therapy will be encouraged. *Each lecture will provide an example of the application of molecular tools to the investigation of a specific human disease.* Lecturers will be encouraged to provide weekly reading assignments. The student will be required to prepare a Letter of Intent for a proposal that discusses the genetic analysis of a specific human disease (due February). Students are advised to identify a preceptor to help with their proposal idea. Preceptors are often chosen from the course lecturers, but students are not restricted to these individuals. While the preceptor will act in an advisory capacity, the student must carry out the initial problem identification and the preparation of the proposal. Considerable latitude will be allowed in the choice of project, preceptor and approach to the disease. The student will also present a final 10 minute, in-class slide presentation of this proposal (in March). As a final assignment, the student will write a short News & Views type article about a paper or papers in the filed of molecular medicine that have been published during the past calendar year. The topic must be unrelated to their thesis.
0.5	**MSC4001H: Foundations in Resuscitation Science Research**	This 0.5 credit course is aimed at enhanced understanding of the breadth of research in resuscitation science. It will provide students within disparate fields of research enquiry with the fundamentals of the discipline and provide a forum to discuss common areas of research interest, thereby further reinforcing a spirit of interdisciplinary research. Topics include bioethical issues particular to resuscitation research; health services research with high risk groups; outcomes research in critical illness; translational research in resuscitation and knowledge translation. From bench to bedside to curbside, students will gain a thorough understanding of the issues and concerns unique to the field of resuscitation sciences.
1.0	**MSC7000Y - Regenerative Medicine (Webcast)**	MSC7000Y is a unique flagship course of wide interest to students with a health professional background (i.e. MDs, RNs, clinicians and scientists) across Canada. This course will provide trainees with an understanding of the science behind the field, the bio-processes, new and emerging technologies, the ethical and regulatory aspects of implementation and the academic/industry partnerships on which clinical success is likely to be based. Content is as follows: **Background: Organ Failure** • Heart, Lung, Liver, Kidney, Pancreas Failure including physiology, human impact, and cost and the implications for regenerative medicine • Current Approaches to Management of Organ Failure including transplant and non-transplant approaches **Regenerative Medicine and Innovative Technologies (main focus)** • Stem Cells • Gene Therapy

		• Tolerance • Biomarkers & Assays • Regenerative Neuroscience • Tissue Manufacturing **Clinical Applications of Regenerative Medicine** • Translation of New Therapies from Bench to Bedside • Fundamentals of Clinical Trials Design • Evaluation of Health-Related Quality of Life • Patient Issues and Concerns • Cost-Effectiveness & Global Health Economics • Adoption of New Therapies **Ethics and Society** • Research Ethics • Transplant Ethics • Regenerative Medicine Ethics • Public Opinion and the Media • Biomedical Research Commercialization • Financing and the Role of the Biotechnology Industry • The Business of Regenerative Medicine • Visiting Speaker RM Series • Four lectures from visiting notable speakers within the field of Regenerative Medicine, taking place on Wednesday mornings (see course schedule).
	MSC8000Y - Transdisciplinary Studies in Infectious Disease (using Hepatitis C as a model)	This graduate full-course is a transdisciplinary exploration of hepatitis C, extending the students' understanding of the hepatitis C virus beyond a single discipline in order to enhance pursuits in hepatitis C research or management and prepare the student for a career in hepatitis C research. Beginning with an introduction to hepatitis C, students will soon find themselves immersed in all aspects of this infectious disease, covering scientific, medical, and social issues. Lectures include topics such as immune response to the infection, addiction behaviour of infected individuals, new drug and vaccine development, HIV/HCV co-infection, etc. This course is targeted towards students with a health professional background (i.e. MDs, RNs, social and basic scientists) and an active interest in infectious disease-related research. MSC8000Y is comprised of weekly web-conferenced lectures and discussions, running from September to April every other year. The presentation of the course can be divided into five different stages: orientation, pre-lecture, in-lecture, post-lecture, and conclusion.
0.5	**JCV 3060H Advanced Topics in Cardiovascular Sciences: Molecular Biology & Heart Signal**	This course is one of a set of four advanced seminar half-credit courses dealing with current areas in the cardiovascular system. Specifically, JCV3060H focuses on various aspects of the genetic, molecular and cellular properties of the heart and its' development and new techniques used to investigate these areas.

	Transduction	Areas that may be covered include: • Genetic regulation of heart development and function • Cell signalling • Molecular properties of cardiac ion channels, G-protein coupled receptors, sarcoplasmic reticular proteins • Circadian rhythms of gene expression • Molecular and cellular mechanisms of heart disease • Cell transplantation • Animal models to study heart disease
0.5	**JFK 1120H Selected Topics in Drug Development I**	This course is designed to introduce graduate students to general research and drug development in the pharmaceutical industry. Lectures will focus on government regulations, phase I through phase IV studies, marketing and quality control requirements in new drug approval. The course format is a combination of lectures given by faculty, specialist in the pharmaceutical industry and workshops.
0.5	**JFK 1121H Selected Topics in Drug Development II**	This course provides an in-depth examination of several issues facing the pharmaceutical scientists. Students will be required to apply fundamental principles of pharmaceutics and pharmacokinetics to current problems that are being faced in the pharmaceutical industry. Contemporary issues in pharmaceutics and pharmacokinetics will be covered. The course format is a combination of lectures given by faculty, specialist in the pharmaceutical industry and workshops.
0.5	**PSL1022H Reproductive and Developmental Medicine**	This is a seminar-based half course but extended over the entire year. This graduate course is directed at providing a greater understanding of the physiology and molecular mechanisms underlying common clinical reproductive disorders. The course is open to **8** graduate students working on research related to reproduction. Eight OB/GYN residents will also participate. The course will meet (not every week) for 2-hour sessions and two faculty members will be assigned to each session, which will consist the following: 1. A 20-30 minute overview of the topic by the faculty mentors 2. A 30 min clinical paper (presented by a graduate student)* + 15 min discussion 3. A 30 min basic paper (presented by a clinical trainee)* + 15 min discussion The goal is to have the clinical trainee and basic science trainee work as a team on related papers and then each present the paper that is not in their field of expertise.
0.5	**PSL1048H - Translational Physiology: From Molecules to Model Systems to the Clinic**	Through published examples, students will be exposed to: • identifying molecules (e.g., genome-wide human screens, discovering mutated genes) • designing/applying cell-based studies (e.g., selecting/creating appropriate cell-based assays, high-throughput screening) • selecting/creating appropriate models at the organ or animal level • obtaining 'proof-in-principle' data • proceeding to clinical trials Additional aims of the course are to augment:

		• oral and visual presentation skills • skills in both leading and participating in group discussions • critical and analytical thinking • awareness of translational medicine resources, including journals, local seminars, centres and consortia Each session will strive to include some controversy. For example, the presented papers might reflect differing views on: the molecule underlying a disorder, the cellular or animal models used, or the interpretation of genomic studies. Examples of possible topics and fields represented: • Neurophysiology: Assessing the potential for targeting inflammatory molecules to treat stroke. • Epithelial physiology: Identifying molecular targets for Cystic Fibrosis therapy. • Gastrointestinal physiology: Identifying dysregulated membrane fusion/exocytosis as an underlying mechanism of pancreatitis. • Integrative physiology: Discovery and structure-function analysis of inhibitors of receptor tyrosine kinases as potential cancer treatments.
0.5	**PSL1068H - Advanced Topics: Molecular Basis of Behaviour**	The goal of the course is for students to gain a broad perspective on the molecular basis of behavior. Students will discuss and evaluate advanced topics in the molecular determinants of behavior; from physiological to pathological mechanisms of plasticity. More specifically, we will explore learning and memory, pain and drug abuse.
0.5	**PSL1071H - Advanced Topics: Computational Neuroscience**	Computational neuroscience seeks to understand how the brain and nervous system compute. This highly interdisciplinary field requires both experiment and theory and encompasses several disciplines including physiology and mathematics. This course will focus on selected computational neuroscience aspects including: types of neuron and network models (detailed and simple representations, phase models), and techniques from dynamical systems theory that are used to analyze different models. The emphasis in this course will be on understanding the neurophysiological basis and assumptions in models and possible insights and understanding that can be achieved from the models and analyses.
1.0	**PCL 1004Y Graduate Course in Clinical Pharmacology**	This course aims at familiarizing the student with the rapidly growing field of clinical pharmacology. Graduates may pursue a career in this field in a hospital setting or in the pharmaceutical industry. The first part of the course (until Christmas) focuses on clinical pharmacokinetics. The second part is devoted to selected topics in clinical pharmacology with special focus on how to design and interpret drug studies. The final mark is based on a take-home exam (Christmas), and student's presentation (once per year). The course is limited to 15 graduate students.
1.0	**JNP1014Y**	A survey course examining several contemporary topics in toxicology

	Interdisciplinary Pharmacology	with emphasis on human/mammalian toxicology. Topics in the course may include: adverse drug reactions, acute poisonings, natural toxins, maternal-fetal toxicology, forensic toxicology, environmental chemistry, pesticides, dioxins, endocrine disruptors, regulatory toxicology, occupational toxicology, food toxicology, herbal products, alcohol, smoking, and drugs of abuse. Students are evaluated by their performance on written tests and assignments. Recommended Preparation: BCH210H, PCL201H, PCL302H, PCL362H, or their equivalents.
0.5	**JNP1017H Current Topics in Molecular and Biochemical Toxicology**	This course will emphasize the biochemical principles and mechanisms underlying the toxicity of drugs and foreign agents. In particular the current hypotheses that explain the events at the molecular level which determine and affect toxicity are examined and critically evaluated. This course is suitable for graduate students of pharmacy, toxicology, pharmacology, biochemistry, environmental science, pathology, neuroscience and medical biophysics. A weekly journal club will also be held after the lectures. Permission of the Pharmaceutical Sciences Department is required.
0.5	**JNP1018H Molecular and Biochemical basis of Toxicology I**	This course will emphasize the molecular biology principles and mechanisms underlying the toxicity of drugs and foreign agents. A journal club format is used to examine and critically evaluate the current hypotheses that explain the events at the molecular level which determine and affect toxicity. This course is suitable for graduate students of pharmacy, toxicology, pharmacology, biochemistry, environmental science, pathology, neuroscience and medical biophysics. A weekly journal club will also be held after the lectures. JNP1017H is not a prerequisite for this course.
0.5	**LMP1013H - Neoplasia**	This advanced course is designed to provide an in-depth examination of the molecular and cellular mechanisms giving rise to malignant transformation. The mechanisms of transformation by retroviruses and the DNA tumour viruses will be discussed. Then, specific non-viral molecular mechanisms involving signal transduction, cell growth, death and differentiation, the latter particularly in the context of embryonic development, will be analyzed. The involvement of genetic instability and epigenetic mechanisms during malignant transformation will also be discussed. Finally, these mechanisms will be used as the basis to discuss neoplasia in specific model tissues, specifically mammary, colon, CNS and lymphoid/myeloid tissues.
0.5	**LMP1407H Introductory Biostatistics and Clinical Investigation**	The course is intended to provide a "user's guide" to biostatistics and the SPSS statistical software package. This course does not require previous experience in biostatistics, but rather is meant to introduce a broad audience of graduate students to statistical concepts. The aim is to develop an ability to understand the statistical implications of various experimental designs and hypotheses, and to analyze and present research results clearly and objectively.
0.5	**LMP1525H The Role of Genomics in the Era of Personalized Medicine**	The idea of this course stems from the necessity for our graduate students to get a grasp of the new advances in technology, especially those related to the concept of informatics and the role of molecular profiling and high throughput data generation and analysis. A unique role of the Department of Laboratory Medicine and Pathobiology is to bridge the gap between basic and translational sciences. An important objective of this course is to explore how understanding the pathobiology of disease can be translated to answer clinically

		meaningful questions. This course will also highlight the important role of biobanking in biomarker discovery, which are of core importance to our department.
	LMP1530H Next Generation Genomics in Clinical Medicine	Next generation genomics, especially whole genome sequencing, will facilitate the application of genomics in clinical practice at a grand scale. Despite the fact that there are already many individual molecular tests which are currently looking at genomic alterations in individual, or a few genes (known as molecular diagnostics), there is still no widespread clinical applicability of next generation genomics, such as whole genome sequencing.
	LMP2120H Molecular Clinical Microbiology & Infectious Diseases	Molecular Clinical Microbiology & Infectious Diseases is a course that provides an introduction to medical bacteriology, virology, mycology and parasitology. The course consists of lectures from specialists in each topic, and discussions on selected papers. Students should be familiarized with concepts pertaining to basic molecular biology principles and techniques for understanding various contemporary areas of research in clinical microbiology and their applications. This programme covers these areas, together with training in research skills.
0.5	**HAD 5735H "Commercialization of Health Research"**	This is an elective course for students in graduate research programs who wish to gain a better understanding of the commercialization of health research specifically and the knowledge-based economy in general. The course provides an overview of different aspects to research commercialization, including basic and applied research, technology transfer, venture capital, clusters, national innovation systems, and what Canada and other countries are doing to move their economies in this direction. This course will also be available for all students, in particular, business students and science students interested in learning about the business side of their research activities. Students working in public sectors such as research, science, or innovation policy; health policy and management; and education (including universities) may also find the course useful.
0.5	**HAD 5765H "Case Studies in Health Policy"**	This course analyzes the formation and implementation of public policy through the use of case studies, focused about important theoretical concepts. Students will develop the ability to understand and analyze the processes by which public policies are formed, and the ability to perform comparisons of policy alternatives. Guest lecturers may be used where appropriate to expand upon the process of policy implementation in an informal format. Cases to be analyzed will be selected from the attached list by the class. With the permission of the instructor, new cases may be added.

Appendix E: Sample MSC 4010Y Module Description

IMS Graduate Course Module -Ophthalmology & Vision Science

Objectives

Disorders of the eye and the visual system are important causes of morbidity in Canada and worldwide. This module would give the graduate student an overview of the numerous clinical and basic science researches taking place at the University of Toronto and its affiliate institutions; to find methods of early detection, prevention, and better treatments for most common vision related disorders.

Students doing vision science research can use this module to expand their overall understanding and perhaps see how their findings could be applied in other areas. Students without a background in vision science can also benefit from this module. They may find ways of applying their knowledge and skills to address challenges in vision research and explore opportunities for inter-disciplinary research.

The module consists of a series of 12 lectures by faculty members of the University of Toronto who are leaders in their area of research. There will be two, one-hour, lectures per session/day. In each lecture, approximately 10 minutes of time would be allocated for questions/discussion. Topics that would be covered in this module include: molecular basis of ocular pathophysiology, visual electrophysiology, binocular single vision, strabismus, cataract & refractive surgery, glaucoma, diabetic retinopathy, macular degeneration, retinal stem cells, retinoblastoma, uveal melanoma, and migraine.

Prerequisites

No prerequisites. A background in biology, physiology, or medical science would be helpful.

Assessment

The week before each lecture, students will receive reading material and five questions to prepare brief written answers. At the beginning of each lecture, students will be given 5 multiple choice questions - related to the topic of the lecture - to be answered during the class.

Lecture Topics

1. Introduction to Anatomy and Physiology of the Visual System
2. Introduction to Molecular Basis of Ocular Pathophysiology
3. Visual Electrophysiology: Current Research and Future Directions
4. Refractive Surgery - Current Research and Future Directions
5. Glaucoma: Current Research
6. Diabetic Retinopathy: Clinical and Retinal Vascular Function Changes
7. Macular Degeneration (AMD): Current Research and Future Directions
8. Retinal Stem Cells: Current Research and Future Directions
9. Retinoblastoma: Current Research and Future Directions
10. Uveal Melanoma: Current Research and Future Directions

11. Binocular Single Vision, Stereopsis, Amblyopia and an Overview of Eye Movement
12. Disorders
13. Migraine and the Visual System - Current Research and Future Directions

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

FOR APPROVAL

TO:	Faculty Council
SPONSOR:	Avrum Gotlieb, Interim Vice-Dean, Graduate and Life Sciences Education, Faculty of Medicine
CONTACT INFO:	Avrum.Gotlieb@utoronto.ca
DATE:	May 5, 2014
AGENDA ITEM:	4.1.2
ITEM OF BUSINESS:	New Graduate PhD Collaborative Program In Human Development

JURISDICTIONAL INFORMATION:

The University of Toronto Quality Assurance Process (UTQAP) New Degree Program Approval Protocol requires new collaborative graduate programs to be approved Divisional Governance prior to University Governance Approval.

The Graduate Education Committee of the Faculty of Medicine Faculty Council reviews and recommends to Council for approval, subject to the approval of the appropriate body of Governing Council, proposals for new academic programs.

GOVERNANCE PATH:

1. Graduate Education Committee [For approval] – March 18, 2014
2. Faculty Council [For approval] - May 5, 2014
3. Committee on Academic Policy and Programs [For approval] - May 13, 2014
4. Academic Board [For approval] – June 2, 2014

CONSULTATIVE PATH:

Fraser Mustard Institute for Human Development Academic Committee- 24 July, 2013
Academic Oversight Committee of the Department of Physiology, Faculty of Medicine—Approved 31 January, 2014
Faculty of Medicine Graduate Curriculum Committee – Approved 27 February, 2014
OISE Faculty Council – For Information Only – April 16, 2014

HIGHLIGHTS:

The Collaborative Program in Human Development is an ambitious and integrative transdisciplinary initiative in which students will strive to understand the dynamic relationship and complex interplay between genes and environments through many perspectives in order to develop a holistic picture of early human development. The Collaborative Program's supporting units will be the Fraser Mustard Institute for Human Development and the Department of Physiology and the Faculty of Medicine will be the Lead Faculty.

The primary objectives of the proposed Collaborative Program in Human Development are : (1) To inspire and facilitate collaborative research in early human development, and in other fields from which knowledge will inform our understanding of early human development; (2) To encourage and cultivate in students the ability to work across disciplinary boundaries; (3) To instil in students both the desire and the necessary skills to translate knowledge of early human development into tangible results for children.

PROPOSED MOTION:

> *"THAT the proposal to establish a new graduate PhD collaborative program In Human Development be approved as submitted."*

University of Toronto
New Graduate PhD Collaborative Program In Human Development
Proposal
(Expedited Approval)

Section 1

Name of Proposed Program:	Collaborative Program in Human Development (CPHD)
Lead Faculty / Academic Division:	Faculty of Medicine
Lead Faculty / Academic Division Contact:	Avrum Gotlieb Vice-Dean, Graduate and Life Sciences Education, Faculty of Medicine; Marla Sokolowski, Academic Director, Fraser Mustard Institute for Human Development
Anticipated start date of new program:	September 2014
Version Date:	3 March 2014

New Graduate Collaborative Program Proposal

Collaborative Doctoral Program in Human Development
Faculty of Medicine
University of Toronto

Table of Contents

Table of Contents 2

1 Program Rationale 3

2 Participating Programs, Degrees and Names of Units 4

3 Anticipated Demand, Objectives, Added Value for Students 5

3.1 Anticipated Demand 5

3.2 Added Value 5

3.3 Overlap with other University of Toronto Collaborative Programs 6

4 Admission and Program Requirements 6

4.1 Admission Requirements 6

4.2 Program Requirements 7

4.3 SGS CALENDAR ENTRY 10

5 Degree Level Expectations, Program Learning Outcomes and Program Structure 12

6 Assessment of Learning 15

7 Resources 16

8 Administration 17

9 Governance Process 17

Appendix A: Fraser Mustard Institute for Human Development Academic Steering Committee 18

Appendix B: Collaborative Program Requirements & Degree Program Requirements 19

Appendix C: Core Faculty Research Synopses 22

Appendix D: Memorandum of Agreement 30

1 Program Rationale

The Collaborative Program in Human Development is an ambitious and integrative transdisciplinary initiative in which students will strive to understand the dynamic relationship and complex interplay between genes and environments through many perspectives in order to develop a holistic picture of early human development.

The collaborative program is the flagship educational program of its supporting unit, the Fraser Mustard Institute for Human Development. Dr. Mustard was a towering figure in the arena of early childhood development. One of his final projects was to help plan and establish the Institute for Human Development at University of Toronto. The Fraser Mustard Institute for Human Development aims to carry forward his bold vision.

Two quotes from Dr Mustard that inspire this collaborative program proposal are:

"I want professors of all disciplines to integrate the best of what we know about human development into their research, teaching and mentoring of graduate students. I want them to build new bridges between and among their disciplines that go beyond the old-fashioned interdisciplinary and multidisciplinary approaches. It is time to think "transdisciplinary" if we are to make headway in meeting tomorrow's big challenges".

" Canada's tomorrow depends on our ability to leverage what we know into policies and practices that benefit children today. Now, as never before, the knowledge needs to be harnessed to serve not just every individual in our society, but every society around the globe."

Dr. J. Fraser Mustard (1927-2011)

The healthy development of our children is at the core of our societal values. Recent evidence shows that early environments strongly influence the health and wellbeing of individuals throughout their lives. Adverse experiences in the first 2000 days after conception can "get under the skin" to affect the trajectory of human development, and can result in future morbidities such as heart disease and obesity, as well as difficulties in learning and social functioning. This biological embedding of early experiences involves a complex interplay between genes and environments; therefore, to understand fully this dynamic relationship, investigations must be approached from many perspectives to develop a holistic picture of early human development.

Keeping in mind the fundamental goal of improving the well-being of children, concomitant research is needed to elucidate novel developmental-based approaches for the promotion of healthy child development, and to ensure the successful implementation of these approaches within early education programs, family support systems, etc. This objective requires a bridge from basic research to policy and practice, which can only be constructed through an ambitious and integrative transdisciplinary initiative.

These harmonized aims of discovery and translation comprise the core mandate of the Fraser Mustard Institute for Human Development (FMIHD), and inform the primary objectives of the proposed Collaborative Program in Human Development: (1) To inspire and facilitate

collaborative research in early human development, and in other fields from which knowledge will inform our understanding of early human development; (2) To encourage and cultivate in students the ability to work across disciplinary boundaries; (3) To instil in students both the desire and the necessary skills to translate knowledge of early human development into tangible results for children.

The Collaborative Program in Human Development was developed in a series of meetings of the Academic Steering Committee of FMIHD (see Appendix A for membership). The Academic Committee is comprised of a transdisciplinary group of award winning professors who care deeply about graduate teaching and have successfully mentored and trained PhD students. The committee members collaborated in the development of the proposal during a series of monthly meetings held in the 2012/2013 academic year.

2 Participating Programs, Degrees and Names of Units

1. Biomedical Engineering (PhD), Institute of Biomaterials and Biomedical Engineering
2. Developmental Psychology and Education (PhD), Department of Applied Psychology and Human Development (OISE)
3. Ecology and Evolutionary Biology (PhD), Department of Ecology and Evolutionary Biology, Faculty of Arts and Science
4. Immunology (PhD), Faculty of Medicine
5. Medical Science (PhD), Institute of Medical Science, Faculty of Medicine
6. Medical Biophysics (PhD), Faculty of Medicine
7. Music (PhD), Faculty of Music
8. Nutritional Sciences (PhD), Department of Nutritional Sciences, Faculty of Medicine
9. Pharmacology (PhD), Department of Pharmacology and Toxicology
10. Physiology (PhD), Department of Physiology, Faculty of Medicine
11. Psychology (PhD), Department of Psychology, Faculty of Arts and Science
12. Public Health Sciences (PhD), Dalla Lana School of Public Health
13. Social Work (PhD), Factor-Inwentash Faculty of Social Work

Supporting Units:
Fraser Mustard Institute for Human Development
Department of Physiology, Faculty of Medicine

3 Anticipated Demand, Objectives, Added Value for Students

3.1 Anticipated Demand

The anticipated demand for the program is high. The enthusiastic participation of graduate students in FMIHD's recent Connaught Global Challenge International Symposium on Human Development, as authors, presenters of posters and registrants, demonstrates clear interest among University of Toronto students in the area of early human development. More than 25 graduate students from the University of Toronto attended the Symposium, representing the following broad array of disciplines: Cell and Systems Biology; Ecology and Evolutionary Biology; Nursing; Nutritional Sciences; Developmental Psychology and Education; Psychology; and Physiology. Of these students, 16 presented posters. This demonstrates a clearly defined subset of graduate students at the University who are interested in early human development, and currently engaged in original relevant research. It should be noted that the Symposium focused primarily on discovery; the proposed program will attract translational experts as well, drawing on students from departments that were not represented at the symposium, including the Institute of Health Policy, Management and Evaluation, the Dalla Lana School of Public Health, Factor-Inwentash Faculty of Social Work, among others. Based on conversations with core faculty members from these areas who have gauged interest in the proposed Collaborative Program among their current graduate students, we anticipate that once fully established the Program will attract cohorts of 15-20 students each year, resulting in a total enrolment of 60-80 students at any given time. A quick poll of 10 faculty members from the FMIHD Academic Steering Committee revealed a total of 33 PhD students who are ready to apply to the proposed collaborative program.

3.2 Added Value

The value that the proposed program will add to students' educational experience falls roughly into three categories: (1) development of transdisciplinary teamwork, communication, and problem solving skills; (2) introduction to a wide range of research programs; and (3) cultivation of translational skills (i.e. the ability to convey scientific information to non-academic audiences)

First, students will receive extensive training in collaborative problem solving and transdisciplinary communication. This training will be provided primarily through the program's core course, the successful completion of which will be required for all students. The course, which will be based on an innovative model of problem-based learning, will require students to work in small groups towards solutions to problems, set in various scenarios, all with a human development theme. Student and faculty participants in these groups will be drawn from across academic disciplines, encouraging students to integrate multiple perspectives in pursuit of a comprehensive solution. We anticipate that the collaborative and communicative skills nurtured in this course will have a powerful influence on students' outlook both within and beyond the academic setting and lead to a greater desire and capacity to participate in future collaborative projects.

The proposed program will also be valuable to students in introducing them to other research programs. This familiarization will be provided by the proposed program not only through the core course, which will bring together students from many fields and is the common learning experience of the program, but also through the rest of the program's shared learning experiences, which will include an annual research day and a seminar series. At these events, students will have the opportunity to understand human development from many perspectives, including those of professors and other students from across the full range of the disciplines involved, ranging from the health sciences to economics and biology. We believe that this extended understanding, coupled with the skills cultivated in the core course, will allow for the future development of ambitious, productive collaborative projects at the interface of multiple disciplines. There will also be opportunities for students registered in the proposed program to interact with students in clinical programs.

The program will also develop valuable skills in translation and knowledge mobilization. The program's core problem-based learning course will frame assignments in terms of translating scientific knowledge surrounding early human development to policy and practice. As a result, graduates from the proposed program will be equipped with strong translational skills as well as comprehensive scientific backgrounds. This unique package of skills is especially valuable given the current scarcity of qualified developmentalists working in agencies concerned with the early stages of human development in Canada. We anticipate that the proposed program will enhance our graduates' collaborative and translational skills so that they will be qualified and competitive for careers that extend far beyond traditional academia, including positions in non-government organizations, federal research institutes, and non-academic scientific research centres.

Finally, graduates for the program will receive formal recognition of their completion of the collaborative program in human development on their graduate transcripts.

3.3 Overlap with other University of Toronto Collaborative Programs

There is currently no collaborative program at the University of Toronto that approaches the scope of the proposed program. Existing programs such as Developmental Biology and Neuroscience encompass certain scientific elements of human development, while programs like Aboriginal Health and Public Health Policy capture the translational aspirations of the program. The proposed Collaborative Program in Human Development can facilitate the integration of the goals of discovery and translation and they will be studied across silos allowing a seamless transition between knowledge and action. Additionally, the problem-based learning model actively promotes the development of transdisciplinary collaborative skills.

4 Admission and Program Requirements

4.1 Admission Requirements

Applicants must meet the entry requirements of the home graduate program and graduate

unit. The following elements are required by the Collaborative Program in Human Development in addition to the application requirements of the home degree:

- A resume or curriculum vitae
- A 1-2 page short essay explaining the student's interest in the program, and how his/her work is related to human development or areas that intersect with human development
- Two letters of recommendation from faculty members who comment on the student's academic ability, potential as a researcher, and fit within the collaborative program

4.2 Program Requirements

The Collaborative Program in Human Development may only be completed at the doctoral level. In addition to meeting the program requirements of the home graduate unit, students will be required to:

- Complete the required core course HDV1000H Pluralistic Human Development (.5 FCE) which will be taught over two terms
- Attend at least 75% of the seminars in the FMIHD seminar series in their first year in the program, and 50% of the seminars thereafter for the duration of their PhD program. (SRD4444H, CR/NCR)
- Attend an annual research day, where they must present their work at least once during the duration of their enrolment in the collaborative program.
- Complete a thesis in the broad area of human development or an area that intersects with human development under the supervision of one of the faculty associated with the collaborative program.

4.2.1 Courses

Core Course

The proposed Collaborative Program in Human Development will introduce a core course: HDV1000H, Pluralistic Human Development which will be the common learning element of the collaborative program and offered as .5 FCE over two terms. This half-credit course offered on a yearly basis will be taught primarily using a student-driven problem-based learning approach with lectures from distinguished scholars interspersed throughout. Students will work in small groups with others from a diverse set of backgrounds and expertise to work collaboratively towards solutions to complex issues surrounding human development. Students from each group will be drawn from at least three different fields. The collaborative group work will be facilitated by core faculty members and post-doctoral fellows, also drawn from several disciplines. As an example of the course's structure, consider the following abridged version of a human development issue that students will be asked to "unpack" and build into a concrete proposal.

In their Article "How Experience Gets Under the Skin to Create Gradients in Developmental Health" Hertzman and Boyce have proposed the idea that social conditions cause disease. You are given a chance to make your case to the Provincial Government of Ontario as it considers

how to allocate funding for the next budget. Can you persuade them to implement the Hertzman-Boyce perspective into health care? What is the vision? (Hertzman C, Boyce WT (2010) How experience gets under the skin to create gradients in developmental health. Annu Rev Public Health 31:329–347).

In this case, it is clear that a comprehensive response must integrate viewpoints from many fields. Cell biologists and physiologists might critically assess Boyce and Hertzman's views by examining how biological pathways might be affected by social partitioning; exercise and nutritional scientists might investigate the most effective interventions to mitigate these effects; and health policy and economics students could shed light on the feasibility of various proposed policy reformations in light of budget constraints, existing policy, etc. There are many other perspectives from which this issue might be approached.

The goals of the course are to guide students towards a holistic understanding of early human development, and to foster abilities to work in multidisciplinary teams. The successful achievement of these goals will be reflected in students who develop a basic knowledge of several disciplines, an awareness of where and how they interconnect, and a capacity to work seamlessly across these interfaces during collaborative projects. This will be accomplished by providing a problem-based learning framework in which cross-disciplinary discussion is not only required but also skillfully facilitated by professors and post-doctoral fellows. Students will formally present their responses to the various problems that are posed to them. Course requirements will include a series of presentations as well as an essay, grant proposal and white paper. This half-credit course will run over two terms but will meet for 3 hours on alternate weeks to give students sufficient time to respond adequately to assignments. The students are normally expected to take the core course within the first 3 years of the PhD. The core course will maintain a healthy enrolment each year and the core course anticipated enrolment will be from 10-15 students each year.

Seminar Series

The proposed program will offer a type 1 (CR/NCR) SRD 4444H Doctoral seminar series to introduce students to current research in different areas of human development. Speakers will include distinguished international scholars participating in the Fraser Mustard Institute for Human Development Lecture Series, and well as core faculty members from the proposed program. Attendees will include students, faculty, postdocs and guests. The speakers will present their work in an accessible way to accommodate the diverse knowledge bases of attendees. Like the students in the program, speakers will reflect a breadth of expertise; FMIHD's lecture series has already featured researchers from a variety of disciplines, including early childhood education experts and fruit fly geneticists. The goal of the series is to familiarize students with various research programs in human development, and to provide a forum for networking and establishing connections with other like-minded students and researchers. To this end, the program plans to host a lunch after many of the events during which students and researchers can converse and identify opportunities for collaboration. In order to receive a

credit from the seminar series, students will be required to attend 75% of events hosted during their first year in the program, and 50% of events hosted thereafter.

Annual Research Day

All students enrolled in the collaborative program must present their work at least once at the Annual Research Day. This activity will not be evaluated. The research day will build cohesion among students in the collaborative program cohorts and expose the students to the research of students and faculty in the research area.

• CALENDAR ENTRY

Collaborative Program in Human Development

Lead Faculty
Medicine

Participating Degree Programs

1. Biomedical Engineering (PhD), Institute of Biomaterials and Biomedical Engineering
2. Developmental Psychology and Education (PhD), Department of Applied Psychology and Human Development (OISE)
3. Ecology and Evolutionary Biology (PhD), Department of Ecology and Evolutionary Biology, Faculty of Arts and Science
4. Immunology (PhD), Faculty of Medicine
5. Medical Science (PhD), Institute of Medical Science, Faculty of Medicine
6. Medical Biophysics (PhD), Faculty of Medicine
7. Music (PhD), Faculty of Music
8. Nutritional Sciences (PhD), Department of Nutritional Sciences, Faculty of Medicine
9. Pharmacology (PhD), Department of Pharmacology and Toxicology
10. Physiology (PhD), Department of Physiology, Faculty of Medicine
11. Psychology (PhD), Department of Psychology, Faculty of Arts and Science
12. Public Health Sciences (PhD), Dalla Lana School of Public Health
13. Social Work (PhD), Factor-Inwentash Faculty of Social Work

Supporting Units

Fraser Mustard Institute for Human Development (FMIHD)

Department of Physiology, Faculty of Medicine

Overview

The Collaborative Program in Human Development (CPHD) is a transdisciplinary program that explores issues surrounding early human development. The healthy development of our children is at the core of our societal values. Recent evidence shows that early experiences strongly influence the biological pathways surrounding health and well being of individuals throughout their lives. This phenomenon involves complex interactions between genes and environments; the CPHD will provide students with the skills and resources necessary to start dissecting and untangling those interrelationships. Keeping in mind the fundamental goal of improving the well being of children, the program will also nurture translational skills in students with the ultimate goal of bridging the gap between basic research and public policy

and practices. In summary, the CPHD aims both to facilitate research on the ways in which early childhood experiences become embedded in our biology, and to foster translational skills in order to disseminate this research most effectively to educators, policy makers, etc. The successful achievement of both of these aims will be supervised by an eminent group of academics with expertise in all relevant areas.

Upon their successful completion of the PhD requirements of the host department and the Collaborative Program, students receive the notation "Completed Collaborative Program in Human Development" on their transcripts.

Contact and Address

Web: http://www.oise.utoronto.ca/humandevelopment/index.html
Email: humandevelopment@utoronto.ca
Telephone: 416-978-8325 (Mrs. Victoria de Luca, Administrative Contact)

Doctoral Degree Level

Admission Requirements

- Acceptance in a participating PhD program
- A resume or curriculum vitae
- A 1-2 page short essay explaining the student's interest in the program, and how his/her work is related to human development or areas that intersect with human development
- Two letters of recommendation from faculty members who comment on the student's academic ability, potential as a researcher, and fit within the collaborative program

Program Requirements
In order to complete the Collaborative Program in Human Development, students must:

- Satisfy requirements of home degree program and graduate unit
- Complete the required core course, HDV1000H Pluralistic Human Development (extended .5 FCE over two terms)
- Attend at least 75% of the seminars in the FMIHD seminar series in their first year in the program, and 50% of the seminars thereafter for the duration of their PhD. (SRD4444H, CR/NCR).
- Attend an annual research day, where they must present their work at least once during their registration in the program.
- Complete a thesis in the broad area of human development or an area that intersects with human development under the supervision of a CP faculty member

Completion of program requirements:

All students enrolled in the Collaborative Program must complete the requirements of the Collaborative Program in addition to those requirements for the degree program in their home graduate unit. The Collaborative Program Director and/or Program Committee is/are responsible for certifying the completion of the Collaborative Program requirements. The home graduate unit is solely responsible for the approval of the student's home degree requirements.

5 Degree Level Expectations, Program Learning Outcomes and Program Structure

A collaborative program is intended to provide an additional multidisciplinary experience for students enrolled in, and completing the requirements of a degree program. The requirements for the Collaborative Program in Human Development are **in addition to** the degree requirements and are not meant to extend the student's time to degree.

Table 1: Doctoral DLEs

DOCTORAL DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLEs)	**DOCTORAL PROGRAM LEARNING OBJECTIVES AND OUTCOMES**	**HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES**
EXPECTATIONS ***This* Collaborative Program in Human Development *extends the skills associated with the PhD degree and is awarded to students who have demonstrated:***		
1. Depth and Breadth of Knowledge A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice.	Depth of knowledge is defined by the Collaborative Program as a thorough comprehension of at least one aspect of human development. Given the multitude of disciplines participating in the program, students will inevitably acquire their depth of knowledge in different areas; for example, a student from the Department of Cell and Systems Biology might gain an expertise in biological developmental pathways, while a student from the Department of Economics might become proficient in the economic hurdles and benefits to implementing early childhood interventions through government policy. Thus, the depth of knowledge is addressed largely through the primary degree	The program will support the attainment of depth and breadth of knowledge through its common learning elements. In the core course, students from disparate disciplines will engage one another in a student-led problem-based learning environment. This will encourage students both to understand different perspectives on human development and to incorporate them into integrated solutions. The seminar series and the annual day will expose students to a variety of different disciplinary approaches to understanding and ameliorating human development.

DOCTORAL DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLEs)	DOCTORAL PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
	program. Breadth of knowledge is defined by the Collaborative Program as acquiring the ability to capably and productively interact with those in other disciplines involved in human development. This will be reflected in students who are able to understand the complex holistic nature of inquiry into human development; identify collaborative research opportunities; and effectively engage with other disciplines in an academic setting.	
2. Research and Scholarship a. The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research design or methodology in the light of unforeseen problems; b. The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and c. The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.	The specific learning outcomes for students in this area will be in line with the expectations of the primary degree program of registration with a particular focus on human development.	Students will achieve this learning outcome through completing a PhD thesis in the broad area of human development or an area that intersects with human development as part of primarily degree program of registration
3. Level of Application of Knowledge The capacity to i) Undertake pure and/or applied research at an advanced level; and ii) Contribute to the development of academic or professional skills, techniques, tools, practices, ideas, theories, approaches, and/or materials.	Level of application of knowledge is defined by the Collaborative Program as the ability to develop research designs to explore issues related to human development that are situated at the interfaces of academic disciplines. This is reflected in students who exhibit at least foundational understanding in many disciplines related to human development and are capable of applying their unique expertise to inventive collaborative	The Collaborative Program will support knowledge application skills through the structure of the core course. The core course will feature problems that require input from multiple perspectives for a satisfactory response. Students will learn to identify how their own academic strengths fit with other areas.

DOCTORAL DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLEs)	DOCTORAL PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
	projects.	
4. Professional Capacity/Autonomy a. The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations; b. The intellectual independence to be academically and professionally engaged and current; c. The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d. The ability to evaluate the broader implications of applying knowledge to particular contexts.	Professional Capacity/Autonomy is defined by the Collaborative Program as the capacity to work towards certain goals without a clear academic framework or curriculum. Specifically, the Collaborative Program seeks to foster this capacity within a group setting. This is reflected in students who demonstrate self-reliance, competence, and strong teamwork skills in pursuing their academic goals. Students who achieve this standard display preparedness for future employment as academics, experts in policy development, or other positions related to human development.	Professional capacity/autonomy is supported by the Collaborative Program through the innovative curriculum on the core course. The majority of the work in the course will be student-led. Students will work independently in their forays into problem-based learning, with the only input from professors being in the form of coaching and/or facilitation of discussions.
5. Level of Communication Skills The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively.	Level of Communication Skills is defined by the Collaborative Program as the capability of engaging in stimulating and productive dialogue across disciplinary boundaries. The program aims to cultivate abilities in cross-disciplinary communication such that, for example, biologists and public policy students (and others) can find common ground in discussions of human development This is reflected in students who are able to “speak the language” of multiple disciplines; understand what different disciplines mean by “evidence” and “causation,” among other concepts; and convey their own academic concentrations with concision and accuracy.	The Collaborative Program will develop these communicative skills through the core course, the seminar series, and the annual research day. Through all of these common learning experiences, students will be exposed to experts from many disciplines and will have an opportunity to practice discourse skills with many individuals.
6. Awareness of Limits of Knowledge An appreciation of the limitations of one’s own work and discipline, of the complexity of knowledge, and of	Awareness of Limits of Knowledge is addressed through the primary degree program of registration.	N/A

DOCTORAL DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLEs)	DOCTORAL PROGRAM LEARNING OBJECTIVES AND OUTCOMES	HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES
the potential contributions of other interpretations, methods, and disciplines. Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.		

6 Assessment of Learning

Assessment takes place through the formal program requirements. PhD students in the proposed program will complete two courses in human development: a core, problem-based course in which students are formally evaluated on their work and receive a graduate grade, and a continuous seminar series for which students receive a credit for regular attendance. In order to be granted a credit from the seminar series, students will be required to attend 75% of the sessions hosted during their first year in the program, and 50% of sessions thereafter. Each student will also be expected to present their work at the annual research day at least once during their enrolment in the collaborative program. This activity will not be evaluated. By the time a student successfully completes the program, therefore, he/she will have developed a broad base of knowledge that covers a range of issues associated with human development. Attendance will be monitored by the program's core faculty members.

The goals of the core course are to guide students towards a holistic understanding of early human development, and to foster abilities to work in multidisciplinary teams. The successful achievement of these goals will be reflected in students who develop a basic knowledge of several disciplines, an awareness of where and how they interconnect, and a capacity think critically about material from a range of disciplines and to work seamlessly across these interfaces during collaborative projects. Students will be evaluated in three areas: group projects (40%), group presentations (40%), and participation / discussion (20%). Written projects and presentations will be undertaken by small groups composed of students with diverse academic backgrounds. Students will collectively work towards final products that present comprehensive, thoughtful, and integrated responses to difficult problems in human development. The content of the final products will reflect the students' own autonomous work – students will themselves determine the direction of their own projects, with only guidance from faculty.

Participation grades will be awarded at the discretion of the course facilitators, roles that will be assumed by both core faculty members and postdoctoral fellows, and will reflect students' capacity to absorb and evaluate the assigned material and the seminars and to engage in

effective cross-disciplinary communication.

Students will also complete a thesis in the broad area of human development or an area that intersects with human development, which will be assessed in accordance with university policy.

7 Resources

The Collaborative Program's core faculty members are available to students in the Program as advisors or supervisors. It is expected that a core faculty member in the student's home department will be involved in thesis supervision. Core faculty members contribute to the Collaborative Program through teaching of the core course and participating in the delivery of seminar series. Not all core faculty members will be active in the Collaborative Program every year and, in many cases, simply may remain available to interested students. Some faculty may teach courses in the subject area of the Collaborative Program in their home program. Students in this Collaborative Program will be encouraged to take relevant courses in other programs, especially where they intersect with the goals of the Collaborative Program. The list of core faculty members is available in Appendix C. Each participating degree program contributes to the Collaborative Program through student enrolments, although not necessarily every year.

This Collaborative Program has a Director and a Program Committee. Together they are responsible for admitting students to the Collaborative Program and ensuring that the faculty associated with the program have the capacity to supervise all program students. Consequently an assessment of supervisory capacity occurs twice: once when students are admitted to their home degree program and once on their application to the Collaborative Program.

The University finds that the participation in a Collaborative program does not normally add significantly to a faculty member's supervisory load. For the most part, students in the collaborative program will continue to have their thesis supervised by a faculty member in their home program who also participates in the Collaborative program.

The Fraser Mustard Institute for Human Development is the primary supportive unit of the collaborative program and it should be noted that the Collaborative Program represents a major educational thrust and key element of the institute's educational mission and mandate. The Fraser Mustard Institute for Human Development is committed to indefinitely supporting the Collaborative Program financially and will provide funds to support speakers and the events of the graduate seminar series, the annual research day, funding to pay for administrative support, funds for advertising and a stipend for the director. The Department of Physiology is the supporting graduate unit at the University of Toronto and it will provide administrative support, including entering grades and course enrolment on ROSI, and provide space for delivery of the program's core course, seminars, and for committee meetings on a fee for service basis. The fee will be covered by the FMIHD. The program will be housed in the Faculty of Medicine and will share space and an administrator with other collaborative programs that

the Department of Physiology houses. The fee for the administrative support will be covered annually by the Fraser Mustard Institute for Human Development. The sharing of physical space with other collaborative programs will allow for the interactions of these communities of learners. Each participating department will pay $1,000 per year to be part of the Collaborative Program in Human Development and help sustain the seminar series by bringing in guest speakers.

Please see Appendix C for a list by program of core graduate faculty.

8 Administration

Please see Appendix D: Memorandum of Agreement

9 Governance Process

	Levels of Approval Required
Consultation with Provost	
Decanal and Provostial Sign Off	
	Graduate unit approval
	Faculty/Divisional Governance
Submission to Provost's Office	AP&P
Program may begin advertising as "Pending Approval"	
	Ontario Quality Council

Appendix A: Fraser Mustard Institute for Human Development Academic Steering Committee

EDUCATE THEME

Lead: Dr. Marla Sokolowski

Academic Committee membership includes:

- Dr. Marla Sokolowski, (Academic Director, Fraser Mustard Institute for Human Development, Department of Ecology and Evolutionary Biology, Arts and Science, Committee Chair)
- Dr. Michael Baker, (Department of Economics, Acting Director of the School for Public Policy and Governance)
- Dr. Diego Bassani, (Paediatrics, Epidemiology and Dalla Lana School of Public Health; Sickkids Hospital)
- Ms. Jane Bertrand (Margaret and Wallace McCain Family Foundation)
- Dr. Steffen-Sebastian Boltz, (Department of Physiology, Medicine)
- Dr. Carl Corter, (Dr. Eric Jackman Institute of Child Study, OISE)
- Dr. Chi Chung (C.C.) Hui, (Department of Molecular Genetics)
- Dr. Barbara Fallon, (Faculty of Social Work; Director, Canadian Incidence Study of Reported Child Abuse and Neglect)
- Dr. Alison Fleming, (Department of Psychology, UTM)
- Dr. David Haley, (Department of Psychology, UTSc)
- Dr. Kang Lee, (Dr. Eric Jackman Institute of Child Study and Applied Psychology and Development, OISE)
- Dr. Joel Levine, (Department of Biology, UTM)
- Dr. Robert Levitan, (Department of Psychiatry; CAMH)
- Dr. Michal Perlman, (Department of Applied Psychology and Development, OISE)
- Dr. Helen Rodd, (Depatment of Ecology and Evolutionary Biology, Arts and Science)
- Dr. Albert Wong, (Department of Pharmacology & Toxicology, Department of Psychiatry, CAMH).

Appendix B: Collaborative Program Requirements & Degree Program Requirements

Participating Degree Programs

1. Biomedical Engineering (PhD), Institute of Biomaterials and Biomedical Engineering
2. Developmental Psychology and Education (PhD), Department of Applied Psychology and Human Development (OISE)
3. Ecology and Evolutionary Biology (PhD), Department of Ecology and Evolutionary Biology, Faculty of Arts and Science
4. Immunology (PhD), Faculty of Medicine
5. Medical Science (PhD), Institute of Medical Science, Faculty of Medicine
6. Medical Biophysics (PhD), Faculty of Medicine
7. Music (PhD), Faculty of Music
8. Nutritional Sciences (PhD), Department of Nutritional Sciences, Faculty of Medicine
9. Pharmacology (PhD), Department of Pharmacology and Toxicology
10. Physiology (PhD), Department of Physiology, Faculty of Medicine
11. Psychology (PhD), Department of Psychology, Faculty of Arts and Science
12. Public Health Sciences (PhD), Dalla Lana School of Public Health
13. Social Work (PhD), Factor-Inwentash Faculty of Social Work

Fraser Mustard Institute (Supporting Unit)
Department of Physiology, Faculty of Medicine (Supporting Unit)

In all cases the Seminar Series will be in addition to the home degree program requirements. The PhD thesis will be in the topic area of the Collaborative Program.

There is sufficient elective room in each program for the core half course to be counted as an elective.

Department of Applied Psychology and Human Development
PhD in Developmental Psychology and Education
PhD Requirements: 1.0 FCEs required courses
1.0 FCEs from within degree program
1.0 FCEs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Department of Ecology and Evolutionary Biology
PhD in Ecology and Evolutionary Biology
PhD Requirements: 0.5 FCEs required courses
1.5 FCEs elective courses

The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Department of Immunology, Faculty of Medicine
PhD in Immunology
PhD Requirements: 2.0 FCEs required courses
0.5 FCEs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Institute of Biomaterials and Biomedical Engineering
PhD in Biomedical Engineering
PhD Requirements: 1.0 FCEs required course (when entering with a masters degree; variations depend on background.
0.5 FECs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program depending on student's background– no additional courses are required.

Institute of Medical Science
PhD in Medical Science
PhD Requirements: 1.0 FCEs required course
1.0 FECs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Department of Medical Biophysics
PhD in Medical Biophysics
PhD Requirements: 4.5 FCEs required course (variations depend on streams)
Up to 0.5-1.0 FECs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Faculty of Music
PhD in Music
PhD Requirements: 1.0 FCEs required course
5.0 FECs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Faculty Department of Nutritional Sciences
PhD in Nutritional Sciences
PhD Requirements: 2.0-3.0 FCEs elective courses (depending on whether student enters from undergraduate or Master's program)

The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Department of Physiology
PhD in Physiology
PhD Requirements: 1.0 FCEs required courses
0.5 FCEs from within degree program
1.0 FCEs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Department of Psychology
PhD in Psychology
PhD Requirements: 2.0 FCEs required courses
0.5 FCEs course in statistics

1.0 FCEs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Dalla Lana School of Public Health
PhD in Public Health Sciences (Epidemiology field of study)
PhD Requirements: 3.0 FCEs required courses
1.0 FCEs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Dalla Lana School of Public Health
PhD in Public Health Sciences (Social and Behavioural Health Sciences field of study)
PhD Requirements: 2.5 FCEs required courses
1.0 FCEs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

The Factor-Inwentash Faculty of Social Work
PhD in Social Work
PhD Requirements: 2.5 FCEs required courses
2.5 FCEs elective courses
The Collaborative program's required core course may be counted as 0.5 FCE within the elective space of the PhD program– no additional courses are required.

Appendix C: Core Faculty Research Synopses

All core faculty in a Collaborative Program are Graduate Faculty members approved to teach in their home unit and also approved by the home unit chair/director for cross-appointment to the Collaborative Program. This list demonstrates that the core faculty are active in the Collaborative Program area of human development by highlighting their peer-reviewed publications.

Department of Applied Psychology and Human Development

Patricia Ganea

Ganea, P.A. Harris, P. H. (2013). Early limits on the verbal updating of an object's location. *Journal of Experimental Child Psychology, 114,* 89-101

Ganea, P. A. Saylor M. M. (2013). Talking about the near and the dear; Infants' comprehension of displaced speech. *Developmental Psychology, 49,* 1299-1307

Jennifer Jenkins

Browne DT, **Jenkins JM**. Health across early childhood and socioeconomic status: examining the moderating effects of differential parenting. Social Science and Medicine, 2012 74(10): 1622-9

Browne DT, Meunier JC, O'Connor TG, **Jenkins JM**. The role of parental personality traits in differential parenting. Journal of Family Psychology, 2012 26(4): 542-53

Kang Lee

Talwar V, **Lee K**. Social and cognitive correlates of children's lying behavior. *Child Development*, 2008 79(4): 866-81

Talwar V, **Lee K**. A punitive environment fosters children's dishonesty: a natural experiment. *Child Development*, 2012 82(6): 1751-8

Janette Pelletier

Corter, C. & **Pelletier, J**. Schools as integrated service hubs for young children and families: Policy implications of the Toronto First Duty Project. *International Journal of Child Care and Education Policy*, 2010 4(2): 1-17.

Harper, S. & **Pelletier, J**. Parent involvement in early childhood: a comparison of English language learners and English first language families. *International Journal of Early Years Education*, 2010 18(2): 123-141.

Michal Perlman

Zellman, G & **Perlman, M**. Reconceptualizng the role of parents' involvement in their children's child care providers. *Early Child Development and Care*, 2006 176(5): 521-538.

Le, V., **Perlman, M**., Zellman, G. & Hamilton, L. Measuring Child-Staff Ratios in Child Care Centers: Balancing Effort and Representatives. *Early Childhood Research Quarterly*, 2006 21(3): 267-279.

Suzanne Stewart

Stewart, S. Indigenous research methods and healing. *International Journal of Health Promotion and Education*, 2011 12(4): 15-28.

Stewart, S. Indigenous family therapy: constructivist perspectives. *First Peoples Child & Family Review*, 2009 4(2): 99-118.

Department of Ecology and Evolutionary Biology

Joel Levine

Billeter JC, Jagadeesh S, Azanchi R, **Levine JD**. Drosophila melanogaster females change mating behaviour and offspring production based on social context. *Proceedings of the Royal Society B. Biological Science*, 2012 279(1737): 2417-2425

Krupp JJ, Kent C, Billeter JC, Azanchi R, So AK, Schonfeld JA, Smith BP, Lucas C, **Levine JD**. Social experience modifies pheromone expression and mating behavior in male Drosophila melanogaster. *Current Biology*, 2008 18(18): 1373-83

Helen Rodd

Leips, J., Richardson, J.M.L.R., **Rodd, F.H**. and J. Travis. Adaptive maternal adjustments of offspring size in response to conspecific density in two populations of the least killifish, *Heterandria formosa*. *Evolution* 2009 63(5):1341-1347

Song, Z., M.C. Boenke, and **F.H. Rodd**. 2011. Interpopulation differences in shoaling behaviour in guppies (*Poecilia reticulata*): roles of social environment and population origin. Ethology 117: 1009-1018. DOI: 10.1111/j.1439-0310.2011.01952.x

Locke Rowe

Long TA, Agrawal AF, **Rowe L**. The effect of sexual selection on offspring fitness depends on the nature of genetic variation. *Current Biology*, 2012 22(3): 204-8

Dmitriew C, **Rowe L.** The effects of larval nutrition on reproductive performance in a food-limited adult environment. *PLoS One*, 2011 6(3):e17399

Marla Sokolowski

Burns JG, Svetec N, Rowe L, Mery F, Dolan MJ, Boyce WT, **Sokolowski MB**. Gene-environment interplay in *Drosophila melanogaster*: chronic food deprivation in early life affects adult exploratory and fitness traits. *Proceedings in the National Academy of Science*, 2012 17239-44

Mileva-Seitz V, Fleming AS, Meaney MJ, Mastroianni A, Sinnwell JP, Steiner M, Atkinson L, Levitan RD, Matthews SG, Kennedy JL, **Sokolowski MB**. Dopamine receptors D1 and D2 are related to observed maternal behavior. *Genes, Brain and Behaviour*, 2012 11(6) 684-94

Department of Immunology

Juan Carlos Zuniga-Pflucker

Sasaki M, Knobbe CB, Munger JC, Lind EF, Brenner D, Brüstle A, Harris IS, Holmes R, Wakeham A, Haight J, You-Ten A, Li WY, Schalm S, Su SM, Virtanen C, Reifenberger G, Ohashi PS, Barber DL, Figueroa ME, Melnick A, **Zúñiga-Pflücker JC**, Mak TW. IDH1(R132H) mutation increases murine haematopoietic progenitors and alters epigenetics. Nature. 2012 Aug 30;488(7413):656-9. doi: 10.1038/nature11323.

Awong G**, Zúñiga-Pflücker JC.** Generation, isolation, and engraftment of in vitro-derived human T cell progentiors. Methods Mol Biol. 2013;946:103-13. doi: 10.1007/978-1-62703-128-8_7.

Department of Medical Biophysics

Derek van der Kooy

Balenci, L., **van der Kooy, D.** Notch signaling induces retinal stem-like properties in perinatal neural retina progenitors and promotes symmetrical divisions in adult retinal stem cells. Stem Cells and Development Stem Cells and Devlopment. 20 (2013) Ahead of Print.

Balenci L, Wonders C, L Kcoles-Takabe B, Clarke L, **van der Kooy D**. Bmps and Sfrp2 Maintain the Quiescence of Adult Mammalian Retinal Stem Cells. Stem Cells. 31(10) (2013) 2218-30

Institute of Biomaterials and Biomedical Engineering

Tom Chau

Schudlo LC, **Chau T.** Dynamic topgraphical pattern classification of multichannel prefrontal NIRS siganals: II online differentiation of mental arithmetic and rest J Neural Eng. 2014 Feb;11(1):016003. doi: 10.1088/1741-2560/11/1/016003.

Memarian N, Blain-Moraes S, **Chau T.** Towards a physiological signal-based access solution for a non-verbal adolescent with severe multiple disabilities. Dev Neurorehabil. 2013 [Epub ahead of print]

Instituite of Medical Science

Steve Miller

Chau V, Brant R, Poskitt KJ, Tam EW, Synnes A, **Miller SP**. Postnatal Infection is Associated with Widespread Abnormalities of Brain Development in Premature Newborns. ***Pediatric Research*** 2012; 71(3):274-9

Miller SP, Ferriero DM. From Selective Vulnerability To Connectivity: Insights From Newborn Brain Imaging**.** *Trends Neuroscience*. 2009; 32(9):496-505

Denis Daneman

Denburg A. and **Daneman D.** the link between social inequality and child health outcomes. *Healtc Q.* 2010, 1:21-31

Colton, PA, Olmsted MP, **Daneman D**. Rodin GM. Depression, disturbed eating behaviour, and metabolic control in teenage girls with type 1 diabetes. *Pediatric Diabetes*. 2013, 5:372-6.

Robert Levitan

Silveira PP, Portella AK, Kennedy JL, Gaudreau H, Davis C, Steiner M, Soares CN, Matthews SG, Sokolowski MB, Dubé L, Loucks EB, Hamilton J, Meaney MJ, **Levitan RD**; MAVAN Study Team. Association between the seven-repeat allele of the dopamine-4 receptor gene (DRD$) spontaneous food intake in pre-school children. *Appetite.* 2014 Feb;73:15-22. doi: 10.1016/j.appet.2013.10.004. Epub 2013 Oct 20.

Atkinson L, Gonzalez A, Kashy DA, Santo Basile V, Masellis M, Pereira J, Chisholm V, **Levitan R.** Maternal sensitivity and infant and mother adrenocortical function across challenges. Psychoneuroendocrinology. 2013 Dec;38(12):2943-51. doi: 10.1016/j.psyneuen.2013.08.001. Epub 2013 Aug 16.

Faculty of Music

Lee Bartel

Bartel, L. (2006). Trends in Data Acquisition and Knowledge Development. In Colwell, R. (Ed). MENC Handbook of Research Methodologies. Oxford University Press.

Bartel, L. (2004). What is the Music Education Paradigm? In Bartel, L. (Ed). Questioning the Music Education Paradigm. Volume II of the Series "Research to Practice: A Biennial Series." Toronto: Canadian Music Educators Association.

Bina John

John, B. (2006). Affect and Music, In Bartel, L. (Ed). Questioning the Music Education Paradigm. Volume II of the Series "Research to Practice: A Biennial Series." Toronto: Canadian Music Educators Association.

John, B. (2006). The Healing Ritual of Choral Singing: Planting Seeds of Compassion. Toronto: *Music Time.*

Department of Nutritional Sciences

Jill Hamilton

Luca P., Birken C, Grewal P, Dettmer E., **Hamilton J**. Complex Obesity. *Current Pediatric Reviews.* 2012 Vol 8 (2): p179-187

Retnakaran R. Ye C., Hanley AJ, Connelly PW, Sermer M, Zinman B, **Hamilton J**. Effect of maternal weight, adipokines, glucose intolerance and lipids on infant birthweight in women without gestational diabetes mellitus. *CMAJ.* 2012 May 22.

Mary L'abbe

Emrich TE, Cohen JE, Lou WY, **L'abbé MR**. Food products qualifying for and carrying front-of-pack symbols: a cross-sectional study examining a manufacturer led and a non-profit led program. *BMC Public Health.* 2013 Sep 13;13:846. doi: 10.1186/1471-2458-13-846.

L'abbé MR, Dumais L, Chao E, Junkins B. Health claims on foods in Canada. *J Nutr*. 2008 Jun;138(6):1221S-7S.

Harvey Anderson

Reza López SA, Poon AN, Szeto IM, Ma DW, **Anderson GH**. High multivitamin intakes during pregnancy and postweaning obesogenic diets interact to affect the relationship between expression of PPAR genes and glucose retulation in the offspring. J Nutr Biochem. 2013 May;24(5):877-81. doi: 10.1016/j.jnutbio.2012.06.001. Epub 2012 Aug 20.

Cho CE, Sánchez-Hernández D, Reza-López SA, Huot PS, Kim YI, **Anderson GH**. High folate gestational and post-weaning diets alter hypothalamic feeding pathways by DNA methylation in Wistar rat offspring. *Epigenetics*. 2013 Jul;8(7):710-9. doi: 10.4161/epi.24948. Epub 2013 May 14.

Department of Pharmacology and Toxicology

Albert Wong

Zawadzki JA, Girard TA, Foussias G, Rodrigues A, Siddiqui I, Lerch JP, Grady C, Remington G, **Wong AH**: Simulating real world functioning in schizophrenia using a naturalistic city environment and single-trial, goal-directed navigation. *Frontiers in Behavioral Neuroscience.* 2013; 7:180. doi: 10.3389/fnbeh.2013.00180

Lipina TV, Zai C, Hlousek D, Roder JC, **Wong AHC:** Maternal immune activation during gestation interacts with *Disc1* point mutation to exacerbate schizophrenia-related behaviours in mice. *The Journal of Neuroscience;* May 1, 2013: 33(18):7654 –7666

Department of Physiology

Alan Bocking

Sozo F, Vela M, Stokes V, Kenna K, Meikle PJ, De Matteo R, Walker D, Brien J, **Bocking A**, Harding R. Effects of prenatal ethanol exposure on the lungs of postnatal lambs. *American Journal of Physiology: Lung Cellular and Molecular Physiology,* 2011 300(1):L139-47

Zelner I, Kenna K, Brien JF, **Bocking A**, Harding R, Walker D, Koren G. Meconium fatty acid ethyl esters as biomarkers of late gestational ethanol exposure and indicator of ethanol-induced multi-organ injury in fetal sheep. *PLoS One*, 2013 8(3):e59168

Evelyn Lambe

E.K. Lambe, S.G. Fillman, M.J. Webster, C.S. Weickert (2011) Serotonin receptor expression in human prefrontal cortex: Balancing excitation and inhibition across postnatal development. *PLoS One* 6: (e22799) 1-10.

G.M. Pitcher, L.V. Kalia, D. Ng, N.M. Goodfellow, K.T. Yee, **E.K. Lambe,** M.W. Salter (2011) Schizophrenia susceptibility pathway neuregulin1-ErbB4 suppresses the Src kinase upregulation of NMDA receptors in the induction of lasting synaptic potentiation. *Nature Medicine* 17: 470-8.

Stephen Lye

Warrington NM, Wu YY, Pennell CE, Marsh JA, Beilin LJ, Palmer LJ, **Lye SJ**, Briollais L. Modelling BMI trajectories in children for genetic association studies. *PLoS One,* 2013 8(1):e53897

Knight BS, Sunn N, Pennell CE, Adamson SL, **Lye SJ**. Developmental regulation of cardiovascular function is dependent on both genotype and environment. *American Journal of Physiology: Heart and Circulatory Physiology*, 2009 297(6):H2234-41

Stephen Matthews

Lye P, Bloise E, Dunk C, Javam M, Gibb W, Lye SJ, **Matthews SG**. Effect of Oxygen on multidrug resistance in the first trimester human placenta. *Placenta*, 2013 (in press)

Bloise E, Bhuiyan M, Audette MC, Petropoulos S, Javam M, Gibb W, **Matthews SG**. Prenatal endotoxemia and placental drug transport in the mouse: placental size-specific effects. *PLoS One*, 2013 8(6):e65728

Department of Psychology

Alison Fleming

Gonzalez A, Jenkins JM, Steiner M, **Fleming AS**. Maternal early life experiences and parenting: the mediating role of cortisol and executive function. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2012 51(7): 673-82

Gonzalez A, Jenkins JM, Steiner M, **Fleming AS**. The relation between early life adversity, cortisol awakening response and diurnal salivary cortisol levels in postpartum women. *Psychoneuroendocrinology*, 2009 34(1): 76-86

David Haley

Haley, D. **W**., Grunau, R. E., Oberlander, T. F., & Weinberg, J.. Contingency learning and reactivity in preterm and full-term infants at 3 months. *Infancy*, 2008 13(6), 570-595.

Grunau, R. E., **Haley, D**. **W**., Whitfield, M. F., Weinberg, J., Yu, W., & Thiessen, P. Altered basal cortisol levels at 3, 6, 8 and 18 months in preterm infants born extremely low gestational age. *J. Pediatrics*, 2007 150, 151-6.

Tina Malti

Malti, T., Averdijk, M., Ribeaud, D., Rotenberg, K., & Eisner, M.P. "Do you trust him?" Children's trust beliefs and developmental trajectories of aggressive behavior in an ethnically diverse sample. *Journal of Abnormal Child Psychology*, 2013 41(3), 445-456.

Malti, T., Gummerum, M., Keller, M., Chaparro, M.P., & Buchmann, M. Early sympathy and social acceptance predict the development of sharing in children. *PLoS One*, 2012 7(12), e52017

Public Health Sciences, Dalla Lana School of Public Health

Anna Banerji

Banerji A, Panzov V, Robinson J, Young M, Ng K, Mamdani M. The cost of lower respiratory tract infections hospital admissionsin the Canadian Arctic. *Int J Circumpolar Health*. 2013 Aug 5;72. doi: 10.3402/ijch.v72i0.21595. eCollection 2013.

Banerji A; Canadian Paediatric Society, First Nations, Inuit and Métis Health Committee. Preventing unintentional injuries in Indigenous children and youth in Canada. *Paediatr Child Health.* 2012 Aug;17(7):393-4.

Diego Bassani

Million Death Study Collaborators, **Bassani DG**, Kumar R, Awasthi S, Morris SK, Paul VK, Shet A, Ram U, Gaffey MF, Black RE, Jha P. Causes of neonatal and child mortality in India: a nationally representative mortality survey. *Lancet* 2010 376(9755):1853-60.

Bassani DG, Jha P, Dhingra N, Kumar R. Child mortality from solid-fuel use in India: a nationally-representative case-control study. *BMC Public Health*, 2010 10:491

Howard Hu

Peters JL, Kubzansky LD, Ikeda A, Spiro A 3rd, Wright RO, Weisskopf MG, Kim D, Sparrow D, Nie LH, **Hu H**, Schwartz J. Childhood and adult socioeconomic position, cumulative lead levels, and pessimism in later life: the VA Normative Aging Study. *American Journal of Epidemiology*, 2004 174(12):1345-53

Peters JL, Kubzansky LD, Ikeda A, Fang SC, Sparrow D, Weisskopf MG, Wright RO, Vokonas P, **Hu H**, Schwartz J.Lead concentrations in relation to multiple biomarkers of cardiovascular disease: the Normative Aging Study. *Environmental Health Perspectives*, 2012 120(3): 361-6

Arjumand Siddiqi

Siddiqi A, Kawachi I, Berkman LF, Hertzman C and Subramanian SV. 2012. Education determines a nation's health, but what determines educational outcomes? A cross-national comparative analysis. *Journal of Public Health Policy,* 2012 33: 1-15.

Hertzman C, **Siddiqi A**, Hertzman E, Irwin LG, Vaghri Z, Houweling TAJ, Bell R, Tinajero A, Marmot M. Bucking the Gradient: Tackling Inequalities through Early Child Development. *British Medical Journal*, 2010 340:c468.

Janet Symlie

Smylie J., Lofters A., Firestone M., O'Campo P. Population Based Data and Community Empowerment. In: Rethinking Social Epidemiology: Towards a Science of Change. O'Campo P, Dunn J (Eds.). New York: Springer, 2011

Smylie, J. Knowledge Translation and Indigenous Knowledge- A Decolonizing Perspective. In: Knowledge Translation in Community-Based Research and Social Policy Contexts. Banister, E. M., Leadbeater, B. J., & Marshall, A. (Eds.). Toronto: University of Toronto Press, 2011

<u>Factor-Inwentash Faculty of Social Work</u>

Barbara Fallon

Fallon B, Trocmé N, MacLaurin B. Should child protection services respond differently to maltreatment, risk of maltreatment, and risk of harm?. *Child Abuse and Neglect*, 2011 35(4): 236-9

Fallon B, Ma J, Allan K, Pillhofer M, Trocmé N, Jud A. Opportunities for prevention and intervention with young children: lessons from the Canadian incidence study of reported child abuse and neglect. *Child and Adolescent Psychiatry and Mental Health*, 2013 7(1):4

Faye Mishna

Mishna, F., Cook, C., Saini, M., Wu, M-J., & MacFadden, R. (2010). Interventions to prevent and reduce cyber abuse of youth: A systematic review. *Research in Social Work Practice*, DOI: 10.1177/1049731509351988. (print version in press).

Mishna, F., Muskat, B., & Wiener, J. (2010). 'I'm not lazy, it's just that I learn differently': Development and implementation of a manualized school-based group for students with LD. *Social Work with Groups*, , 33 (2), 139-159.

Appendix D: Memorandum of Agreement

University of Toronto

MEMORANDUM OF AGREEMENT

Collaborative Doctoral Program in Human Development

January, 2014

Memorandum of Agreement concerning a Collaborative Graduate Program in Human Development

1.Brief Description

In order to develop cooperative and multidisciplinary graduate education and research in Human Development, the following graduate units agree to the participation of graduate programs and associated degrees in the collaborative program:

1. Biomedical Engineering (PhD), Institute of Biomaterials and Biomedical Engineering
2. Developmental Psychology and Education (PhD), Department of Applied Psychology and Human Development (OISE)
3. Ecology and Evolutionary Biology (PhD), Department of Ecology and Evolutionary Biology, Faculty of Arts and Science
4. Immunology (PhD), Faculty of Medicine
5. Medical Science (PhD), Institute of Medical Science, Faculty of Medicine
6. Medical Biophysics (PhD), Faculty of Medicine
7. Music (PhD), Faculty of Music
8. Nutritional Sciences (PhD), Department of Nutritional Sciences, Faculty of Medicine
9. Pharmacology (PhD), Department of Pharmacology and Toxicology
10. Physiology (PhD), Department of Physiology, Faculty of Medicine
11. Psychology (PhD), Department of Psychology, Faculty of Arts and Science
12. Public Health Sciences (PhD), Dalla Lana School of Public Health
13. Social Work (PhD), Factor-Inwentash Faculty of Social Work

2.Admission and Program Requirements and Completion

2.1 Admission Requirements

Applicants must be accepted into a graduate degree program before being accepted into a collaborative program, and must meet the admission requirements of both the home graduate unit and the collaborative program. The following are the admissions requirements for the collaborative program:

- Acceptance in a participating PhD program

- A resume or curriculum vitae
- A 1-2 page short essay explaining the student's interest in the program, and how his/her work is related to human development or areas that intersect with human development
- Two letters of recommendation from faculty members who comment on the student's academic ability, potential as a researcher, and fit within the collaborative program

2.2 Program Requirements

The student must register first in the home graduate unit/program. Thereafter, upon acceptance to the collaborative program, the student will register in the collaborative program. The student must meet all degree requirements of the participating graduate unit/program, as well as the requirements of the Collaborative Program.

In order to complete the Collaborative Program in Human Development, students must:

- Satisfy requirements of home degree program and graduate unit
- Complete the required core course HDV1000H Pluralistic Human Development (0.5 FCEs over two terms)
- Attend at least 75% of the seminars in the FMIHD seminar series during their first year in the program, and at least 50% of seminars hosted thereafter for the remainder of their PhD program (SRD 4444H, CR/NCR)
- Attend an annual research day, where they must present their work at least once
- Complete a thesis in the broad area of human development or an area that intersects with human development

2.3 Program Completion

Upon certification by the collaborative program director that all requirements of the collaborative program have been fulfilled, the designation "Completed the Collaborative Doctoral Program in Human Development" is shown on the graduate transcript. The home graduate unit recommends the granting of the degree.

3. Role of Participating Graduate Units

Each participating graduate unit shall retain its constitutional control over admissions and home program requirements, and is responsible to provide adequate research supervision by a member of the graduate faculty in the unit. Students in the Collaborative Program normally are supervised by a member of the collaborative program's core faculty, or have a core faculty member as a member of the supervisory committee (where supervision and a supervisory committee are required). Participating graduate units include reference to the Collaborative Program in the SGS Calendar entry, on the graduate unit website, and in other advertising material related to the home program. Core faculty members are identified with the Collaborative Program via the director's office. Core faculty members remain available to contribute to the collaborative program through teaching, supervision and participation in the

delivery of seminar series and other collaborative program learning elements, and may serve on the Collaborative Program committee. Not all faculty members necessarily participate each year and, in many cases, may simply remain available to interested students. Some faculty may teach courses in the subject area of the collaborative program in the home program.

4. Administration of the Program

4.1 Program Director

The Program Committee initiates and recommends the appointment of a new director to the Dean of SGS, after consultation with chairs/directors of participating graduate units and with the collaborative program director. The Dean of the School of Graduate Studies approves appointments of directors of collaborative programs for terms normally up to five years (renewable).

4.2 Program Committee

The Collaborative Program is administered by a Program Committee consisting of at least one core graduate faculty member from each participating home program. The Program Committee shall be chaired by the Program Director. The Committee shall meet at least once annually. The Committee shall be responsible for the following activities:

- Review of all applications and admissions to the Collaborative Program
- Nomination of a Director from among its membership, as required
- Other issues (e.g. student counseling, curriculum review, approving advertising, adjudication of student funding and awards)

4.3 Administration: General

The program director will be assisted by the Collaborative Program Committee and a part-time staff administrative assistant paid by the Fraser Mustard Institute for Human Development.

5 Supporting Units

The Fraser Mustard Institute for Human Development is the primary supportive unit of the collaborative program and it should be noted that the Collaborative Program represents a major educational thrust and key element of the institute's educational mission and mandate. The Fraser Mustard Institute for Human Development is committed to indefinitely supporting the Collaborative Program financially and will provide funds to support speakers and the events of the graduate seminar series, the annual day, funding to pay for administrative support, funds for advertising and a stipend for the director. The Department of Physiology is the supporting graduate unit at the University of Toronto and it will provide administrative support, including entering grades and course enrolment on ROSI, on a fee for service basis. The Department of Physiology will also provide space for delivery of the program's core course, seminars, and for

committee meetings. The program will be housed in the Faculty of Medicine and will share space and an administrator with other collaborative programs that the Department of Physiology houses. The fee for the administrative support will be covered annually by the Fraser Mustard Institute for Human Development. The sharing of physical space with other collaborative programs will allow for the interactions of these communities of learners.

6 Resource Issues

The Collaborative Program will be fully resourced by the Fraser Mustard Institute for Human Development and the FMIHD is committed to financially supporting the Collaborative Program indefinitely. Funds provided by the FMIHD will go towards delivering the curriculum, administrative costs such a portion of an administrator's time and office space, communications, advertising and the website, as well as to support speakers and the events of the graduate seminar series and the annual research day.

The participating graduate units will be required to help sustain the seminar series by bringing in guest speakers, and will contribute $1000 annually to the collaborative program. The funds will be used to supplement the items listed above. The Director and Program Committee may reassess the annual amount graduate units provide in the future.

University of Toronto
MEMORANDUM OF AGREEMENT (cont'd):

SIGNATURE PAGE

Collaborative Ph.D. Program in Human Development

January, 2014

UNIT AGREES TO PARTICIPATE IN ACCORDANCE WITH ALL TERMS OUTLINED IN THIS MEMORANDUM OF AGREEMENT

Collaborative Program Director:

_____ Date: _____

Director's Name

Graduate Units Participating in Colloborative Program:

_____ Date: _____

Chair/Director, Graduate Unit

_____ Date: _____

Chair/Director, Graduate Unit

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Chair/Director, Graduate Unit

<u>Supporting Unit</u>*:*

_____ Date: _____

Chair/Director, Unit Name

_____ Date: _____

Chair/Director, Unit Name

Lead Faculty:Medicine

_____ Date: _____

Avrum Gotlieb, Interim Vice-Dean, Graduate and Life Science Education

School of Graduate Studies & Vice-Provost, Graduate Education:

_____ Date: _____

Brian Corman,

Dean, School of Graduate Studies and Vice-Provost, Graduate Education

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

FOR APPROVAL

TO: Faculty Council

SPONSOR: Catharine Whiteside, Dean, Faculty of Medicine

CONTACT INFO: Catharine.Whiteside @utoronto.ca

DATE: May 5, 2014

AGENDA ITEM: 4.2.1

ITEM OF BUSINESS: Global Institute for Psychosocial, Palliative and End-of-Life Care

JURISDICTIONAL INFORMATION:

The Research Committee of the Faculty of Medicine Faculty Council reviews and recommends to Council for approval, subject to the establishment, continuation and termination of Departments and Extra-departmental Units.

GOVERNANCE PATH:

1. Graduate Education Committee [For information] – March 18, 2014
2. Research Committee [For approval] – March 20, 2014
3. Faculty Council [For approval] - May 5, 2014

CONSULTATIVE PATH:

1. GIPPEC Steering Committee [For approval] November 18, 2044
2. Cancer Program Executive Committee – Princess Margaret Cancer Centre [For approval] – February 18, 2014
3. UHN Executive Sign-Off; Dr. Bob Bell – CEO & President, Dr. Mary Gospodarowicz – Medical Director, PMH [For approval] December 11, 2014

HIGHLIGHTS:

- Evidence of needless suffering due to inadequate or absent palliative care in those with advanced or terminal disease has led to the emergence of a global movement to promote its universal availability and for organizations, such as the United Nations, to proclaim that access to palliative care is a basic human right
- The proposed ***GLOBAL INSTITUTE OF PSYCHOSOCIAL, PALLIATIVE AND END-OF-LIFE CARE (GIPPEC)*** will be an interdepartmental and interdivisional Institute (Extra-Departmental Unit, or

EDU, type C) at the University of Toronto devoted to promoting and developing interdisciplinary research that addresses the medical, psychological, social, legal, ethical, cultural and religious problems related to psychosocial and palliative care of individuals with advanced and terminal disease.

- The lead division will be the Faculty of Medicine (and its Departments of Medicine, Psychiatry, Pediatrics, Family and Community Medicine) with collaborative relationships with various other divisions and departments

PROPOSED MOTION:

"THAT the proposal to establish a Global Institute for Psychosocial, Palliative and End-of-Life Care as an EDU:C be approved as submitted."

Academic Proposal

Global Institute for Psychosocial, Palliative and End-of-Life Care (GIPPEC)

Date: February 19, 2014
Revised: March 7, 2014

1.0 Executive Summary

Palliative care refers to the active total care of patients with life-threatening disease, with a focus on relief of pain and other physical symptoms, and of psychological and spiritual distress. It includes, but is not limited to, end-of-life care and bereavement. It also encompasses care that is applicable to patients and families early in the course of a terminal illness and in conjunction with other therapies intended to prolong life. It is or should be a central component of care in patients with progressive or life-threatening disease, in some cases, from the time of diagnosis. However, the skills and resources necessary for the delivery of palliative and end-of-life care have not kept pace with other aspects of medicine, even in very well-resourced settings. Many individuals throughout the world still face the end-of-life with pain and other distressing symptoms and without the support necessary to preserve dignity and to protect their emotional and spiritual well-being and that of their families. Evidence of needless suffering due to inadequate or absent palliative care in those with advanced or terminal disease has led to the emergence of a global movement to promote its universal availability and for organizations, such as the United Nations, to proclaim that access to palliative care is a basic human right.

The proposed **GLOBAL INSTITUTE OF PSYCHOSOCIAL, PALLIATIVE AND END-OF-LIFE CARE (GIPPEC)** will be an interdepartmental and interdivisional Institute (Extra-Departmental Unit, or EDU, type C) at the University of Toronto devoted to promoting and developing interdisciplinary research that addresses the medical, psychological, social, legal, ethical, cultural and religious problems related to psychosocial and palliative care of individuals with advanced and terminal disease. The lead division will be the Faculty of Medicine (and its Departments of Medicine, Psychiatry, Paediatrics, Family and Community Medicine). Collaborative relationships will be developed with other divisions and departments including: the Lawrence S. Bloomberg Faculty of Nursing, Factor Inwentash Faculty of Social Work, Dalla Lana School of Public Health, Faculty of Law, and the Faculty of Arts and Science Departments of Philosophy, Sociology, Anthropology, and the Study of Religion, and with other University of Toronto institutes and centres, including the Institute of Health Policy Management and Evaluation, the Joint Centre for Bioethics, the Centre for Comparative Literature and the Institute of Life Course and Aging, and with the Kensington Health Center (which has a collaborative letter of understanding with the University of Toronto). The proposed GIPPEC will have international partnerships with centres which may

include: the Cicely Saunders Institute at King's College London; the End-of-Life Care Research Group Ghent University & Vrije Universiteit Brussels; the European Palliative Care Research Centre (PRC) based in Trondheim, Norway; the Center to Advance Palliative Care (CAPC) in the United States (based in New York City); and with the Harvard Global Equity Health Initiative in Boston.

2.0 Background and Current State Analysis

2.1 Purpose

There is a wealth of faculty in diverse departments at the University of Toronto with expertise relevant to palliative and end-of-life care, creating an enormous opportunity for interdisciplinary collaborative research regarding the implications of advanced and terminal disease in patients, families and in society. However, until now, there has not been an academic or research structure or venue to bring such faculty together to address interdisciplinary research questions, support international research collaboration and to build future research capacity. The proposed GIPPEC would accomplish these goals and generate meaningful evidence to inform local, national and global health policy, clinical practice and public awareness and to improve global access to psychosocial and palliative care for individuals with advanced and terminal disease. Research generated from the GIPPEC would also inform debate regarding complex and controversial medical, legal and ethical issues related to death and dying that have recently entered the public domain and systems of jurisprudence throughout the world.

2.2 Current State and Analysis

Background

The problem of mortality and the field of palliative and end-of-life care is situated at the interface of medicine and society. Approaches to suffering and the end-of-life are as important to all of the world's major philosophies and religions as they are to the field of medicine. Therefore, the care of the dying requires attention not only to medical considerations but also to the personal and sociocultural context in which this care occurs. The modern discipline of palliative care emerged to address these issues and to ensure the relief of suffering and the humanization of end-of-life care in technologized medical settings. Subsequently, an evidence base was developed in palliative care to guide approaches to such issues as symptom detection and control, the relief of suffering and the benefits of early palliative and end-of-life care. However, the complex medical, social, psychological, cultural, ethical and religious issues that arise in end-of-life care require interdisciplinary expertise for their exploration and investigation, and for their application to public policy and health care delivery. Interdisciplinary research of this kind may be fostered best in a

research institute that brings together investigators with diverse perspectives, methodologies and expertise.

The University of Toronto is ideally situated for a **GLOBAL INSTITUTE OF PSYCHOSOCIAL, PALLIATIVE AND END-OF-LIFE CARE (GIPPEC).** The proposed GIPPEC will be established as of July 1, 2014 and will be an interdisciplinary Extra-Departmental Unit Type "C" (EDU:C), situated in the Faculty of Medicine at the University of Toronto. The EDU:C is described as a multidisciplinary and multi-departmental research and/or academic unit within a defined research domain in a particular area of academic work. The function of the GIPPEC corresponds to that of an EDU:C of the University of Toronto in that it will have a will have defined area of interdisciplinary scholarship as a focus and engage in interdisciplinary research. The divisions, departments and research institutes that will be represented in the GIPPEC must commit to specific, prioritized, interdisciplinary research contributions, such that GIPPEC will constitute an integrated academic grouping with a significant critical mass.

The global focus of the GIPPEC will be defined by establishing international relationships with other centres in psychosocial and palliative care to develop international research and to contribute to global education in psychosocial and palliative care. Outreach has already begun with centers in Europe, the Middle East, Asia and South in America. The European Association of Palliative Care Research Network, the Cicely Saunders Institute at King's College, and the Harvard School of Public Health are three leaders in palliative care research with which the GIPPEC will build scholarly collaborations. GIPPEC will also generate knowledge focus to inform international public opinion and health policies pertaining to psychosocial health, palliative, and end-of-life care in both the developed and developing world.

The GIPPEC will be composed of ***Core Faculty Members*** with primary appointments in existing university departments and divisions who will, with the permission of their unit Head/Chair, have non budgetary cross appointments to the EDU and will devote a significant proportion of their academic responsibilities to the aims of the GIPPEC. Funding will be derived from the primary departments with a portion of the funding coming from GIPPEC for selected faculty members on a competitive basis, based on their qualifications, interests, and support from their Faculty for these positions and for GIPPEC. It will also include ***Associate Faculty Members*** who will, with the recommendation and support of their Department Chairs and Deans devote part of their academic responsibilities to the aims of the GIPPEC.

Partnerships and Opportunities for Interdisciplinary Collaboration

The GIPPEC aims to bring together, in a global research centre, the combined scholarship of faculty within health sciences, the professional departments, the social sciences and humanities and from a range of other disciplines and departments, linked to international collaborating research centres. It will build on existing research groupings at the University of Toronto in palliative and end-of-life care and the scholarship in a wide range of Faculties/Departments/Divisions/Institutes/Centres and Schools at the University of Toronto. Potential collaboration has been or will be pursued with:

1. Faculty of Medicine, including the Departments of Medicine, Psychiatry, Paediatrics, Surgery, Family and Community Medicine, Nutritional Sciences, Institute of Health Policy, Management and Evaluation, Occupational Science and Occupational Therapy, Physical Therapy, Speech- Language Pathology, and the Graduate Department of Rehabilitation Sciences, Institute for Life Course and Aging, and the Joint Centre for Bioethics;
2. Dalla Lana School of Public Health;
3. Faculties of Nursing, Law, Social Work, Music, and Pharmacy;
4. Faculty of Arts and Science, including Philosophy, Sociology, Anthropology and the Study Religion and the Centre for Comparative Literature, Arts, Culture and the Media;
5. Institute of Health Policy, Management and Evaluation.

In addition to collaboration with these faculties, departments, and centres of the University of Toronto, GIPPEC will establish collaborative relationships across the Toronto Academic Health Sciences Network (TAHSN) with centres that include Baycrest, St. Michael's Hospital, Bickle Centre (Toronto Rehab/UHN), Mount Sinai Hospital, and Bridgepoint Health.

The GIPPEC would support the recruitment of new faculty in conjunction with existing academic and departmental structures and would provide infrastructure and support to build and sustain local, national and international collaborative research. It would also provide seed money for interdisciplinary collaborative research on a competitive basis and support a program of visiting scholars and an exchange program for graduate students with other international centres to enhance research training and to build international collaborative research relationships.

Location of the Institute

The GIPPEC will have an administrative hub at the Princess Margaret Cancer Centre/Ontario Cancer Institute, part of the University Health Network, with space and support for core faculty

members and administrative staff. Other core and associated faculty members will be located at the sites of participating departments and units. The location of educational and other academic activities will be disseminated amongst other lead academic units and institutions and participating centres. The Cancer Program Executive Committee of the Princess Margaret Cancer Centre highly supports the concept of the GIPPEC, and has granted approval for its establishment.

3.0 Initiative Outcomes and Future State

3.1 Vision

A Global Institute of Psychosocial and Palliative End-Of-Life Care (GIPPEC) at the University of Toronto would aim, in partnership with other international academic centres, to generate research that would inform public policy, health systems, and clinical practice in this area and to provide education to enhance practice and research globally. These and other issues in psychosocial and palliative care of individuals with advanced and terminal disease requires interdisciplinary expertise and global collaboration in order for them to be meaningfully addressed and for research findings to shape clinical practice, health care policy and health care delivery.

3.2 Goals, Deliverables and Metrics

The overall vision and mission of the GIPPEC will be achieved by establishing and maintaining excellence in each of three program domains:

Research

The GIPPEC will create a convergence of academic faculty from multiple departments and divisions and foster the emergence of collaborative research teams at the University of Toronto, its fully affiliated hospitals and research institutes, and with international collaborators. It will facilitate the application and integration of methods from the social sciences, humanities and from the health sciences to problems related to palliative and end of-life care and to the conduct of multicentre and interdisciplinary research. Collaborative research will include, but not necessarily be limited to, the development and evaluation of:

1. Culturally sensitive and rigorous interdisciplinary research methods.
2. Interventions to relieve suffering in patients and families with advanced and terminal disease and in bereavement. This includes psychological, social and biological interventions, as well as the novel therapeutic incorporation of the arts and the humanities in the delivery of palliative and end-of-life care.
3. Health policy and health systems issues related to the availability of palliative and end-of-life care and its integration into the management of advanced and terminal disease in diverse settings and in developed and developing countries. This will include the consideration of personal preferences, cultural and religious factors, and health systems issues regarding the availability of palliative and end-of-life care and the location of death.

4. Education of the public, of health professionals and of trainees in palliative and end-of life care in developing and developed countries. An important goal will be to reduce stigma and to barriers to accessing early medical care for life-threatening conditions and early palliative care for those with advanced and terminal disease.
5. Legal, ethical, religious and cultural issues related to aggressive medical care in individuals with advanced disease and to assisted dying.
6. Global strategies to support the availability of palliative care, including narcotic and other analgesic medication for optimal pain and symptom control, in the context of advanced and terminal disease.

Theme coordinators will be appointed by the Director of the Institute in order to facilitate the initiation and development of interdisciplinary research related to current and newly identified themes.

Educational

The educational aims of the GIPPEC will be to enhance research skills relevant to palliative and end-of-life care in both faculty and trainees. This will be promoted by:

1. Encouraging and supporting graduate research training in palliative and end-of life care in participating departments
2. Engaging actively with the work of the existing Collaborative program in Aging, Palliative and Supportive Care Across the Life Course. This program is accessible to master's and doctoral students across a number of programs including those offered by the thirteen departments associated with the Institute of Life Course and Aging. The primary focus of the collaborative program is on healthy aging which distinguishes it from the focus of the proposed EDU. The new EDU intends to build linkages with the existing Collaborative program and support work relevant to palliative care.
3. Visiting faculty and visiting students exchange with participating international units.
4. Weekly presentations and workshops on interdisciplinary research projects by core and associate faculty and trainees and by visiting faculty and trainees.
5. The development and evaluation of strategies to educate the public, health professionals and trainees in palliative and end-of-life care in developing and developed countries. An important goal will be to diminish stigma in both health care professionals and to eliminate

barriers to access of palliative and end-of-life care for those with advanced and terminal disease.

6. International symposia on critical topics in research in palliative and end-of-life care.

Knowledge Mobilization

The critical mass of investigators locally, nationally and internationally will allow the generation of thoughtful and evidence-based contributions to policy, practice and education of health professionals and the general public. Education of the public will be linked to the faculty of the GIPPEC and to the visiting scholars who will be invited to participate in meetings organized for the general public and organizations and groups with a special interest in palliative and end-of-life care. An important outcome for GIPPEC will also be the measurable influence of research emanating from this Institute on policy and on the availability and quality of palliative and-end-of life care locally, national and internationally. This will occur as a result of the engagement of scholars and international partners from the Institute with key stakeholders in palliative and end-of-life care locally, nationally and internationally, including governmental and other decision-making health care bodies, professional organizations, public policy leaders and judicial bodies. The knowledge generated from the GIPPEC will allow scholarship and evidence to enter the public debate and decision-making in health care and by legislative bodies in a domain that has often been dominated by rhetoric and strongly held personal opinion.

4.0 Governance

It is proposed that the GIPPEC be set up as an EDU:C within the University of Toronto, with the Faculty of Medicine as the lead faculty, and will have a shared governance and reporting structure. The Director, who will be a staff member of UHN/PMH, will be appointed by the Dean and will report directly to the UHN CEO/delegate and Dean/delegate of the Faculty of Medicine at U of T. The appointment of the Director is for 5 years, with renewal subject to successful external review. Terms of reference will be developed for all levels of the GIPPEC's governance, and will be subject to review at the discretion of the Executive Committee to ensure ongoing effectiveness, success and management of the Institute. The following provides a high-level outline of the roles and responsibilities of the GIPPEC's leadership.

Executive Committee

The Executive Committee will be constituted from the Steering Committee , which includes representatives from the lead and collaborating departments. Additional members can be added based on participation of faculties, departments or sites in GIPPEC. It will be co-chaired by the Dean of Medicine/delegate, and the UHN CEO/delegate. The Executive Committee will appoint a **Management Committee**, which will directly oversee GIPPEC operations and will report to the Director and to the Executive Committee. In addition, the Executive Committee will lead the establishment of an **International Consortium of Collaborations**, and an **International Scientific Council**.

Management Committee

The Management Committee will comprise staff responsible for the administration of the Institute on a day to day basis (including the Business Officer) and relevant academic leads. The committee will be responsible for ensuring that the GIPPEC achieves targets defined by each of its academic objectives in research, education and knowledge mobilization. Targets and key performance indicators for the GIPPEC will be further defined within each of these domains. The Management Committee will be responsible for strategic planning to further grow and develop the GIPPEC by establishing opportunities for collaboration in research and education, and by identifying funding sources such as research grants to carry out this work. The Management Committee has a direct reporting relationship with, and accountability to, the Institute Director.

International Consortium of Collaborations

The International Consortium of Collaborations will focus on creating international trainee and Faculty exchanges, establishing a research network, and creating an annual international symposium, etc., and will be led from the GIPPEC home in Toronto. The Executive Committee will lead the development of this construct in parallel with developing the local centre.

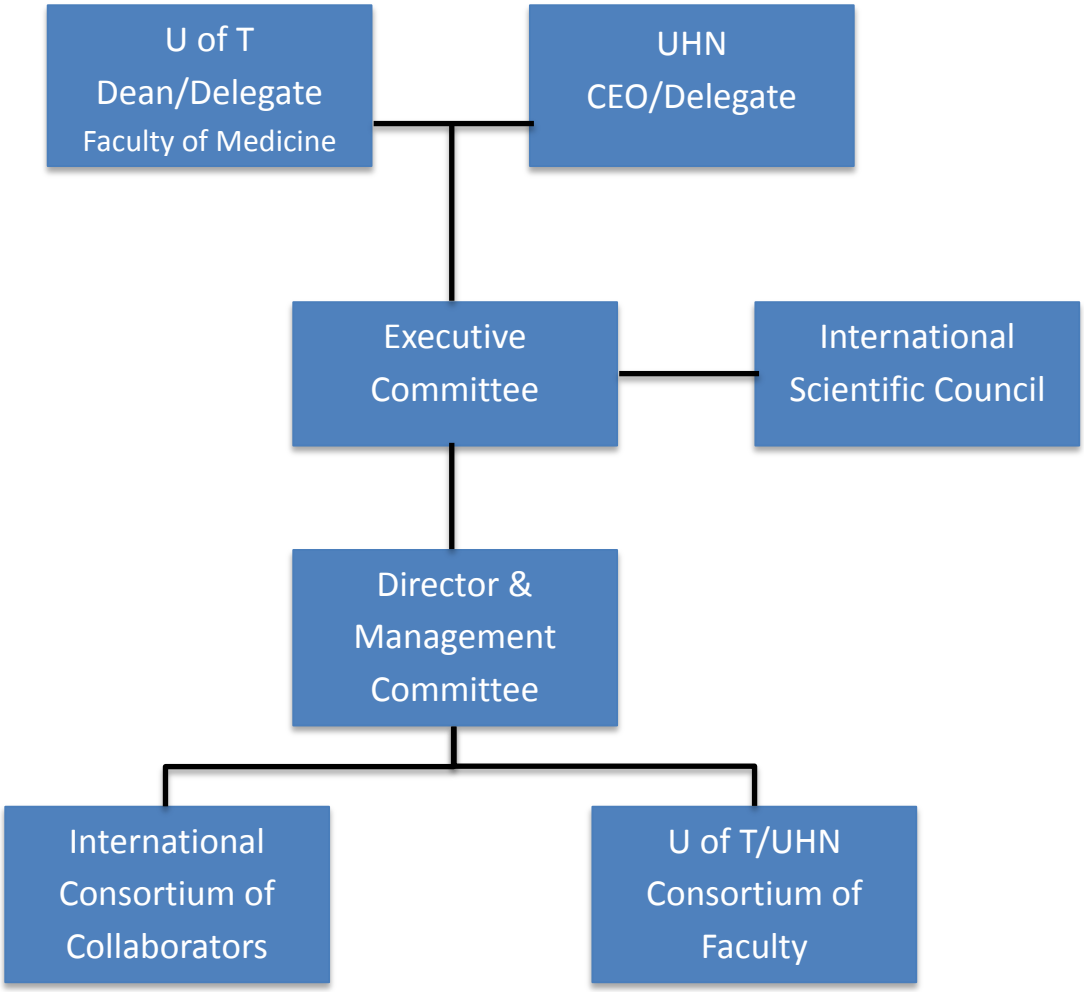
International Scientific Council

An International Scientific Council will be struck by the Executive Committee and approved by the Dean. This Council will meet at least every two years to provide guidance from an international perspective to the Institute and the Executive Committee. The Council will report in writing to the Executive Committee and the Dean regarding the achievements of the Institute in relation to its stated goals and objectives and provide advice regarding potential future research directions.

Director

The Director will be an ex-officio member of the Executive Committee. Under the guidance of the Executive Committee, the Director will be responsible for all policy, academic and administrative activities of the Institute, including appointment and oversight of the theme coordinators. A Business Officer will provide administrative support for the Director of the Institute and will report directly to the Director. Within the first six months, the Director will prepare a comprehensive five year strategic academic plan that will be approved by the Executive Committee. Annual review of the Director and the Institute will be focused on the fulfillment of the strategic plan. Annual goals will be updated according to new priorities, research findings and opportunities. The Director will sit on the Executive Committee, and will dually report to the UHN CEO/delegate and Dean of the Faculty of Medicine directly regarding GIPPEC operations.

Governance Model



5.0 Budget

Both the Princess Margaret Cancer Centre and the University of Toronto will provide resources to enable the initial structure and functioning of the proposed new Institute. The GIPPEC has already been designated as a strategic priority for fundraising within the Billion Dollar Campaign of the Princess Margaret Cancer Foundation. Fundraising by the University of Toronto for the Institute will be led by the Faculty of Medicine under the authority of the Dean, in collaboration with the advancement teams of the major contributing faculties, departments and affiliated hospitals and research institutes. Revenue will also be sought from the major contributing faculties, departments and affiliated hospitals and research institutes. This will include support for faculty remuneration and research infrastructure, seed funding for innovative research programs, and support for trainees and administrative staff. The business plan will be based on, but is not limited to, revenues from the major contributing faculties, departments and affiliated hospitals and research institutes. Once approved, the business plan will be codified in a Letter of Agreement between the President & CEO of UHN, and the Dean of the Faculty of Medicine. The proposed GIPPEC is an EDU:C and as such, the Director is not appointed under the University of Toronto's Policy on Academic Administrative Appointments. As a consequence an EDU:C may not administer research funds or enter directly and on its own authority into commitments / agreements / contracts. All monies and research funding will flow through the Dean's Office in line with the Faculty's normal practice. Any research contracts or agreements similarly require approval and the signature of the Dean. Similarly, any contracts or agreements with other institutions including international institutions require review by the Provost's Office and the support of the Dean.

5.1 Budget Summary

3 Year Budget

Budget Summary	Year1: Start-up	Year 2	Year 3
Expenses			
Operational Personnel			
Director of GIPPEC	$125,000	$125,000	$125,000
Business Manager	$120,000	$120,000	$120,000
Research Coordinator (@ $62,500/Research Coordinator)		$62,500	$62,500
Fellowship	$60,000	$60,000	$60,000
Academic Resources			
UHN Senior Scientist	$150,000	$150,000	$150,000
Core Faculty (@ $100,000/Faculty)	$200,000	$300,000	$400,000
Associate Faculty (@25,000/Faculty)	$50,000	$100,000	$150,000
Visiting Professorships		$25,000	$25,000
Business Development			
Annual Conference (International Scientific Council)	$30,000	$30,000	$30,000
Travel (conferences/education/ speaking engagements)	$20,000	$20,000	$20,000
Operating Expenses (computers, phones, consumables)	$20,000	$25,000	$30,000
Total	**$775,000**	**$1,017,500**	**$1,172,500**
Grand Total	**$2,965,000**		

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

FOR APPROVAL

TO:	Faculty Council
SPONSOR:	Catharine Whiteside, Dean, Faculty of Medicine
CONTACT INFO:	Catharine.Whiteside@utoronto.ca
DATE:	May 5, 2014
AGENDA ITEM:	4.3.1
ITEM OF BUSINESS:	Proposal for the Transfer of the IHPME to the DLSPH

JURISDICTIONAL INFORMATION:

The establishment, disestablishment, significant restructuring, or renaming of a Faculty, Department, or Extra Departmental Unit: A or B is subject to University governance.

GOVERNANCE PATH:

1. Graduate Education Committee [For approval] – March 18, 2014
2. Research Committee [For approval] – March 20, 2014
3. Education Committee [For approval] – March 27, 2014
4. Continuing Professional Development Committee [For approval] – April 2, 2014
5. Faculty Council [For approval] - May 5, 2014
6. Committee on Academic Policy and Programs [For approval] - May 13, 2014
7. Academic Board [For approval] – June 2, 2014

CONSULTATIVE PATH:

- IHPME Senior Administrative Committee (June 2013)
- IHPME faculty meeting (June 2013)
- IHPME Graduate Student Union Executive (January 2014)
- IHPME students town hall (February 2014)

HIGHLIGHTS:

This document follows on the Report of the Dalla Lana School of Public Health and Institute of Health Policy, Management and Evaluation Steering Group and is a proposal for the transfer of the Institute of Health Policy, Management and Evaluation (IHPME) from its current home faculty (Medicine) to a new home faculty of the Dalla Lana School of Public Health (DLSPH) effective 1 July 2014. Under the proposed transfer, IHPME will maintain its EDU-A status and its status as a distinct graduate unit; it will

retain its current executive committee structure and membership; and it will continue to offer its existing suite of approved academic programs. In addition, as part of the proposed transfer, the parties have agreed that the members of the DLSPH currently focused on public health policy will become members of IHPME and any new programs in health policy will be offered through IHPME. The course offerings and MSc/PhD enrollment at IHPME will be expanded to reflect this addition.

PROPOSED MOTION:

> *"THAT the proposal to transfer of the Institute of Health Policy, Management and Evaluation from its current home faculty (Medicine) to a new home faculty of the Dalla Lana School of Public Health effective July 1, 2014 be approved as submitted."*

05 March 2014

Proposal for Transfer of the Institute of Health Policy, Management, and Evaluation from the Faculty of Medicine to the Dalla Lana School of Public Health

Summary

This document follows on the Report of the Dalla Lana School of Public Health and Institute of Health Policy, Management and Evaluation Steering Group and is a proposal for the transfer of the Institute of Health Policy, Management and Evaluation (IHPME) from its current home faculty (Medicine) to a new home faculty of the Dalla Lana School of Public Health (DLSPH) effective 1 July 2014. Under the proposed transfer, IHPME will maintain its EDU-A status and its status as a distinct graduate unit; it will retain its current executive committee structure and membership; and it will continue to offer its existing suite of approved academic programs. In addition, as part of the proposed transfer, the parties have agreed that the members of the DLSPH currently focused on public health policy will become members of IHPME and any new programs in health policy will be offered through IHPME. The course offerings and MSc/PhD enrollment at IHPME will be expanded to reflect this addition.

Academic Rationale

As discussed in detail in the Steering Group Report (http://www.ihpme.utoronto.ca/about/institute/strategic2013.htm and http://www.dlsph.utoronto.ca/page/major-new-initiatives and Appendix 1), the shift of home faculty from Medicine to Public Health for IHPME promises to enhance the global position and capacity of the University of Toronto among other Universities to lead research and education that can improve health care, health system design, and public and population health. Together, faculty members already in DLSPH and in IHPME will be able to work together to address critical questions affecting health systems around the world on sustainability, population health, effective and sustainable health systems, and the experience of patients, families and providers; an academic goal that neither unit could accomplish, as effectively, on their own. Together the two units bring a wide range of quantitative and qualitative methods and disciplinary depth that includes epidemiology, clinical epidemiology, biostatistics, sociology, economics, health services research, political science, occupational and environmental health, ethics, sociology, preventive medicine, management studies, and behavioural sciences to address the full scope of health problems today. This scope and the ability to demonstrate global leadership will ensure that DLSPH and IHPME will be able to attract the best graduate students, create a pipeline of accomplished undergraduate students, and demonstrate scholarly leadership and real-world impact on health care, health system design, and population health. Together, the two academic units will be able to address critical questions in clinical policy (how, and what, care should be delivered), population health policy (how to elevate overall health and the broader determinants of health), and health system design, as well as how these elements can and should work together.

The University of Toronto has already committed to creating a leading scholarly academic unit in public health, health policy, and health services research and administration in DLSPH. The landmark gift of the Dalla Lana family to DLSPH provides the foundation for this vision that is being further supported by an ambitious plan for a formal advancement campaign, the first for a school of public health in Canada. Together, DLSPH and IHPME have the capacity to create such an environment; these units comprise the largest collection of Public Health, Population Health, Clinical Epidemiology, Health Services Research, and Health Policy scholars in Canada. As such,

the existing collaborations with the other health sciences including the Clinical Departments in the Faculty of Medicine will be deepened and broadened for advantage to all stakeholders. The shift in lead faculty for IHPME will further expand the capabilities of the DLSPH – already the largest school of public health in Canada – to become one of the largest and highest impact schools in the world. It will also address the critical need of ensuring capacity in the DLSPH necessary for the DLSPH to meet the disciplinary expectations set by international credentialing bodies for full-service schools of public health in today's world. The resulting School will also have a remarkably broad scope and – because of the inter-disciplinary nature of the IHPME and existing faculty in the DLSPH – the DLSPH will have some of the strongest connections across disciplines and faculties of any school of public health. By working together, the IHPME and existing faculty within the DLSPH will be able to address key elements of the rationale for their evolution to Faculty (DLSPH) and EDU-A (IHPME) status noted in their proposals. For IHPME, this is the strengthening of inter-disciplinary research that supports the achievement "of better health at a lower cost." For DLSPH, this is the ability to "generate the discoveries and train the next generation of graduates needed to address the enormously complex and interconnected challenges facing the health of populations."

Consultation

There has been substantive consultation on the relationship between the IHPME and the DLSPH over the past four years. The proposal for the transformation of the Department of Health Policy, Management, and Evaluation into an EDU-A (IHPME) was the product of extensive consultation and wide support and included the commitment to a stronger partnership and planning with the DLSPH. This document (approved in 2011) was followed up by a strategy development process that culminated in January 2013 with the creation of a new 5-year strategy for IHPME that committed to "Forge a stronger partnership with the Dalla Lana School of Public Health and other academic units to increase our ability to impact health and health systems."

Starting in January 2013, the Director of IHPME met with all tenured faculty within IHPME to discuss the possibility of transferring the home faculty for IHPME from the Faculty of Medicine to the DLSPH and other opportunities for collaboration. These discussions were followed up by a steering committee composed of senior representatives from IHPME and the DLSPH and chaired by Catharine Whiteside (Dean of the Faculty of Medicine) to make recommendations to create a stronger relationship between DLSPH and IHPME. This committee finished its deliberations in May 2013 and approved a final report. This report laid out the proposed transition of the HPME to the DLSPH described above and is mounted on the website of both academic units.

This report and other issues around the proposed transition were discussed and endorsed at an IHPME Senior Administrative Committee meeting (June 2013) that included representation from all IHPME programs. This report and other issues about the transition were discussed and endorsed at a subsequent IHPME faculty meeting (June 2013) to which all faculty members (including status-only, adjunct, and cross-appointed faculty) were invited. Later that year (September 2013), the faculty members focused on public health policy in the DLSPH met and discussed and unanimously endorsed the proposed integration into IHPME.

In order to reassure students that the transition will be seamless and that there will be no effect on their studies, funding, or other important matters, the report and proposed transition has been discussed and endorsed at a meeting with the IHPME Graduate Student Union Executive (January 2014) and has been discussed at a town hall style meeting to which all IHPME students were

invited (February 2014). Finally, additional meetings were held with the Clinical Epidemiology and Healthcare Research Executive Committee (a program composed of status-only, cross-appointed, and adjunct faculty in IHPME focused on clinical epidemiology) (February 2014) and with all staff at IHPME (January 2014) In each case any issues about the proposed transition and were either resolved or referred to committees designed to address these issues.

Similar discussions about the report and the proposed transition were held at the DLSPH Faculty Meeting (November 2013) and DLSPH School Council Meeting (November 2013) and again endorsement was enthusiastic.

Transfer of programs

All existing programs currently offered by the IHPME will move with the EDU including:

i. Master of Health Science in Health Administration, M.H.Sc
ii. Master of Health Informatics, M.H.I.
iii. Doctor of Philosophy in Health Policy, Management and Evaluation, Ph.D.
iv. Master of Science in Health Policy, Management and Evaluation, M.Sc.

Transition Planning

The Steering Committee Report dealt with many of the most important and strategic issues facing the proposed transition of the IHPME to the DLSPH. This report addressed the academic rationale for the transition, laid out key terms of the proposed transition such as maintaining IHPME's EDU-A status, its distinct status as a graduate department, its existing programs, and its current set of accountabilities and authorities. The report recommended maintaining the current executive committee structure and representation but shifting the chair of that committee to the Dean of the DLSPH.

In bringing forward this proposal for the transfer of IHPME to the DLSPH, the Deans of Public Health and Medicine and the Director of IHPME have worked with colleagues to clarify a wide range of matters arising from the transition including:

Students: The transition will be seamless for IHPME students; nothing will change on their transcript or degree parchment. Their academic programs will remain unchanged.

Faculty: Likewise, the transition will be similarly uneventful for faculty members On July 1st, IHPME faculty members will receive a re-issued letter of appointment reflecting the change in Faculty. Nothing in the status of their appointment will change. All current cross-appointments (except for cross-appointments in DLSPH) will remain the same as will rank, tenure, and eligibility for promotion. The Dean of Medicine, the Director of IHPME, and the Dean of DLSPH have all agreed that they will support any IHPME faculty members who wish a cross-appointment in Faculty of Medicine Clinical Departments appropriate to their scholarly work.

Staff and Immediate Space Concerns: The transition will have no impact on staffing. DLSPH and IHPME already sit on adjacent floors in the Health Sciences Building so there will be no need for reallocation of space or moves to support the transition.

Budget: The budget disaggregation process whereby the IHPME budget will be shifted from the Faculty of Medicine to the DLSPH has been completed and the transfer of the budget will be overseen by the Deans of each Faculty in consultation with the Director of IHPME.

To ensure that neither division is financially disadvantaged by the transition, the Faculty of Medicine and DLSPH agree to a base budget transfer that recognizes the historical budget allocations made to IHPME and keeps the IHPME budget whole in the transition year. Effective 2014-15, DLSPH will be allocated the operating revenues associated with the programs in IHPME, and will be responsible for the IHPME share of centrally managed student aid and university-wide costs. Going forward, DLSPH will be responsible for incorporating the expenses associated with IHPME into the DLSPH overall expense budget. The Dean of DLSPH will determine the methodology for internal expense budget and resource allocations to IHPME effective 2015-16, and will discuss the methodology with the Director of IHPME as part of the transition process.

To facilitate further the transition process, DLSPH and IHPME have struck four committees that are populated by equal numbers of members from each academic unit (See Appendix 2: Committee Terms of Reference). The five committees are:

i. *Governance* that is establishing the Terms of Reference for Education (to which curriculum committees report), Faculty Appointments and Promotions, and Senior Administrative Committees and harmonize requirements for appointment to IHPME and other parts of DLSPH. It is also addressing changes to the DLSPH School Council and Dean's Advisory Board. This committee made its first report in March. Faculty meetings in IHPME and DLSPH are used to shape and determine final recommendations from this committee in an iterative process.
ii. *Operations and Space* that is supporting the integration of processes across IHPME and DLSPH for effective operations. This committee made its first report out in March on these issues. This committee will also address future space needs for IHPME and DLSPH in an integrated fashion. Faculty meetings in IHPME and DLSPH are used to shape and determine final recommendations from this committee in an iterative process.
iii. *Communications, Advancement, and Alumni Relations* is defining branding standards, opportunities to link communications activities and communications personnel (linked to operations group above). This committee is building on the current communications activities taking place in both academic units and will support the brand of both academic units. This committee made its first report in March. Faculty meetings in IHPME and DLSPH are used to shape and determine final recommendations from this committee in an iterative process; and
iv. *Impact on Graduate Life* is ensuring that the transition for students is seamless and that policies support effective graduate programming. Although work already completed suggests the transition will be seamless for students this committee made its first report in April and will continue to meet for six months following the transition to ensure a positive student experience. Faculty meetings in IHPME and DLSPH and town halls with students in IHPME and DLSPH are used to shape and determine final recommendations from this committee in an iterative process.
v. *Stress Testing* was a special committee composed of IHPME faculty who met repeatedly to explore scenarios around the transition and ensure that faculty members

were fully engaged in transition planning and had explored all potential issues. Faculty meetings in IHPME were used to shape and determine final recommendations from this committee in an iterative process.

Together these efforts, combined with ongoing and regular consultation with faculty and students in each academic unit, have created a blueprint for the successful transition of IHPME.

APPENDIX 1: Steering Committee Report

Report on the Deliberations of the Dalla Lana School of Public Health and the Institute of Health Policy, Management, and Evaluation Steering Committee

Executive Summary

Under the leadership of the Dean of Medicine, the leaders and faculty members from the Dalla Lana School of Public Health (DLSPH) and Institute of Health Policy, Management, and Evaluation (IHPME) worked as a Steering Committee during the Spring of 2013 to create a plan to transition the home Faculty for IHPME from the Faculty of Medicine to the DLSPH (which was slated at the time to become a Faculty by July 1 of 2013) while maintaining the current accountabilities, authorities, and programs of the IHPME. This transition is based on the shared vision of the DLSPH and IHPME to improve health, and to capitalize on points of strategic alignment to build innovative educational offerings and impactful programs of research. Key recommendations from the Steering Committee include: the lead Faculty for IHPME will become the DLSPH; membership of the Executive Committee for the IHPME will stay the same; the IHPME will retain the same accountability and authority that it has today; both the DLSPH and the IHPME will maintain a strong relationship with the Faculty of Medicine, and the Faculty of Medicine strongly values these relationships; there are substantial opportunities for synergy between the DLSPH and IHPME in terms of new graduate and undergraduate programs; shared graduate course offerings; the development of new and important lines of research; and the creation of a comprehensive home for health services, clinical epidemiology, and health policy scholarship at IHPME. Assuming approval of these recommendations, the leader of the DLSPH (who transitioned from Director to Dean, when the DLSPH became a Faculty on July 1, 2013) and the Director of IHPME will work to implement the transition within the 2013-2014 academic year.

Purpose

In March 2013, the Provost and President of the University of Toronto asked the Dean of Medicine to chair a steering committee to make recommendations to create a stronger and closer collaboration between the Dalla Lana School of Public Health (DLSPH) and the Institute of Health Policy, Management, and Evaluation (IHPME) (Terms of Reference in Appendix 1). This committee was to work under several key principles. Chief among these was that the DLSPH become the lead Faculty for the IHPME. This report is the result of the Committee's deliberations, and provides a framework for the shift in leadership for the Institute from the Faculty of Medicine to the DLSPH.

A History of Excellence in DLSPH and IHPME

The History of DLSPH and IHPME are closely intertwined. By the 1920s, the University of Toronto had established a world-leading school of public health (Hygiene) that evolved over time to include a large number of programs and areas of scholarly endeavour. These areas spanned disease control, population health, hospital administration, health policy, epidemiology, clinical epidemiology, and biostatistics. However, by the 1970s, the departments in the School of Hygiene were absorbed into the Faculty of Medicine as the Division of Community Health and the School was closed.

Over the subsequent several decades these departments have re-organized at regular intervals to create two leading foci of scholarship. One focus is largely on public health and population health, with the associated activity situated within in the Department of Public Health Sciences. The other focus is on healthcare, health services research, clinical epidemiology, and health policy where associated activities are grouped together in the (now) Institute of Health Policy, Management & Evaluation (initially, the Department of Health Administration).

In 2006, the Provost requested that the Dean of Medicine launch a process to evolve the Department of Public Health Sciences into a School of Public Health. In 2008, the School was launched. Also in 2008, a generous gift from Paul and Alessandra Dalla Lana provided the financial foundations that made feasible a School with global aspirations. At the time this report was first generated in the Spring of 2013, the DLSPH was close to final approval for its application for status as an independent faculty; this transition came to a successful conclusion with approval by the University of Toronto Governing Council on July 1, 2013.

The DLSPH is building capacity within public health and population health while maintaining close connections with the Faculty of Medicine. Within the DLSPH there are centres and institutes that take a variety of forms (i.e., EDU-C and EDU-B) in critical areas of public health and health policy scholarship such as the newly created Institute for Global Health Equity and Innovation. The integration of public health with clinical medicine, particularly with Family and Community Medicine, is recognized as a continued, key priority for both the DLSPH and the Faculty of Medicine. The postgraduate MD residency program in Public Health & Preventive Medicine attests to a long-standing integration between public health sciences and primary care education and scholarship. Close partnerships with the affiliated hospitals, e.g., Inner-city Health at St. Michael's Li Ka Shing Knowledge Institute, and with external agencies such as the Institute for Work and Health and Public Health Ontario, exemplify the outreach of scholarship into the broader community of stakeholders, including government. Over the years, partnerships with basic science departments that have a translational and professional component, e.g., Nutritional Science, and Statistics, have been very successful. With financial incentive provided by the Provost, the DLSPH has now assumed responsibility for developing new undergraduate Arts & Science courses in public health. The planning for launch of a joint MD/MPH program in 2014 is well underway.

Many years ago, the Department of HPME (formerly Health Administration) separated from the other departments within the Division of Community Health to create capacity, and to recognize the rapidly developing line of scholarship, in health administration and health services and policy research. Over the last two decades, this Graduate Department has developed into an inter-disciplinary unit that collaborates with clinical departments, other faculties, the Institute for Clinical and Evaluative Sciences (ICES), provincial and federal government agencies, e.g., Cancer Care Ontario (CCO) and CIHI, and affiliated hospitals, other healthcare providers, and research institutes in a broad array of scholarship related to clinical evaluation, health services research, health economics, health informatics, quality and patient safety, health administration, and health policy. The graduate degree programs are both professional and doctoral. The masters' and doctoral level degree programs now include concentrations in Health Services Research, Clinical Epidemiology and Health Care Research, Health Technology Assessment and Management, and Quality Improvement and Patient Safety (masters' level only). The Clinical Epidemiology and Health Care Research Program deserves special mention as it provides a graduate unit home to a group of largely clinical scholars (i.e., holding primary appointments in clinical departments) who

have come together to create one of the largest clinical epidemiology units in North America within the IHPME. IHPME is also now the home of the new Leadership Program (LEAD) for undergraduate medical students and the plan for the launch of a series of joint MD-Master's degrees offered through IHPME is underway. In 2011, a proposal for this graduate unit to transform into an EDU-A was approved by the Faculty of Medicine Council, Academic Board, and Governing Council. This effectively changed the unit's status within the University to an interdisciplinary and inter-Faculty unit, with the Faculty of Medicine identified as the lead faculty.

Strong Existing Connections between the DLSPH and IHPME

IHPME's Executive Committee now includes representation from the Faculties of Medicine, Public Health, Nursing, Pharmacy, and Information Sciences. It is important to note that this does not encompass the full range of partnerships for IHPME who have faculty cross-appointed, or with home appointments, across the University.

The proposal for the creation of IHPME as an EDU-A and the evolution of the DLSPH to faculty status both stress the importance of closer collaboration between the IHPME and the DLSPH as an important strategic direction for the Faculty of Medicine and the University of Toronto. This strategic direction was reconfirmed as part of recent DLSPH and IHPME strategic planning retreats.

Although not deliberately aligned, the recent strategic development processes for the two academic units identified a number of similar themes. Chief among these themes is the desire to work towards impactful initiatives in health and health systems that transcends the disciplinary foci of either unit. The strategies for both units also identified similar mechanisms for achieving this goal, including a strong emphasis on partnerships with similar groups (clinical departments, healthcare providers or public health practitioners, and government ministries and agencies).

It is worth noting that there are strong existing collaborations and overlap between the two academic units. Both units belong to many of the same collaborative programs and one of them, the Collaborative Program in Public Health Policy, is led by DLSPH faculty members but heavily engages IHPME faculty members. There are a large number of faculty members who have appointments in both academic units, including the Director of IHPME. Extra-Departmental Units, such as the Joint Centre for Bioethics, rely heavily on both academic units and faculty members from both units who work with a strongly overlapping set of health system partners such as Public Health Ontario, Cancer Care Ontario, TAHSN Hospitals, and others. There are also a large number of existing collaborative research projects involving both academic units, some shared courses, and frequent guest lecturing by faculty members in both units.

Identification and pursuit of further opportunities for synergy and alignment between the two units will be critical to their continued success under the new governance model. Both units face an increasingly competitive local and global market as they seek research funding, philanthropy, and – perhaps most importantly – talented faculty and students. Major fund-raising campaigns are underway at most Ontario hospitals that rival the University's "Boundless" campaign and that play to similar messages regarding the potential contributions of the DLSPH and IHPME to improving health and a sustainable health systems. Both academic units compete on a global stage against universities that presently present a more coherent picture of how public health and health services and health systems scholars work together. And most of the competition has a longer history of

such a coherent picture than can be offered by the University of Toronto, and a stronger global track record in bringing a cohesive set of researchers to the world's public health and health system problems. Going forward, a comprehensive inventory of overlapping activities will be prepared that will provide the foundation for how the two academic units can create a hub to support collaborative research on how to improve health and sustainability.

The shift of home faculty from Medicine to Public Health for IHPME stands to enhance the global position of the University of Toronto among other institutions with capacity to improve health care, health system design, and public and population health through research and training. Together, these two units will be able to work together to address critical questions affecting health systems around the world on sustainability, population health, effective and sustainable health systems, and the experience of patients, families and providers – a feat that neither unit could accomplish, as effectively, independently. Together the two units bring a wide range of quantitative and qualitative methods and disciplinary depth that includes epidemiology, clinical epidemiology, biostatistics sociology, economics, health services research, political science, sociology, and behavioural sciences to global health system challenges. This scope and ability to demonstrate global leadership in these areas will ensure that the academic units can attract the best graduate students, create a pipeline of accomplished undergraduate students, and demonstrate scholarly leadership and impact on health care, health system design, and population health. Together, the two academic units will be able to address critical questions in clinical policy (how, and what, care should be delivered), population health policy (how to elevate overall health and the broader determinants of health), and health system design, as well as how these elements can and should work together.

Vision

The University of Toronto has committed to creating a leading scholarly centre in public health, health policy, and health services research and administration at the DLSPH. The landmark Dalla Lana Gift to the DLSPH provides the foundation for this vision which is being further supported by ambitious fund-raising. Together, the DLSPH and the IHPME have the capacity to create such a centre; these units comprise the largest collection of Public Health, Population Health, Clinical Epidemiology, Health Services Research, and Health Policy Scholars in Canada. The shift in lead faculty will make the DLSPH the largest school of public health in Canada and one of the largest in the world. The School will also have a remarkably broad scope and – because of the inter-disciplinary nature of the IHPME – the DLSPH will have some of the strongest connections across disciplines and faculties of any school of public health. By working together, both academic units will be able to address key elements of the rationale for their evolution to Faculty (DLSPH) and EDU-A (IHPME) status noted in their proposals. For the IHPME, this is the strengthening of inter-disciplinary research that supports the achievement "of better health at a lower cost."

A Decision to Work Together

After internal consultation led by the current directors of the DLSPH and the IHPME, work has begun on a joint strategy that will capitalize upon the strengths of both units, will afford the DLSPH the additional expertise in health policy and health services administration that completes the Dalla Lana vision and advances the DLSPH's formal status as a Faculty, and will support future collaborations among the researchers in these units and, where appropriate, graduate programs. The shift in lead faculty will also help IHPME realize its strategy that stresses improving health and

creating sustainable health systems; the shift will create a larger community of scholars who will want to work with the Institute, and it will afford a stronger platform for advancement activities.

Given the support for each academic unit's strategy that this shift will effect, both units were able to agree by the end of April 2013 to the following principles and goals:

The following principles and goals were reviewed and agreed to at the first meeting of the DLSPH-IHPME Steering Group, are supported by the Dean of Medicine, and were reviewed by the IHPME Executive Committee in May 2013.

1. The DLSPH is on track to become a Faculty as of July 1, 2013 with its own Dean[1]
2. The IHPME will remain an EDU-A with its own Director
3. The Lead Faculty for IHPME will transfer from the Faculty of Medicine to the DLSPH
    a. The Dean of Public Health will chair the Executive Committee instead of the Dean of Medicine
    b. The membership of the Executive Committee for IHPME will remain the same (Deans of Medicine, Nursing, Pharmacy, and Public Health)
    c. The DLSPH values and will support the IHPME brand
    d. Following the process that was conducted to separate the budget of the DLSPH from Medicine to establish the DLSPH as a Faculty, a similar process will be undertaken to separate the IHPME budget from that of Medicine to coincide with transfer of lead Faculty to the DLSPH
4. IHPME will retain the same authority and accountability that it has today around
    a. Hiring of faculty members
    b. Recommending Promotion of faculty members
    c. Administrative and financial management
    d. Graduate education and research programs administered through its own graduate unit
    e. IHPME will not be subject to disproportionate budget reductions once in DLSPH nor disproportionately lower increases in general revenues growth
5. The DLSPH and the IHPME will maintain a strong relationship with the Faculty of Medicine, particularly with the clinical departments. The Faculty of Medicine strongly values these relationships.
6. The repositioning of the DLSPH as the lead faculty for the IHPME must be informed by a vision based on better health and health systems and not simply on structural considerations.
7. There are substantial and immediate opportunities for synergy between the DLSPH and IHPME
    a. Course offerings can be shared between the two academic units, particularly in the areas of biostatistics and health policy
    b. There are a number of identified research themes that will attract faculty members from both academic units
    c. The IHPME can provide a comprehensive home for health policy (including public health policy) scholarship

[1] This transition has now occurred and the DLSPH became a stand-alone faculty as of July 1, 2013.

These goals and principles entail a number of administrative and governance changes. These will affect reporting structures, appointment policies, and will create opportunities for shared administrative activities. Some of these changes are self-evident but are listed below:

1. The DLSPH provides oversight for the IHPME
    a. The Director of IHPME reports primarily to the Dean of the DLSPH instead of the Dean of Medicine
    b. The Dean of the DLSPH assumes chairmanship of the IHPME Executive Committee
    c. The Budget for the IHPME is separated from the Faculty of Medicine and moved to the DLSPH.
    d. Faculty Council for DLSPH is expanded proportionately given the addition of IHPME faculty members, with corresponding amendments to the DLSPH and Faculty of Medicine constitutions.
2. The DLSPH provides the home faculty for the IHPME
    a. The DLSPH's committees are the appropriate location for pre-Provostial/Governing Council approval where faculty-level approval is required
    b. New appointments and promotions within the IHPME are made to the IHPME with DLSPH as the home faculty unless otherwise appropriate.
    c. IHPME faculty members will have cross-appointments to the appropriate department within the Faculty of Medicine if they desire them. Clinical Epidemiology (clinical faculty) will maintain their home appointments in the Faculty of Medicine.
    d. Members of the IHPME will need to have strong proportionate representation on the relevant faculty level committees.
    e. The DLSPH and the IHPME will need to ensure that their appointments policies provide a consistent picture of the need for service to the relevant academic unit in exchange for the privileges of appointment
    f. The DLSPH and the IHPME will need to create a coherent plan for space, and administrative and communications support. Both academic units will retain their own business managers.
3. The IHPME provides a comprehensive home for health services, clinical epidemiology, and health policy
    a. The IHPME and the DLSPH work together to create sustainable course offerings in health policy, health services management, and public health policy that meet the learning objectives of MPH and other public health students
    b. The budget for Public Health Policy is reassigned from the DLSPH to IHPME, the Public Health Policy Division is decommissioned and IHPME and DLSPH build strength and scholarly focus in public health policy as part of health policy
    c. IHPME develops a principle area of study in Public Health Policy within the Health Services Research MSc and PhD but other graduate programs stay unchanged
    d. The Director of the IHPME is also the Dalla Lana Chair of Public Health Policy

Appendix 1 below provides a graphical representation of how the changes will affect the organization of each academic unit

The leaders of the DLSPH and the IHPME agreed to begin planning for these changes after the DLSPH becomes a faculty and to complete implementation of these changes in the 2013-2014 academic year. As noted in the proposed organizational chart below, the IHPME will be different from a division within the DLSPH and will function as it does today within the Faculty of Medicine as an inter-disciplinary department. This means that faculty members may actually hold appointments within divisions of the DLSPH and the IHPME as many do today.

Opportunities for Stronger Collaboration

In addition to the opportunities for working together on courses noted above (refer to item #7), the DLSPH and the IHPME have substantial opportunities for collaboration in developing new undergraduate and post-graduate medical education initiatives that build on current programming in both academic units. This is particularly true in the area of undergraduate education where the DLSPH and the IHPME are in the position to lead programming that will increase the understanding and capacity for health system policy and management and create a pipeline of talented undergraduates looking for graduate education in health sciences.

The repositioning of the DLSPH as the lead Faculty for the IHPME also present substantial opportunities for collaborations in research. At the second DLSPH-IHPME Steering Committee meeting, a number of these opportunities were identified and will be supported by an "initiatives fund".

There was substantial discussion of topics for shared work in methodological and conceptual/theoretical areas that would then be applied to questions in health – economics, evaluation, community oriented research, systems change, systems thinking, integrated knowledge translation and implementation science. All of these areas create opportunities for partnerships across the University, and across the health system. This collaborative approach creates the opportunity to train practitioners in systems change – thinking and planning – that has huge growth opportunities in Ontario, in the North, and around the World. Within the next 5 years or so, global governments will be looking for assistance in shaping or revising the health systems within their own countries. Building from IHPME's capacity in integrated knowledge transfer, the two academic units will be able to offer a wide range of solutions that extend beyond traditional educational and independent research projects. A deliberate strategy will need to be created in order to anticipate the needs of developing countries and ensure that the DLSPH and the IHPME are positioned to address them when the time comes.

Given the wealth of opportunities likely to confront the DLSPH and the IHPME as they begin working together, the DLSPH-IHPME Steering Committee also identified a number of principles to help identify areas of collaborative research that should be supported. These were:

1. The initiative requires strong faculty engagement (more than one member), interest, and the identification of more than one dedicated leader willing to champion the initiative
2. The initiative provides a vehicle for the health system and public population health efforts to drive one of the Triple Aim goals – better health, health sustainability, better patient experience.
3. The initiative links to priority policies at the University, Toronto, Ontario, the North and abroad (strategically positioned) – with relevance and importance locally (Ontario and the North), nationally and internationally

4. The initiative is feasible, has opportunity for support from current funding opportunities, and utilizes strategic partnerships across the University

The Steering Committee also identified a number of potential opportunities for shared support for infrastructure that are being addressed by a sub-committee led by the business managers for the DLSPH and the IHPME. This will include the consideration of sharing resources to support critical elements of infrastructure such as communications and advancement staff.

Finally, the repositioning of the DLSPH as the lead Faculty for the IHPME provides an opportunity to forge even stronger links with key partners such as ministries, provincial agencies, TAHSN hospitals, and other health care system organizations to support person oriented and health systems research. This opportunity for integrating the DLSPH and the IHPME into advisory structures for these groups will be pursued by a sub-committee of the two academic units in partnership with the Faculty of Medicine.

Next Steps

The DLSPH and the IHPME will implement the transitions outlined above within the 2013-2014 academic year. However, it will be important to have strong and inclusive consultation on these transitions. To support this sort of consultation, the Director of IHPME will table these proposals with the IHPME Executive Committee in the 2013-2014 Academic Year. The Dean of DLSPH will also table these with the DLSPH School Council in the same timeframe. Following these consultations, the Dean of the DLSPH, the Director of IHPME, and the Dean of Medicine will review the proposed transitions with the University leadership and begin work on the analysis necessary to realign the IHPME, DLSPH and Faculty of Medicine budgets. Following this analysis, the Dean of the DLSPH, the Director of IHPME, and the Dean of the Faculty of Medicine will inform (and take forward the proposed transitions for approval, as necessary to) the Planning and Budget Committee, Academic Board, and Governing Council.

The Steering Group had its last meeting on May 22nd, 2013. However, the Steering Group members will continue to meet with the Dean of the DLSPH and the Director of IHPME acting as co-chairs to discuss further plans for implementation and address new issues in the proposed transition as they arise.

Appendix 1
Membership of the DLSPH-IHPME Steering Committee

Catherine Whiteside (Chair)
Elizabeth Badley
Ahmed Bayoumi
Whitney Berta
Adalsteinn Brown
Brian Corman (External)
Michelle Deeton
Vivek Goel (External)
Howard Hu
Robin Hurst
Andrea Sass-Kortsak

05 March 2014

Tina Smith
Ross Upshur

Appendix 2. Terms of Reference of Four Committees for Planning Transition

Committee	Goals	Potential Membership	Deliverables	Deadline
Governance	Ensure that the governance structure, documents, and processes and budget for IHPME and DLSPH include and recognize transfer of IHPME home faculty from Medicine to Public Health Standardize policies and processes for appointments and promotion	H Hu (co-Chair - DLSPH) A Brown (co-Chair) - IHPME R Cockerill (IHPME) A Sass-Kortsak (DLSPH) B Harvey (DLSPH) G Anderson (IHPME) T Myers (DLSPH) S Dell (IHPME) Robin Hurst (DLSPH) Mihai Baetu (IHPME) V Goel (DLSPH and IHPME) Student Representatives (DLSPH and IHPME) (M Buhagiar-staffing)	*First Priorities* Approve IHPME Budget for transfer Approve DLSPH Committee Structure, TOR, and Membership (Executive, Dean's Advisory, Education, Appointments and Promotions) Prepare an amended DLSPH School Constitution that includes IHPME *Second Priorities* Standardized policies and processes for Complete letter of agreement among IHPME, DLSPH, and FOM on academic vision and other issues appointment and promotions Standardized policies and processes for examinations approval and curriculum committees outputs	March
Operations and Space	Propose opportunities for shared administration and space within principles of Steering Committee Report Identify other policies that vary between academic units and standardize these processes	A Sass-Kortsak (co-Chair - DLSPH) R Cockerill (co-Chair - IHPME) W Wodchis (IHPME) F Miller (IHPME) C Dewa (IHPME) Ross Upshur (DLSPH) James Scott (DLSPH) (M Vardaiei-staffing)	*First Priorities* Proposal for shared (non-commuications and non-advancement) support Consolidated list of space requirements, options for shared space Proposal for standardization of other important policies. *Second Priorities* Identification of working groups to increase access to policy and statistics teaching Proposals to deal with any additional issues arising from student town hall meetings related	February

			to transfer of IHPME Proposal for opportunities for shared student experience	
Communications, Advancement, and Alumni Relations	Define branding standards, opportunities to link communications activities and communications personnel (linked to operations group above)	R Cockerill (IHPME) J Goldhaar (IHPME) T Smith (IHPME) A Laporte (IHPME) France Gagnon (DLSPH) Cameron Norman (DLSPH) Nicole Bodar (DLSPH) Beth McCarthy (DLSPH) Student Representatives (DLSPH and IHPME) (M Vardaiei-staffing)	Identify co-chairs for committee Proposal for shared (communications and advancement) support Proposal for converging/aligning communications channels Proposal for change in name of DLSPH Proposals for Capital Campaign Proposal for management of Alumni data (currently at FoM)	May
Stress Testing	Develop and review scenarios around the transition to ensure any unintended consequences are identified and addressed	R Baker (Chair – IHPME) IHPME Faculty Members	Minutes of Committee meetings to be presented at IHPME Faculty meetings Recommendations to other planning groups	

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

FOR APPROVAL

TO:	Faculty Council
SPONSOR:	Luc De Nil, Speaker, Faculty of Medicine Faculty Council
CONTACT INFO:	Luc.DeNil@sgs.utoronto.ca
DATE:	May 5, 2014
AGENDA ITEM:	4.3.2
ITEM OF BUSINESS:	Faculty of Medicine Constitution

JURISDICTIONAL INFORMATION:

The Constitution of the Faculty Council may only be amended with the approval of the Faculty Council and the Governing Council of the University of Toronto

GOVERNANCE PATH:

1. Graduate Education Committee [For approval] – March 18, 2014
2. Research Committee [For approval] – March 20, 2014
3. Education Committee [For approval] – March 27, 2014
4. Continuing Professional Development Committee [For approval] – April 2, 2014
5. Faculty Council [For approval] - May 5, 2014
6. Academic Board [For approval] – June 2, 2014

CONSULTATIVE PATH:

N/A (see below)

HIGHLIGHTS:

There are three proposed amendments which all relate to the membership of Faculty Council:

1. The closure of the Banting and Best Department of Medical Research (effective July 1, 2014) requires the elimination of two Elected Teaching Staff Representatives of Clinical Science Departments.
2. The pending transfer of the IHPME to the Dalla Lana School of Public Health (effective July 1, 2014) requires the elimination the two remaining Elected Teaching Staff Representatives of the Community Health Departments.

3. The Executive Committee of Faculty Council recommends that a constituency representing Post-Doctoral Fellows be created.

PROPOSED MOTION:

"THAT the proposed amendments to the Faculty of Medicine Constitution be *approved as submitted."*

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

University of Toronto

Faculty of Medicine

Constitution

Faculty Council

Approved: **05/13/2013**

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

CONSTITUTION

FACULTY OF MEDICINE

Revised M/D/Y

INDEX

		Page
I.	Authority from the U of T Act	3
II.	Option to report to Governing Council	3
III.	Definitions	3
IV.	Council to determine its rules and regulations	4
V.	Council to pass by-laws	4
VI.	Council to establish committees	4
VII.	Authority for Academic Policy	4
VIII.	Membership of Council	6
IX.	Meetings	8
X.	Powers, Duties and Responsibilities of the Dean	8
XI.	By-Laws	9
XII.	Parliamentary Authority	9
XIII.	Amendment of the Constitution	9
XIV.	Amendment of the By-Laws of the Council	10

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

CONSTITUTION OF THE COUNCIL OF THE FACULTY OF MEDICINE

I. Authority from the U of T Act

The Council of the Faculty of Medicine exercises its duties and powers under the provisions of the University of Toronto Act 1971, as amended.

II. Option to report to Governing Council

Subject to the provisions of the University of Toronto Act 1971, as amended, Council shall report on such matters as it may determine to Governing Council.

III. Definitions

In this Constitution and the accompanying By-laws:

“Faculty” means the Faculty of Medicine and “Council” means the properly composed Council of the Faculty of Medicine of the University of Toronto.

“Teaching Staff” means a member of the Faculty of Medicine who holds an academic appointment of 50% or more in the Faculty of Medicine and who holds the rank of Professor, Associate Professor, Assistant Professor, Assistant Professor (conditional), Senior Lecturer, Lecturer, Senior Tutor, or Tutor.

"Undergraduate Student" means any student registered in a program of study leading to a degree, post-secondary diploma, or certificate in the Faculty of Medicine who is not registered in the School of Graduate Studies.

"Postgraduate Trainee" means any trainee registered in a residency or fellowship training program in the Faculty of Medicine who is not registered in the School of Graduate Studies.

“Graduate Student” means any student registered in the School of Graduate Studies in a program of study leading to a degree, post-secondary diploma, or certificate in the Faculty of Medicine.

“Alumni” means anyone who has received a degree, post-secondary diploma, or certificate from the Faculty, or who has completed one year of full-time studies while registered in the Faculty, who is no longer registered as a student and who is not a member of the teaching or administrative staff of the University.

“Administrative Staff” means an appointed staff member of the Faculty of Medicine who is not a member of the teaching staff and who holds an appointment of 50% or more.

IV. Council to determine its rules and regulations

Council shall determine rules and regulations for governing its proceedings and those of its committees, including provisions for quorum at meetings.

V. Council to pass by-laws

Council shall pass by-laws regulating the exercise of its powers, the calling and the conduct of its meetings, and the method of appointment or election of its members.

VI. Council to establish committees

Council shall have the power to establish, alter, or disband its committees as deemed necessary and to determine their composition, authority, quorum, and method of appointment of their members and chairs. Council has authority over recommendations brought forward by such committees, be that in its decision-making capacity or in its advisory role.

VII. Authority for Academic Policy

A. Council has authority for the academic policies of the Faculty and recommends for approval to the appropriate body of Governing Council, amendments to divisional academic policies as required. Academic policy sets out the principles for, the general directions of and/or priorities for the teaching and research activities of the Faculty. Decisions on academic policy shall be referred to Council for discussion, advice and approval.

B. Without limiting the generality of the foregoing, among the specific powers, duties and responsibilities of Council are the following:

i) Academic Programs

Council shall consider the content, quality, and requirements of the academic programs and courses of study that lead to degrees, diplomas, certificates, credit and non-credit courses over which the Faculty has authority; Council shall consider proposals for the closure of any such programs or courses of study; and Council shall monitor the quality and standards of the programs and courses of study.

Council shall recommend for approval to the appropriate body of Governing Council proposals for new academic programs.

Council shall have delegated authority to approve proposals for major and minor modifications to existing academic programs[1]. All major modifications shall be reported annually for information to the appropriate body of Governing Council.

[1] Definitions of major modifications of existing programs, minor modifications, and new academic programs are provided in the University of Toronto Quality Assurance Process and are subject to change. Guidance from the Office of the Vice-Provost, Academic Programs, should be sought prior to the development of any such proposal.

Council shall have delegated authority to approve proposals for the modification of existing diploma and certificate programs, pursuant to the University's Policy on Diploma and Certificate Programs. An annual report on such actions as required by the Policy, shall be provided for information to the appropriate body of Governing Council.

ii) Academic departments and units

Council shall consider and recommend for approval to the Governing Council proposals to create or terminate academic departments and units of the Faculty. Council shall also review and approve or recommend for approval to the Governing Council proposals concerning Extra-Departmental Units in the Faculty, pursuant to the Policy on Interdisciplinary Education and Research Planning. When such proposals have significant implications for other Faculties and Schools of the University, their advice shall be sought

iii) Delegation of authority over teaching programs

Subject to the provisions of A, B i), and ii), Council may delegate its authority over teaching programs and their component courses of study to its Standing Committees, to make minor changes. All such changes shall be reported for information to Council. Major changes to any program require the approval of Council. The decision of whether a matter is major or minor may be made by the Committee Chair in consultation with the Speaker of Council, and/or the Dean or his/her designate, and/or the Vice-President and Provost or his/her designate

iv) Review of academic programs and units

Council may be one venue in which consideration and discussion of a review report of an academic program and/or unit may occur, consistent with the protocol outlined in the *University of Toronto Quality Assurance Process*.

v) Transcript notations

Council shall have delegated authority to approve transcript notations within existing degree programs, in accordance with University policy. An annual report on such actions, as required by policy, shall be provided for information to the appropriate body of Governing Council.

vi) Admissions

Council shall determine the standards of admission of students to the Faculty. New admissions policies and practices or amendments to existing ones which affect the whole Faculty are recommended to the appropriate body of Governing Council for approval.

vii) Awards

Council shall award scholarships, bursaries, prizes and other awards in the gift of the Faculty and may delegate this responsibility to committees or officers of the Faculty.

viii) Petitions and Appeals

Council shall establish policies and procedures with respect to petitions and appeals by undergraduate students in connection with the application of academic rules and regulations by officers of the Faculty or by instructors in connection with academic standing in the Faculty. A Committee of Council shall make rulings on all such appeals and such rulings shall be final and binding, subject to an appeal to the Governing Council.

Procedures for academic appeals by graduate students are determined by the School of Graduate Studies in accordance with the Policy on Academic Appeals within Divisions.

ix) Advisory Role

Council plays an advisory role, tendering advice to the divisional administration.

VIII. Membership of Council

All members are voting unless otherwise noted.

Constituency	Title		
1	Speaker and Deputy Speaker	2	Speaker is non-voting
2	Chairs of Standing Committees*	9	
3	Elected Teaching Staff Representatives of Basic Science Departments	16	2 per department
4	Elected Teaching Staff Representatives of Clinical Science Departments	~~26~~24	2 per department
~~5~~	~~Elected Teaching Staff Representatives of the Community Health Departments~~	~~2~~	~~2 per department~~
~~6~~5	Elected Teaching Staff Representatives of the Rehabilitation Departments	8	2 per department
~~7~~6	Elected Teaching Staff Representatives of the Faculty at Large	10	
~~8~~7	Elected Student Representatives	23	[Undergraduate Medicine (12), Undergraduate Medical Radiation Sciences Program (2), Postgraduate Trainees (5), Graduate(15) BScPA (1)]
~~9~~8	Alumni Representatives	2	Medicine (2)
9	Post-Doctoral Fellows	1	
10	Toronto Academic Health Sciences Network	1	

Comment [TC1]: Banting and Best Department of Medical Research has been closed

Comment [TC2]: Assumes IHPME is transferred to the Dalla Lana School of Public Health

	Representative		
11	Administrative Staff	5	
12	President of the University or designate	1	
13	Vice-president and Provost or designate	1	
14	University Librarian or designate	1	
15	Deans of other Faculties	8	(Arts and Science, Dentistry, School of Graduate Studies, Lawrence S. Bloomberg Faculty of Nursing, Leslie Dan Faculty of Pharmacy, Kinesiology and Physical Education and Factor-Inwentash Faculty of Social Work, Dalla Lana School of Public Health)
16	Dean of the Faculty of Medicine	1	
17	Deputy Dean	1	
18	Vice-Deans	6	
19	Associate Deans	6	
20	Departmental Chairs & Directors	9	(Elected by the All Chairs Committee to three year terms)
21	Chief Administrative Officer	1	Non-voting
22	Director, Office of the Dean	1	Non-voting
23	Faculty Affairs Officer	1	Non-voting

* If not otherwise on Council, shall be members *ex officio*

Officers

Speaker and Deputy Speaker

The Council normally shall elect at its final meeting of the year, by and from among its members for that year, a Speaker and a Deputy Speaker for the succeeding three years. The Speaker shall be a non-voting member of Council.

Presiding Officer

The Speaker shall preside at all meetings of Council. In the absence of the Speaker, the Deputy Speaker shall preside. In the absence of both the Speaker and the Deputy Speaker, any member of the Executive Committee may convene the meeting and a Speaker shall be chosen from the Executive Committee members present by a majority of the voting members present for the meeting.

Secretary

The Secretary of Council shall be appointed by the Dean in consultation with the Chair. The Secretary shall be a non-voting ex-officio member of Council.

IX. Meetings

A. Regular Meetings

There shall normally be 3 regular meetings of Council in each academic year. Notice of each meeting, including a proposed agenda, shall be given to members at least two weeks in advance of the meeting.

Meetings of Council shall be open to the public except when matters of a confidential nature may be discussed. The Faculty Council will then move *in camera.*

B. Special Meetings

A special meeting may be called by the Speaker of the Council, the Dean of the Faculty, or upon the written request of 10 members of the Council, and shall be convened within 30 days to consider the matter(s) requiring the meeting. Notice of such a meeting shall be given at least two weeks in advance.

C. Term and Quorum of Council

The term of office of members of Council shall be from July 1 to June 30, with the term of Student members beginning in September.

A quorum shall be 20% of the members from constituencies 2-11 and 16-20.

D. Voting

Each voting member of Council has one vote on any question. Motions pass with a simple majority unless otherwise stated in the rules of procedure of the Council

X. Powers, Duties and Responsibilities of the Dean

A. Dean is Chief Executive Officer

Council recognizes that the Dean exercises powers under the authority of the "Policy on Appointment of Academic Administrators" which states that "the Dean of the Faculty is the chief executive officer of the Faculty and reports directly to the Vice-President and Provost."

B. Overall direction of the Faculty

While the Dean may elect to delegate authority to other academic administrators in the Faculty, the Dean retains responsibility for the overall direction of the Faculty and in particular for authority over the budget and other financial matters, personnel matters including appointments and promotions and extra-Faculty relationships. In this respect, Council recognizes that the Dean has ultimate authority for the allocation and management of the Faculty's resources.

C. Seeking Council's advice concerning academic policy

The Dean shall consult with members of the Faculty on matters of policy and practice but is ultimately responsible for all administrative decisions that are within his/her jurisdiction and authority.

The Dean shall advise Council of the resource implications of proposed academic policies.

The Dean shall consult with Council on administrative proposals that may have a significant impact on the academic programs of the Faculty.

D. Concerning teaching under the authority of another Council

Recognizing that Faculty of Medicine teaching staff are responsible for certain teaching programs and courses of study leading to degrees, diplomas, certificates, credit and non-credit courses under the authority of the Councils of other Faculties and Schools of the University, the Dean of the Faculty of Medicine shall seek the advice of the Council of the Faculty of Medicine whenever it is proposed to initiate, terminate or make changes to such programs of instruction, courses of study or academic departments or units that will have major implications for the Faculty of Medicine.

XI. By-Laws

The procedures of Council will be set forth in the By-Laws of Council.

The composition, powers, duties, and procedures of Standing and Special Committees shall be set forth in the By-Laws of Council.

XII. Parliamentary Authority

The rules contained in the most recent edition of Bourinot's Rules of Order, shall govern the Council in all cases to which they are applicable and in which they are not inconsistent with the By-Laws and any special rules of order the Council may adopt.

XIII. Amendment of the Constitution

The Constitution of the Council may only be amended with the approval of the Faculty Council and the Governing Council of the University of Toronto. The process is initiated at the Council of the Faculty of Medicine by notice of motion being presented to Council two weeks before the matter will be considered. After debate on the amendment is complete, an affirmative vote by two-thirds of the members present and voting is required. Following approval of the amendment by the Council, the amendment is forwarded to Governing Council for approval.

XIV. Amendment of the By-Laws of the Council

The By-Laws of the Council may be amended with the approval of a two-thirds majority of Council members present and voting. Voting shall take place at a regularly constituted meeting to which there has been two weeks notice of the proposed amendment.

Amended and approved by Faculty Council on November 10, 2003 and approved by the Executive Committee of the Governing Council on April 15, 2004.

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UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

University of Toronto

Faculty of Medicine

Constitution

Faculty Council

Approved: **XX/XX/XXXX**

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

CONSTITUTION

FACULTY OF MEDICINE

Revised M/D/Y

INDEX

		Page
I.	Authority from the U of T Act	3
II.	Option to report to Governing Council	3
III.	Definitions	3
IV.	Council to determine its rules and regulations	4
V.	Council to pass by-laws	4
VI.	Council to establish committees	4
VII.	Authority for Academic Policy	4
VIII.	Membership of Council	6
IX.	Meetings	8
X.	Powers, Duties and Responsibilities of the Dean	8
XI.	By-Laws	9
XII.	Parliamentary Authority	9
XIII.	Amendment of the Constitution	9
XIV.	Amendment of the By-Laws of the Council	10

UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

CONSTITUTION OF THE COUNCIL OF THE FACULTY OF MEDICINE

I. Authority from the U of T Act

The Council of the Faculty of Medicine exercises its duties and powers under the provisions of the University of Toronto Act 1971, as amended.

II. Option to report to Governing Council

Subject to the provisions of the University of Toronto Act 1971, as amended, Council shall report on such matters as it may determine to Governing Council.

III. Definitions

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Recognizing that Faculty of Medicine teaching staff are responsible for certain teaching programs and courses of study leading to degrees, diplomas, certificates, credit and non-credit courses under the authority of the Councils of other Faculties and Schools of the University, the Dean of the Faculty of Medicine shall seek the advice of the Council of the Faculty of Medicine whenever it is proposed to initiate, terminate or make changes to such programs of instruction, courses of study or academic departments or units that will have major implications for the Faculty of Medicine.

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The procedures of Council will be set forth in the By-Laws of Council.

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The rules contained in the most recent edition of Bourinot's Rules of Order, shall govern the Council in all cases to which they are applicable and in which they are not inconsistent with the By-Laws and any special rules of order the Council may adopt.

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The Constitution of the Council may only be amended with the approval of the Faculty Council and the Governing Council of the University of Toronto. The process is initiated at the Council of the Faculty of Medicine by notice of motion being presented to Council two weeks before the matter will be considered. After debate on the amendment is complete, an affirmative vote by two-thirds of the members present and voting is required. Following approval of the amendment by the Council, the amendment is forwarded to Governing Council for approval.

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The By-Laws of the Council may be amended with the approval of a two-thirds majority of Council members present and voting. Voting shall take place at a regularly constituted meeting to which there has been two weeks notice of the proposed amendment.

Amended and approved by Faculty Council on November 10, 2003 and approved by the Executive Committee of the Governing Council on April 15, 2004.

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Amended and approved by Faculty Council on April 29, 2013 and approved by the Executive Committee of the Governing Council on May 13, 2013.

Amended and approved by Faculty Council on May 5, 2014 and approved by the Executive Committee of the Governing Council on _____.