Action Plan 2018

Building Our Future
TOGETHER
MESSAGE FROM THE DEAN

Over the last two years, the Faculty of Medicine has seen its operating budget cut by $7.4M by uOttawa, which represents an ~18% reduction. In addition, the Faculty has seen its reserves of $23M disappear to become centrally allocated to the University. All of these measures have been applied throughout the University, yet to different extent, as part of a “budget reset”. Such a drastic budget reduction forced us to regroup and refocus our efforts on our strategic priorities. Nonetheless, the budget reduction has impacted our overall level of academic activities as well as our ability to maintain support and services to all stakeholders. Working with all Senior Leaders across the Faculty, we are thus managing these large reductions using a transparent and collaborative approach, understanding the needs and priorities of all units.

The good news is that despite these financial challenges, we have remained committed to our strategic priorities and have embarked in parallel, on a planning exercise to collectively identify future directions. I must say that I am proud of all of our efforts and of the fact that despite the financial woes, we have never lost sight of our success in education and research, and of our strong desire to continue on our upward trajectory.

This approach, which we developed together over the past several months, is in my view beginning to pay off. I now view the budget reset as nearly completed thereby providing an opportunity for us to turn the page and focus on our growth in education and research. Our Action Plan will be essential in ideally positioning the Faculty for contributing to the design of the next uOttawa strategic plan, set to be developed more extensively beginning later this fall. This will also help to better position us to capture resources linked to the new funding distribution model for Ontario’s Universities (see inset breakdown below). Together, we have the opportunity to define and build on our successes for the future of the Faculty of Medicine.

On behalf of the Action Group, I invite you to provide your valuable feedback on this draft Action Plan.
EXECUTIVE SUMMARY

In March 2018, the Executive Leadership Team (ELT) presented the Faculty of Medicine “Status Report and Identifying Strategic Directions” document to all stakeholders (attached). This document, which highlighted quick facts, successes, opportunities, and challenges for each of the portfolios within our faculty, as well as an initial list of strategic priorities, was distributed broadly to faculty members, administrative staff and learners for comments and feedback. In addition, over the spring, the Executive Leadership Team held a series of town hall meetings.

As a follow-up from the overwhelmingly positive feedback received on this document, senior leaders (Vice Deans and Chairs) agreed to, and enacted, the following next steps:

1. The constitution of an Action Group of senior leaders, which has met on several occasions since May 2018.
2. The development of a draft Action Plan with four key areas of priority: Education, Research, International & Global Health, and Francophonie (with specific emerging themes for each area).
3. The broad circulation of the draft Action Plan for consultation and feedback, in parallel to town hall meetings.

Please note that due to the Dean’s selection process over the summer months, our original timeline is slightly behind.
MULTI-STAGE PROCESS

Through its meetings and engaged discussions, the Action Group came up with a series of innovative ideas for creating new research initiatives and academic programs. These are listed on the following pages under the main themes identified. Given the breath of these initiatives, the recommendation is to create a multi-stage process for developing these initiatives over a period of three to five years. Importantly, the Action Plan is being aligned with a comprehensive HR recruitment plan to support the various initiatives listed below.
ACTION PLAN: AREAS OF PRIORITY

Education (part 1: on-going)

UGME Opportunities
- Research opportunities
- Career counselling
- New space (lounge, TBL)
- Pipeline program

PGME Opportunities
- CBD
- Bilingualism
- Funding from various Gulf States

CPD Opportunities
- CBD impact: update vision and mission
- SWOT analysis, group discussions
- Strategic plan

Education (part 2: new initiatives)

Graduate Program Opportunities
- Medical Biosciences
- Master of Applied Sciences in Anatomical Science
- Master of Public Health (MPH)
- Medical Artificial Intelligence
- Master of Science in Healthcare Quality
- Maîtrise en éducation médicale
- Ecole de pharmacie

Undergraduate Program Opportunities
- Expansion of the TMM Program

Additional Opportunities
- Executive PhD
- Combined PhD with MBA (for example)
- Combined MD/MBA and PhD/MBA
Research (part 1: on-going)

- Maintain and grow current initiatives (see appendix)
- Promote translational medicine
- Sustainability of clinical and junior clinical research chairs programs
- Develop chairs program for basic scientists
- Fund support functions for faculty members
- Maintain and grow core facilities

Research (part 2: emerging initiatives)

- Institute for Medical Artificial Intelligence/Big data
- Child Health Observatory (CHO)
- Centre for Thrombosis Research
- Centre for Emergency Medicine Research
- Centre for Indigenous Health Research
- Others?
International & Global Health

- International/Global Health Task Force (see attached report)
- Defining our International and Global Health portfolio for education and research
- Developing focused partnerships at the local, provincial, national, and international level
- Creation of a School of Global Health
- Increase partnership with Gulf Coast Countries (PGME/UGME)
- Rebrand and rebuild Office of Internationalization
- Revenue Generation (Foreign Resident Program)

Francophonie

- uOttawa has the one and only truly bilingual undergraduate medical degree offered completely in French and in English. It needs to pursue the training of francophone physicians to serve 600,000 Franco-Ontarians of the province.

- Recruitment of highly trained francophone faculty remains a challenge. A proposed master’s program in innovation in Medical education, first in French, and then bilingual, is aimed at fostering more professors of medicine in distributed areas of the province and to better prepare our professors to be leading innovators and scholars to meet the needs of our learners and community they serve.

- Language minorities being at constant high risk of assimilation: there is a need to support our graduates to continue offering care in French to the minority population. The Faculty has a role in fostering a strong sense of responsibility and continued quality in health care, whether by continuing professional development, research and dissemination of knowledge.
CONCLUDING REMARKS

Over the last year, there have been significant changes in the faculty with many triggered by rather sudden and drastic budgetary constraints. As mentioned above, we should nonetheless be all very proud of the fact that despite these challenges, we have been able to remain committed to strategic planning and identification of strategic priorities and specific initiatives.

The current draft document constitutes a concrete Action Plan that will contribute significantly in ensuring that our faculty maintain its momentum in excellence in both education and research. Given its importance and timeliness, the Action Group encourages everyone to provide feedback on any aspects of this draft Action Plan and to propose additional initiatives for consideration. We have a great faculty, well recognized to be a leader nationally and internationally on several fronts. It is through the maintenance and strengthening of our current and on-going educational and research programs, as well as through the development of novel initiatives that we will be able to remain at the forefront of medical education and research.
1) Current State of Affairs

- **12 Clinical Departments:** Anesthesia and Pain Medicine, Emergency Medicine, Family Medicine, Medicine, Obstetrics and Gynecology, Ophthalmology, Otolaryngology, Pathology and Laboratory Medicine, Pediatrics, Psychiatry, Radiology, Surgery
- **4 Basic Science Departments:** Biochemistry Microbiology and Immunology (BMI), Cellular and Molecular Medicine (CMM), School of Epidemiology and Public Health (SEPH), Innovation in Medical Education (DIME)
- 5 Affiliated Teaching Hospitals
- 6 Hospital-based Research Institute Partners
- Close to 2300 Clinical and Basic Science Professors (109 APUO members)
- 145 Support Staff positions (permanent: administrative and technical)
- 40 Contract Employees (administrative and technical)
- 185 Soft-funded research staff
- 656 Undergraduate Medical Students
- 1200 Postgraduate Medical Students
- 553 Graduate Students and Postdoctoral Fellows
- 71 Undergraduate Science Students (TMM)
- Only Bilingual Undergraduate Medical Education Program
- 77 Postgraduate Medical Education Programs (72 specialties/subspecialties, 5 AFC programs)
- Continuing Medical Education Program
- 5 Major Graduate Programs (PhD / MSc)
- 1 Graduate Diploma
- 1 Undergraduate Science Program (B.Sc. in TMM)
- MD/PhD Program
- Faculty Affairs Office
- Francophone Affairs Office
- $43.5M overall budget in 2017-2018
- $134M research revenues in 2016-2017
- 13 Research-Intensive Core Facilities
- ~16,000 NASM of current space
- Need of 25,000 NASM to account for current deficit and growth

2) Building Upon the Faculty of Medicine Strategic Initiatives

**Recent On-going Initiatives**

**2.1 The University of Ottawa Brain and Mind Research Institute (uOBMRI)**

The University of Ottawa Brain and Mind Research Institute (uOBMRI) continues with its major growth and development. In the past several years, we have recruited more than 20 exceptional investigators in brain-related research. The Institute brings basic and clinical investigators from a broad spectrum of disciplines under a unifying umbrella to provide leadership and focus for the
enhancement of neuroscientific and behavioural research. The Institute’s initial programs focused on development of exceptional clinical care and research of brain-related illnesses in stroke, Parkinson’s disease, neuromuscular diseases and depression. These initiatives cut across basic, clinical and human population studies, emphasizing translation of research into practice, particularly in the development of novel therapies and diagnostics. More recently, we have also initiated efforts in emerging areas: understanding concussion injury and cognitive memory processes. Recruitment of a new Director for the uOBMRI, linked to a Canada Research Chair (Tier 1) is currently on-going to replace Dr. David Park.

2.2 Cardiovascular and Vascular Research
The Faculty of Medicine, together with the University of Ottawa Heart Institute (UOHI) and Ottawa Hospital Research Institute (OHRI), has had a strong track-record of research excellence in cardiovascular disease and vascular biology. In recent years, there has been a concerted effort to develop a multi-disciplinary and inter-institutional initiative. The Ottawa Region for Advanced Cardiovascular Research Excellence (ORACLE) strategy is now in its second strategic plan (ORACLE 2.0 – 2018-2024), which was developed in collaboration with the Faculty of Medicine as well as additional regional Institutions. The overall vision is that UOHI, the Faculty of Medicine and regional partners become global leaders in cardiovascular innovation and knowledge translation. Key strategic goals include: i) catalyze impactful research by creating and supporting unique Innovation Hubs of interdisciplinary teams; ii) support and enhance our fundamental and translational research enterprise; iii) catalyze innovation and excellence in clinical research; and iv) build cross-cutting initiatives to facilitate high-impact research.

2.3 School of Epidemiology and Public Health (SEPH)
The School of Epidemiology and Public Health (SEPH) was created on January 1, 2015. SEPH builds on the recognition in the Strategic Mandate Agreement that research and graduate education in applied health and knowledge translation are areas of strength at the Faculty of Medicine and its partners, including the affiliated, hospital-based research institutes, and that the University recognizes applied health research as a priority. The vision of the School is to be recognized as a leading contributor to research, teaching and professional training. At the local level it aims to improve patient and population health outcomes in the population laboratory of the Champlain Local Health Integration Network (LHIN), Ontario, Canada. More broadly it carries out research on the determinants of health and disease etiology and on the development, implementation and evaluation of practices, programs and policies aimed to optimize health and social services.

The School aims to bring together virtually applied health researchers from within the Faculty of Medicine, research institutes, and other groups into one collective with agreed upon strategic priorities and enabling platforms (e.g., methods center, large administrative database centre, biobanking, centre for microbial diversity, assessment facilities). It harnesses the collective power of researchers in the region to promote interdisciplinary, collaborative, patient-centered applied health and public health research. The recent recruitment of Dr. Melissa Brouwers as Director of SPEH will greatly facilitate the achievement of its strategic priorities in education and research.
2.4 Department of Innovation in Medical Education (DIME)

The Department of Innovation in Medical Education was created only a few years ago and constitutes a new Basic Science Department that supports the overall teaching and research goals of the Faculty in Medical Education. Since the appointment of the Chair, there has been significant progress and DIME has recently elaborated the following vision and mission statements:

**Vision:** A Department which, through the integration of education, research and technology in an inclusive environment, in both official languages, will be recognized as an international leader in medical educational scholarship.

**Mission:** The Department of Innovation in Medical Education will create an environment that promotes innovation and advances in medical education scholarship; enables and evaluates breakthrough advances across the medical education continuum, including but not limited to the following domains:

- Anatomical Sciences Education
- Medical Education: Assessment, eLearning, Simulation and Continuing Professional Development
- Medicine and Humanities

2.5 Centre for Infection, Immunity and Inflammation (CI3)

Chronic infectious and inflammatory diseases are highly complex, involving multi-faceted gene-environment interactions and substantial cross-talk between different biological systems such as the cardiovascular, immune, neurological and endocrine systems. Unravelling this complexity requires a systems biology approach, and must encompass the expertise of scientists from diverse disciplines working together on a given disease. The uOttawa Centre for Infection, Immunity and Inflammation (CI3) was created recently with the objective of bringing together basic and clinical scientists from across the fields of Immunology, Microbiology, Virology, Biochemistry, Neurobiology, Cardiovascular Biology, Metabolism and Pathology, who have diverse expertise, experimental models and approaches, and are interested in the development of effective solutions for infectious and inflammatory diseases. The overarching goal of CI3 is to foster multidisciplinary research across the field of infectious and inflammatory disease in order to accelerate understanding of the common principles and help establish the mechanisms that underpin chronic inflammatory states, and therefore lead us towards development of intervention strategies. The goals of the new centre are to: 1) develop new collaborative, innovative and multi-disciplinary research projects that are aimed at understanding the mechanisms of inflammation that underline various chronic diseases, 2) to develop collaborative projects that are aimed at knowledge translation and dissemination, and 3) to train the next generation of scientists in multidisciplinary research in infection, immunity and inflammation.

2.6 The New Translational and Molecular Medicine

In *Destination 2020*, the University of Ottawa proposed a further intensification of research while promoting excellence in training and enhancing student experience. The Faculty of Medicine is already in the top five medical faculties in Canada and is
the most sought after Faculty for its MD program. In its strategy towards Destination 2020, the Faculty of Medicine states that intensification of research will require further participation of graduate and undergraduate students in research. Moreover, increasing the transition in terms of quantity and quality from undergraduate to graduate school will be essential to maintain a vibrant and competitive research enterprise at the Faculty of Medicine.

The Faculty of Medicine has thus created recently a 3rd and 4th year bilingual undergraduate program called Translational and Molecular Medicine/Médecine moléculaire et translationnelle. The program was jointly developed between the department of BMI and CMM as well as with SEPH. This program is open to students with a keen interest for the understanding and treatment of human diseases and who are interested in pursuing a career in a medical profession, pharmacy, biomedical research or industry. The program welcomes students from across the country who have completed 2 years of an appropriate undergraduate science program and meet the prerequisites (or equivalents).

TMM is truly revolutionary in integrating theoretical and practical courses with e-learning techniques to offer students the most advanced and innovative learning experience in Canada. In TMM, students not only learn about biologically-relevant medical issues in the largest health network in Eastern Ontario, but they also acquire the technical knowledge to confront the complex biomedical challenges of tomorrow. TMM offers the largest number of advanced laboratories for an undergraduate program in Canada including, but not limited to, bioinformatics, immunology, neurobiology and behavioral sciences, cancer biology, high-end microscopy techniques, systems biology and protein X-Ray crystallography. The Faculty has had several discussions in recent months to expand this program (currently at 40 students: 20 in each language stream) and to include a 1st and 2nd year in the Faculty of Medicine.

### Brief Description of New Emerging Initiatives (in no particular order)

#### 2.7 A PharmD Program in a School of Pharmacy

Pharmacy is one of the health professions where shortages are prevalent in Canada, especially on the French side, and there is no training program in French outside of Quebec. The number of training places available for Francophones outside Quebec is very limited. To fill this gap, the University has asked consultants to study the possibility of creating a pharmacy program. The University proposes the creation of a doctoral program in Pharmacy in French in partnership with the University of Moncton. The undergraduate program of four years, where candidates must first have completed two years of university studies, is modeled on the programs offered by universities in Quebec. This initiative builds on the expertise available in the region and complements the excellent degree programs in pharmaceutical sciences and biomedical sciences. To administer and operationalize the pharmacy program based at the University of Ottawa with a partial offer at the University of Moncton, the Faculty of Medicine proposes to house the new program.
2.8 Institute for Medical Artificial Intelligence / Big Data Analytics
Federate data-driven analyses and methods across uO Faculties and its partners with three goals: improve the healthcare system via big-data to initiatives, to foster economic growth within the healthcare sector, and to generate commercialization opportunities.

2.9 Child Health Observatory (CHO)
There is an unprecedented opportunity to bring together clinical and basic science experts, novel methodologies, and abundant data to rapidly respond to health needs of developing children across Ontario's diverse population. This network proposes to study social and biological determinants of children's health and well-being, from birth to adulthood. Leveraging this capacity now will benefit today's children and tomorrow's adults toward improved population health.

2.10 Centre for Thrombosis Research
The goal is to become world leaders in developing practice-changing knowledge generation in the areas of venous thromboembolism and thrombophilia. The current group of expert clinician-scientists has a strongly established presence in the development of diagnostic algorithms for suspected deep vein thrombosis and suspected pulmonary embolism, and with the use of bedside tools to exclude these diagnoses (clinical prediction rules and D-dimer).

2.11 Centre for Emergency Medicine Research
Emergency Medicine Research in the Faculty of Medicine has a long tradition of performing world class clinical and health services studies, firmly based on the principles of clinical epidemiology. One of the goals would be to build upon this success and grow the Centre into a multi-faculty initiative for interdisciplinary research and education.

2.12 Centre for Indigenous Health Research
Of the 94 calls to action in the 2015 Truth and Reconciliation Commission Report, published reports on health indicators are identified as a necessity to measure and achieve equity in Indigenous health (Truth and Reconciliation Commission of Canada, 2015). However, research regarding Indigenous peoples in Canada in the past has been identified as problematic and lacking in appropriate collaboration with Indigenous groups (Royal Commission Report on Aboriginal People, 1996; Schnarch B, 2004; MacDonald N, et al, 2014). Given existing strengths, there appear to be several opportunities to become leaders in Indigenous health research. The Centre would provide a centralized unit to facilitate research in health equity, social determinants of health, management strategies for better health outcomes as well as in basic and clinical research in chronic diseases.

With additional input from Dr. Sarah Funnell

“an inclusive, international term to describe individuals and collectives who consider themselves as being related to and/or having historical continuity with ‘First Peoples.’” (Allan B and Smylie J, 2015). Often used to refer to the First Nations, Inuit and Métis people as a collective.