

INTERNATIONALIZATION
AND GLOBAL HEALTH
COMMITTEE

Task Force Report



uOttawa

Faculté de médecine
Faculty of Medicine



The Ottawa
Hospital | L'Hôpital
d'Ottawa

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Executive Summary

In November 2017, the University of Ottawa Faculty of Medicine launched a Task Force on Internationalization and Global Health at the Faculty, chaired by Dr. Mark Walker.⁷ One of the main goals of the Task Force is to enumerate all the international and Global Health activities of the Faculty, and then to use this information to inform recommendations for the best approach to move forward with the international agenda of the Faculty of Medicine.

The University of Ottawa Faculty of Medicine has made great progress over the last decade in developing several international partnerships and successful projects around the globe. This includes for example, formalized collaborations with numerous institutions and programs for academic exchange, learners' mobility, research partnerships, capacity building, and global health outreach. The international portfolio of the Faculty has grown significantly through both targeted initiatives and opportunistic events. Concomitantly, the Faculty has also been facing ever increasing demands from potential partners around the world to commit to additional and formal international ventures without them being necessarily all aligned with the Faculty's priorities in education and research. Such mounting external pressures may in fact detract from our own aspirational goals and strategic directions.

Despite the overall success on the international scene, it became evident that the Faculty should conduct a review of its current activities and establish some recommendations for opportunities moving forward and best practices for approaching Internationalization and Global Health in a way that promotes mutually beneficial partnerships, potential revenue generation, social accountability and sustainability. Furthermore, these initiatives must be aligned with the strategic directions of our varied educational programs and research priorities of the Faculty and University. Such a strategic exercise became even more necessary given the commitment of the University to internationalization and the new fiscal reality which now clearly limits the Faculty's ability to promote and sustain an exhaustive set of international projects.

Therefore, in an effort to increase the success of our international portfolio and exposure, and to set our own strategic directions for both branding and academic value, the Faculty needs to become highly strategic and focused in defining areas of international priority, preferred partners, programs and initiatives in order to ensure complete alignment with our over-arching goals of excellence in education and research.

Following several months of consultations with students, professors, physicians, and the Faculty and University leadership, the Task Force has identified the following list of recommendations for moving the Faculty's international agenda forward:

Internationalization

- 1) Consistent and systematic collection of international data to monitor critical trends. This type of reporting has seldom been done, and could greatly increase the leaderships understanding of the Faculty's international footprint as well as to inform strategic decision making.
- 2) Striking a balance between short-term and long-term needs, consequences, benefits and challenges. More focus needs to be placed on the early planning of partnerships and establishing them in a transparent and accountable manner.

As such, the Task Force recommends following as checklist and risk management process in the establishment of new partnerships with a focus on risk management and clear expectations.

- 3) Partnership evaluation and metrics. To be more accountable and transparent the Task Force recommends that new partnerships outline clearly the expectations and variables upon which partnerships can be evaluated.
- 4) Leveraging the Faculty's position in the Nation's Capital. The University is strategically located in the heart of Canada's international activity. With government agencies, the diplomatic missions, international organizations, and NGO's, the Faculty is in a unique position to establish key relations with contacts in and around Ottawa to foster and nurture our international activities.
- 5) Resource sharing across the University. During consultations of the Task Force, it has become apparent that many of the University's international activities and the support for those activities, happens in a silo. Greater coordination is required between faculties and with the central administration to ensure that internationalization occurs in the most efficient manner.
- 6) Reallocating the resources and redefining the Structure of the Office of Internationalization (OI). Moving forward the OI should be restructured to a model which would provide crucial international support in four key areas: Partnership development, international support services, revenue generating initiatives, and Global Health support.
- 7) Avoiding the tendency to provide excessive support for individual projects. As the Faculty establishes new partnership and provides support for international initiatives, it will be important to ensure that efforts being supported are not the result of individual pet projects. Avoiding this will encourage greater long-term success for international endeavours, particularly following a change in leadership.
- 8) Supporting International @ Home initiatives. Not every students has the time or resources to take part in a program or opportunity abroad, however, this does not mean that they cannot have an international experience. The Faculty and University should continue to support and create opportunities for students to take part in the international activities locally

Global Health

- 1) Formalizing policy for international/global health PGME placements. Presently there is no central tracking of residents tacking part in international placements. This is important from both a risk management and strategic point of view. By having a better understand of where our residents are going, we will be in a better position to make strategic GH decisions.
- 2) Establishing Partnership Strategy in Global Health. Presently, most international placements, UGME and PGME, take place adhoc with our students going all over the world. It is recommended that an option be available for students and residents to take part in international placements that contribute towards a long term and impact mission. By channeling some Global Health placements through specified partnerships, the outcome of their contributions can have a much larger and measurable impact.

- 3) Director of Global Health across FoM departments. In order to bring more structure and coherence to the Global Health activities of the Faculty, it recommended that the position of Global Health Director not only be limited to UGME but rather cross-departmental.
- 4) A Global Health Service Model. The institution should provide the necessary support and expertise to assist Faculty members in the coordination for larger scale Global Health activities, such as the organization of seminars, workshops, and other international events.
- 5) Communicate, consult and share the global health vision broadly across the Faculty. This should be an immediate first step to establish a consultation strategy, which includes all academic units and sectors involved in Global Health who may not have been engaged during the current task Force process. This consultation should happen more broadly across the University to ensure that the University establishes a cohesive vision of the University's approach to Global Health.
- 6) Establish a research network for Global Health. A research network or institute is required to bring this researcher community together and to be able to build synergies, including interdisciplinary and cross-faculty. A research network or institute would also be in the best position to shape research strengths and to unify the Global Health agenda of the University.
- 7) Institutionalization of the Global Health Curriculum. The Office of Internationalization has expressed the desire to provide more support for this program. This would ease the burden on students who organize much of the program, as well as help to avoid knowledge or interest loss each time the student society has a change in leadership.
- 8) Global Health Awareness and Promotion. More needs to be done to communicate and promote the various global health activities and initiatives across the Faculty that currently exist. So much great and fascinating work is being done towards Global Health, from faculty, students, residents and staff. These efforts should regularly be promoted to increase awareness, interest, and event participation within the Faculty, University, and greater community.
- 9) Developing more academic offerings in Global Health. The Task Force acknowledge the huge demand for Global Health education and recognition. Universities around Canada, the US and Europe have already established graduate degrees, post-graduate certificates, and specializations in Global Health. These programs significantly contribute to the ability of the Faculties of Medicine to recruit the best students. It recommended to look into the establishment of a graduate degree program in Global health, as well as a certificate program for residents.

uOttawa Faculty of Medicine

Setting a Road Map for the Faculty's Internationalization Efforts Task Force on Internationalization and Global Health

In November 2017, the University of Ottawa Faculty of Medicine launched a Task Force on Internationalization and Global Health at the Faculty, Chaired by Dr. Mark Walker. Following consultation with the Faculty's Executive Leadership Team, the following terms of reference were agreed upon:

Internationalization:

1. Define current types of global partnerships in the Faculty of Medicine.
2. Generate a current inventory of international partnerships, activities, and initiatives, their value and strategic alignment.
3. Define levels of affiliation and alignment with international partners for prioritization of resource allocation that includes for example, administrative support, financial allocation, elective designation, and personnel mobility.
4. Establish a prioritization process for identifying and supporting specific and complementary (or synergistic) international partnerships.
5. Develop a set of metrics for ongoing evaluation and strategic value of partnerships.

Global Health

1. Recommend the vision, values, goals, and objectives of Global Health for the Faculty of Medicine;
2. Recommend a system for the coordination of activities (research, education and initiatives of faculty and students in global health);
3. Develop principles and criteria for collaboration or affiliation with international institutions;
4. Encourage a strategy for communicating and linking global health initiatives within the Faculty, affiliated partners and externally;

General

1. Examine the degree of complementarity with the efforts of the University and other Faculties on the international scene for optimization and leveraging of resources.
2. Create a report that will include details on the points above.
3. Make recommendations for a future Faculty strategy in internationalism and global health

Context

The University of Ottawa Faculty of Medicine has made great progress over the last decade in developing several international partnerships around the globe. This includes for example, formalized collaborations with numerous institutions and programs for academic exchange, learners' mobility, research partnerships, and global health outreach. In accordance with the WHO definition of social accountability of medical schools wherein medical schools have the "obligation to direct their education, research and service towards the priority health concerns of the community, region and/or nation they have a mandate to serve"; international activities will bring added value to our social accountability mandate. These activities bring clear added value in the form of exemplary global citizenship, social accountability,

international opportunities for our learners, enhanced visibility and recognition, and scholarly productivity.

In this context, the international portfolio of the Faculty has grown significantly through both targeted initiatives and opportunistic events. Concomitantly, the Faculty has also been facing ever increasing demands from potential partners around the world to commit to additional and formal international ventures without them being necessarily all aligned with the Faculty's priorities in education and research. Such mounting external pressures may in fact detract from our own aspirational goals and strategic directions.

Despite our overall success on the international scene, it became timely for the Faculty to initiate a review of its current activities and identify areas of opportunities for future growth implicitly aligned with the strategic directions of our varied educational programs and research priorities. Such a strategic exercise is even more necessary given the commitment of the University to internationalization and our new fiscal reality which now clearly limits our ability to promote and sustain an exhaustive set of international projects.

Therefore, in an effort to increase the success of our international portfolio and exposure, and to set our own strategic directions for both branding and academic value, the Faculty needs to become highly strategic and focused in defining areas of international priority, preferred partners, programs and initiatives in order to ensure complete alignment with our over-arching goals of excellence in education and research. As such, the work of the Task Force took into consideration the initiatives currently being developed by the University, and the efforts of the Faculty which should complement on-going efforts at the level of the University as well as in other Faculties.

Defining Internationalization and Global Health

To provide greater clarity around the focus of deliberations, the Task Force used the following definitions of Internationalization and Global Health:

Internationalization

Comprehensive internationalization is a commitment, confirmed through action, to infuse an international, intercultural, or global dimension into the purpose, functions or delivery of higher education.

Internationalization shapes institutional ethos and values and touches the entire higher education enterprise. It not only affects all of campus life but also the institution's external frames of reference, partnerships, and relations.

John K. Hudzik, 2011 - Comprehensive Internationalization: From Concept to Action (See [The full report](#)).

Global Health

Global health is "an area of study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global Health emphasizes transnational health issues determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes interdisciplinary collaboration; and is a synthesis of population-based prevention with

individual-level clinical care."

Jeffrey P Koplan, et. al. 2009 - Towards a common definition of global health (see [The Lancet article](#)).

Why an International Strategy at the Faculty?

As the world becomes increasingly interconnected, the demand for greater and more complex engagement locally and internationally grows. With that in mind, the Faculty aims promote international cooperation in health research to encourage, facilitate and coordinate the development of international activities and projects initiated by Faculty members, academic units or by the Faculty of Medicine.

There is significant activity and commitment to international activities across the Faculty. The Faculty's international presence takes many forms. Our faculty, students and staff spearhead hundreds of international projects and global health initiatives that include capacity building, education and research.

To achieve the Faculty's mission to develop society' leaders who improve the health of Canadians and communities worldwide and to respond to the community needs through a lens of social accountability, as well as the Faculty's position statement to lead the way in the Internationalization of Canadian medical education, it is important that the Faculty take a strategic and proactive approach to internationalization. This is particularly relevant as the University and Faculty budget become increasingly restricted. As such, it is important for the Faculty to have a well-defined strategy to internationalization and to maximize the resources invested.

The Task Force therefore provides an excellent opportunity to review our current activities while taking some time to proactively identify the current international activities of the Faculty and how align with the strategic direction of the Faculty. The Faculty is regularly presented with opportunities to expand the internationalization efforts, and the goal of an international strategy is to ensure that these decisions are calculated and proactive rather than spontaneous and reactive. The goal is to ensure that everything done at the Faculty is in line with the varied educational programs and research priorities, as well as the overall internationalization efforts of the University.

Part 1: Internationalization and Global Health by the Numbers

UGME – Global Health Program

The data was provided by the Coordinator of the Global Health Program, and it includes all UGME enrolment in International Electives between the 2009/10 and 2016/17 academic years.

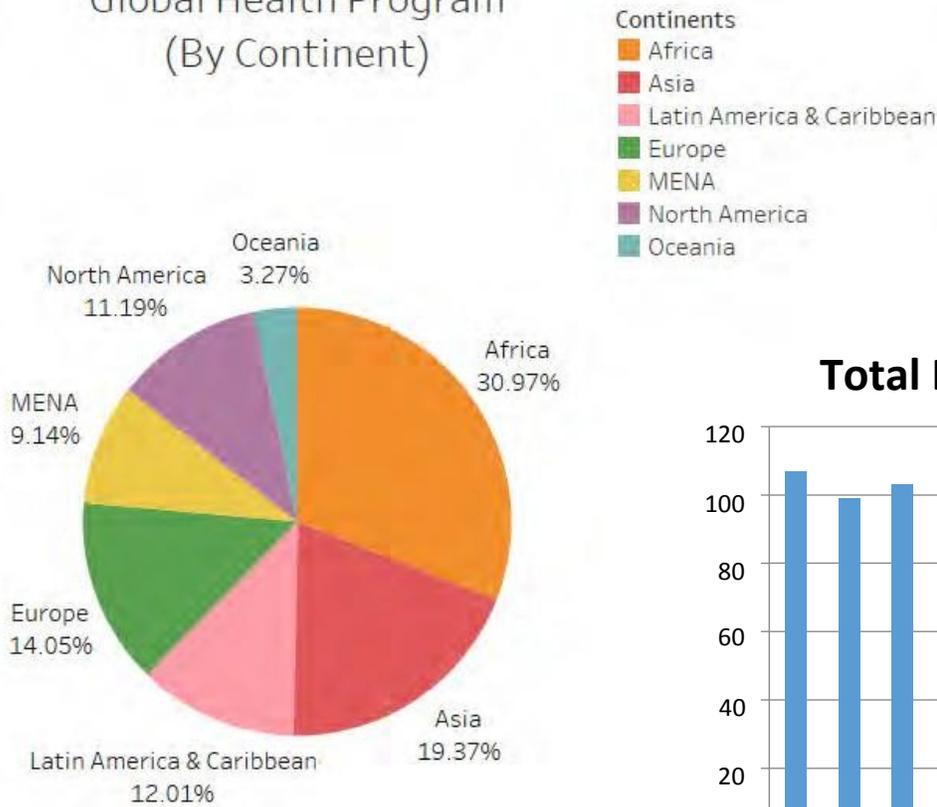
The Global Health Program (GHP) furthers Global Health activities within the University of Ottawa's Faculty of Medicine (uOttawa FoM) by facilitating international placements for students and residents, delivering educational programs including undergraduate and post-graduate curriculum development and supporting the initiatives of trainees and faculty.

Since 2009, over 750 international student and resident placements have been completed in over 90 countries, with 219 having completed placements in low and middle income countries (as defined by the

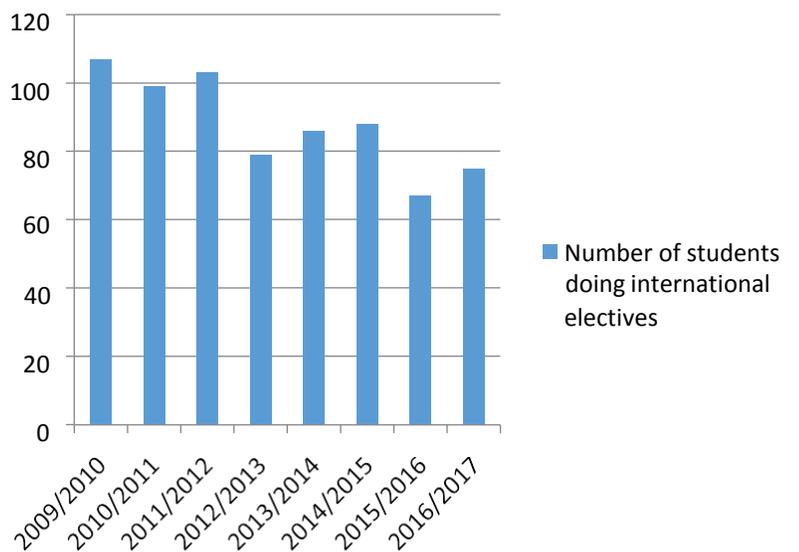
world bank). For more tables specifically on research funding see [Appendix A](#).
 Global Health Program (Since 2009)



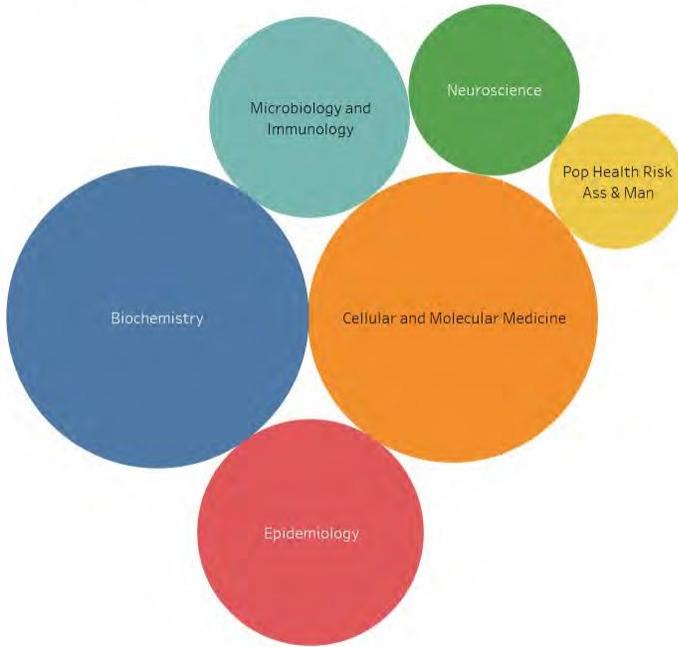
Global Health Program
(By Continent)



Total International Electives



Ratio of International Students by Academic Unit



The data includes all international students entering the first year of the program for the academic years 2013/14 to 2017/18.

Graduate Studies (Incoming Students)

The recruitment of international graduate students continues to be a key priority for the Faculty of Medicine. The data for was provided by IRP and includes all Incoming international student (M.Sc. & PhD) registered since the 2013/14 academic year.

In both 2015/16 and 2016/17, international students accounted for 17 percent of all FoM PhD students registering for the first time. During that same period, international students represented 10 and 12 percent respectively of all first year enrolment in a Master’s program.

Incoming International Graduate Students (By Region and Country)

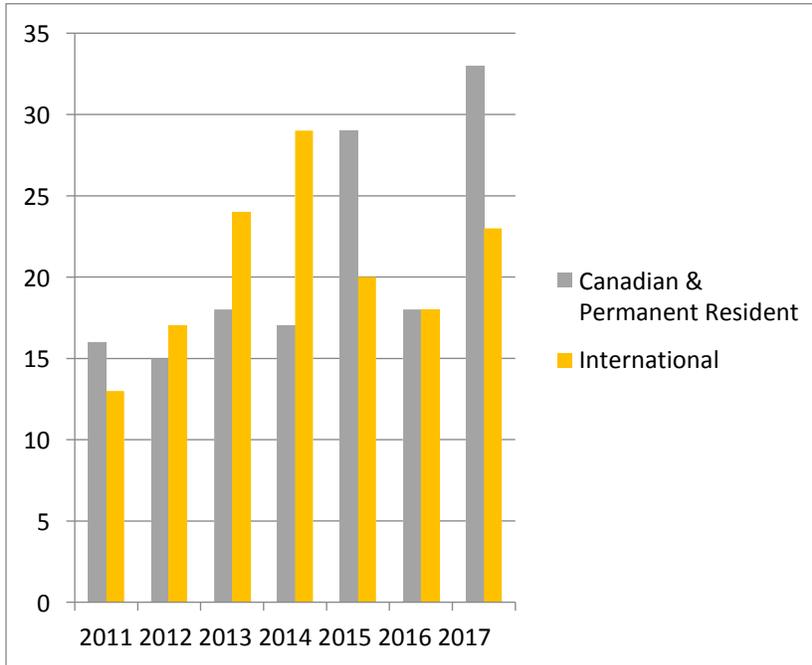


The data includes all international students entering the first year of the program for the academic years 2013/14 to 2017/18.

- Africa (N = 7)
- Asia (N = 31)
- Europe (N = 14)
- Latin America (N = 11)
- MENA (N = 19)
- North America (N = 4)

Postdoctoral Fellows

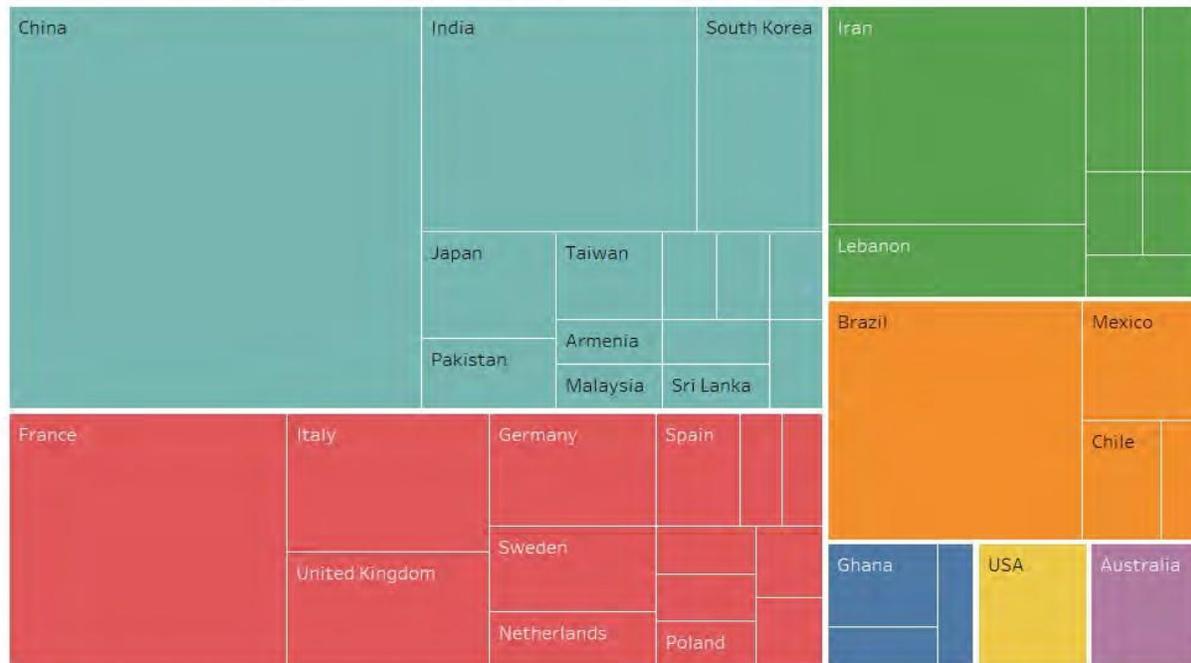
Data for incoming Postdoctoral Fellows was provided by the uOttawa Central Office of Graduate and Postdoctoral Studies. The data includes all incoming international postdocs since 2011. International



postdocs represent a sizeable portion of the annual intake. On average, international postdocs have represented approximately 50 percent of all incoming postdocs annually.

uOttawa FoM's international postdocs have diverse geographic background. The vast majority have come from China, with next highest number coming from France, Brazil, India, and Iran (in that order).

Incoming International Postdocs by Region and Country of Origin



The data includes all international Postdoctoral Fellows registering between 2011 and 2017.

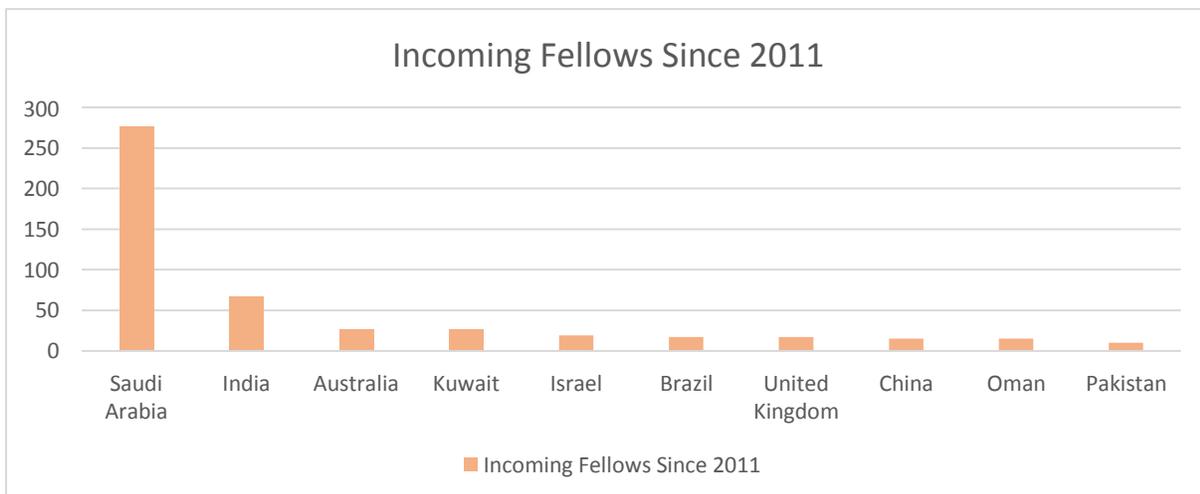
- Continent
- Africa (N = 4)
 - Asia (N = 69)
 - Europe (N = 44)
 - Latin America (N = 19)
 - MENA (N = 23)
 - North America (N = 3)
 - Oceania (N = 3)

Incoming Fellows

Data on incoming fellows was provided by the FoM PGME Office and includes registration data for all incoming international fellows and residents since 2011. Incoming PGME trainees has been a great source of international fellows as well as revenue for the Faculty. The large majority of incoming fellows has been from Saudi Arabia where the Saudi government provides individual funding for the trainees to come to Ottawa. As such, the incoming fellows from Saudi Arabia has provided a significant source of revenue. Aside from Saudi Arabia, FoM has attracted many fellows from India, Kuwait, Australia, Brazil, and Israel .

Moving forward, a point of consideration for the Faculty could be a slight increase in the number of international Fellows. Even a small increase could have a positive impact on the Faculty's revenue and its ability to fund other international and Global Health initiatives.

Incoming Fellows (Since 2011)



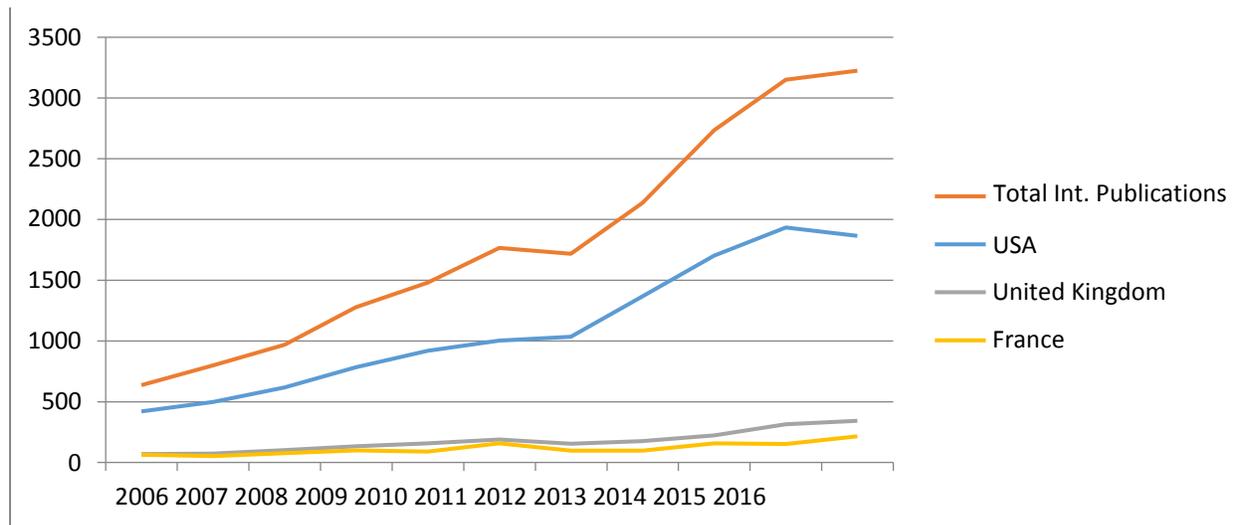
International Research Publication

Data for international Research Publications source was provided by IRP. Data includes all published peer-reviewed articles and reviews between 2006 and 2016 with an international co-publisher. It includes all entries registered in the Web of Science Data Base. See [Appendix B](#), for more information on the data source.

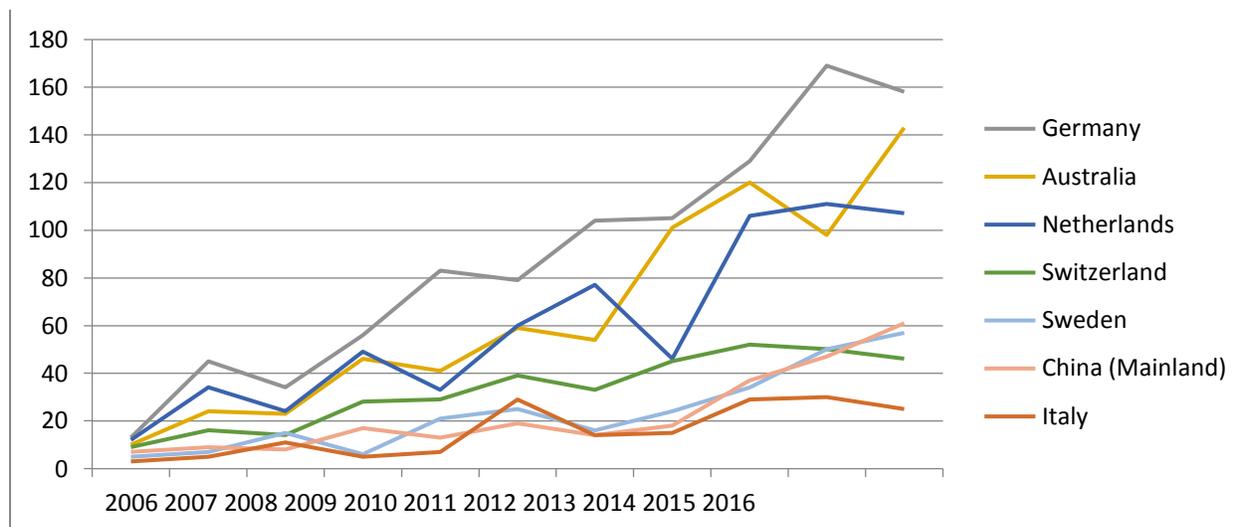
International research collaboration is a key measure of the University’s Internationalization metrics.

Top 10 International Co-publishers

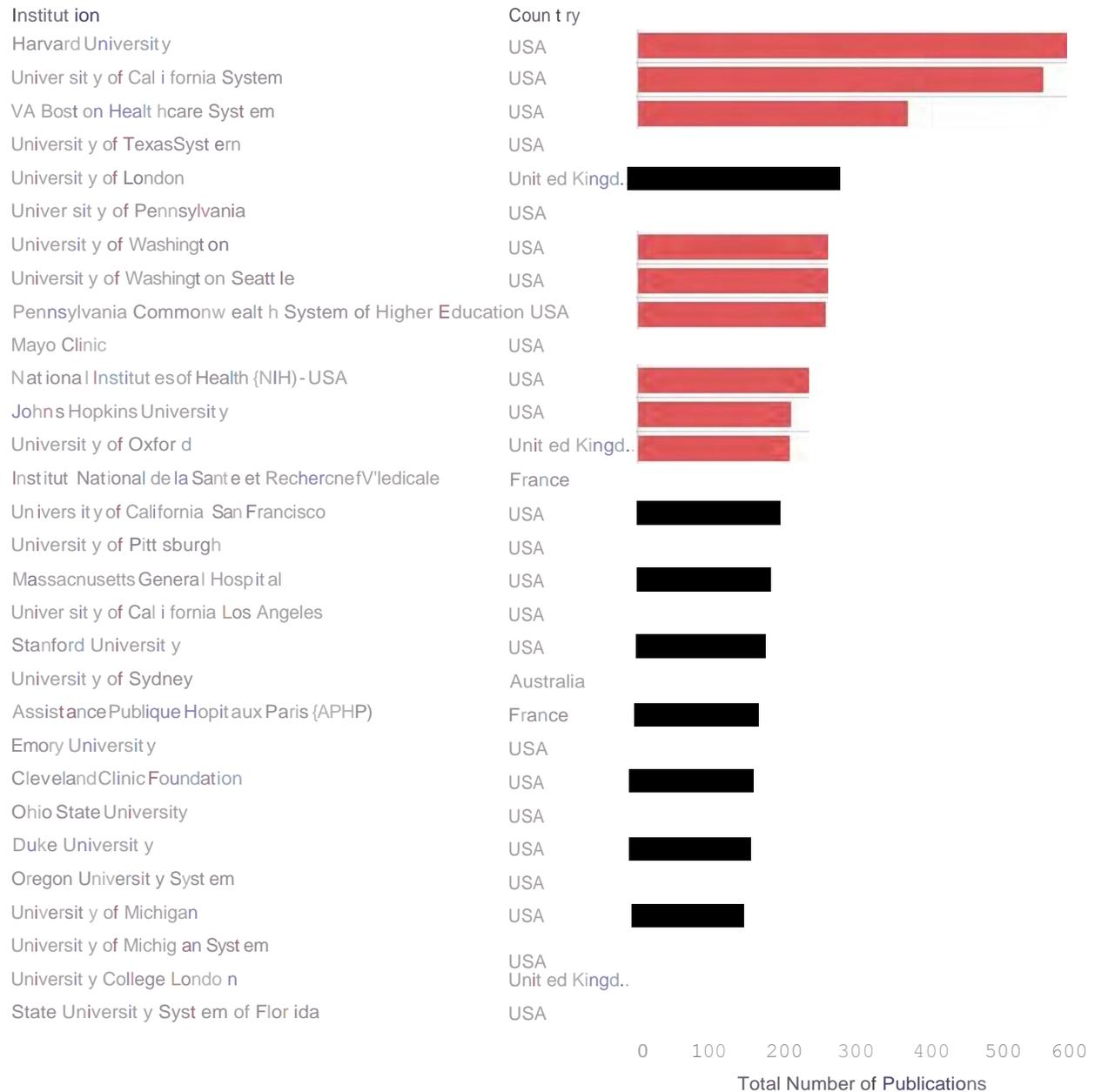
Top Co-publishers, by Country – Total and top three



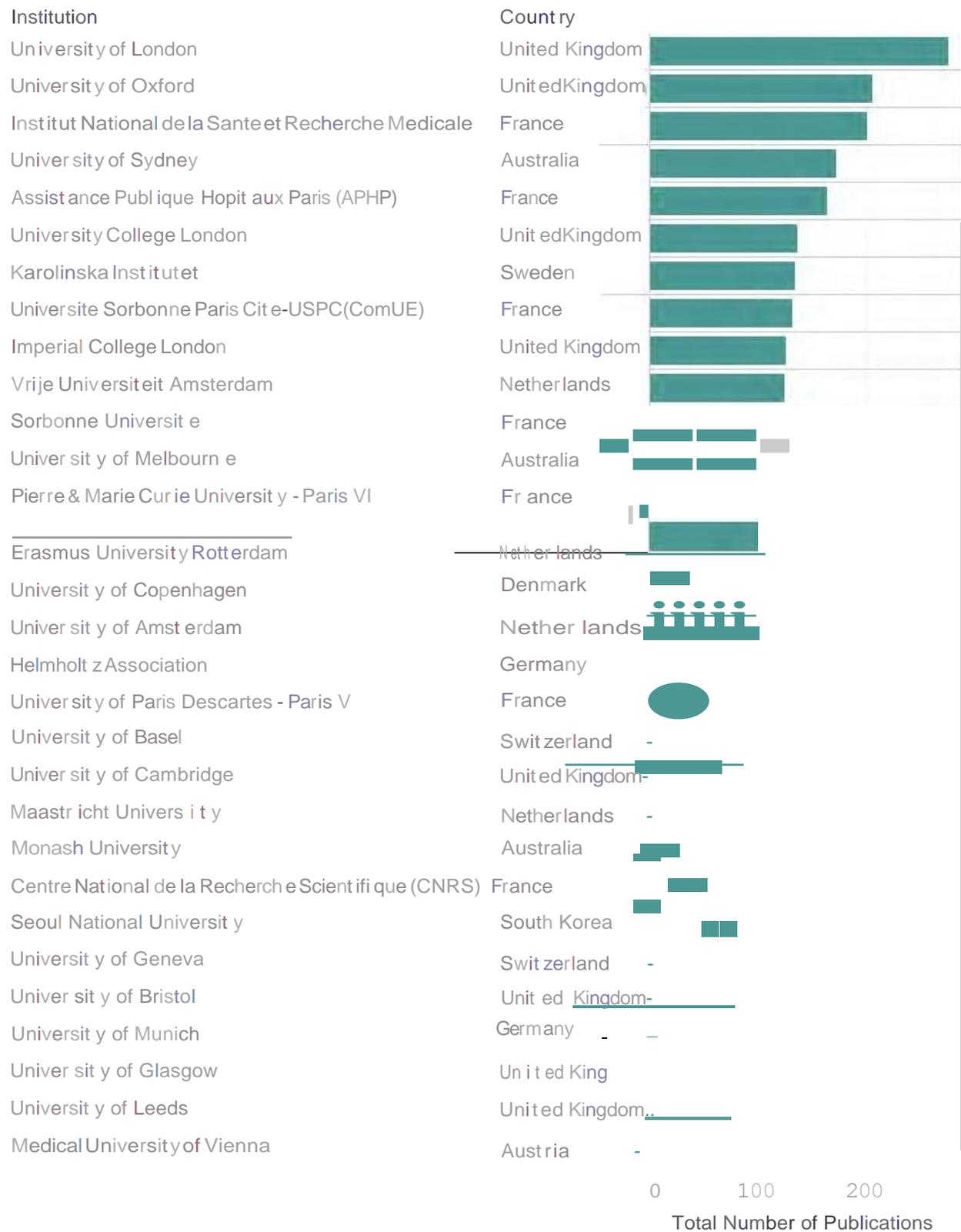
Top Co-publishers, by Country – Top 7 (not including USA, UK, & France)



Top 30 International Research Collaborators (Since 2006)



Top 30 International Research Collaborators - Not Including the USA (Since 2006)



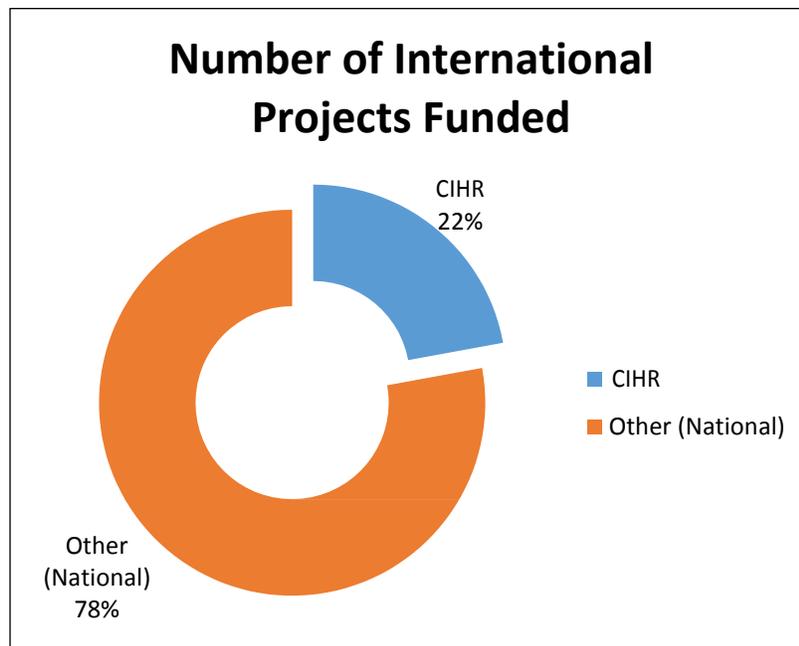
Research Funding

Data for research funding was provided by the uOttawa Central Office of Research Management Services (RMS). The data collected from two sources: 1) funding contracts processed by RMS, and 2) Self-reported incoming funding by uOttawa faculty. When investigating the data, it appeared that there were inconsistencies between the data provided by RMS and FoM, with the latter clearly more accurate.

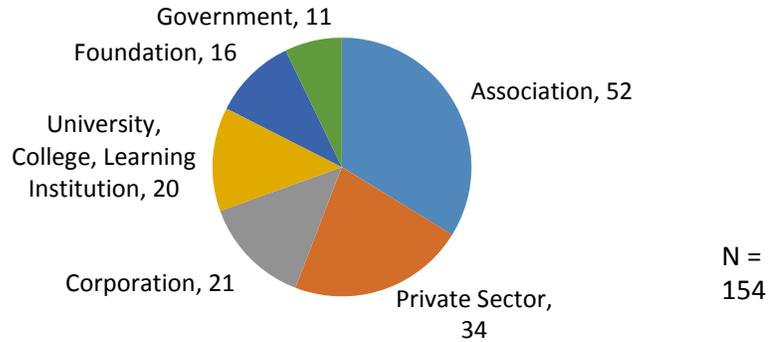
However, the data provided by the Faculty's Research Office did not contain a clear indicator for international and thus could not be used for the purpose of this exercise and under time restraints of Task Force.

Moving forward, having clear data on international research funding (either funding for projects with an international collaborator, or funding from an international source) could be useful to have a better understand of the Faculty's international footprint and help to inform greater strategic decisions, particularly on partnerships, moving forward.

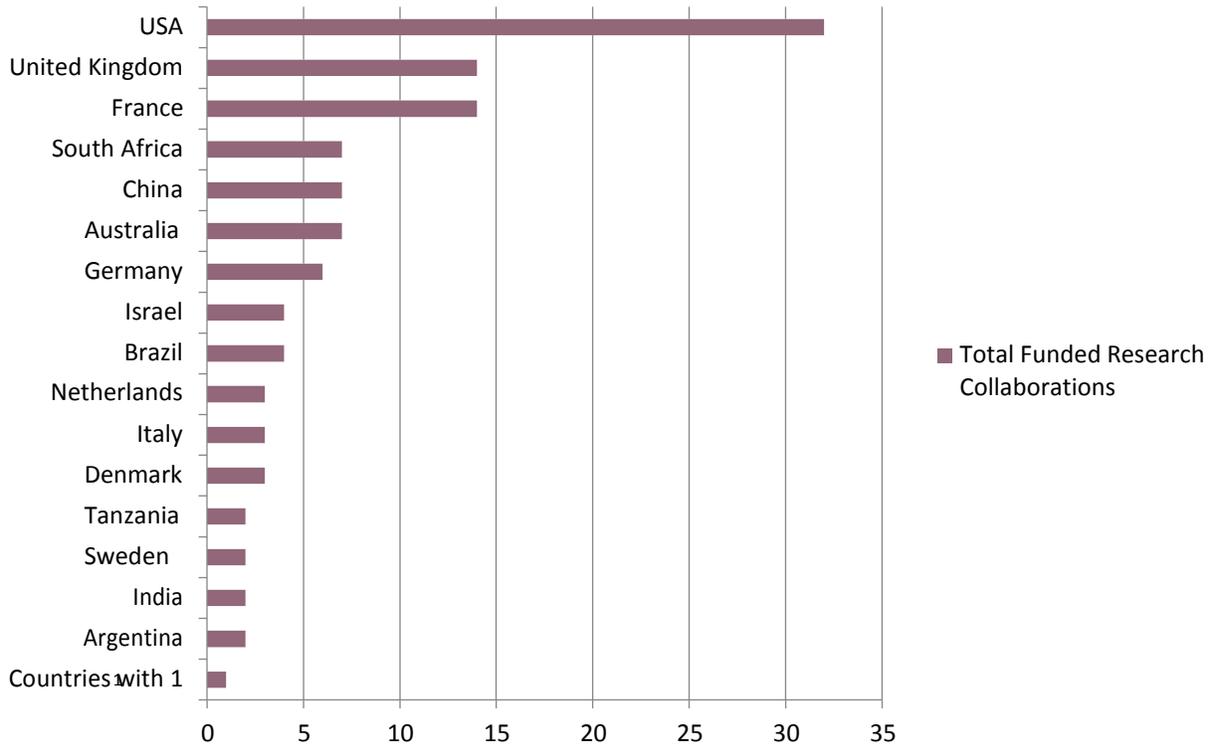
Although the Data is not fully inclusive, it provides a picture of current research funding trends.



International Sponsor Type - Total number funded (Since 2012/13)



Total Number of Funded Research Collaborations (by Country)



¹ Chile; Colombia; Estonia; Ethiopia; Finland; Iceland; Ireland; Jamaica; Kenya; Malawi; Mexico; New Zealand; Norway; Pakistan; Paraguay; Qatar; Russian; Federation; Taiwan; Uganda; Zambia

uOttawa Internationalization Scorecard

The following tables and graphs represent uOttawa's Scorecard for Internationalization as defined by the Destination 20/20 scorecard. The data was provided by the uOttawa Central Office of Institutional Research and Planning (IRP). The data is collected faculty wide to measure progress on the internationalization goals set out in Destination 2020 (Tables prepared by IRP). The 2020 targets for Internationalization are based off on four key variables: Percent of international students, Number of International Student Exchanges (Outgoing); International research collaborations, and total numbers of programs with an international component (university level – not faculty).

While most of the University and the Faculty's successes cannot be shown on a graph, the scorecard measures progress in key areas that is standardized across the faculties. However, due to the unique position of FoM, the scorecard does not capture full international picture of the Faculty. For example, the number of outgoing students (exchanges) does not capture the extent to which UGME students participate in the Global Health International Electives Program. Nor does the number of incoming students reflect the incoming Residents and Fellow that the Faculty and Hospitals attract from all over the world. Furthermore, the international research publications data mostly covers basic science research with very little data on clinical research. During the consultations of the Task Force, it was learned that there is much international research collaboration in clinical research, however, this data is seldom captured by any centralized source.

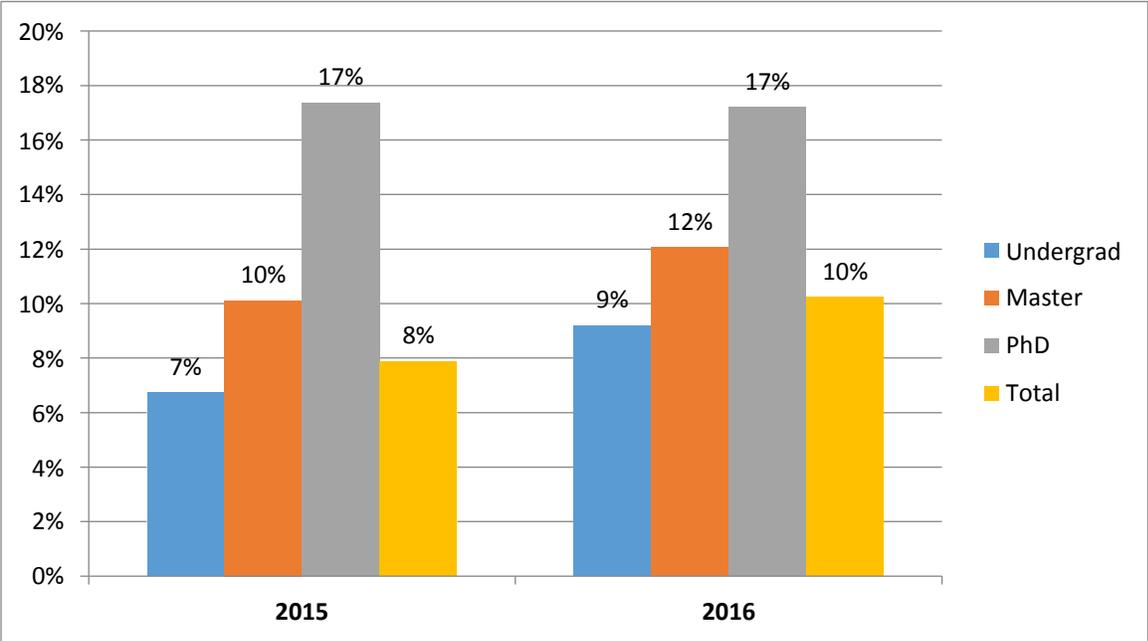
Highlights:

- The steady rise in the % of international students in FoM (17% of Faculty of Med PhD students are international students, compared to 23% across all Faculties)
- The definition of International Exchanges / International Mobility was expanded in 2014, yet the number of students captured as having participated in International Mobility dropped sharply. This is likely due to how the data is collected. This information is gathered in a decentralized fashion by the International, as such, students taking part in the Global Health Program may not be included in the data, which is a significant part of FoM's international footprint.
- Just under half of all publications have an international collaboration.

International Scorecard - Percent of International Students

	2012	2013	2014	2015	2016
Target 2020	8%	9%	11%	12%	13%
Results by Level of Instruction					
All Undergraduate	6%	7%	8%	10%	11%
Graduate	19%	24%	26%	25%	26%
Master's	20%	26%	29%	27%	28%
PhD	15%	18%	20%	21%	23%
Results by Faculty					
Medicine	7%	6%	7%	8%	10%

Faculty of Medicine, Percent of International Students by Degree Level



Internationalization Scorecard - Exchange & Mobility

	# International Student Exchanges		# International Mobility		
	# of Students	# of Students	# of Students	# of Students	# of Students
	2013	2014	2014	2015	2016
uOttawa	669	593	781	891	1002
Results by Gender					
Female	485	387	516	608	673
Male	184	206	265	283	329
Results by Language in Use					
English	408	400	547	602	681
French	261	193	234	289	321
Results by Level of Instruction					
All Undergraduate	551	466	646	711	857
Graduate	118	127	135	180	114
Results by Faculty					
Medicine	55	23	23	17	2
% of total	8.2%	3.9%	2.9%	1.9%	0.2%

Notes:

International exchanges (outgoing):

All student data produced for the scorecard is based on the fall official declaration to MTCU: Source = Official Student Record

International Mobility also includes ITEMS BELOW:

Mobility data are collected from: decentralized sources, coordinated by the international office (e.g., International engagement centre, faculties provide lists of courses and/or students); International Mobility Grants; Student Information System (location abroad = OFF Campus)

International employment:

teach abroad, international practicum and co-op placements

International field trips:

enrolment in courses with an international educational activity including fieldwork

International Letters of Permission (LPI's):

LPI's are retroactive, they are not all captured on the student record (in the official student information system) for the year when the activity took place.

Internationalization Scorecard, International Research Collaboration

Medicine					
Year	Publications	International collaborations	Ratio FoM (%)	University Ratio Total (%)	target
2013	1905	877	46%	44%	49%
2014	2138	1007	47%	46%	49%
2015	3474	1513	44%	44%	49%
2016	3416	1585	46%	46%	49%



Part 2: International Partnerships and Regions of Focus

The Faculty of Medicine currently has several key international partnerships around the world.

The main priority of the Faculty's internationalization efforts is to foster long-term progressive relationships in which FoM work with international partners on joint programs with the goals of promoting social accountability and improving health care in Canada and abroad through education and research.

The focus of international partnerships should be on social accountability, healthcare outcomes, and financial sustainability. The latter point is particularly pertinent in order to be both accountable to the Faculty's stakeholders as well as to ensure the long-term success of any international endeavor.

The list below provides an overview of the main institutional partnerships around the world, as well as some key regions that the Faculty tends to focus.

Asia

China:

- Ottawa-Shanghai Joint School of Medicine

The OSJSM was launched in 2014 in partnership with Shanghai Jiao Tong University School of Medicine (SJTUSM). As the world's first Sino-Canadian Joint Medical School, the OSJSM introduces the pedagogical practices of Canadian undergraduate medical education (UGME) to China and aims to become a bi-national model partnership for the internationalization of medical education.

The OSJSM admits up to 60 students every year for the Pre-med program. Up to 30 are selected for the 4-year joint UGME program. In 2016, 18 students have been selected to enter the OSJSM UGME program (Class 2020) and in 2017, 13 SJTUSM students have been selected for the second cohort (Class 2021).

Through the Peer support program, each OSJSM student is matched with a uOttawa student from the first year during their Joint Intro Unit. Student peers will meet each other, exchange academic questions, share experiences.

- uOttawa-Xinhua Joint Clinical research Program

The JCRP was developed in partnership with Xinhua Hospital where the uOttawa Faculty of Medicine and CHEO collaborate with Chinese health professionals on creating advanced research methods, ethics and infrastructures to enhance health care in Canada, China and worldwide.

The partners from Ottawa and Shanghai work together in developing the capacity of a Joint Clinical Research Unit to be housed in Xinhua hospital, which would ultimately provide support to Prepared by the Office of Internationalization Page 2 of 7 researchers working on joint projects. The parties have committed one million (CAD) (\$500,000 each) in funding for joint projects, with \$700,000 currently remaining.

- Shanghai Institute of Materia Medica (Simm) - SIMM-uOttawa Joint Research Centre on Systems and Personalized Pharmacology

In November 2011, uOttawa and SIMM established a formal agreement to develop a joint laboratory in mass spectrometry/proteomics encouraging the mobility of professors and graduate students. This was followed by a second agreement and launch of the Joint Research Centre on Systems and Personalized Pharmacology in 2017. With investment from the two partners, the joint center aims to develop research collaborations, cross-training of students and professors, and symposia in Shanghai and Ottawa.

In the winter of 2018, a board of institute directors (including three professors from uOttawa) met to define funding priorities and review research project proposals. Each research project will include opportunities for PhD students. A joint symposium later in 2018 is also in planning.

- Shanghai Institutes for Biological Sciences (SIBS)- Research Collaboration in Systems Biology

In November 2011, the University of Ottawa and SIBS partnered to promote collaborative links in systems biology, the exchange of professors and graduate students.

The partnership aims to achieve this through a symposium on systems biology to be held at uOttawa and at SIBS on a rotating basis, inviting researchers from both institutions for short stays or complete sabbaticals to develop collaborative projects or to be trained in specialized techniques, encouraging scientists to develop joint research projects and make applications to national and international funding agencies and by promoting international research experience and training for graduate students, postdoctoral fellows and clinical staff.

- Dalian Institute of Chemical Physics: Research Collaboration in Proteomics and Systems Biology

In June 2011, the University of Ottawa and the Dalian Institute of Chemical Physics established a formal agreement to promote collaborative links in proteomics and systems biology. The joint research laboratory will have an initial focus on:

- Proteomics and systems biology technology development and application
- Clinical application of proteomic and systems biology
- Prepared by the Office of Internationalization Page 4 of 7
- Mechanistic study of traditional Chinese medicine
- Biological validation of proteomics and systems biology
- Bioinformatic software development and application

- 6th Hospital – Joint Education Research Unit (Research and Training)

The JERU is a collaborative initiative founded in October 2015 with the signing on an MOU between Shanghai 6th People's Hospital in China and the Faculty of Medicine's Department of Innovation in Medical Education to support innovation in medical training at all levels.

The JERU enables professors from Ottawa and Shanghai to collaborate on research in the following areas: Simulation and technology-enhanced education, assessment, humanities and medical education, competency-based education and anatomy education.

- Tongren Family Medicine Training: Family Medicine Training Program; Specialists Observership Program (Collaboration with the Health and Planning Commission-Changning District)

The Family Medicine Training Program is a collaboration between the SJTUSM, uOttawa Faculty of Medicine, Shanghai Tongren Hospital and Shanghai Changning District government, with the ultimate goal to establish a demonstration primary care system in Shanghai. The program develops a family medicine clerkship curriculum for OSJSM students, and trains physicians at the SJTUSM's affiliated hospitals as family medicine educators.

In 2017, the first 3 Shanghai fellows have completed in the "train-the-trainer" program in Ottawa. Moreover, the Faculty of Medicine recently launched the Specialist Observership Program, which invites Tongren hospital Trainees to Ottawa for a 6 week program to learn about the role of the specialists in connecting with the primary care system. The first group of specialists arrived in Ottawa in May2018.

Japan:

- Shiga University of Medicine: Research Collaboration in Brain and Mind Sciences, Cardiovascular Science and Medical Pedagogy – with uOttawa Centre for Research in Biopharmaceuticals and Biotechnology

Through the efforts of the University of Ottawa Centre for Research in Biopharmaceuticals and Biotechnology, an agreement between uOttawa and the SHIGA University of Medical Science was signed. The partnership aims to develop research collaborations, primarily in brain and mind sciences, cardiovascular science and medical pedagogy, by exchanging of information on training programs, course offerings and scientific projects.

Vietnam:

- Graduate Student Recruitment

At present, the FoM's Office of Graduate Studies has launched a new advisor committee looking at the future recruitment strategy for graduate students at the faculty. International recruitment has been noted as a key area for potential growth, with one of the strategic areas noted being Vietnam.

Europe

France:

- Université Claude Bernard (Lyon 1): Joint Collaborative Research Program between the uOttawa Centre for Neuromuscular Disease and the Institute NeuroMyoGene

The uOttawa Centre for Neuromuscular Disease (CNMD) and Université Claude Bernard Lyon 1 Institut NeuroMyoGene (INMG) have launched a joint program and have committed \$1,000,000 CAD over five years to support collaborations in basic and clinical neuromuscular disease research and to develop international research teams. Over the next five years, four high-calibre scientific projects will be jointly funded annually in the area of neuromuscular disease.

- Université de Lyon: Coopération scientifique: International Electives

Three-week clinical electives are offered annually to fourth year uOttawa medical students (up to 5) at partner institutions in Lyon. Medical students in Lyon are offered four to six-week clinical electives in Canada. French students usually spend the first half of their elective at Montfort Hospital and the second half at the Ottawa Hospital. Since 2015, 7 uOttawa students have been to Lyon and 7 Lyon students have come to Ottawa.

- Université Paris – Descartes:
 - Research Collaboration in Neuromuscular Disease

In 2014, uOttawa and the University Paris-Descartes formalized their collaborative research and postdoctoral training in neuroscience. The partnership brings together uOttawa's Brain and Mind Research Institute and Paris-Descartes' Institut des Neurosciences et de la Cognition to advance scientific objectives and share state-of-the-art technology platforms. A graduate training program, which includes an exchange of students and postdoctoral fellows, gives researchers from each university the opportunity to learn new skills.

- Coopération scientifique: International Electives

The Faculty of Medicine BAF established of 4-6 weeks electives with the Université de Paris-Descartes in Ottawa and Paris. On a yearly basis, up to six students have been on such an exchange in both direction. Since the start of the agreement is as follow 36 French students have come to uOttawa and 24 uOttawa students have been to Paris-Descartes.

- Université de Strasbourg: Cotutelle Program – Doctorate in Philosophy Biochemistry
- Medicine and Humanities International Program: Joint Program between uOttawaFoM, Université de Lyon, Shanghai Jiaotong University School of Medicine, Shanghai University of Traditional Chinese Medicine

Established in April 2016, the MHIP is a multilateral program with the Université de Lyon, SJTUSM and the Shanghai University of TCM. The program enables students and professors to experience the history of medicine, art, literature, philosophy and human sciences across cultures in order to foster critical thinking, the development of professionalism and empathy. MHIP achieves this by developing teaching material, student exchanges and summer school opportunities, as well as initiate related joint research in the medicine and humanities.

The first MHIP International Summer School was hosted by uOttawa in July 2017. 7 uOttawa students, 10 Shanghai students, 10 Lyon students and accompanying professors, took part in humanities courses (delivered in French and English) and cultural activities together, and learned from each other's perspectives on healthcare. The 2018 summer school will be hosted in Lyon.

Sweden:

- Linköping University: Cotutelle Program – Doctorate in Cellular and Molecular Medicine

Finland:

- University of Turku: General Agreement – uOttawa Wide (Graduate Student Exchange)

Spain

- Universitat de Barcelona: General Agreement – uOttawa Wide (Graduate Student Exchange)

Africa

Bénin:

- Projet Bénin (Université d'Abomey-Calavi): International Electives, Faculty development and research in Family Medicine

The project was established in 2003 through an agreement between the Faculty of Medicine at the University of Ottawa (Office of Francophone Affairs) and the Faculté des sciences de la santé at the Université Abomey-Calavi (Cotonou, Benin).

The Benin project provides 4-5 weeks clinical electives to uOttawa year-4 students and residents in the family medicine program in Benin as well as faculty development training (e.g. teaching methods, neonatal resuscitation, sexual health, family planning, post-partum hemorrhage etc.) and research collaboration opportunities. 52 uOttawa students, 7 residents, 20 preceptors (most recurrent), 4 nurses and 4 pharmacists have contributed to the project since its inception.

MENA

Israel:

- Hebrew University of Jerusalem and Institute for Medical Research-Canada: Joint Training and Research Program

In 2008, a collaborative program was established between the uOttawa Faculty of Medicine and Hebrew University's Institute of Medical Research Israel-Canada (IMRIC). As a result, a memorandum of understanding between the Faculty of Medicine and IMRIC was established to build collaborative links between the universities' research arms with expertise in areas of common interest including neuroscience, bioinformatics and computational biology, women's health, and cancer research. In 2010, the parties agreed on the terms of agreement which outlined four key areas for research collaboration:

- Computational Biology and Bioinformatics
- Neurosciences
- Women's Health and Cancer
- Emerging Pathogens/Infectious Diseases

In 2013, uOttawa, the Hebrew University, and IMRIC announced the first annual funding opportunity for collaborative research projects in the area of Neuroscience. The announcement was for a maximum of three joint pilot projects, each with a maximum budget of \$50,000 CAD.

In September 2014, uOttawa and IMRC organized a mini-symposium on "Gut, Liver and Microbes" in Jerusalem with participation from various researchers of the uO Faculty of Medicine.

- Global Health International Electives

Saudi Arabia:

- PGME Training: Incoming fellows

South America & Central America

Guyana:

- Partnership between uOttawa FoM Department of Family Medicine and Georgetown Public Hospital Institute of Health Science Education: Guyanese Family Medicine Residency Program

The uOttawa FoM Department of Family Medicine partnered with the University of Guyana and the Georgetown Public Hospital to train the inaugural class of Family Physicians from May 2015-May 2018. The purpose is to both increase physician retention by creating an academic professional home in Family Medicine, as well as increase the quality of care delivered.

USA

General:

- Research Exchange
- Global Health International Electives

Other Initiatives

The University of Ottawa is a member of the Canadian Coalition for Global Health Research

Analysis

Through deliberation at the Task Force meetings and consultations with relevant parties, the Task Force was able to identify several key areas of strength for the Faculty's international engagement:

- 1) Creating a novel and unique international experiences for students, residents and professors.

Through the listed partnerships, the Faculty has established a variety of international opportunities for all members of the Faculty Community. The partnerships in Benin and Guyana have provided exceptional opportunities for the Faculty's francophone students, residents, and faculty members. Similarly, the partnerships in China have provided many diverse opportunities for students and faculty, from International Electives and research opportunities to offering workshops and capacity building. These partnerships have been successful in getting the uOttawa community out in the world in a systematic and focused approach.

- 2) Dedicated students, faculty, and staff.

The FoM community is highly engaged internationally in terms of education, capacity building, and research. Furthermore, the Faculty has highly engaged staff that provide support to the international initiatives of the Faculty, from the Office of Internationalization, the PGME Office, Bureau des affaires francophones, The UGME Office, Graduate Studies, and the coordinators in each department. This is a clear strength of the Faculty, and the success of any international partnership is built on the motivation and passion of the students, professors and support staff involved.

- 3) Programs which emphasize and showcase the Faculty's existing strengths on the international scene to increase its visibility and reputation;

The Task Force acknowledges the numerous challenges of internationalization at the Faculty. A common challenge across the programs is limited financial and human resources, which threaten sustainability of the programs and the international opportunities they provide for students and professors in education and research. The Faculty finds itself in this financial reality and as such, internationalization must account

for this. Sustainability must be a key variable in the development of international partnerships and initiatives.

Similarly, a lack of defined scope, roles and responsibilities represents a challenge to each programs' long-term success. This challenge is reinforced by an absence of overall strategy and governance for internationalization of the Faculty. This is particularly relevant in terms of the OSJSM. There exists a clear gap between the initial strategy and mandate of the Joint School and the Faculty's resources and ability to meet the early expectations. This does not mean the OSJSM will collapse; however, this is an example that highlights the need to ensure that international engagements align with Faculty's strategy and capabilities both in the short, medium and long term. For a complete SWOT report on the OSJSM, please see [Appendix C](#).

As reflected in the Faculty Experience Survey responses, a significant portion of the faculty community did not feel engaged or rewarded from the past internationalization efforts. The lack of engagement and support from the Faculty community must be addressed moving forward. Significant efforts must be made to make internationalization more inclusive, transparent and accountable.

Recommendations – Internationalization

- 1) **Regular data collection and review of activities.** Moving forward it will be important to consistently and systematically collect and analyze data on the Faculty's activities and critical trends. This type of reporting has seldom been done, and could greatly increase the leaderships understanding of the Faculty's international footprint as well as to inform strategic decision making. The data collected should be reported on regularly in the form of an annual report. Furthermore, through regularly reporting, it will be easier for the leadership to see short and long term trends in international activities as well as to measure the outcomes of particular partnerships and investment.
- 2) **Make a balance between short-term and long-term needs, consequences, benefits and challenges.** This was evident in the establishment of the OSJSM. It is only as we approach the medium-term that we begin to understand the inherent challenges and gaps between the initial expectations and the present reality. More focus needs to be placed on the early planning of these partnerships and established them in a transparent and accountable manner.

As such, the Task Force recommends following a checklist process in the establishment of new partnerships with a focus on risk management and clear expectations. (see [Appendix E](#))

- 3) **Partnership evaluation and metrics.** To be more accountable and transparent the Task Force recommends that new partnerships outline clearly the expectations and variables upon which they can be evaluated. It is clear that each partnership has its own expectations, and there is no one-size fits all for metrics (ex. Inputs/outputs: publications, grants, student mobility, capacity building, social accountability, intangibles – reputation, branding, etc.). However, if these are established at the phase of initial development, the partnerships can be accepted and then reviewed upon its own pre-established and agreed upon metrics. Furthermore, the partnerships should be regularly updated and reported on to the Faculty Leadership. (see [Appendix F](#)).

4) **Leveraging our position in the Nation's Capital.** The University is strategically located in the heart of Canada's international activity. With government agencies, the diplomatic missions, international organizations, and NGO's, the Faculty is in a unique position to establish key relations with contacts in and around Ottawa to foster and nurture our international activities.

5) **Resource sharing across the University.** During consultations of the Task Force, it has become apparent that many of the University's international activities and the support for those activities, happens in a silo. Greater coordination is required between faculties and with the central administration to ensure that internationalization occurs in the most efficient manner.

For example, the Faculty was pleased to hear of the International Office's new uoGlobal International Certificate which provides formal recognition for the international activities by students at the international and local level. This initiative will help to coordinate these activities and bring students taking part in the program together. This program is a step in the right direction, however, more is needed to ensure that international resources are most effectively used across the University.

6) **Resources and Structure of the Office of Internationalization (OI).** The resources and the structure of the OI should be adapted to be in a position to best meet the international demands of the Faculty. Historically, the OI has focused almost exclusively on the preferred partnerships of China and France. Moving forward the OI should be restricted to a model which would support four key areas: Partnership development, international support services, revenue generating initiatives, and Global Health support.

7) **Avoid the tendency to provide excessive support for individual projects.** As the Faculty establishes new partnership and provides support for international initiatives, it will be important to ensure that efforts being supported are not the result of individual pet projects. Avoiding this will encourage greater long-term success for international endeavours, particularly following a change in leadership. Using proper partnership evaluation standards prior to launch should be able to support the Faculty in avoiding this.

You know a partnership is successful if you can leave and it continues on without you.

8) **Support International @ Home initiatives.** Not every student has the time or resources to take part in a program or opportunity abroad, however, this does not mean that they cannot have an international experience. The Faculty and University should continue to support and create opportunities for students to take part in the international activities locally. This includes local Global Health, summer schools, workshops, seminars, and international student buddy programs. It is important to note, however, that international activities at home should not substitute the Faculty's focus on outgoing international activities. Rather, the two should be perceived as complimentary in terms of the Faculty's overall international targets.

Part 3: Global Health

The Faculty aims to foster and support Global Health activities in line with the internationalization pillar of the University of Ottawa's Destination 2020 and to help advance the social accountability mandate of the Faculty of Medicine. This is accomplished by establishing strategic and sustainable initiatives that will facilitate the engagement of uOttawa students, residents and faculty in education and research, healthcare and capacity-building opportunities, with the ultimate outcome of improving the healthcare of low-resource communities in Canada and around the world.

For a detailed SWOT on the Global Health Program (produced by the GHP team), see [Appendix F](#).



Existing Strengths in Global Health

- UGME Global Health curriculum focus and international electives
- Canadian leaders in provided Pre-Departure training and the Post-Departure Debriefing Session
- SEPHPM research and graduate studies program in GH
- Motivated faculty community active in GH Education, Research, Healthcare and Capacity-building:
 - Extensive number of grass-root initiatives
 - Community activities (e.g. journal club, MSF talks, AGHN)
 - Interest groups (e.g. Student-led GHIG, OISTER)
- Leadership in Global Health at the University-level and recognized by national entities (e.g. AFMC, CCGHR etc.)

- The Centre for Global Health Research
- Family Medicine training program:
 - Benin
 - Guyana

- China – Tongren Hospital
- Departments and PGME programs (e.g. Family Medicine, OBGYN-OISTER, Surgery, Pediatrics etc.)
- (e.g. SEPHPM, Centre for Global Health etc.)

Areas of Research Strength in Global Health:

- Health Equity / Health Assessment and Impact
- Family Medicine & Primary Care Systems
- Public Health (including rare diseases, AMR, Non-communicable diseases)
- Global Maternal and Child Health
- Health Law, Policy and Ethics

Current Challenges

GH mandate at the Faculty of Medicine remains ***fragmented*** due to the absence of an institutional program.

- UGME curriculum focus and international electives at OI
- Departments and PGME programs (e.g. Family Medicine, OBGYN-OISTER, Surgery, Pediatrics etc.)
- No central tracking of outgoing PGME Global Health placements
- Research (e.g. SEPHPM, Centre for Global Health etc.)
- Healthcare and Capacity-Building (highly dispersed)

Opportunities

- An educational opportunity like the Global Health Stream is sought after by many students when looking for a medical school. The expansion and enrichment of this program could be an enticement for recruiting excellent medical school candidates.
- There is an ongoing need for communication within the FoM to communicate and highlight global health activities and to try to support ongoing activities. From a faculty point of view, many of these are individual contributions that the GHP may not even be aware of, but may be able to support. In addition, these may provide opportunities for trainees to take part in global health experiences.
- The establishment of a formal debriefing session has been a real success and needs to continue to be a mandatory part of global health electives/experiences. The frequency of these sessions will, with time, need to be expanded. Funding support of a medical student to help facilitate these sessions would be ideal. We are currently a leader nationally in debriefing methods and are disseminating our experience and results at educational and global health conferences.
- There is a need for a formal policy for international/global health PGME placements. The GHP has been working with OI and PGME, but a priority needs to be placed on finalizing the policy and

providing support for the projected increased numbers of trainees in PDT and post-elective debriefing, as well as the increased need for support while trainees are in country.

Recommendations – Global Health

- 1) There is a need for a **formal policy for international/global health PGME placements**. Presently, there is no central tracking of residents taking part in international placements. This is important from both a risk management and strategic point of view. By having a better understanding of where our residents are going, we will be in a better position to make strategic GH decisions.

The GHP has been working with OI and PGME, but a priority needs to be placed on finalizing the policy and providing support for the projected increased numbers of trainees in PDT and post-elective debriefing, as well as the increased need for support while trainees are in country.

- 2) **Establishing Partnership Strategy in Global Health**. Presently, most international placements, UGME and PGME, take place adhoc with our students going all over the world. This is fine, however, it is recommended that an option be available for students and residents to take part in international placements that contribute towards a long term and impactful mission. By channelling some Global Health placements through specific partnerships, the outcome of their contributions can have a much larger and measurable impact.

This is already evident in the Benin program. The Benin program offers international placements which ultimately contribute towards a larger goal. Similar partnerships can be established in other regions where we are currently involved in order to provide our students, residents, and researchers the option to contribute towards a larger objective in improving healthcare outcomes in a particular region. This would also allow the University to gain greater visibility and involvement in the particular region.

It is recommended to establish the criteria, and to define the range and scope for partnerships and the reciprocal expectations resulting from these partnerships.

- 3) **Director of Global Health across FoM departments**. In order to bring more structure and coherence to the Global Health activities of the Faculty, it is recommended that the position of Global Health Director not only be limited to UGME but rather an overall, cross-departmental, Global Health Director.
- 4) **A Global Health Service Model**. During Consultations, it was repeatedly stressed that there should be greater institutional support for larger scale Global Health activities, such as the organization of seminars, works, and other international events. The institution should provide the necessary support and expertise to assist Faculty members in the coordination of these activities.
- 5) **Communicate, consult and share the global health vision broadly across the Faculty**. This should be an immediate first step to establish a consultation strategy, which includes all academic units and sectors involved in Global Health who may not have been engaged during the current task Force process. This consultation should happen more broadly across the University to ensure that the University establishes a cohesive vision of the University's approach to Global Health.

- 6) **Establish a research network for Global Health.** At present, Global Health research primarily takes place at the faculty member level at the Faculty of Medicine and across the University. A research network or institute is required to bring this researcher community together and to be able to build synergies, including interdisciplinary and cross-faculty. A research network or institute would also be in the best position to shape research strengths and to unify the Global Health agenda of the University.
- 7) **Formal Institutionalization of the Global Health Curriculum.** It is recommended that the Faculty provide further institutional support for the Global Health Curriculum. At present, the students are highly involved in the organization and coordination of the program, however, the Office of Internationalization has expressed the desire to provide more support for this program. This would ease the burden on students who organize much of the program, as well as help to avoid knowledge or interest loss each time the student society has a change in leadership. The point was highly emphasized by the students. See the UGME Student Global Health Report and Recommendation following the results of a student survey in [Appendix G](#).
- 8) **Global Health Awareness and Promotion.** More needs to be done to communicate and promote the various global health activities and initiatives across the Faculty that currently exist. So much great and fascinating work is being done towards Global Health, from faculty, students, residents and staff. These efforts should regularly be promoted to increase awareness, interest, and event participation within the Faculty, University, and greater community.
- 9) **Developing more academic offerings in Global Health.** The Task Force acknowledges the huge demand for Global Health education and recognition. Universities around Canada, the US and Europe have already established graduate degrees, post-graduate certificates, and specializations in Global Health. These programs significantly contribute to the ability of the Faculties of Medicine to recruit the best students. Similar programs should be established here. If we don't students will look elsewhere to receive academic credentials in Global Health. It is recommended to look into the establishment of a graduate degree program in Global health, as well as a certificate program for residents.

Canadian National Context

In response to the Review of Federal Support for Fundamental Science, the Canada Research Coordinating Committee (CRCC) was established in 2017 to improve the coordination efforts of Canada's granting agencies—the Social Sciences and Humanities Research Council of Canada (SSHRC), the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Canadian Institutes of Health Research (CIHR) — as well as the Canada Foundation for Innovation (CFI). The CRCC is composed of the presidents of SSHRC, NSERC and CIHR; the Deputy Minister of Innovation, Science and Economic Development Canada; and the Deputy Minister of Health Canada. The CRCC will play an important role in reinvigorating Canada's federal science funding system and implementing a bold vision for the future of Canada's research landscape.

The Government of Canada’s 2018 Budget provided further good news for medical research in Canada, with the announcement of the largest increase in new funding for fundamental research in Canadian history. The proposed investment, through the granting councils (CIHR, NSERC, SSHRC, and CFI) totals \$925 million over five years. For CIHR, which currently invests approximately \$1 billion each year to support health research, the increase from Budget 2018 adds another \$354.7 million over five years for investigator-initiated research. Additionally, CIHR was allocated targeted funding of \$15 million to CIHR over 5 years to support a new national research consortium on Post-Traumatic Stress Injuries (PTSI) in public safety officers. Furthermore, the budget included \$275 million over five years and \$65 million per year ongoing, to be administered by the CRCC, for the creation of a new tri-council fund to support research that is international, interdisciplinary, fast-breaking and higher-risk; and \$210 million over 5 years for the Canada Research Chairs (CRC) program, with a focus on supporting early-career researchers and increasing diversity.

Data source: Lancet series publication on the direction of Global Health Research in Canada.

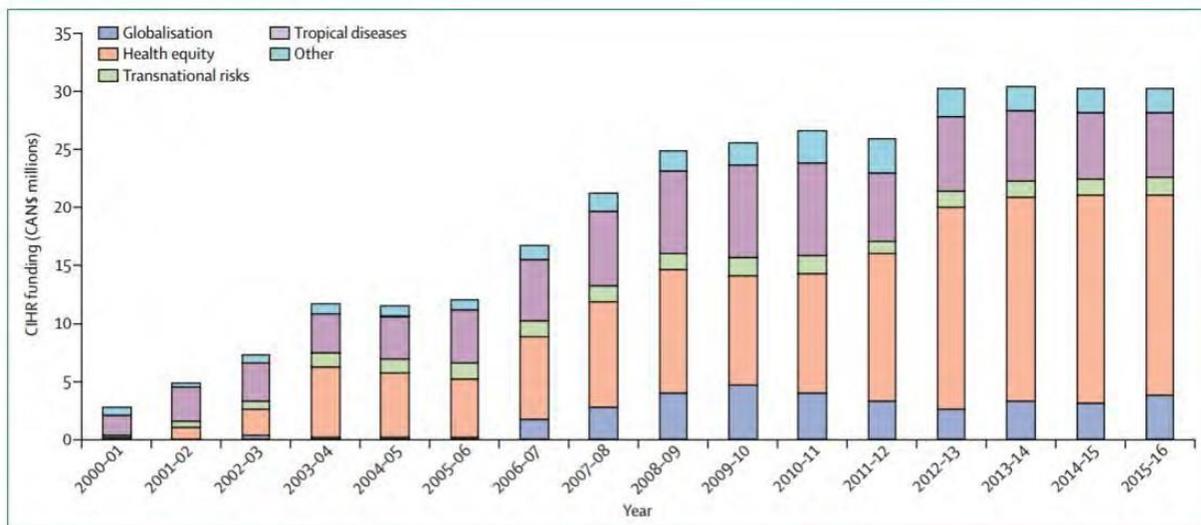


Figure 2: Canadian Institutes of Health Research (CIHR) funding of global health research by primary focus, 2000-15
Data provided by the CIHR on June 6, 2017.

Appendix A – Data Tables

International co-publishers by country and year

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Grand Total	Percent of Total
USA	419	496	616	781	919	1002	1032	1367	1702	1933	1864	12131	61.0%
United Kingdom	68	71	101	131	156	187	152	175	222	312	342	1917	9.6%
France	62	51	75	98	88	155	95	96	155	151	214	1240	6.2%
Germany	13	45	34	56	83	79	104	105	129	169	158	975	4.9%
Australia	10	24	23	46	41	59	54	101	120	98	143	719	3.6%
Netherlands	12	34	24	49	33	60	77	46	106	111	107	659	3.3%
Switzerland	9	16	14	28	29	39	33	45	52	50	46	361	1.8%
Sweden	5	7	15	6	21	25	16	24	34	50	57	260	1.3%
China mainland	7	9	8	17	13	19	14	18	37	47	61	250	1.3%
Italy	3	5	11	5	7	29	14	15	29	30	25	173	0.9%
Denmark	4	7	6	4	8	12	12	15	24	24	32	148	0.7%
South Korea		3	5	3	8	7	20	29	19	36	15	145	0.7%
Spain	5	5	5	7	6	9	10	9	18	24	31	129	0.6%
Austria	3	3	6	8	10	14	14	16	18	18	13	123	0.6%
Belgium	2	4	3	7	11	17	14	12	18	15	17	120	0.6%
Israel	2	3	4	4	9	8	8	11	7	12	14	82	0.4%
South Africa	1		3	3	7	13	9	12	7	7	15	77	0.4%

New Zealand	5	4	1	3	3	6	7	8	6	15	9	67	0.3%
Brazil	2	5	4	3	3	5	7	4	5	8	17	63	0.3%
Finland		1	2	2	8	2	6	6	6	10	14	57	0.3%
Norway	1		2	7	3	6	5	2	6	8	7	47	0.2%
Saudi Arabia			1	2	1	2	4	8	5	8	7	38	0.2%
Ireland		3	1	3	3	5	2	5	2	5	5	34	0.2%
Estonia	2	1	3	4	5	1	3	3	2	5	4	33	0.2%
Portugal					3	4	5	4	4	4	7	31	0.2%
Grand Total	635	797	967	1277	1478	1765	1717	2136	2733	3150	3224	19879	100.0%

Number and Value of Projects Funded by International Sponsors, Faculty of Medicine (2012-2017)

Fiscal Year	Foreign Sponsors		USA Sponsors		Total International		Total Faculty	
	n	\$	n	\$	n	\$	Total Funding	% International Funding
2012-13	12	\$236,380	41	\$913,853	53	\$1,150,234	\$39,556,418	2.9%
2013-14	3	\$352,400	25	\$400,987	28	\$753,387	\$37,190,147	2.0%
2014-15	8	\$577,399	16	\$801,655	24	\$1,379,054	\$35,379,202	3.9%
2015-16	5	\$268,396	10	\$1,015,902	15	\$1,284,298	\$31,533,657	4.1%
2016-17	10	\$419,968	10	\$1,346,500	20	\$1,766,468	\$31,078,346	5.7%
2017-18	4	\$129,472	10	\$684,675	14	\$814,147	N/A	N/A
Total	42	\$1,984,015	112	\$5,163,572	154	\$7,147,587	\$174,737,769	3.6 %

Note: Value refers to the payment information for that fiscal year for ongoing projects.

**Self-Reported New Projects with International Collaborations, Faculty of Medicine
(2012-2017)**

Fiscal Year	Total		
	Projects (n)	Profs (n)	Total Project Value\$
2012-13	11	9	\$960,739
2013-14	19	18	\$2,188,842
2014-15	17	12	\$1,927,983
2015-16	21	17	\$8,516,951
2016-17	23	19	\$3,080,731
2017-18	12	9	\$3,624,857
Total	103	84	\$20,300,102

Note: Life long awarded amounts for new projects with self-reported international collaborations.

Data Summary

Data Source	Category	Description / Notes	Status
Global Health Program	UGME - International Electives	All MD students who took part in an international elective since 2010. Includes the destination country and city.	Received
Graduate and Postdoctoral Studies (Central)	Incoming International Post-Docs	All incoming international post-doctoral students (Country and city of origin, as well as location of previous studies)	Received
PGME	International Clinical Fellows & Residents	Data on all incoming international fellows and residents (Country and city of origin, as well as location of previous studies) since 2015.	Received
	International Fellows – Revenue Generation	Revenue data coming from international clinical fellows	TBD
	Outgoing International Electives (Residents)	Unlike the Global health Program, there is no centralized source	TBD
Graduate Studies Office (Medicine)	Enrolment/Admissions/Applications	Data on the incoming/outgoing international grad students, as well as data on the international students application, admission and enrolment	TBD
Institutional Research and Planning	Incoming international students	Incoming international graduate students since 2013 (by program, year, and country)	Received

	International Research Publication	All uOttawa Medicine faculty publications with an international co-publisher	Received
	Internationalization Scorecard	University wide data measuring internationalization as set out in the Vision 2020.	Received
Research Office (Medicine)	International Research	TBD	TBD
Research Management Services	International Research Funding	Figures on research funding or grants from an international sources; CIHR funding for research collaboration with an international partner.	Received
Advancement (Medicine)	International Advancement	Data on the source of international donations and donations for a project or research with an international scope	TBD

Appendix B

International Research Publications by Country

Data source: uOttawa Office of Institutional Research and Planning – Data includes all published peer-reviewed articles and reviews between 2006 and 2016 with an international co-publisher. Extracted from the Web of Science Data base.

Filter Summary:

Dataset: InCites Dataset

Schema: Web of Science

Time Period: [2006, 2016]

Document Type: [Article, Review]

Collaborations with Organizations: [University of Ottawa]

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OSJSM Overview Objectives and Rationale

Description

The OSJSM offers the uOttawa UGME curriculum in English at the SJTUSM and is the first in China to be designed in accordance with Canadian medical education accreditation standards. The following is a description of the programs associated with the OSJSM stream.

Pre-Medicine Program

- The curriculum is aimed at ensuring that students meet some of the Admissions requirements of the uOttawa UGME program, as well as the Chinese criteria for University education.
- Three professors from uOttawa are recruited by the uOttawa Vice Dean of Graduate Studies to offer basic science courses to the PreMedicine program students in Shanghai, for 3-6 weeks.
- The courses offered by uOttawa professors are Cell Biology, Biochemistry & Metabolism, and Organismal Biology.
- The development of the program (in 2015) was led by uOttawa and selection of the students to PreMed program continues to be conducted by the STJUSM/OSJSM office.

Admissions

Students are admitted to the OSJSM upon successful completion of the Pre Medicine program. The OSJSM Admissions Committee is led by uOttawa. The committee includes senior members of the FoM Admission Committee (2 clinicians and 2 community representatives) and 2 senior medical students from the SJUTSM English stream. The Committee travels to Shanghai to conduct the interviews, and makes recommendations on the short list. The office of the Vice Dean, UGME determines which students will be offered admission in collaboration with the Executive Vice Dean, OSJSM

Admissions requirements for OSJSM UGME program:

- Successful completion of Pre-Med program – minimum GPA 3.7/4.0 on sciences & humanities courses
- Successful completion of Language requirements – TOEFL (> 90)
- Biographical sketch – completion and submission
- CASPer Test – completion and submission of results
- Successful Interview – minimum score of 3.5
- Combined score (GPA + Interview – minimum score 3.7/4.0)
- Medical College Admission Test (MCAT) – completion and submission of results

UGME Curriculum Development

The OSJSM PreClerkship curriculum was developed based on the UO curriculum structure, learning objectives, delivery methods, and assessment and evaluations processes. This was done sharing the

uOttawa curriculum content, schedules, objectives & examination blueprints. A curriculum comparison was conducted by uOttawa as well as monthly operational meetings.

Summer School Program

- The program was developed and organized by the uOttawa OSJSM team, which included development of the curriculum, course arrangements with uOttawa main campus, such as English language and Humanities courses.
- The English course for 2017-18 was meant to alleviate the burden of offering this course during the OSJSM academic year, thus freeing up the students for self-study.

Joint Introduction Unit at uOttawa

OSJSM students participate in the Joint introduction unit (2 weeks) and attend small group sessions (i.e. CBLs) with their PSP peer. Collaboration with the uOttawa UGME operational team is essential.

Peer support program (PSP)

Following the completion of the Ottawa-based summer school, each OSJSM student is matched with a first year uOttawa student. Through the PSP, students exchange academic questions, share life experiences and hopefully develop a life-long relationship.

Accreditation

The OSJSM is aiming to meet the requirements of the Committee on Accreditation of Canadian Medical Schools (CACMS) by 2020 and as such annual reviews will be conducted to guide and assist the OSJSM in developing and improving the curriculum and structure of the OSJSM.

Continuous Quality Improvement (extract from CQI Strategy)

uOttawa has a mandate to ensure quality standards at OSJSM so that we can say with confidence that Chinese students graduating from the OSJSM UGME Program will meet the same quality standards as Canadian graduates of the University of Ottawa MD program. This is one of the essential requirements for granting a uOttawa degree to OSJSM graduates.

Information Technology

Information technology required intensive support during the 1st year of implementation and included the following activities:

- Built the OSJSM UGME e-learning platform by migrating almost all uOttawa UGME systems and providing guidance on developing their own in-house tools
- Training of personnel, students, professors on platforms, especially One45
- Customized the CBLs and SLMs,
- Created a Collaboration Group between OSJSM and SJTUSM IT
- Researched and adopted an online platform for facilitating remote meetings

There continues to be support in customizing tools as the OSJSM progresses in its curriculum development. Guidance in Business processes to support the OSJSM from an operational and financial perspective also continues.

Distant Education

A Distant Education & Assessment Strategy (i-DEAS) was developed with the goal to deliver some of the UGME curriculum lectures, Faculty Development sessions and training activities in a remote environment. As well, the strategy aims to establish a process of recording clinical educational activities as part of the quality control measures of the OSJSM, including OSCEs and clinical encounters.

Faculty Development

For the purposes of supporting the development of a high quality curriculum, the uOttawa OSJSM team has made faculty development a key priority. uOttawa faculty members travel to Shanghai (approximately) twice a year to deliver onsite workshops for OSJSM teachers and UGME leaders.

The Office of Continuing Professional Development at uOttawa is collaborating with the uOttawa Project Management personnel and OSJSM faculty development leadership to support the establishment of an independent faculty development program that is designed to meet the specific needs of their faculty members. This program will be aligned with the CACMS standards as well as any applicable Chinese accreditation standards.

PreClerkship Shadowing program

Groups of OSJSM teachers were sent to uOttawa to shadow the undergraduate teaching activities in the classroom, lab and small discussion groups as well as one-on-one meetings with unit leaders, content experts and leadership (when possible). To help further the collaboration at a clinical level, departmental chairs are encouraged to organize meet and greet encounters with the specialist counterpart.

Clerkship Shadowing Program

OSJSM Rotation directors and/or Coordinators are sent to Ottawa to shadow core rotations in the teaching hospitals. This requires significant collaboration with hospital leadership and coordinators and the demands for logistical support are significant.

Academic Appointments

All OSJSM professors/tutors who have a regular teaching workload can apply for appointment as Adjunct Professors at the Faculty of Medicine, UO. Teachers are appointed to DIME and approval is granted by the Faculty's FTPC, based on pre-set eligibility criteria.

Achievements & Outcomes – Overall OSJSM School

- The development of the first ever Sino-Canadian hybrid curriculum.
- This new model has garnered much interest from universities and hospitals in China and other countries around the world.
- A strong Ottawa-Shanghai Partnership.
- The OSJSM serves as the foundation of the Ottawa-Shanghai partnership and ultimately as a catalyst for many other uOttawa endeavours in China.

Appendix D

(Draft) Process for Deciding on International Partner

When filling out the form and questionnaire, please consider the following points:

- Alignment with uOttawa strategy and direction,
- Alignment with the Faculty's strategy and direction,
- Alignment with the Faculty's current and future strategic goals and priorities,
- Adherence to appropriate ethical standards,
- Assures the best interest to the Faculty's stakeholders (Students, Faculty, and Staff) and clear benefits to pursuing the partnership.

Area of Evaluation	Score from 1 to 10 with 10 highest
Value for research Collaboration	
Value for educational Exchange	
Alignment with priorities of Faculty of Medicine	
Added value to other faculties in the University	
Value for brand and international reputation.	
Revenue generation for faculty or university	
Other: (Please specify)	
Comments:	
Total	

Questionnaire

Section 1: Partnership Engagement

This section is to help you frame your thinking on why the Faculty would want to partner with this organization, and why the organization would want to partner with us.

1) What do we expect the partner to bring?

Be specific, it is not sufficient to simply state “financial” or “in-kind”, max 100 words

•

2) Where do the partner’s interests align with this initiative?

Think of how their strategic, financial and corporate social responsibility priorities align, max 100 words

•

3) Will the initiative benefit from this partnership?

Think of how the success of the initiative will be measured in a broader sense, max 100 words

•

Section 2: Partnership Benefits & Risks

When answering the questions in this section, try to think of both the positive and negative aspects, to help frame your thinking, here are a few things to consider:

1) Will this partnership have any effects on any other Faculty initiatives or partnerships, present or future?

a. Positive

•

b. Negative

•

2) Are any elements of the initiative at risk of failure if,

a. the partnership does not occur?

•

b. the partnership does occur?

•

3) Will any of Faculty’s stakeholders:

a. Welcome the partnership, and why?

•

b. Materially disagree to the partnership, and why?

•

4) Could partnering with this organization lead to a conflict of interest? If so, for whom?

•

5) Does this partnership place any significant reputational risk on the Faculty? Explain.

•

Section 3: Risk Valuation

Based upon your findings and evaluation, how do you rank the risk of partnering with this organization:

<u>Low Risk:</u> The partnership benefits significantly outweigh the risks, and there are no specific risks that require further investigation. The Faculty can safely engage with this partner at any level without any concerns of public scrutiny or damage to its reputation.	<input type="checkbox"/>
<u>Medium Risk:</u> The partnership benefits outweigh the risks; however, there are some specific concerns that require further evaluation. This evaluation will determine some mitigation strategies to lower the risk accepted by the Faculty prior to pursuing the partnership.	<input type="checkbox"/>
<u>High Risk:</u> The partnership benefits do not outweigh the risks. In these situations, senior level decision-making is required to determine whether or not the Faculty pursues the partnership.	<input type="checkbox"/>

1) Briefly summarize why you chose the risk level.

•

Appendix E

(Draft) Metrics for Partnership Evaluation

Metrics for Partnership Evaluation	Possible outcomes
Publications	<ul style="list-style-type: none">• Total number of publications• Citations of publications• H index of publications from collaboration
Grants	<ul style="list-style-type: none">• Total number of grants• Value of grants• CIHR, NRC, NIH or equivalent grants
Exchanges	<ul style="list-style-type: none">• Students to other countries• Students from other countries
Graduate Students	<ul style="list-style-type: none">• Number of graduate students and at what level
Revenue	<ul style="list-style-type: none">• Dollar value per year
Expense of program	<ul style="list-style-type: none">• Direct and Indirect
Other Qualitative such as Brand	<ul style="list-style-type: none">•

Appendix F

Global Health – Program Overview and SWOT

Programs Description & Objectives

The Global Health Program (GHP) furthers Global Health activities within the University of Ottawa's Faculty of Medicine (uOttawa FoM) by facilitating international placements for students and residents, delivering educational programs including undergraduate and post-graduate curriculum development and supporting the initiatives of trainees and faculty.

Program Outcomes

- Since 2009, over 750 international student and resident placements have been completed in over 90 countries, with 219 having completed placements in low and middle income countries (as defined by the world bank).
- Established the standardized process for international placements at uOttawa FoM for global health and partnership electives (E.g. Shanghai and Lyon).
- Provides in-person pre-departure training (PDT) sessions (3 per year), educational online modules and post-electives debriefing sessions for all students and residents participating in placements abroad. Since 2008 the GHP has provided this training to over 500 students, residents, and faculty members.
- Established the Global Health curriculum for UGME students to acquire relevant competencies towards the attainment of a global health certificate. The GHP is very involved with this curriculum providing facilitated sessions for registered students to reflect on curriculum competencies.
- For the past 6 years, supported the organization of the uOttawa Global Health Conference which brings together and engages the global health community at uOttawa and beyond.
- Co-organized the Bethune Roundtable conference in June 2017, an annual Global Surgery conference held by Canadian Universities.
- Engages and unites a community of professors, students and other faculty members involved in global health initiatives to exchange knowledge and expertise (e.g. through Action Global Health Network (AGHN), advisory committees, placement ambassadors, newsletters, global health events, journal clubs etc.)
- Established the Shanghai electives process for uOttawa UGME students.
- Working to established the residency placement opportunities, policy, and process in Shanghai and Lyon.

Internationalization Strategy

In line with uOttawa's Destination 2020, the Global Health Program contributes directly to the internationalization and enhancement of medical trainee and graduate student experiences. Through

the international placement opportunities, global health curriculum and other faculty events, the program provides a cosmopolitan training that will help prepare students to address healthcare inequities in Canada and abroad. The program develops, in medical trainees, a better understanding of the social determinants of health, cultural awareness, and healthcare discrepancies around the globe.

The program benefits the Faculty of Medicine by creating a platform upon which students, professors and community members involved in global health initiatives can develop collaborative networks and exchange of knowledge.

The global health program also contributes to the reputation of the University of Ottawa by enabling students to complete placements abroad while representing and building relations with professors, students, and community members, on behalf of the University around the world.

SWOT Analysis

Strengths

- The GHP provides students and residents with an opportunity to engage in medical training internationally.
- International placements provide trainees with an increased cultural awareness and expands their cultural competency. These opportunities highlight or fulfill many of the CanMEDs roles. In addition, they have a positive impact on the trainee's current and future medical practice in the Canadian multicultural environment.
- Prepares trainees for a safe and ethical international medical placement through pre-departure training (offered 3 times a year).
- Hosts a structured debriefing session for trainees to reflect on, share, and process international placement experiences. In addition, the GHP provides one on one support offered to all trainees who need it.
- Tracks medical placement details to ensure student safety in case of emergency.
- Provides a foundation through the Global Health listserv and Action Global Health Network for the sharing and promotion of Global Health initiatives locally and internationally.
- Developed a Global Health Stream curriculum, in collaboration with the student Global Health Interest Group, for medical students to participate in during their UGME. This provides an opportunity to earn a certificate to recognize their commitment to expanding their global health knowledge and contributions.
- Supports Global Health activities within the FoM for faculty members and trainees alike.
- Provides community engagement and exchange through the support of activities such as Global Health Journal Club and communication of conferences, meetings and other endeavours through the Global Health listserv.
- Provides funding support for UGME global health electives through the Global Health Elective Bursary.

A real strength or need for the GHP is the ongoing funding of the coordinator who plays a vital role ensuring all of the above works and who provides full time support of trainees, particularly UGME in preparing and taking part in international GH experiences.

Weaknesses

- There is very limited financial support for the program which is mostly used to cover the cost of food for PDT and Debriefing. All of the faculty repeatedly volunteer for these sessions.
- Absence of designated funding to support some of the trainee led activities including: 1. the annual uOttawa Global Health Conference (Suggest to provide \$1000 – 1500 per year) 2. Designated funding to augment the Global Health Stream to allow invitation of guest speakers.
- There is a need for ongoing funding for developing, updating and maintaining the innovative resources developed by the GH lead and GHP (i.e. Pocket Guide for Global Health).
- There is no designated space for the GHP director. The position is funded by UGME, though serves more. There should be consideration to expanding the mandate of the GHP director to formally include PGME and faculty development/CPD.
- The current office space for the coordinator does not work well for one on one meetings with students. Ideally the coordinator should be located within RGN, rather than located physically within the OI.

Opportunities

- An educational opportunity like the Global Health Stream is sought after by many students when looking for a medical school. The expansion and enrichment of this program could be an enticement for recruiting excellent medical school candidates.
- There is an ongoing need for communication within the FoM to communicate and highlight global health activities and to try to support ongoing activities. From a faculty point of view, many of these are individual contributions that the GHP may not even be aware of, but may be able to support. In addition, these may provide opportunities for trainees to take part in global health experiences.
- The establishment of a formal debriefing session has been a real success and needs to continue to be a mandatory part of global health electives/experiences. The frequency of these sessions will, with time, need to be expanded. Funding support of a medical student to help facilitate these sessions would be ideal. We are currently a leader nationally in debriefing methods and are disseminating our experience and results at educational and global health conferences.
- There is a need for a formal policy for international/global health PGME placements. The GHP has been working with OI and PGME, but a priority needs to be placed on finalizing the policy and providing support for the projected increased numbers of trainees in PDT and post-elective debriefing, as well as the increased need for support while trainees are in country.

Threats

- Funding cuts are always a risk, however with the already limited monetary support the program receives; any cuts would mean some activities could no longer be maintained.
- Without formal policies and implementation of these policies our PGME trainees may be at risk with international placement. They need the training and support to ensure that the risks are mitigated and that they are poised to have safe and ethical international global health experiences.

Appendix G

University of Ottawa Faculty of Medicine

Global Health Report – Vice President Global Health Junior of Aesculapian Society

April 30th, 2018

A form was released to the first and second year cohorts asking for their opinion of the nature of global health in the faculty of medicine. Apart from my own experiences leading this portfolio during the 2017-2018 cycle, I will proceed to include the responses compiled from the survey (9 students).

Thoughts on the Global Health concentration:

A majority of students did not know the concentration existed or were confused on what the components consisted of. Students felt the concentration was not streamlined and lacked organization or information on how one would go about fulfilling objectives. Students felt they were too busy to keep track of the hours manually, and preferred some structure.

Pursuing an international elective:

A majority of students were not pursuing an international elective. The rest had already pursued an IFMSA elective or hoped to do in the following year.

Students stated a large deterrence from going on an elective was difficulty in understanding how to set one up as well as determining which organizations were trustworthy.

Students who successfully set up electives stated interest in learning about healthcare and systemic differences across different countries. Students wished for opportunity in learning about international health care practices, and how perception of disease/disease management differed.

What events you enjoyed the most?

A majority of students enjoyed the Annual Refugee Fundraiser – a fundraiser that sought out to raise funds/awareness for the Ottawa Community Immigrant Services Organization (OCISO). Our Global Health Committee collaborated with this local organization throughout the year in running smaller fundraisers and educational talks, in preparing for the big event. This fundraiser was a finale to the compilation of efforts from the planning committee and students. It also catered to speakers and performance! Students also enjoyed the panels/talks that were set up for the concentration, by the Global Health Committee.

Opinions on GH in Faculty? Room for improvements?

One student found it was very difficult to navigate through global health opportunities in the faculty, and get involved in meaningful ways. There was a need for more faculty promotion (as opposed to just student promoted), especially for the concentration and different lunchtime talks.

Final Comments/Suggestions:

More visibility. There should be an online component to the concentration, that is explicitly supported by the faculty through increased funding, especially in the case for local/international electives or sponsorship of new educational opportunities (i.e. inviting a renowned keynote, conducting workshops, etc).

Comment from VPGH:

My role as Vice President Global Health Jr. of the Student society here in Ottawa, as well as the Chair of the Global Health committee was to better streamline global health opportunities and events for students. My role gets a small portion of funding from Aesculapian society to get this done, and the rest must come from external sponsorship or fundraising initiatives run by students in collaboration with other groups (i.e. PGME was very helpful in the Christmas fundraiser, that raised near \$1000 for OCISO). Luckily, there is a plethora of student roles and interest group positions that make up the Global Health Committee, making it more manageable to raise money and planning global health opportunities for students.

However, there was a slight disconnect to the global health concentration program. For the reasons mentioned above by respondents, notably lack of faculty involvement, promotions, and structure. Even in terms of the creditability and value of completing the program – that was very unclear to students.

Hence, I present some recommendations on behalf of the Global Health Committee and student body.

Recommendations:

- 1) Formation of an online tool that encompasses major themes/objectives of the global health concentration, steps to satisfy those objectives, and more opportunities.
 - a. We ask faculty and student leaders to outreach to relevant members in other medical schools across the country, who have set up similar systems and structure for their students.
- 2) Increased faculty acknowledgement and promotion of this concentration alongside medical curricula, particularly in the beginning month of the school term (especially for first years).
- 3) Increased transparency on the qualification/credit achieved from satisfying objectives.
- 4) Increased collaboration with other faculties – notably those that also are pertinent in the global health field. This would allow medical students better insight as to the different roles professionals play in tackling common issues.