**Briefing Note on Draft Vision for the**

**Integrated Physician Scientist Training Pathway**

**FOR DISCUSSION**

The Faculty of Medicine Faculty Council approved the report of the 2012 Task Force Report on Physician Scientist Education including the key principles and recommendations that should guide a future vision for Physician Scientist Training at the U of T. The core element of this vision is a new Integrated Physician Scientist Training Pathway (IPSTP). The IPSTP is currently being designed and its draft components are presented below.

**A distinct IPSTP-based Academy**

One of the critical components within the U of T IPSTP draft vision is a distinct IPSTP-based ‘Academy’ (focused within an existing undergraduate medical academy/academic health sciences centre). Currently, there is insufficient engagement of physician scientists in the education and mentorship of research-interested undergraduate and postgraduate trainees. To solve this issue an IPSTP-based ‘Academy’, which will be dedicated to the mentorship and education of research-oriented students, will be established. Clinician scientists would be members of the ‘Academy’ and would have responsibilities including tutoring and mentorship of students. The IPSTP and ‘Academy’ will be home to students pursuing advanced research degrees along with clinical training. At the same time, the IPSTP can be home to other research-interested students pursuing CREMS and dual degree professional programs. Together, students from these various programs will constitute a critical mass of students in each yearly cohort within UME. It is expected, that the introduction of such ‘Academy’ would lead to a more tailored context of training, a more extensive interaction between IPSTP trainees and physician-scientists and enhanced trainees’ inspiration around research.

**Student Pipeline into the IPSTP**

Another critical component of the IPSTP under construction is the student pipeline into the IPSTP. The literature teaches that formative experiences in science and medicine at an early stage of education (before entering university) are important factors in choosing careers. A major goal set out by the Task Force is to connect students to the IPSTP so that students can gain an understanding of medical research and critically examine their own career goals in that context. In this regard, U of T One Programs within U of T colleges are home to highly capable students who can be connected to the IPSTP and its faculty clinician scientists via mentorship, seminars on health research, and research internship programs. Such experiences are meant to connect such students to potential opportunities while not, in any way, providing a selective advantage to gain entry to the IPSTP.

**Simultaneous Entry to UME and Graduate Studies**

The IPSTP will be based on simultaneous entry of trainees into Undergraduate Medical Education and the School of Graduate Studies.

**Summertime Extensions**

The use of summer months before Year 1, Year 2 and Year 3 will provide IPSTP students with additional time for various types of research training. For example, the students will start with an entry experience during summer before Year 1. There are no details yet on a particular content of this entry experience, but it will clearly be an introductory type of courses and experiences to make the trainees ready for IPSTP. The content of other summer training will also be clarified within the design process.

**Integrated and Flexible IPSTP curriculum**

The introduction of the new Adaptive Preclerkship Curriculum will facilitate design of an additional research component of IPSTP closely integrated with the system-based blocks of basic science and clinical training defined by the new Preclerkship Curriculum. Specifically, it is proposed that IPSTP students will partake in a graduate-level seminar connected to each undergraduate systems component in which they will focus on gaps in knowledge/innovation/research/and impact on health. Further, IPSTP students will be able take 1-2 graduate-level research courses during Year 1 and Year 2 of the preclerkship curriculum. The design of the graduate component will be to provide an introductory overview of health research and then facilitate choices by students as to graduate departments and courses related to their research interests.

**Graduate Studies Years Outside of UME**

As a result of a new IPSTP curriculum, the students could anticipate that they will have completed 2-3 graduate-level courses before they exit the undergraduate medical curriculum to fulltime research[[1]](#footnote-1). This will facilitate dedicated focus on research during a period that is likely to be 3-4 years in length. At the same time, IPSTP trainees will partake in a translational medicine seminar during this research-intensive period to maintain the connection between clinical training and research.

**Longitudinal Integrated Clerkship (LIC) run by an IPSTP-based Academy**

A number of possible avenues for education in the ‘clerkship’ phase of undergraduate medicine are being discussed. For example, IPSTP trainees could participate in the LIC, like other UME students. The key difference for IPSTP trainees might be in their LIC placement and established interaction with physician scientists. IPSTP trainees might have their LIC training within the same IPSTP ‘Academy’. The key expected outcome of such a specifically tailored environment is an established and maintained connection with research-oriented type of medicine.

**Year 4 of UME**

There are two scenarios being considered with respect to the fourth year. According to the first scenario, the fourth year might be constructed in such a way that the IPSTP trainees have a chance for additional research training linked to their research interests or future PGME specialty.

Within the second scenario, the students might graduate earlier from UME and move into PGME. This scenario may become feasible in case the CaRMS process gets more flexible.

**CaRMS**

Presently, CaRMS is considered to be the great divide between UME and PGME education. To ensure the continuity of training along the entire IPSTP there is a necessity to address the limitations of a fixed CaRMS matched. Two options are being explored with this regard.

The first option is to initiate a change process within CaRMS allowing for transition to PGME in a flexible manner with respect to timing. There are multiple innovative programs being introduced at UofT FOM as well as at other Canadian medical schools that would require the similar policy.

The second option is leveraging the ability of a school to create specific pathways for students who are seriously interested in research in some particular area. The flexibility of this option lies in the way a specific pathway is described. This approach might help solving two problems: to keep the IPSTP students within the pathway and to give them a chance to continue their PhD during their PGME. It also helps to build collaboration with other Universities. UofT FOM might have agreements with other Universities that will allow IPSTP trainees to move to a specific research pathway within PGME in another University.

**Customized PGME**

Another IPSTP component is a customized postgraduate training. A short-term goal is to create a working group consisting of the PGME faculty to develop an innovative vision for residency programs that will allow customizing IPSTP in such a way that it meets the specialty training requirements while serving the individual needs and aspirations of a trainee to continue along the pathway towards the practice of a clinician scientist.

1. It can happen at multiple points: after Year 2 or Year 3 or Year 4 and there is no prescription on exactly when. The trainees might even continue their PhD during PGME period. [↑](#footnote-ref-1)