

Chair's Response to External Review of the Academic Activity of the Department of Laboratory Medicine and Pathobiology (LMP), September 16-17, 2013

I would like to thank the review team for its thoughtful and comprehensive report. In my opinion, the overall assessment is well-founded and accurate, and the reviewers provide many useful suggestions for the Department to consider going forward. Please find below my point-by-point response:

1. Undergraduate Life Science Program – BSc, Faculty of Arts & Science

The reviewers commented on the comparatively small size of the Program and difficulties that have been experienced at various times in meeting enrollment targets. They accurately note the importance of balancing size of the Program with quality of students. The reviewers make a good point in that a larger undergraduate program can enable other departmental priorities, in particular increasing graduate student enrollment.

Regarding recruitment efforts, LMP is undertaking initiatives to increase the profile of our Specialist Program to the general community of undergraduate students enrolled in the Faculty of Arts and Science, including: written promotional materials distributed at numerous venues and forums; enhanced presence on the revamped LMP website; and exploring ways to get increased face time with students at an earlier stage of their education. These initiatives are expected to increase awareness of the Program and highlight why the Program is such a good option in comparison to other possibilities. We believe the long-standing track record of impressive outcomes of our graduates is a major selling point of the Program, therefore, carefully designed and well thought-out testimonials from current and past Program students (done in conjunction with LMPSU) can provide the type of messaging that can resonate with potential high-quality applicants.

The reviewers endorse the concept of expanding enrollment that is tied to pre-defined outcome metrics. We agree this approach offers the advantage of yielding an “evidence-based” situation that goes beyond anecdote and will be implemented.

2. Graduate Education

The reviewers suggested that faculty be made better aware of processes and procedures applicable to graduate studies and that more faculty be engaged in the management of the LMP Graduate Studies Program, to support the excellent leadership provided over many years by Professor Harry Elsholtz. Greater awareness of processes and procedures will be addressed by our two graduate administrators, Ferzeen Sammy and Rama Ponda, who will work closely with Harry Elsholtz to ensure that information pertinent to graduate studies – e.g., guidelines for award competitions, announcements of new student admissions, and application procedures for graduate appointments – are disseminated to faculty in a timely manner. Progress in this regard has already been made with the expert assistance of LMP's web and communications coordinator, Katie Babcock. The recommendation to engage more faculty in management of the Graduate Program takes

on greater relevance given recent developments in the Faculty of Medicine with regards to graduate education. Some of these developments include:

- The report of the Task Force on Innovation and Transformation in Graduate Education (August, 2013)
- Professional (non-thesis based) Master's degrees, the "3+2" year concept that leads to the BSc and MSc degrees
- Combining degrees (as is done well in the Faculty of Law)
- The briefing note on graduate education as pertains to enhancing undergraduate medicine's *Comprehensive Research Experience for Medical Students (CREMS) Programs* (August 7, 2013)
- Increased formalization of co-curricular activities.

In addition to these initiatives, LMP intends to step up recruitment of MD/ PhD trainees to the Graduate Program (there are currently 3 MD/ PhD students enrolled as of September 2013). As a Department that has strong basic science, translational research and clinical domains, LMP is particularly well placed to assume greater leadership in newer forms of graduate education and putting these into action will require new types of faculty engagement.

The reviewers also commented that attracting more international students is important to increasing the profile of the Department across the globe. It is noteworthy that LMP has attracted a number of international graduate students who hold prestigious scholarships from their home countries (e.g., Germany, Japan, China, and Saudi Arabia). However, although there are current mechanisms in place such as the Trillium and Connaught Awards to attract high caliber international graduate students (LMP currently has 3 recipients), the opportunities for recruiting top students from outside Canada are clearly inadequate. Large differences in tuition fee differentials between international and domestic students, and the fact that international students are not eligible for basic income units (BIUs) from the Provincial Government, result in profound disincentives for faculty and the Department to take on international students. This problem is not unique to LMP, and we must work collectively (including with the School of Graduate Studies) to find new ways to address these serious issues.

Finally, the reviewers commented on the Department establishing "rainy day funds" to address pressures stemming from the climate that exists for research grant funding. To date, the LMP faculty members have by and large been successful in competing for grants so that the department has not needed to provide contingency funds – a testament to the level of excellence of our scientists. Occasional shortfalls in graduate stipend support have been handled effectively with funding from the SGS Doctoral Completion Award Program, and a small portion of the Department's U of T Fellowship allocation. Should a situation arise in which bridging or other "one-time" funding be requested, the Department will form a committee of peers to assess such funding requests and thereby benefit from the involvement and ideas of our research faculty.

3. Undergraduate Medical Education

The reviewers commented on the decreasing number of lecture hours and exposure of undergraduate medical students to pathology, and possible deleterious effects on recruitment into the specialty. This is by no means a unique situation, as many pathology departments are facing similar issues. The general concept is that *decreased quantity* of departmental contact time with undergraduate students be counterbalanced by *increased quality* that has greater impact and leaves a larger impression on the medical students.

The LMP Director of Undergraduate Medical Education, Dr. Eleanor Latta (a 2013 W.T. Aikins Award recipient) is charged with ensuring a relevant pathology and laboratory medicine emphasis over the entire length of the undergraduate medical curriculum. This goes well beyond concepts of “pathobiology” that are part of the second year course in “Mechanisms, Manifestations and Management of Disease”. Having applied pathology and laboratory medicine integrated into clerkships is relevant to important concepts as laboratory utilization, appropriateness of clinical care, patient safety, quality and risk management, etc. The reviewers’ suggestion of partnering with other departments or divisions to include a pathology and laboratory medicine component within electives and selections is very good and will be pursued.

Pathology and laboratory medicine has a number of compelling messages that relate to Royal College CanMEDS roles such as health advocate, collaborator, communicator and manager. For example, “Choosing Wisely” (an initiative of the American Board of Internal Medicine Foundation) is an initiative designed to increase awareness and attention to utilization of limited healthcare resources. Given the “70-70 Rule” in which approximately 70% of clinical decisions rely on results of laboratory tests and approximately 70% of objective information on an individual’s health record is laboratory-related, pathology and laboratory medicine can and should assume a high profile in such forward-thinking initiatives.

Furthermore, incredible technological advances have resulted in tremendous progress in the area of personalized medicine that promises to achieve improved health outcomes. Through the implementation of precision diagnostics, pathology and laboratory medicine is a crucial component of personalized medicine and communicating the excitement of career possibilities in our discipline in this new era can be used as a means for recruitment.

4. Continuing Education

The reviewers alluded to using new technology to expand our offerings in Continuing Education (renamed “Continuing Professional Development” in the Faculty of Medicine), including internationally. We consider the LMP Digital Laboratory Medicine Library initiative to be an important enabling platform in this regard and will work with the Innovations and Education Office to ensure issues of copyright, etc. are adequately addressed.

5. Postgraduate Medical Education

The reviewers specifically commented on the availability of autopsy resources for the education of residents in Anatomical Pathology. This is a matter that is being monitored and managed by our Residency Program Committee (which includes a representative from Forensic Pathology). The new \$1B Forensic Services and Coroner's Complex provides state-of-the art facilities and represents an exciting new opportunity for autopsy education in LMP.

With the successful completion of the periodic accreditation of LMP postgraduate training programs by the Royal College of Physicians and Surgeons of Canada, LMP is well positioned to reinvent pathology and laboratory medicine disciplines, including competency-based training and integrated diagnostics. A Department retreat focusing on postgraduate education is planned.

6. Research

The reviewers identified the major challenge being potential pressure on research funding. The Department is encouraged to consider making a plan to support specific researchers if they lose their grants. As indicated above, LMP will form a committee of peer researchers to assess requests for bridge funding and the like.

Concerning the translational research agenda, LMP has identified four areas of emphasis: biomarkers, biobanking, quality and informatics. All are amenable to involvement by hospital-based clinical faculty. In a number of instances, LMP has made graduate appointments to hospital-based clinical faculty for the purposes of serving on graduate student thesis advisory committees and providing valuable clinical perspectives to graduate student research projects. Videoconferencing of rounds, seminars, etc. is a future direction that can enable enhanced interactions between U of T campus-based researchers, hospital-based researchers and LMP physicians and clinical laboratory scientists. There is already considerable infrastructure in place for videoconferencing within our system, and this can be better exploited going forward.

7. Relationships

The reviewers commented on the complex relationships between the university and hospitals (including hospital-based research institutes). Despite the complexity and challenges of our system, the performance metrics are impressive and internationally competitive. In many respects, LMP is a microcosm of the Faculty of Medicine, vis-à-vis the types of faculty appointments, our geographic distribution, relationships with other academic departments, potentially competing institutional priorities, etc.

The LMP Seminar Series, held on Mondays from 4-5 p.m., is one forum for "city-wide academic rounds" and is open to all interested individuals. The series has focused mostly on topics related to pathobiology and the typical audience consists predominantly of

graduate students. Some slots are used for more clinically-oriented topics that relate to aspects of pathology and laboratory medicine practice, or issues pertinent to global health and justice.

On a more “micro” scale, there are various specialty-specific city-wide rounds (e.g., neuropathology, clinical biochemistry), many of which predate the existence of LMP. Increased use of videoconferencing and digitization is one way to expand the “LMP presence” in such activities. In addition to technology, the Department will maintain an updated list of clinical themes and relevant faculty involved in them, in parallel to research themes that have already been developed.

Although LMP already encourages interactions of campus-based scientists with hospital-based pathologists and engages hospital-based pathologists and scientists in university affairs (e.g., residency program committees, departmental promotions and appointments committee), the reviewers recommend that LMP further enhance the lines of communication to achieve improved awareness and understanding across the entire Department. This will be an area of emphasis for the next LMP strategic planning exercise.

One recently completed initiative is the Task Force report on Creative Professional Activity (“CPA”) as pertains to LMP. This report has proven useful in the context of academic promotion: in the 2013-14 academic year, LMP ranked second of all departments in the Faculty of Medicine for successful senior promotions to the rank of Associate Professor or Full Professor (after the Department of Medicine), with seven out of nine candidates having a CPA emphasis. Regardless of rank or location, the ability for all LMP faculty to view their activities through a “U of T lens” continues to gain traction.

Developing alternate payment plans (APPs) for pathology medical groups would bring dramatically increased visibility, immediacy and accountability for academic deliverables to hospital-based practitioners. For APPs to become a reality for the pathology and laboratory specialties, LMP must work with numerous stakeholders and will require shared responsibility. Importantly, LMP has a prominent component of hospital-based, PhD clinical laboratory scientists and this constituency requires adequate support.

8. Organization and Financial Structure

The reviewers correctly noted the complexity of LMP and its relationships with hospitals and research institutes to perform the academic mandates. In this respect, LMP can again be considered as a microcosm of the Faculty of Medicine. The Dean has done much to improve relationships and lines of communication with affiliated institutions over the last number of years, and LMP unflinchingly strives to be fully aligned with the Faculty of Medicine in its approach and dealings with affiliated institutions.

9. Long Range Planning Challenges

The reviewers were overall satisfied about the clarity of strategic directions and priorities articulated in the LMP Strategic Plan 2010-2015. They noted that for LMP to achieve its strategic agenda, expanded space and research infrastructure may be an issue. LMP faculty regularly engaged in large-scale funding opportunities provided by bodies such as the Canada Foundation for Innovation. In addition, the LMP Chair is working closely with the Vice Dean, Research and International Relations and other Basic Science Chairs in the Faculty of Medicine on developing a coordinated approach to renew space and infrastructure for campus-based faculty.

10. National and International Comparators

The reviewers commented on the issue of branding. In this area, the Dean has obtained the agreement of Hospital CEOs and Research Institute Directors for the University of Toronto affiliation to appear on publications and presentations that originate from their institutions. This is important to enable LMP to insist that individuals holding faculty appointments include their U of T affiliation. The goal for LMP is to work cooperatively with its affiliates and partners in this vein.

11. Response to Previous Reviews

We thank the review team for recognizing the considerable efforts the Department has made to address issues raised by the previous reviewers.

12. Conclusion

The reviewers are correct in stating that shared responsibilities and working together at all levels are essential for LMP to move forward effectively. This point cannot be overemphasized. A spirit of cooperation, with each individual bringing a perspective that focuses on improving the collective good, will strengthen our collegium and enable LMP to reach even greater levels of performance and distinction.

Respectfully submitted.

Richard G. Hegele, MD, FRCPC, PhD
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