

FINAL ASSESSMENT REPORT

Institutional Quality Assurance Program (IQAP) Review

MD/PhD Program

Date of Review: April 1 – 2, 2019

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the graduate program delivered by the MD/PhD program. This report identifies the significant strengths of the program, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.

The report includes an Implementation Plan that identifies who will be responsible for approving the recommendations set out in the Final Assessment Report; who will be responsible for providing any resources entailed by those recommendations; any changes in organization, policy or governance that will be necessary to meet the recommendations and who will be responsible for acting on those recommendations; and timelines for acting on and monitoring the implementation of those recommendations.

Executive Summary of the Review

In accordance with the Institutional Quality Assurance Process (IQAP), the MD/PhD program submitted a self-study in March 2019 to the Vice-Provost and Dean of Graduate Studies to initiate the cyclical program review of its graduate programs. The approved self-study presented program descriptions, learning outcomes, and analyses of data provided by the Office of Institutional Research and Analysis. Appendices to the self-study contained all course outlines associated with the program and the CVs for each full-time member in the department.

Two arm's length external reviewers and one internal reviewer were endorsed by the Executive Vice Dean, Faculty of Health Sciences and selected by the Vice-Provost and Dean of Graduate Studies. The review team reviewed the self-study documentation and then conducted a site visit to McMaster University on April 1 – 2, 2019. The visit included interviews with the Provost and Vice-President (Academic); Vice-Provost and Dean of Graduate Studies, Associate Dean, Grad Studies and Research, Director of the program and meetings with groups of current students, full-time faculty and support staff.

The Director of the program and the Executive Vice-Dean of the Faculty of Health Sciences submitted responses to the Reviewers' Report (May 2019). Specific recommendations were discussed and clarifications and corrections were presented. Follow-up actions and timelines were included.

Overall, the reviewers found the program to be of high quality, with a number of outstanding trainees, who are supervised by excellent Faculty and Supervisory Committees. Leadership by the former Program Director enabled establishment of a first-rate MD/PhD program at McMaster, and enthusiastic, highly capable leadership by the newly appointed Director promises to continue this record of excellence.

Strengths

- Integration of pre-clerkship MD curriculum with PhD research
- Student flexibility in integrating MD and PhD components of the program
- Students have a full 4 years to complete PhD
- Availability of horizontal clinical electives
- Initiatives aimed at enhancing program community and professional identity
- Students
- Faculty
- Program Leadership

Areas for Enhancement or Improvement

- Candidate selection
- Program sequencing/individualization
- Oversight training
- Clarifying requirements for writing and defending a thesis
- Transitions between the PhD and MD curricula
- Administrative Support
- Debt-reduction and funding of MD tuition for trainees
- Measurements of program outcomes along with continued mentorship provided by the program for trainees as they pursue their post-graduate clinical training

Implementation Plan

Summary of the Reviewers' Recommendations with the Program's and Dean's Responses

Recommendation	Proposed Follow-Up	Responsibility for Leading Follow-Up	Timeline for Addressing Recommendation
R.1: Reconsider the way in which MCAT and GPA scores are used for candidate selection, consider fact to face interviews to complement CV scores	-The Director, Former Director, Student Executive, and any other interested students will review the existing literature on factors predicting successful MD/PhD outcomes, as well as MD/PhD admissions	Director, MD/PhD Committee	24 months

	<p>processes at other MD/PhD programs.</p> <p>-The findings will be reviewed with the Associate Dean (UGME), chair of the Admissions Committee (UGME), and the MD/PhD Program Committee</p> <p>-Potential new processes will be generated, contrasted with the existing process and a final decision made and implemented after approval</p>		
R.1.1: Increase flexibility in annual enrolment numbers	<p>-The Director will review potential options (static increase in number admitted yearly, flexibility within number each year) with the UGME Associate Dean, the Vice-Dean Graduate Studies (FHS), and Associate Vice President Academic (FHS) to determine feasibility</p> <p>-If possible, potential funding sources for these options will be sought</p>	Director	6 months
R. 2: Individualize each trainee's program for the sequencing of research/MD/research	<p>-All incoming students and their supervisors will meet with the MD/PhD program director within 3 months of supervisor selection to discuss the program and its structure to optimally individualize the program for the</p>	Director, Supervisor, Students	12 months

	<p>student and their research</p> <ul style="list-style-type: none"> -At students' yearly meetings, these plans will be reviewed in light of graduate project and MD progress -Adaptations will be made by the student and supervisor (who will be invited to the first 30 minutes of the student's yearly individual meeting) as needed. 		
<p>R.3: Oversight of Trainee Progress both in the PhD portion and MD portion of the student's program</p>	<ul style="list-style-type: none"> -The Director will arrange with the Graduate Programs to receive copies of all committee meeting reports for MD/PhD students. These will also be forwarded to the UGME program (scanned and uploaded into MEDSIS) for inclusion in the student's academic file -The Director will arrange with the UGME program to receive the results of all MD courses for MD/PhD students -Summaries of student performance (i.e. these documents plus the results of the yearly individual student meeting) will be sent to the supervisor, the student's MD/PhD Advisor and the student's UGME academic file (in MEDSIS) 	<p>Director</p>	<p>3 months</p>

<p>R.4 Clarifying requirements for approval of thesis writing & timing of thesis defence and for generating manuscript submissions based on the thesis findings.</p>	<p>-The importance of thesis completion prior to clerkship will be emphasized at quarterly student group meetings, yearly individual student meetings and in the MD/PhD Handbook -Reminders about School of Graduate Studies policies on defense requirements will be included in yearly student reports to supervisors -The Director will review all supervisory committee reports and review progress toward thesis defense at yearly individual student meetings -If there are concerns progress is not such that the thesis can be defended prior to clerkship entry, the student and supervisor will meet with the Director to develop a plan to adapt to these developments</p>	<p>Director</p>	<p>12 months</p>
<p>R.5 Streamlining transition between the research and MD components of training and especially the transition from the completion and defense of the thesis back to clerkship</p>	<p>-Support for students throughout the program (including during transitions) will be provided by the MD/PhD Graduate Officer (in the MD/PhD Office) and the UGME Program Manager. The former will support students with their transitions back PhD and the latter transitions to MD. The contact information for</p>	<p>Director, MD/PhD Graduate Office, UGME Program Manager</p>	<p>6 months</p>

	<p>these individuals will be placed in the program handbook and the students reminded of this at quarterly meetings</p> <p>-Along with the Director, students in the program will compile a list of common issues and share these with the graduate officer and program manager so that they can be best prepared to help with these issues in a timely manner</p> <p>-Senior students in Junior-Senior Mentor Pairings will also be identified as potential resources to more junior students</p>		
<p>R.6 Consolidated long-term administrative support for the program preferably with the same administrative individual</p>	<p>-Given the amount of procedural information required to support students in their separate PhD and MC studies, since this changes on a regular basis, and because of fiscal constraints, the support role for students needs to be shared by the MD/PhD graduate officer and UGME program manager.</p> <p>-In order to help these individuals better support students, the Director and students will generate a list of common issues and share these with these two individuals to help them in their roles.</p>	<p>Director, Students</p>	

	<p>-Quarterly meetings will be arranged with the Associate Dean UGME to ensure MD/PhD student needs are better known.</p>		
<p>R.7 Additional funding support for MD tuition; and expansion of the program beyond the restricted entry now in place</p>	<p>-Meetings will be held with the MD/PhD Program Director and the Dean and/or Associate Vice-President Academic (FHS) to discuss potential program funding support for program expansion and MD tuition support. Potential sources of funding include the medical school's 50th anniversary fundraiser, the University Advancement Office, and others</p> <p>-Discussions will also be held with the Associate Dean UGME regarding potential program expansion and MD tuition support</p>	<p>Director</p>	
<p>R.8 Improved documentation of immediate and long-term outcomes of the program with continued mentorship of trainees when they assume their post-graduate training positions</p>	<p>-Along with the MD/PhD Student Executive, the Director will acquire contact information for program alumni</p> <p>-We will develop a survey based on the 1998 MSTP (Medical Scientist Training Program) report and send this to them requesting responses, as well as to inquire about the possibility of ongoing contact, as well as their desire for</p>	<p>Director, Students</p>	

	ongoing mentorship support		
*The below items are more specific recommendations from the report, with additional information to supplement the responses above			
Recommendation	Proposed Follow-Up	Responsibility for Leading Follow-Up	Timeline for Addressing Recommendation
P.8 R2: Streamline Clinical Elective Experiences, consideration should be given to providing formal (graduate) credit for these experiences	-At yearly individual and quarterly group student meetings, a standing agenda item will be introduced encouraging students to complete at least one horizontal clinical elective during their second PhD block -A meeting will be held with the UGME Associate Dean to explore how the arrangement of horizontal clinical electives can be made more efficient for MD/PhD students -Since these electives are completed within the UGME curriculum, they are not eligible for graduate course credit	Director, UGME Associate Dean	12 months
P. 14 R1: All supervisory committees could include a clinician-scientist	-This recommendation will be made to all incoming students and their supervisors at their initial meeting with the Director	Director	6 months
P. 15 R3.3.1 – 3.3.3. Recommend that there be more flexibility in telling the MD program in advance whether a	-Timeline changes are extremely difficult given the UGME program's structure and that program's	Director, UGME Associate Dean	6 months

student will be returning to clerkship (reduced to 6 months from current 10 months), alternative flexibility for clerkship elective experience while completing/defending a thesis, and administrative assistance for horizontal clinical electives and transition back to clerkship training	need to balance the needs of MD/PhD and the other ~610 MD students -UGME Associate Dean and MD Program Manager input will be sought on how horizontal electives can be best supported for MD/PhD students and a meeting will be arranged with the Electives Office of the UGME program		
p.17 RFS 2: Community Building, Creation of Travel Awards	-We will seek a small budget from FHS graduate studies to help support student travel to the annual CITAC meeting -UGME travel support options will also be sought	Director, Associate/Vice Dean Graduate Studies (FHS)	3 months

Dean’s Response, Faculty of Health Sciences:

The Dean’s response was submitted by the Executive Vice-Dean and Associate Vice-President Academic as the Dean’s delegate.

The Faculty would like to thank the reviewers for their thorough and constructive review of the MD/PhD Program that is designed to prepare students for a future career as a clinician scientist. We appreciated that the reviewers recognized the unique nature of this program and its flexible integration of MD and PhD components and the excellence of the trainees, supervisors and program leadership. In addition to commenting on some issues that challenge all MD/PhD programs, the reviewers have offered some helpful guidance on how our MD/PhD program can be further improved.

We have reviewed the program’s very thorough response to the reviewers’ report and we fully agree with their detailed plans to address all the recommendations. Some of the issues raised in the narrative (e.g., the cost of MD tuition) are not within the scope of the graduate education components. We verify that funding from the Health Sciences Graduate Studies office will be committed to support travel to the CITAC meeting for the Director and one MD/PhD student

representative to ensure that our program is represented in the community of MD/PhD programs across Canada.

We wish to thank both the program for putting together an excellent IQAP document and the reviewers on their insightful appraisal of the program and their suggestions for further enhancements and operational planning.

Quality Assurance Committee Recommendation:

McMaster's Quality Assurance Committee (QAC) reviewed the above documentation and the committee recommends that the program should follow the regular course of action with an 18-month progress report and subsequent full external cyclical review to be conducted no later than eight years after the start of the last review.