

McMASTER UNIVERSITY

MD/PhD Handbook

July 2023

1. The Program

The McMaster Faculty of Health Sciences introduced its MD/PhD Program in September 2007. The rapid pace of healthcare-related research and discovery requires exceptional people who are trained to bridge the gap between a broad range of basic medical research in biological and clinical sciences and clinical application. The McMaster MD/PhD program combines the strength of a unique, patient-oriented medical education with a strong, internationally renowned healthcare research environment. This program was established in order to train the future leaders of healthcare in Canada. These individuals will be well prepared to participate in innovative translational research endeavors that will bring the promise of medical research to the reality of patient care.

This guide is intended for information of a general nature. Students will be enrolled in both the Michael G. DeGroot School of Medicine and an approved program within Health Sciences Graduate Studies. As such, the student should refer to and adhere to regulations pertaining to these Schools and programs. If there is any discrepancy between information in this guide and the School of Graduate Studies Calendar, the Calendar information will supersede this guide. The School of Graduate Studies (SGS) Calendar is available at:
<http://graduate.mcmaster.ca/current-students/graduate-calendar.html>

The MD/PhD Program expects all students to read and follow University policies on both academic and research integrity and should be familiar with Sections 6.1 and 6.2. Academic Integrity and Code of Conduct of the School of Graduate Studies Calendar. Students are expected to read these policies and be familiar with them within the first month of enrolment in the program. In addition, all students are expected to keep a personal copy of their primary research records, analyzed data, figures, manuscripts and other documents to ensure their integrity.

ADMINISTRATIVE ORGANIZATION OF THE PROGRAM

Program Director: Dr. Ryan Van Lieshout: 905-525-9140 ext 22163, e-mail vanlierj@mcmaster.ca

GRADUATE STUDIES PROGRAM OFFICE STAFF (located in HSC 4H4)

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1.1 Eligible PhD Programs

At the present time, students enrolled in the MD/PhD program may carry out the PhD

component of their program in graduate programs affiliated with the Faculty of Health Sciences at McMaster University including: Medical Sciences, Biochemistry, Health Research Methodology, Neuroscience, Health Policy, Chemical Biology, and Biomedical Engineering. Further programs can be considered on a case-by-case basis.

1.2 MD/PhD Program Structure

The McMaster MD/PhD Program has been formatted with specific blocks of time provided for activities focused on either clinical or research studies. The program was designed for both integration and flexibility.

To facilitate integration, students are expected to initiate their PhD research project in the first year of the program. During the second year of the program, the student will focus on the undergraduate medical curriculum. It is expected that the student will maintain contact with their research group and attend research meetings when possible. Depending on commitments and time, students may continue to move their PhD research forward during this medical school component. During the PhD research years 3-5, students are expected to continue some clinical involvement in the form of horizontal electives.

For flexibility, it is possible to move components of the program blocks to better suit the educational and research needs of the students. Students have moved the medical curriculum to the first year of the program, leaving 4 years of consolidated PhD training after. The pre-clerkship block electives (formerly known as the post-MF4 block elective, and Integration Foundation Block (formerly known as MF5), can be moved to the end of the PhD training period to facilitate PhD research or HRM comprehensive exams.).

The recommended program structure (first MD/PhD program year spent in PhD followed by the pre-clerkship MD year, then completion of the PhD and then the MD clerkship years) is felt to be an optimal compromise between consolidated PhD research training and an integrated MD/PhD program. Therefore, any deviation from the outlined schedule (including defending one's PhD during clerkship) must be requested by the student in writing with clear reasoning for the change and with support from the student's PhD supervisor. All requests will be reviewed by the MD/PhD program committee and the student's doctoral program, before making a recommendation to the Associate Deans.

2. MD/PhD Program Regulations

2.1 MD/PhD Program Committee

Terms of reference of this committee include overseeing Admissions, Study, Curriculum and Policy of the McMaster MD/PhD program. This committee reports to both the Health Science

Graduate Policy and Curriculum Committee and to the Health Science Education Committee, and then to the Health Science Faculty Executive Council. Subsequently these committees report to the Graduate Council regarding the MD/PhD program. Any proposed changes in the Admissions process will be reviewed by the MD Admissions Committee.

The membership will include: MD/PhD Program Director (chair), Associate Dean Graduate Studies (Health Sciences), Assistant Dean, MD Program, one representative of each graduate program hosting MD/PhD students, Chair, MD Admissions (ex officio), and a current MD/PhD student.

The MD/PhD Program committee will meet twice yearly.

3 Students in Training

3.1 Graduate Supervisors

Supervisors of MD/PhD students will be a member of graduate faculty and will be approved to supervise PhD students in an eligible graduate program affiliated with the Faculty of Health Sciences. Other members of the supervisory committee may be chosen from graduate faculty affiliated with each of the participating doctoral programs. Applicants will be asked to begin the process of identifying a potential supervisor at the time they receive an offer of a McMaster MD/PhD interview and should have a supervisor identified soon after an MD/PhD offer is made.

It is the responsibility of the MD/PhD Program Director to ensure that potential supervisors and other committee members are aware of the unique aspects of the MD/PhD program. Specifically, the MD/PhD students will be encouraged to have clinical exposure by way of horizontal electives during their research blocks. These students will also be fully engaged in medical school foundations MF1 to Integration Foundation for 15 months after their first year of research. During this time, they are expected to attend lab meetings if possible, and may or may not continue any active research.

3.1.2 Supervisory Committee

The MD/PhD supervisory committee will be selected by the supervisor with input from the MD/PhD student, the Assistant Dean/Program Director, and/or the MD/PhD Program Director if requested. It is highly recommended that a faculty member with knowledge of the project area and insight into the clinician-scientist career pathway is on the student's thesis supervisory committee.

The MD/PhD supervisory committee should meet every 6 months during the research blocks. The Committee is encouraged to continue meetings during MF1 to Integration Foundation.

Committee reports during the MD training period will be informal only and will not be required to be submitted to the graduate program.

Students will follow regulations regarding supervisors, committees, and committee meetings as outlined for the graduate program in which the student is enrolled. This includes regulations governing selection of supervisory committees, function of the supervisory committees, and changes in supervisor or committee members.

3.2 Student Advisor

Each MD student is provided with a student advisor who is a faculty member or community physician who provides guidance to the student during the program. The MD/PhD Program Director will attempt to provide MD/PhD students with advisors who have a similar career pathway and can provide expert guidance for the student.

3.3 Financial Support

During the PhD portion of their training, students are provided with a stipend from their supervisor as outlined in the relevant program regulations. All MD/PhD students are encouraged to apply for external funding as well. Potential sources of funding include Ontario Graduate Scholarships, Canadian Institutes of Health Research MSc, Doctoral or Vanier Awards. Natural Science and Engineering Research Council (NSERC) no longer funds MD/PhD students.

Students awarded CGS-M, CGS-D, Vanier, and other external graduate scholarships are to be paid these funds during their PhD years. If any residual funds remain at the end of the period of graduate study, efforts will be made to pay them during the non-PhD (i.e., MD) period. Any other arrangements require the approval of the Graduate Program Director or Assistant Dean, Director of the MD/PhD Program, and the Associate Dean of Graduate Studies (Health Sciences).

CIHR allows awards (MSc, PhD, Vanier) to be held during MD training periods. Students successful in these competitions will work with the MD/PhD Program Director and PhD supervisor to try to maximize the time whereby the scholarship is applied during PhD training. This may require moving medical school pre-clerkship blocks to after PhD training.

Details on External Scholarships and Internal Scholarships, Bursaries and Travel Scholarships may be found on the School of Graduate Studies website. Students will receive e-mail notification outlining procedures for applying for the scholarships. Both internal and external awards may be used either to add to, or to make up, the minimum student stipend at the discretion of the student's supervisor and the program manager in accordance with policies outlined in Graduate Calendar.

During the MD training period, the MD Program provides an MD/PhD Bursary based on financial need.

3.4 Vacation

During PhD studies, students are permitted two weeks of vacation plus statutory holidays and university holidays while enrolled as full-time students. Please see section 2.5.8 of the School of Graduate Studies Calendar.

A 2-week Winter break is offered during MD training periods. There is also a 1-2 week holiday scheduled during the year. Please see the MD website for sessional dates.

<http://mdprogram.mcmaster.ca/mcmaster-md-program/what-is-compass2>

3.5 Leave of absence

During PhD training, students requiring a leave of absence for specific reasons such as medical leave or parental leave, they should consult the Graduate Calendar section 2.5.7 for eligibility and the forms to be completed (see section 2.5.7 of the Graduate Calendar). Leaves must be approved by the School of Graduate Studies. Any absence from the laboratory for any reason should be brought to the attention of the student's supervisor.

During MD training period, students should adhere to the Leave of Absence policy approved by the undergraduate medical education program.

3.6 Student wellness

The Student Wellness Centre provides services to graduate students that helps facilitate their personal and academic success. The Centre is staffed by qualified service providers with a special interest in university student wellbeing. They provide student-centered, accessible, confidential and caring services for you. The Centre is located in the McMaster University Peter George Centre for Living and Learning. For more information see

<http://wellness.mcmaster.ca/>

The Ombuds Office offers impartial, independent, and informal dispute-resolution advice and assistance to students and all members of the University community

<http://www.mcmaster.ca/ombuds/>

4. Degree Requirement

4.1 MD Program Fulfillment

The MD/PhD student is responsible for successful completion of the McMaster MD program including all aspects of the curriculum, electives, and clerkship rotations required for graduation with an MD degree.

The MD/PhD student must inform the MD/PhD Program Director by January 1st of the year the student intends to re-enter the MD program in the clerkship rotation. This will provide sufficient time for the student to enter the clerkship match process (“lottery”) held in February before commencing clerkship in November. The Program Director will obtain confirmation from the student’s PhD Supervisor and committee that the student will complete the PhD requirements before starting the clerkship rotation.

4.1.2 Electives

Horizontal clinical electives are strongly encouraged during the 3-year research block following your pre-clerkship year. Horizontal electives can range from a half day of clinic each week, to on-call experiences on the weekends. These elective experiences may be in areas relevant to the student’s research area and final career direction. Further, the student may use these elective periods to enhance areas of clinical interest or to solidify knowledge and clinical skills.

There are 24 weeks of block electives required by the MD program. Seven weeks are completed between MF4 and Integration Foundation blocks and the remaining 17 weeks are completed during clerkship. As noted above, those seven weeks are now combined with the Integration Foundation block. Fifty percent of the clerkship electives must be clinically oriented.

4.2 PhD Program Fulfillment

4.2.1 Courses

Course requirements are specific to the PhD program, and may change from time to time. The student is encouraged to review the course requirements in the graduate calendar. All graduate students, including MD/PhD students, must complete and pass the course *SGS #101- Academic Research Integrity and Ethics* within the first twelve months after their admission to graduate studies at McMaster. All graduate students are required to complete appropriate training required to complete their research and studies (health and safety training, ethics training, biosafety training, etc.), as determined by their home Department or Program. All graduate students also are required to complete and pass *SGS #201 - Accessibility for Ontarians with Disabilities Act (AODA)*.

4.2.2 Comprehensive Examinations

Students will successfully complete Comprehensive Examinations, as per the specific regulations of the Graduate Program participating in MD/PhD training. Most programs have a specific time frame where the comprehensive exam must be completed. Time spent in MF1-Integration Foundation will NOT count in calculating this time period.

For HRM students who undertake a Comprehensive Exam from September to June of the second year of their PhD, MF5 (now known as Integration Foundation) will be moved from the present location at the end of MF1-4 to the 3 months before clerkship begins. Students will complete their Professional Competencies curriculum during the first 3 months of the Comprehensive Exam.

Please note that many students will choose to move their post-MF4 electives and/or Integration Foundation to just before they return to clerkship to help smooth the transition back into the clinical setting. Please email the MD/PhD Program Director if you wish to make any changes to your curriculum so that they can be brought to the MD program for approval.

4.2.3 Thesis

MD/PhD students will successfully complete thesis work and document(s) as per standard regulations of the School for Graduate Studies and the relevant graduate program. Completion of Thesis research will be kept on track with the following: establishment of a research proposal completed as early as possible in the program as required by the relevant graduate program, time allowed for attendance at regular research group meetings while in MD curriculum, attendance at MD/PhD program group meetings (faculty and students) held a minimum of 3 times annually, and supervisory committee meetings at least twice per year during research blocks.

Student's re-enter clerkship training in November of the final year of PhD study, but begin paying MD tuition in September of that year. Thesis defense may occur up to the beginning of clerkship in November without incurring additional graduate program costs. It is strongly advised that all students defend their PhD prior to re-entering clerkship.

Copies of the research proposal and reports of the supervisory committee meetings will be available to the MD/PhD Program Director if requested.

4.3 Participation in the Clinician Investigator Program

MD/PhD students are strongly encouraged to participate in the McMaster Clinician Investigator Program academic sessions for the first 2-year block of their PhD training in the MD/PhD program.

5 Requirements for graduation and graduation ceremony

For the PhD portion of the combined degree, a student must meet all of the requirements for the PhD degree of the department or program hosting this student. This includes successful completion of coursework, comprehensive exam, satisfactory committee reports, and defense of a PhD thesis.

The student must meet all the requirements for completion of the McMaster MD Program.

The student will attend a single graduation ceremony at the completion of their clerkship period. At that ceremony, the student will receive both an MD and PhD degree.

6. Withdrawal

MD/PhD students are governed by the Michael G. DeGroot School of Medicine and the McMaster University School of Graduate Studies policies regarding program withdrawal.

6.1 Voluntary

A student may voluntarily withdraw from the MD/PhD program by written request to the MD/PhD Program Director copied to the Associate Dean Graduate Studies (Health Sciences) and the Assistant Dean of the MD Program.

6.2 Required Withdrawal

In accordance with the detailed policies outlined in the Graduate Calendar, students who are unsuccessful in meeting the requirements of their PhD program (coursework, comprehensive examination, committee reports, or thesis defence) will be required to withdraw from the PhD program. Similarly, if a student is unsuccessful in the MD program, he or she will be required to withdraw from the MD program. In either case, withdrawal from either the MD or PhD program means that a student has withdrawn from the combined MD/PhD program.

6.3 Request to continue in MD or PhD programs

A student who has withdrawn from the MD component of the MD/PhD program either voluntarily or by request, may apply to continue and complete the PhD component of the degree.

Any student admitted to the MD/PhD Program who makes a request to withdraw from the PhD component and continue on in the MD-only component, will be asked to submit their request in writing. This will be reviewed by the MD/PhD Program Committee who will make a

recommendation to the Assistant Dean, Undergraduate Medical Education Program and the Associate Dean of Graduate Studies. The Assistant Dean, UGME and Associate Dean Graduate Studies (Health Sciences) will decide whether to grant the request. Both parties must be in agreement. Unless the student has completed a substantial amount of research work comparable to that required for a PhD, such requests will not normally be granted. For academic reasons, the PhD program will try to accommodate and work with the student to complete their PhD (such as changing project, securing another supervisor etc.) or alternatively, a Master's degree, when appropriate.