Why GRADUATE STUDIES in TRANSLATIONAL MEDICINE?

The innovative Master of Science (MSc) in Translational Medicine is a unique research-based graduate program. The program provides students with a fresh perspective, offering a curriculum interweaving graduate level research with authentic clinical experiences in a multidisciplinary environment across departments at Queen's University.

Combining the fields of medicine and research, this program links graduate level research skills with a variety of clinical experiences including patient interactions, clinical observerships and medical rounds to enhance professional thinking and action. This innovative curriculum will offer important foundation work for future careers in the biomedical field, and will provide critical skills for pursuing careers that include clinician scientists, biomedical researchers, leaders in industry and public health and/or health policy.

What is TRANSLATIONAL MEDICINE?

Translational Medicine is driven by our patients and their diseases. Guided by this primary focus, translational research spans across the spectrum from molecular and cell biology to preclinical models to patient studies and back again (see Figure). Our programs aim to train the next generation of researchers to be effective translators of biomedical discovery. Our graduates will operate at the intersection of clinical and related sciences and will have the expertise to generate and lead discovery through an integrated process, increasing the efficiency of translating science knowledge into health improvement.

Program STRUCTURE

The MSc in Translational Medicine is a 2-year research-based program, which requires the completion of 12-credit courses (3 core courses, 3-credit electives) and a thesis.

Mini-Master’s: Students registered in the MSc in Translational Medicine with first-class standing, and who show exceptional promise in their research may be considered for promotion to the PhD in Translational Medicine, without completion of the MSc.

Core COURSES

- TMED 800* Translational Medicine
- TMED 801 Profession of Medicine
- TMED 802 Research Success Skills

Program HIGHLIGHTS

- Build on your academic education or enhance your career with advanced knowledge and skills
- Learn about translational medicine from an interdisciplinary perspective with authentic clinical experiences
- Experience team-based learning with other students
- Network with students, alumni, and leaders in this emerging field
- Complete a supervised project on a topic of your choice

Elective COURSES

(Pick 3 credits)

- TMED 811 Next Generation Sequencing (1.5 credit)
- BMED 862 Cellular Techniques (1 credit)
- BMED 865 Imaging Analysis (1 credit)
- BMED 869 Reproduction (1 credit)
- BMED 809* Principles and Drug Discovery and Development
- BMED 811* Advanced Molecular Biology
- NSCI 844* Controversies in Neuroscience
- EPID 803* Public Health System in Canada
- EPID 810* Controlled Clinical Trials
- PATH 822* Experimental Cancer Therapeutics
- PATH 826* The Molecular Basis of Disease

* = Courses that are one term in length. Courses are 3 credits unless otherwise stated.

Additional existing courses may be approved by the program director and students' supervisor, depending on the research interests of the students.
GETTING STARTED

- Start with key priorities like scheduling an initial meeting or meetings with your supervisor, forming your committee, and doing your coursework.
- Have your first committee meeting, identify a research topic and consider how your course assignments/papers can contribute to your master's thesis.
- Complete the ethics review process if applicable.
- Complete your core courses and electives.

INTERMEDIATE STATE

- Present your research to faculty and fellow graduate students.
- Schedule regular meetings with your supervisor and meet thesis committee at least twice a year.
- Find your way through the academic process with help from departmental and Expanding Horizons academic workshops, the program director, the SGS Habitat and Student Academic Success Services (SASS).

WRAPPING UP

- Write and revise your research and thesis draft.
- Defend your thesis and submit to the QSpace.
- Present your research at the TEMED Seminar Day.
- Consider publishing elements of your research. Learn from the Expanding Horizons publishing workshop.
- Attend a major conference in your field based on the discussion with your supervisor.
- Set up a meeting with the School of Graduate Studies for a Grad Chat to discuss your research interests.
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Expand your research audience through social media.
- Attend or present at a graduate conference based on the discussion with your supervisor.
- Participate in hiring committees and attend job talks. Research and act on conclusions.
- Critically appraise findings, draw and manage responsibilities.
- Project management: develop ideas, gather information, analyze, plan and act on conclusions.
- Apply for external funding after discussion with supervisors about your research interests.
- Expand your research audience through social media.

WHAT WILL I LEARN?

A Master's degree in Translational Medicine can equip you with:
- Knowledge and technical skills
- Effective communication skills in multiple forms for diverse audiences
- Information management: prioritize, organize and synthesize large amounts of information
- Time management: meet deadlines and manage responsibilities despite competing demands
- Project management: develop ideas, gather information, analyze, critically appraise findings, draw and act on conclusions
- Creativity and innovation
- Perseverance
- Independence and experience as a collaborative worker
- Awareness, an understanding of sound ethical practices, social responsibility, responsible research and cultural sensitivity
- Professionalism in all aspects of work, research, and interactions
- Leadership: initiative and vision leading people and discussion

WHERE CAN I GO?

A Master's degree in Translational Medicine can take your career in many directions. Our students are equipped with a strong foundation for careers such as:
- Medicine
- Public Health and Health Policy
- Health research (research associates in universities, hospitals, government, public health units)
- Taking time to explore career options, build experience, and network can help you have a smooth transition to the world of work after graduation.
- Leadership: initiative and vision leading people and discussion

MY GRAD MAP

- This map is intended to provide suggestions for activities and careers, but everyone's abilities, experiences, and constraints are different. Build your own Grad Map using our online My Grad Map tool.
- Visit careers.queensu.ca/gradmaps for the online version with links!
- MSc Map *
Graduate Studies FAQs

Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
- An undergraduate honours degree from a recognized university with a minimum of a B+ average in the last two years. At Queen's, a B+ is equivalent to a percentage conversion of 77-79.9% and a Grade Point Average of 3.3 (out of 4.3).

ADDITIONAL REQUIREMENTS
- Applications for admission are completed and submitted on the School of Graduate Studies website, including an online application form and specific instructions regarding how to submit the following documents:
  - A Statement of Interest about how applicants' background experiences and career aspirations make them ideally suited for the program (up to 4000 characters in the online application);
  - Transcripts for all postsecondary education;
  - Two references from individuals familiar with the applicant's academic performance;
- Applicants are required to submit an electronic resume/curriculum vitae to tmed@queensu.ca.

LANGUAGE REQUIREMENTS
- In cases where English is not the first language, nor was the language of instruction in undergraduate studies, applicants must demonstrate English language proficiency. Those applicants will need to provide proof of English language proficiency through one of the following:
  - International English Language Testing System (Academic module) with a minimum score of 7 in each component, or
  - TOEFL iBT with a passing score of 93 including a minimum score of 24 on the speaking section.

Before you start your application, please review the Graduate studies application process.

What about FUNDING?

We offer our master's students a minimum funding of $21,000 per year for two years.

Apply for external funding from OGS, CIHR/NSERC and other sources. Queen's will automatically issue a one time $5,000 award to incoming Masters students who have won federal government tri-council awards. See the School of Graduate Studies' information on awards and scholarships for more.