Why GRADUATE STUDIES in TRANSLATIONAL MEDICINE?

The innovative Doctor of Philosophy (PhD) 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 PhD in Translational Medicine is a 4-year research-based program, which requires the completion of 12-credit courses (3 core courses, 3-credit electives), a comprehensive exam, and a thesis.

The PhD in Translational Medicine has the same coursework requirements such that students who have completed the MSc in Translational Medicine will be granted advanced standing and have no further coursework to complete thus providing an accelerated route to PhD completion.

Core COURSES

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

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.

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
**Translational Medicine PhD Map**

**ACHIEVE YOUR ACADEMIC GOALS**

- Start with key priorities like scheduling an initial meeting or meetings with your supervisor, forming your committee, and doing your coursework (if applicable).
- Set expectations and discuss roles, responsibilities, program requirements, resources, research/occupational goals, timelines, and any required accommodation plans with your supervisor.
- Compete your core course and electives.
- Complete PSOE CORE online module on research ethics if doing research regarding sensitive topics.

**MAXIMIZE RESEARCH IMPACT**

- Think about audiences for your research.
- Apply for external funding after discussion with supervisors about appropriate granting agencies.
- Attend conferences in your field.

**BUILD SKILLS AND EXPERIENCE**

- Serve on departmental, faculty or university committees. Talk to the SGS for tips on getting involved.
- Consider positions in student services, the SGS, or media outlets like the Queen's Journal, CFCR, and the SGS Blog. Look in the AMS Clubs Directory.
- Check out professional development workshops from Expanding Horizons and the Department of Medicine.

**ENGAGE WITH YOUR COMMUNITY**

- Explore how you can connect with your community through experiential opportunities on- and off-campus.
- Consider volunteering with different community organizations, such as the Kingston Health Sciences Centre, Queen's Cancer Research Institute or FPL:A, Public Health.
- Consider joining appropriate professional associations in consultation with your supervisor.

**LAUNCH YOUR CAREER**

- Finding career fit starts with knowing yourself. Take a Career Services workshop or meet with a career counselor for help. Check out books like So What Are You Going to Do With That? or Planning a Scientific Career in Industry from the Career Resource Area for advice on various career options.
- Start reading publications like University Affairs and the Chronicle of Higher Education. Browse non-academic labour market websites.
- Stay on the lookout for special events like Graduate Students Career Week to explore your career pathways.

**YEAR I**

- Schedule regular meetings with your supervisor and meet thesis committee at least twice a year.
- Priorities include completing your research proposal, and pursuing research. Complete the ethics review process if applicable.
- Complete the Comprehensive Exam (oral defense) and embark on your substantive research.
- Find your way through the academic process with help from the program director and the SGS Habitat.

**YEAR II**

- Start to present your work at graduate conferences, through professional associations, or topic conferences.
- Expand your research audience through social media.
- Apply for the Graduate Dean’s Travel Grant for Doctoral Field Research.

**YEAR III**

- Start presenting your research at TMED Seminar Day.
- Investigate internships from MITACS and other sources. Find opportunities for extra training through Expanding Horizons, MITACS, or other sources to boost your skills.
- Prepare for work or studies in a multi-cultural environment by taking the Intercultural Awareness Training Certificate hosted by OILC.
- Using a Teaching Assistant position to develop your teaching skills.

**YEAR IV & TRANSITIONING**

- Plan date of thesis submission for examination.
- Present your research to graduate students and faculty or at conferences and work with supervisor to prepare for defence.
- Review submission and examination guidelines.
- Secure necessary oral defence accommodations.
- Defend your thesis and submit to the QSpace.
- Discuss career pathways, references letters, and publication options with your supervisor.

**WHERE CAN I GO?**

Where can a PhD degree in Translational Medicine take you? Translational Medicine can equip you with:

- Career options for those interested in medical professions.
- Potential roles in government, public health units, non-profit organizations, and NGOs.
- Opportunities in universities, hospitals, and research institutions.

**WHAT WILL I LEARN?**

A graduate degree in Translational Medicine can equip you with:

- Knowledge and technical skills
- Effective communication skills
- Problem-solving and critical thinking skills
- Leadership and management skills
- Collaboration and teamwork skills

**I CAN APPLY MY KNOWLEDGE TO:**

- Medicine
- Post-doctoral fellowships or academia
- 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 achieve this transition to the world of work after graduation.

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Visit careers.queensu.ca/gradmaps for the online version with links!
Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
- A master’s degree from a recognized university with a minimum of an A- average. At Queen’s an A- is equivalent to a percentage conversion of 80-84.9% and a Grade Point Average of 3.7 (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 résumé/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 PhD students a minimum funding of $23,000 per year for four 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.