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

* = 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
The coronavirus pandemic may impact how some activities are delivered in 2020-2021. Please check directly with the host of any activity on the map for the latest information.

**WHAT WILL I LEARN?**

A graduate 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**: Most 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**
- **Perserverance**
- **Independence and experience as a collaborative worker**
- **Awareness, 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 PhD degree in Translational Medicine can take your career in many directions. Our students are equipped with a strong foundation for careers such as:

- Medicine
- Post-doctoral fellowships or academia
- Public Health and Health Policy
- Health research (research and practice in government, public health units)

Taking time to explore career options, build experiences, and network can help you transition to the world of work after graduation.

**ACHIEVE YOUR ACADEMIC GOALS**

**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 departmental and **Expanding Horizons** academic workshops, the program director and the **SGS Habitat**.

**YEAR II**
- Continue to research and write your dissertation. Check out the SGS writing camps, such as Dissertation on the Lake.
- Consider publishing elements of your research. Learn from the Expanding Horizons workshops.
- Use conference presentations to create and refine dissertation material.
- Continue to meet your supervisor regularly and your committee twice a year.

**YEAR III**
- Plan date of thesis submission for examination.
- Present your research to graduate students and faculty 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.

**YEAR IV & TRANSITIONING**
- Continue to attend conferences and connect with scholars in your field and with community partners.
- Continue public outreach through social media and the **Queen’s Media Centre**.
- Set up a meeting with the School of Graduate Studies for a **Grad Chat** to discuss your research interests.
- Practice articulating the skills you have been developing in settings outside the university, such as casual conversation, networking, and interviews. Get help from a Career Services workshop.
- Continue targeted networking with people working in careers of interest. Join groups on LinkedIn reflecting specific careers or topics of interest in translational medicine, biomedical science, public health, and health policy.
- Continue targeted networking with people working in careers of interest, through **Queens Connects** on LinkedIn, the **Queen’s Alumni Association**, professional associations, and at conferences. Get help from a Career Services workshop.
- Continue presenting at conferences.
- Consider participating in the **3 Minute Thesis (3MT)** competition.
- Contact the Queen’s Media Centre for guidance on speaking to news outlets about your work.
- Consider doing a **Grad Chat** and share your research.

**MAXIMIZE RESEARCH IMPACT**

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

**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.
- Start presenting your research at TMED Seminar Day.

**YEAR III**
- Continue to present at conferences.
- Consider participating in the 3 Minute Thesis (3MT) competition.
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**BUILD SKILLS AND EXPERIENCE**

**YEAR I**
- 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, CFRC, and the SGS Blog. Look in the AMS Clubs Directory.
- Check out professional development workshops from **Expanding Horizons** and the Department of Medicine.

**YEAR II**
- Hone skills for non-academic employment by continuing involvement on committees and in community.
- Start keeping an eportfolio of your skills, experiences and competencies.
- For help with teaching, get support from the **Centre for Teaching and Learning**.
- Consider participating in **SGS Community Initiative**.

**YEAR III**
- Investigate internships from **MITACS** and other sources. Find opportunities for extra training through CIL, 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 QLIC.
- Using a Teaching Assistant position to develop your teaching skills.
- Continue to present at conferences.
- Consider participating in the **3 Minute Thesis (3MT)** competition.
- Contact the Queen’s Media Centre for guidance on speaking to news outlets about your work.
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- Continue targeted networking with people working in careers of interest. Join groups on LinkedIn reflecting specific careers or topics of interest in translational medicine, biomedical science, public health, and health policy.
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**ENGAGE WITH YOUR COMMUNITY**

**YEAR I**
- 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 **FLEAP Public Health**.
- Consider joining appropriate professional associations in consultation with your supervisor.

**YEAR II**
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- If you are an international student interested in staying in Canada, consider speaking with an **International Student Advisor**.

**YEAR III**
- Do some targeted networking with people working in careers of interest, through **Queens Connects** on LinkedIn, the **Queen’s Alumni Association**, professional associations, and at conferences. Get help from a Career Services workshop.
- Continue targeted networking with people working in careers of interest. Join groups on LinkedIn reflecting specific careers or topics of interest in translational medicine, biomedical science, public health, and health policy.

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**LAUNCH YOUR CAREER**

**YEAR I**
- 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 II**
- Start building your teaching portfolio including student evaluations, and seeking mentorship.
- Explore different careers of interest by using **Queens Connects** on LinkedIn to connect with Queen’s alumni. For more information check our **Career Cruising**.
- Investigate requirements for professional positions or other opportunities related to careers of interest.

**YEAR III**
- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.

**YEAR IV & TRANSITIONING**
- Build connections with faculty outside of your department. Pursue interviews for faculty positions and apply for post-doc fellowships and positions.
- Apply to jobs or make plans for other adventures. Get help from Career Services with job searching, resumes, and interviews.
- If considering jobs abroad, research possible immigration regulations, and consider speaking with an **International Student Advisor**.

**ACADEMIC ACHIEVEMENT**

**YEAR I**
- 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 TPS2 CORE online module on research ethics if doing research regarding sensitive topics.

**YEAR II**
- Complete the Comprehensive Exam (oral defense) and embark on your substantive research.
- Find your way through the academic process with help from departmental and **Expanding Horizons** academic workshops, the program director and the **SGS Habitat**.

**YEAR III**
- Continue to research and write your dissertation. Check out the SGS writing camps, such as Dissertation on the Lake.
- Consider publishing elements of your research. Learn from the Expanding Horizons workshops.
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**YEAR IV & TRANSITIONING**
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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 resumé/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.