

# Pathology & Molecular Medicine PhD Map

## Applying to and Navigating Graduate Studies

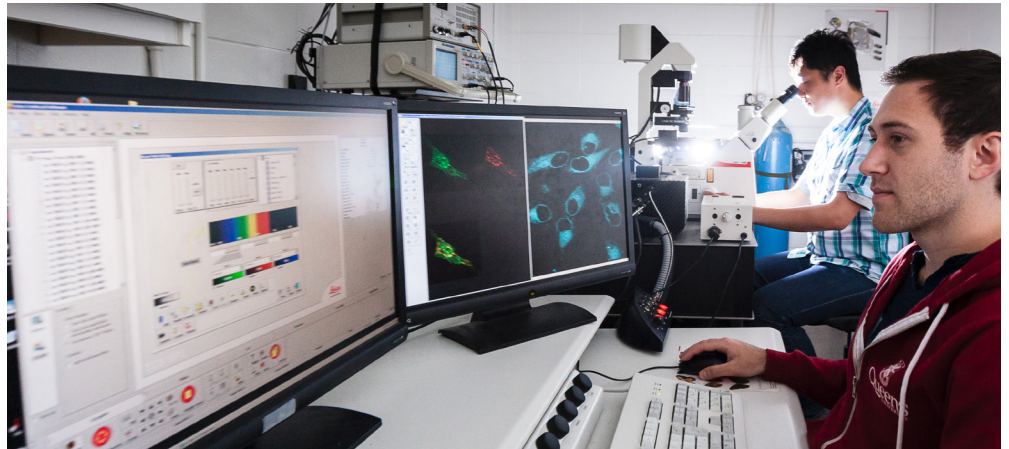
GRAD MAP FOR PhD STUDENTS 

### Why GRADUATE STUDIES in PATHOLOGY & MOLECULAR MEDICINE?

Graduate students and their work are an important part of an ongoing research process that provides the community with ways of understanding natural, cultural, imaginative, social, and technological phenomena. The faculty, staff, and trainees in Pathology & Molecular Medicine are engaged in world-class research and teaching, attracting and mentoring the best students, the finest educators, dedicated support staff, and internationally-competitive researchers. We value curiosity, creativity, commitment, and collegiality.

The department is a distinguished academic centre engaging a wide range of research endeavours including anatomical sciences, bacteriology, biochemistry, cancer biology, cardiovascular sciences, cell biology, developmental biology, immunology, molecular biology, neuroscience, pharmacology, physiology, reproductive biology, toxicology, and virology. The breadth and depth of our research has a strong foundation in multi-disciplinary discovery. The faculty and trainees collaborate with numerous research institutions locally, nationally, and internationally.

*Queen's is a great setting to learn first-hand how the fast pace of molecular genetic research is changing clinical practice, leading to exciting new diagnostic and treatment approaches for cancer and other diseases.*



### Why QUEEN'S?

With a focus on cancer – 12 of our 20 investigators are cancer biologists – our department members deliver comprehensive diagnostic laboratory and clinical services to Southeastern Ontario through the Kingston General Hospital, offering great training for the next generation of biomedical research scientists and laboratory physicians.



### Program STRUCTURE

PhD (4 years): Course work, research making novel contributions to the field of study, and a thesis.

### Research AREAS

- Cancer Research and Developmental Biology
- Hemostasis, Thrombosis Research, and Vascular Biology
- Human Genetics and Cytogenetics

Visit the Pathology and Molecular Medicine website to read faculty profiles and learn more about faculty members' research areas. When you find a faculty member with similar research interests to yours, contact them and tell them about your interest in graduate work, area of research interest, and related experience.

Please include a current CV, contact information for 2-3 references who would be familiar with your academic performance, any research experience, and an unofficial transcript. The email correspondence is also an opportunity for you to find out if the faculty member is accepting new graduate students to supervise. Consider meeting with your potential supervisor at departmental events for prospective students.



**GRADUATE STUDIES AND POSTDOCTORAL AFFAIRS**

[queensu.ca/grad-postdoc](http://queensu.ca/grad-postdoc)

# Pathology & Molecular Medicine PhD Map

DOCTOR OF PHILOSOPHY (PhD)



## YEAR I

## YEAR II

## YEAR III

## YEAR IV

### ACHIEVE YOUR ACADEMIC GOALS

- Key priorities include completing any required coursework and training, and developing your research proposal.
- Meet early with your supervisor to set expectations and discuss roles, responsibilities, program requirements, resources, research/occupational goals, timelines, and any required accommodation plans.

- Priorities include completing your comprehensive examination and pursuing research.
- Find your way through the academic process with the help of School of Graduate Studies and Postdoctoral Affairs (SGSPA) professional development workshops, the Pathology and Molecular Medicine Graduate Coordinator, and the SGSPA website.

- Continue to research and write your dissertation. Check out the SGSPA writing camps, such as Dissertation Boot Camp.
- Consider publishing elements of your research.
- Use conference presentations to create and refine dissertation material.

- 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.
- Discuss career pathways, references letters, and publication options with your supervisor.

### MAXIMIZE RESEARCH IMPACT

- Think about audiences for your research.
- Complete CORE online module on research ethics if doing research regarding sensitive topics.
- Apply to CIHR, NSERC, OGS, and other funding.
- Attend conferences in your field.

- Present your work at graduate conferences such as Canadian Cancer Research Conference, 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.

- Continue to present at conferences.
- Consider participating in the 3 Minute Thesis (3MT) or GRADflix competition.
- Contact the Queen's Media Centre for guidance on speaking to news outlets about your work.
- Consider being interviewed on the SGSPA radio show Grad Chat to talk about your research.

- 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.
- Consider putting an article in The Conversation.

### BUILD SKILLS AND EXPERIENCE

- Serve on departmental, faculty, or university committees.
- Consider positions in student services, the SGPS, or media outlets like the Queen's Journal, CFRC, and the SGSPA Blog. Look in the AMS Clubs Directory.
- Use a Teaching Assistant or Research Assistant position to develop your skills and experience.

- Hone skills for non-academic employment by continuing involvement on committees and in the community.
- Start keeping an eportfolio of your skills, experiences, and competencies.
- For help with teaching, get support from the Centre for Teaching and Learning. Enrol in SGS902 or the PUTL Certificate for more professional development.

- Investigate internships from MITACS and other sources.
- Find opportunities for extra training through CTL, SGSPA professional development, 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 QUIC and Four Direction.

- 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.

### 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 Canadian Cancer Society, Kingston General Hospital, and the Canadian Breast Cancer Foundation.

- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- If pursuing research abroad or outside Kingston, investigate options such as the Jeremy Nesheim Graduate Travel Award which supports travel to an expert laboratory to learn new methods.

- 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.

- Join professional associations like the American Society of Hematology, the American Association for Cancer Research, the Canadian Cancer Society.
- Continue targeted networking with people working in careers of interest. Join groups on LinkedIn reflecting specific careers or topics of interest in pathology and molecular medicine.

### LAUNCH YOUR CAREER

- Finding a career fit starts with knowing yourself. Take a Career Services workshop or meet with a career educator and coach for help.
- Start reading publications like University Affairs and the Chronicle of Higher Education. Browse non-academic labour market websites.

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

- Participate in hiring committees and attend job talks. Research academic careers of interest. Craft your CV and job application materials.
- Start focusing on non-academic areas of interest. Research organizations of interest and start putting together your industry resume and begin your job search plan.

- 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. If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor.

### Knowledge & Workplace Skills

A graduate degree in Pathology and Molecular Medicine can equip you with valuable and versatile skills, such as:

- **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

### Career Possibilities

A PhD in Pathology & Molecular Medicine can take your career in many directions. In Canada, less than 40% of all PhDs will work in post-secondary education – the majority will work in industry, government, or non-profits.

- Administration in academic, health care or government settings
- Academic labs
- Health Care (Hospital clinical labs)
- Marketing positions in private sector companies
- Pharmaceutical companies
- Scientific supply companies
- Teaching positions in academic institutions or the private sector
- Technical positions in academic institution or the private sector

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

### How to use this map

Use the 5 rows of the map to explore possibilities and plan for success in the five overlapping areas of career and academics. To make your own custom map, use the My Grad Map tool: [careers.queensu.ca/gradmaps](https://careers.queensu.ca/gradmaps).

# Graduate Studies FAQs

## How do I make the most of my time at Queen's?

Use the Grad Map to plan for success in five overlapping areas of your career and academic life. Everyone's journey is different - the ideas on the maps are just suggestions to help you explore possibilities. For more support with your professional development, take advantage of the SGSPA professional development framework and the new Professional Development Plan (PDP) process to set customized goals to help you get career ready when you graduate.

## Where can I get help?

Queen's provides you with a broad range of support services from your first point of contact with the university through to graduation. Ranging from help with academics and careers, to physical, emotional, or spiritual resources – our welcoming environment offers the programs and services you need to be successful, both academically and personally. Check out the SGSPA website for available resources.

## What is the community like?

At Queen's, graduate students from all disciplines learn and discover in a close-knit intellectual community. You will find friends, peers and support among the graduate students enrolled in Queen's more than 130 graduate programs within 50+ departments & research centres. With the world's best scholars, prize-winning professional development opportunities, excellent funding packages and life in the affordable, historic waterfront city of Kingston, Queen's offers a wonderful environment for graduate studies. Queen's is an integral part of the Kingston community, with the campus nestled in the core of the city, only a 10-minute walk to downtown with its shopping, dining and waterfront. For more about Kingston's history and culture, see Queen's University's Discover Kingston page.

# Application FAQs

## What do I need to know to APPLY?

### ACADEMIC REQUIREMENTS

- Honours BSc or equivalent in life sciences, biochemistry, biology, or equivalent program with first class standing, or MSc, or equivalent research experience.
- We consider all of your grades, but pay particular attention to the last two years of science-related courses.

### ADDITIONAL REQUIREMENTS

- If English is not a native language, prospective students must meet the English language proficiency requirements in writing, speaking, reading, and listening. The following minimum scores are required: (1) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30). Applicants must have the minimum score in each test as well as the minimum overall score, or (2) IELTS: 7.0 (academic module overall band score and a 7.0 for each test band), or (3) PTE Academics: 65, or (4) CAEL CE -70 (minimum overall score).

### KEY DATES & DEADLINES

- **Application due:** February 1st to be considered for internal funding.
- **Notification of acceptance:** Quickly pending confirmation of a supervisor.

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

## What about FUNDING?

As of the 2025-26 academic year, doctoral students are guaranteed minimum funding of \$21,000 per year for years 1-4. For internal, provincial, and national competitive award winners, the funding package increases by 2.5%, 5% and 10% respectively.

Apply for external funding from CIHR, NSERC, OGS, the Heart & Stroke Foundation, CBCF, the Department of Defence, the American Cancer Society, and other sources. For the 2025-26 academic year, Queen's will automatically issue a one time \$5,000 award to Doctoral students who have won federal government tri-council awards. For more information, see the School of Graduate Studies and Postdoctoral Affairs' information on awards and scholarships.



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