Pathology & Molecular Medicine PhD Map
Applying to and Navigating Graduate Studies

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 Biomedical and Molecular Sciences 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.

Why QUEEN’S?

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.

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

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 him/her 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 and 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.

School of Graduate Studies
Create an impact

www.queensu.ca/sgs
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

WHAT CAN I DO?

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.

- Health Care (Hospital clinical labs)
- Pharmaceutical companies
- Academics
- Scientific supply companies
- Health Care (Hospital clinical labs)
- Government settings
- Teaching positions in academic institutions in the health or private sector
- Technical positions in academic institutions in the private sector
- Marketing positions in private sector companies
- Taking time to explore career options, build experience, and network can help you have a smooth transition to the world of work after graduation.

WHERE CAN I GO?

Paths: Pathology & Molecular Medicine

Analyze skills and/or interests using the Grad Map tool. Each path is a mix of skills and areas of expertise available to you. Each area of expertise is described in the table below.

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<tr>
<th>Pathology &amp; Molecular Medicine</th>
<th>PhD MAP *</th>
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YEAR I

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.
- Look to Student Academic Success Services for a variety of support.

MAXIMIZE RESEARCH IMPACT

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

BUILD SKILLS AND EXPERIENCE

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

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.

LAUNCH YOUR CAREER

- Finding a career fit starts with knowing yourself. Take a Career Services career planning 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 Student Career Week to explore your career pathways.

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<th>Pathology &amp; Molecular Medicine</th>
<th>YEAR II</th>
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| Priority include completing your comprehensive examination and pursuing research.
- Find your way through the academic process with the help of Expanding Horizons professional development workshops, the Pathology and Molecular Medicine Graduate Coordinator and the SGS Habitat.

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| 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.

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<th>Pathology &amp; Molecular Medicine</th>
<th>YEAR IV &amp; TRANSITIONING</th>
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| 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.

- 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.

[Check out the free online modules at MyGradSkills.]

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

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS

- Honours BSc or equivalent in life sciences, biochemistry, biology, etc 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 School of Graduate Studies requires the following minimum scores: TOEFL (paper-based): 550, (2) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30), for a total of 88/120 (applicants must have the minimum score in each test as well as the minimum overall score), or (3) IELTS: 7.0 (academic module overall band score), or (4) PTE Academics: 65.

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?

Minimum funding guarantee for PhD students: $22,700. 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. Queen’s will automatically issue a $10,000 award to incoming PhD students who have won federal government tri-council awards. For more information, see the School of Graduate Studies’ information on awards and scholarships.