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. Graduate students in Pathology and Molecular Medicine have opportunities to pursue comprehensive training in basic and translational biomedical research. They pursue advanced degrees under the supervision of an exceptional group of basic, clinical and translational researchers.

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

MSc (2 years): Course work, research demonstrating experimental competence, 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.
Pathology & Molecular Medicine MSc Map *

GETTING STARTED

- Start with key priorities like developing your relationship with your supervisor, forming your committee, and doing your coursework.
- Consider how your course papers can contribute to your Master's thesis.
- Find your way through the academic process with help from departmental and Expanding Horizons professional development workshops, the department Grad Chair and the SGPS website.

MAXIMIZE RESEARCH IMPACT

- Start to think about the audiences for your research.
- Attend or present at a graduate conference such as Canadian Cancer Research Alliance (CCRA).
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Expand your research audience through social media.
- Set up a meeting with the School of Graduate Studies for a Grad Chat to discuss your research interests.
- Consider publishing elements of your research. Learn from the Expanding Horizons publishing workshop.
- Attend a major conference in your field, such as the American Association for Cancer Research Annual Meeting, or the Canadian Association of Pathologists/Pathologists Annual Meeting.
- Consider putting an article in The Conversation.

BUILD SKILLS AND EXPERIENCE

- Consider positions in student services, the SGOP, or media outlets like the Queen's Journal, CFRC, and the SGS Blog. Look in the AMS Clubs Directory for more ideas.
- Serve on departmental, faculty or university committees.
- Check out professional development workshops from Expanding Horizons and the Department of Pathology and Molecular Medicine.
- Start keeping an eportfolio of your skills, experiences and competencies.
- Use a Research Assistant or Teaching Assistant position to develop your research or teaching skills.
- For help with teaching, get support from the Centre for Teaching and Learning. Enroll in SG5902 or the PUTL Certificate for more professional development in teaching and learning.
- 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.
- Investigate internships from MITACS and other sources.
- Check out opportunities for extra training through CTL, Expanding Horizons, MITACS or other sources to boost your skills.
- 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.
- Consider joining professional associations like the American Society of Hematology, the American Association for Cancer Research, the Canadian Cancer Society, or the Ontario Association of Pathologists.

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.
- Prepare for work or studies in a multi-cultural environment by taking the Intercultural Awareness Training Certificate hosted by QUC and Four Directions Indigenous Student Centre.
- If you are an international student interested in staying in Canada, get help from an International Student Advisor.
- Participate in hiring committees and attend job talks. Start focusing on areas of interest. Research organizations of interest and start putting together your CV or resume for potential positions of interest. Get help from Career Services with job searching, resumes, and interviews.
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- Visit careers.queensu.ca/gradmaps for the online version with links!

INTERMEDIATE STAGE

- Complete your coursework, begin to research and write your thesis.
- Attend or present at a graduate conference such as the Canadian Cancer Research Alliance (CCRA).
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Expand your research audience through social media.
- Set up a meeting with the School of Graduate Studies for a Grad Chat to discuss your research interests.
- Consider publishing elements of your research. Learn from the Expanding Horizons publishing workshop.
- Attend a major conference in your field, such as the American Association for Cancer Research Annual Meeting, or the Canadian Association of Pathologists/Pathologists Annual Meeting.
- Consider putting an article in The Conversation.

WRAPPING UP

- Present your research to Pathology & Molecular Medicine graduate students and faculty.
- Complete and defend your Master’s research thesis.
- 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.
- Investigate internships from MITACS and other sources.
- Check out opportunities for extra training through CTL, Expanding Horizons, MITACS or other sources to boost your skills.
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WHAT WILL I LEARN?

A graduate degree in Pathology and Molecular Medicine can equip you with valuable and transferable 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. 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
- Persuasiveness
- Independence and experience as a collaborative worker
- Awareness, an understanding of sound ethical practices, social responsibility, 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 Pathology & Molecular Medicine can take your career in many directions. Many of our MSc students choose to continue their academic inquiry with a PhD. Our Master’s students are equipped with a strong foundation for careers in:

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

* 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.
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 at least a B+ average. (Students with only a general degree can be admitted for a qualifying year.)
- 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?

We offer our Master's students minimum funding of $22,000 annually. For internal, provincial and national competitive award winners, the funding package increases by 2.5%, 5% and 10% respectively.

Apply for external funding from OGS, CIHR/NSERC and other sources. Queen's will automatically issue a one time $5,000 top-up to Master’s winners of federal government tri-council awards. See the School of Graduate Studies’ information on awards and scholarships.

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.