Pathology & Molecular Medicine MSc 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. 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 – and 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
- Hemostasis, Thrombosis Research, and Vascular Biology
- Human Genetics and Cytogenetics

Visit the <u>Pathology and Molecular</u>
<u>Medicine website</u> 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.







Pathology & Molecular Medicine MSc Map

Queen's

MASTER OF SCIENCE (MSc

	GETTING STARTED	INTERMEDIATE STAGE	WRAPPING UP
ACHIEVE YOUR ACADEMIC GOALS	 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 workshops, the department Grad Chair, and the SGSPA. 	Complete your coursework; begin to research and write your thesis.	 Present your research to Pathology & Molecular Medicine graduate students and faculty. Complete and defend your Master's research thesis.
MAXIMIZE RESEARCH IMPACT	 Start to think about the audiences for your research. If you will be continuing graduate studies, apply for funding from sources such as CIHR, NSERC, OGS, CRS, CCS, and the Heart & Stroke Foundation. 	 Attend or present at a graduate conference such as the Canadian Cancer Research Conference. Consider participating in the 3 Minute Thesis (3MT) or GRADflix competition. Expand your research audience through social media. Consider being interviewed on the SGSPA radio show Grad Chat to talk about your research. 	 Consider publishing elements of your research. Attend a major conference in your field, such as the American Association for Cancer Research Annual Meeting, or the Canadian Association of Pathologists' Annual Meeting. Consider putting an article in The Conversation.
BUILD SKILLS AND EXPERIENCE	 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 for more ideas. Serve on departmental, faculty, or university committees. Check out professional development workshops from School of Graduate Studies and Postdoctoral Affairs professional development 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. Enrol in SGS902 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, Schoof Graduate Studies and Postdoctoral Affairs professional development, MITACS, or other sources to boost your skills.
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 Breast Cancer Action Kingston. 	 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 QUIC and Four Directions Indigenous Student Centre. If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor. 	 Do some targeted networking with people working in careers of interest, through 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.
LAUNCH YOUR CAREER	 Finding a career that fits starts with knowing yourself. Get help by taking a Career Services workshop or meeting with a career educator and coach. Check out 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. Check admission test deadlines if needed for further studies. 	 Explore different careers of interest by using LinkedIn to connect with Queen's alumni. Check out Career Cruising for more information. If you are considering a PhD, explore programs of interest, reach out to faculty, and apply to PhD programs and external scholarships. 	 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. Find impactful work that aligns with your values using the Queen's Career Guide to the UN Sustainable Development Goals.

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 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:

- Academic labs
- Administration in academic, health care or government settings
- 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 institutions 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

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 <u>SGSPA website</u> for available resources.

What is the community like?

At Queen's, graduate students from all disciplines learn and discover in a closeknit 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.

Graduate 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 currently offer our Master's students minimum funding of \$26,500 annually. For internal, provincial, and national competitive award winners, the funding package increases by 2.5%, 5%, and 10% respectively. Additional income can be earned through teaching assistantships.

Apply for external funding from OGS, CIHR/NSERC, and other sources. See the School of Graduate Studies and Postdoctoral Affairs' information on awards and scholarships for more.

