Pathology & Molecular Medicine PhD Map

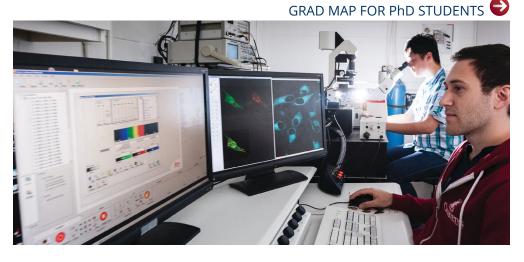
Applying to and Navigating Graduate Studies

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 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.



2023-2024 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 <u>School of Graduate Studies</u> and Postdoctoral Affairs professional development workshops, the Pathology and Molecular Medicine Graduate Coordinator, and the <u>SGSPA website</u>. 	 Continue to research and write your dissertation. Check out the <u>SGSPA writing</u> <u>camps</u>, such as Dissertation Boot Camp. Consider publishing elements of your research. Use conference presentations to create and refine dissertation material. 	 Plan date of thes Present your resand faculty or at supervisor to pro Review submissi Secure necessar accommodation Discuss career p publication optic
MAXIMIZE				\geq
RÉSEARCH 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 <u>Canadian Cancer Research Conference</u>, through professional associations, or topic conferences. Expand your research audience through social media. Apply for the Graduate <u>Dean's Travel Grant for Doctoral Field Research</u>. 	 Continue to present at conferences. Consider participating in the <u>3 Minute Thesis</u> (<u>3MT</u>) competition. Contact the <u>Queen's Media Centre</u> for guidance on speaking to news outlets about your work. Set up a meeting with the SGSPA for a <u>Grad</u> <u>Chat</u> to discuss your research interests. 	 Continue to atter connect with sch community partr Continue public media and the Q Consider putting <u>Conversation</u>.
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 <u>Centre for Teaching and Learning</u>. Enrol in SGS902 or the PUTL Certificate for more professional development. 	 Investigate internships from <u>MITACS</u> and other sources. Find opportunities for extra training through CTL, <u>School of Graduate Studies and</u> Postdoctoral Affairs 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 FDISC. 	 Practice articulat developing in se such as casual co and interviews. (Services workshop)
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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 <u>Canadian Cancer</u><u>Society</u>, <u>Kingston General Hospital</u>, and the <u>Canadian Breast Cancer Foundation</u>. 	 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 <u>Queens</u> <u>Connects</u> on LinkedIn, the <u>Queen's Alumni</u> <u>Association</u> , professional associations, and at conferences. Get help from a Career Services workshop.	 Join professiona <u>American Society</u> <u>Association for C</u> <u>Cancer Society</u>. Continue targete working in caree LinkedIn reflecting interest in pathol
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LAUNCH YOUR CAREER How to use this map	 Finding a career fit starts with knowing yourself. Take a <u>Career Services workshop</u> or meet with a career educator and coach for help. Start reading publications like <u>University Affairs</u> and the <u>Chronicle of Higher Education</u>. Browse non-academic labour market websites. Stay on the lookout for special events like School of Graduate Studies and Postdoctoral Affairs Career Week to explore your career pathways. 	 Start building your teaching portfolio, including student evaluations and seeking mentorship. Explore different careers of interest by using <u>Career Connects</u> on LinkedIn to connect with Queen's alumni. For more information check out <u>Career Cruising</u>. 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 connection department. Pur positions and ap and positions. Apply to jobs or adventures. Get with job searchir If considering jol immigration regu international stu in Canada, consi International Stu

Use the 5 rows of the map to explore possibilities and plan for success in the five overlapping areas of career and academics. The map just offers suggestions – you don't have to do it all! To make your own custom map, use the <u>My Grad Map</u> tool.



- nesis submission for examination.
- research to graduate students at conferences and work with prepare for defence.
- ission and examination guidelines.
- sary oral defence ons.
- r pathways, references letters, and otions with your supervisor.
- ttend conferences and scholars in your field and with artners.
- lic outreach through social e Queen's Media Centre.
- ing an article in <u>The</u>

lating the skills you have been settings outside the university, l conversation, networking, s. Get help from a Career shop.

nal associations like the <u>iety of Hematology</u>, the <u>American</u> or <u>Cancer Research</u>, the <u>Canadian</u> <u>y</u>.

eted networking with people reers of interest. Join groups on cting specific careers or topics of chology and molecular medicine.

ions with faculty outside of your Pursue interviews for faculty apply for post-doc fellowships

- or make plans for other Get help from Career Services Ching, resumes, and interviews.
- jobs abroad, research possible egulations. If you are an student interested in staying nsider speaking with an <u>Student Advisor</u>.

WHAT WILL I LEARN?

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

WHERE CAN I GO?

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.

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 Individual. Development Plan (IDP) 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 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 <u>Graduate studies application</u> <u>process</u>.

What about FUNDING?

Minimum funding guarantee for PhD students: \$23,000 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 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 one time \$10,000 award to incoming PhD students who have won federal government tri-council awards. For more information, see the School of Graduate Studies and Postdoctoral Affairs' information on <u>awards and scholarships</u>.





| PATHOLOGY & | MOLECULAR MEDICINE

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