

Graduate student opportunities: Host-pathogen-environment interactions

The Katzenback Lab (<https://uwaterloo.ca/katzenback-lab/>) is recruiting a **MSc student and PhD student** to investigate host-pathogen-environment interactions in amphibians (African clawed frog and North American wood frog) using *in vitro* and *in vivo* systems.

Examples of current projects available (can be tailored to the applicant's interests and skillset):

1. MSc Project: Immunotoxic effects of exposure to naphthanic acids on wood frogs
2. MSc Project: Effects of temperature on cellular antiviral responses
3. PhD Project: Antimicrobial peptides as immunomodulators of cellular responses
4. PhD Project: Cytosolic sensors of viral nucleic acids
5. PhD Project: Development of *in vitro* systems to study frog host-pathogen systems

Academic Environment: The Katzenback Research Group is a collaborative and supportive team of researchers of all stages (PDF, PhD, MSc, BSc). Trainees are empowered to take a leadership role in their research, are encouraged to engage in professional development and outreach activities, and are supported in these endeavours through both advisor and peer mentorship. Projects are primarily lab based (there is a field work component to collect frog eggs/adults) and students will have the opportunity to conduct research in the newly renovated University of Waterloo WATER Facility equipped with amphibian pathogen challenge facilities. Situated in the Department of Biology (<https://uwaterloo.ca/biology/graduate-studies>) at the University of Waterloo, the successful applicant will be centrally located in beautiful Southern Ontario.

Funding: The current minimum guaranteed stipend for domestic graduate students is \$25,104/y. Additional details on funding breakdowns and program requirements can be found in the Biology graduate handbook: <https://uwaterloo.ca/biology/graduate-studies/biology-graduate-handbook> Eligible students are encouraged to apply for external funding.

Essential Qualifications:

1. Have successfully completed a BSc (for MSc position) or a thesis-based MSc (for PhD position) in Immunology, Biology, Biotechnology or a related field prior to the proposed start date.
2. Have meaningful experience or interest in immunology and molecular biology (e.g. have taken upper year/graduate level classes and/or labs on these topics, or completed a relevant BSc/MSc thesis, or work experience in these areas).
3. Be able to work independently and collaboratively.
4. Possess strong verbal and written communication skills.

Starting Date: Sept 1, 2022 or Jan 1, 2023 (flexible)

Instructions: E-mail Dr. Katzenback (barb.katzenback@uwaterloo.ca) using the subject line "**Amphibian Innate Immunity**" and include: **1)** A brief cover letter that outlines your research interests and how they align with the project, **2)** Curriculum vitae; **3)** Unofficial transcripts; and **4)** A sample of your writing, if available.

Review of applications will begin on June 15, 2022 and will continue until the position is filled. All qualified applicants are encouraged to apply; however, preference will be given to Canadian citizens and permanent residents.

Our group strives to be a diverse, equitable, inclusive and collaborative community that supports and empowers each individual to cultivate their potential and achieve their professional goals. We welcome and encourage applications from women, Indigenous, Black and other under-represented persons.