

PhD student opportunity: Effects of microplastics on amphibian innate immunity

The Katzenback Lab (<https://uwaterloo.ca/katzenback-lab/>) is looking to work with a **PhD student** to investigate the effects of exposure to microplastics on immune mechanisms of amphibians.

Project Scope: Increased plastic production, use and disposal has resulted in increased levels of microplastics pollution in freshwater ecosystems. Despite increasing concerns of the potential impact of microplastics pollution on aquatic organisms, few studies have examined the effects of exposure to microplastics on the health status of amphibians. The successful applicant will work with a collaborative group of researchers to conduct field experiments at the IISD Experimental Lakes Area to investigate the effects of whole-lake microplastics exposure on amphibian immunity and health.

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. The successful applicant will conduct research at the IISD Experimental Lakes Area as part of the highly collaborative pELASTics investigation (<https://rochmanlab.com/the-pelastc-project/>) led by Dr. Chelsea Rochman. In addition to a field component, the researcher will conduct molecular research (RNAseq, RT-qPCR) and bioinformatics analyses of the resulting data in Dr. Katzenback's laboratory. 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 guaranteed stipend (\$25,104/y) and 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 will be supported in their applications for internal and external funding.

Essential Qualifications:

1. Successfully completed a thesis-based MSc in Biology, Immunology, Biotechnology or a related field prior to the proposed start date.
2. Have meaningful experience in one or more of the following: immunology, molecular biology, field work, and/or bioinformatics (e.g. 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

Instructions: E-mail Dr. Katzenback (barb.katzenback@uwaterloo.ca) using the subject line "**Microplastics and amphibians**" and include: **1)** 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.

Application deadline: June 30, 2022, or 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 applications from women, Indigenous, Black and other under-represented persons.