



UNIVERSITY OF SASKATCHEWAN

Toxicology Centre

USASK.CA/TOXICOLOGY



Graduate Student Opportunities (MSc & PhD) in Aquatic Toxicology

Description: Both MSc and PhD opportunities are available to investigate the effects of current-use and emerging antimicrobials on survival, growth, and development as well as their specific mechanisms of toxic action in Canadian freshwater fishes. Antimicrobial chemicals are produced and extensively used by society for disinfection, sanitization, and for preventing growth of microorganisms, resulting in the release of these chemicals into aquatic systems where they may pose a risk to the health of aquatic organisms. While there is significant evidence for health risks of current-use antimicrobials, there are other chemicals increasingly being used as antimicrobial ingredients in many consumer products – however, significantly less is known about their potential toxicity. The research will focus on four species of freshwater fishes of commercial, recreational, and Aboriginal (CRA) importance to Canadians and will involve early life stage fish exposures, apical measures of effects, identification of potential toxicity pathways, and assessment of gut microbiome changes.

Qualifications: Applicants will have an undergraduate degree (for MSc position) or MSc degree (for PhD position) in a natural sciences discipline, such as (but not limited to) toxicology, biology, zoology, physiology, etc. Desired qualifications include experience with culturing of fish, toxicological bioassays, and molecular biology.

The successful applicants will join a collaborative and collegial group of staff and students lead by Drs. Natacha Hogan, Markus Hecker and Markus Brinkmann. They will be part of a very dynamic Toxicology program that is globally recognised for interdisciplinary toxicology research, education, training and outreach.

To apply: A start date of January 2022 or May 2022 is preferred for both positions. Interested individuals should email Dr. Natacha Hogan (natacha.hogan@usask.ca) with their CV and a description of their research interests, relevant experience and why they are interested in the position. Prospective students are also encouraged to visit the following websites to learn more about the graduate program in Toxicology:

- U of S Graduate Studies - <https://grad.usask.ca/programs/toxicology.php>
- Toxicology Centre - <https://toxicology.usask.ca/graduate-program/overview.php>