



Position Description: Funded Graduate Student (MSc or PhD) position available in 2023 (flexible start date) in the Cox lab, Department of Molecular and Cellular Biology, University of Guelph

Research Program and Position:

The Cox lab studies the genetic and molecular basis of antimicrobial resistance and virulence mechanisms in pathogenic bacteria. The ultimate goal is the development of new therapeutics to control bacterial infections. This graduate student position is supported by funding from the Canadian Institutes of Health Research (CIHR). *Staphylococcus aureus* is a major clinical burden, and this research will contribute to our knowledge of *S. aureus* virulence mechanisms, and to the development of therapeutic strategies taking aim at virulence. In particular, this work will investigate the molecule and genetic basis of *S. aureus* adhesion to the human host.

This is a [fully funded position](#), and depending on eligibility, students will also be supported to apply for internal and external scholarships. See the [full list](#) of available Scholarships and Awards for more information.

Relevant publications relating to this work:

Leonard *et al.*, Chinks in the Armor: [Pathogenesis-Based Strategies to Combat Bacterial Infections](#). *Pathogenesis of Bacterial Infections in Animals, Fifth Edition* (2022)

Berry *et al.*, [Staphylococcus aureus adhesion to the host](#). *Ann. N. Y. Acad.Sci.* 1515, 1 (2022)

Petrie *et al.*, [Development and validation of a high-throughput whole cell assay to investigate Staphylococcus aureus adhesion to host ligands](#). *J. Biol. Chem.* 295, 45 (2020)

Leonard *et al.*, [Bacterial Anti-adhesives: Inhibition of Staphylococcus aureus Nasal Colonization](#). *ACS Infect. Dis.* 5, 10. (2019)

Application Process:

If this posting is still online, we are still actively recruiting the ideal candidate! The start date is flexible (within 2023). Please send cover letter, CV, contact information for a minimum of two

references, and a copy of your unofficial transcripts to Dr. Cox by email (gcox@uoguelph.ca). Dr. Cox will notify applicants before contacting any references.

A culture of inclusion is an institutional imperative at the University of Guelph. The Cox lab (www.coxlab.ca) invite and encourage applications from all qualified individuals, especially from groups that are underrepresented in higher education.

Minimum Qualifications:

- Undergraduate University degree in a relevant discipline (e.g., Microbiology, Biochemistry, Molecular Biology, Genetics, or a related discipline)
- Previous research experience is preferred
- Strong organization, time management, and communication (oral and written) skills
- Problem solving and analytical abilities for experimental design



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