

PhD in Insect Molecular Biology



MacMillan
Lab



Biggar Lab

Uncovering methyl-Lys

A PhD position is currently available in the MacMillan and Biggar Labs at Carleton University for an enthusiastic and motivated PhD student to identify and disrupt the molecular mechanisms of insect thermal tolerance.

Project and Environment

As this PhD candidate, you will conceptually develop and undertake experiments to test the roles of microRNAs in thermal tolerance plasticity in insects, then seek to disrupt microRNA signalling in species of concern.



You will gain access to a range of experimental techniques (e.g. transcriptomics, PCR, RNAi, elemental analysis, immunohistochemistry).

You will also experience a wealth of opportunities for developing your skills as a teacher, mentor, and communicator in a positive and encouraging environment. **Heath and Kyle are both award-winning graduate mentors!**

Required skills

A strong academic background with knowledge of and ideally direct experience in techniques related to insect molecular biology and/or genetics, such as RNA extraction and handling, RNAi, microinjection, transcriptomics, and/or PCR.

Demonstrated excellence in written and oral science communication.

MacMillan Lab

We use insects, like fruit flies, crickets, mosquitos and locusts as models to understand how temperature alters ectotherm biochemistry and gene expression, and how these effects cascade through organ systems to determine cell, organ, and organismal survival and fitness.

www.macmillanlab.com

Biggar Lab

We are a proteomics lab with a specific interest in the epigenetics of environmental extremists. We use high-throughput technologies to interrogate the function of epigenetic regulators, like protein lysine methylation and microRNA.

www.biggarlab.com

To Apply

Please send a cover letter, CV, and unofficial copy of your transcripts to:

Dr. Heath MacMillan

heath.macmillan@carleton.ca

Carleton University is located in beautiful Ottawa, Ontario, Canada.
Ottawa is a great place to live and work!

People who identify with groups underrepresented in STEM fields are particularly encouraged to apply!



Carleton
UNIVERSITY