

# Molecular and Cellular Biology: MSc, PhD

The MCB graduate program offers opportunities for interdisciplinary studies in molecular and cellular biology leading to the MSc and PhD degrees. The research groups directed by the faculty are engaged in the pursuit of fundamental and applied research questions involving diverse biological systems (plants, humans and other animals, prokaryotic and eukaryotic microbes). In general, they follow lines of scientific enquiry at the level of molecules to cells.

[uoguelph.ca/mcb](http://uoguelph.ca/mcb)

## Program

We offer a Master's and a Doctoral program. MSc students complete coursework and prepare and defend a research-based thesis (approximately six semesters). The PhD program requires the successful completion of a qualifying exam and the completion and defense of a research-based thesis (typically 4+ years of full-time study).

Students may also add a collaborative specialization in Toxicology, Neuroscience or One Health.

## Research Fields

- Biochemistry
- Cell Biology
- Microbiology
- Molecular Biology & Genetics
- Plant Biology

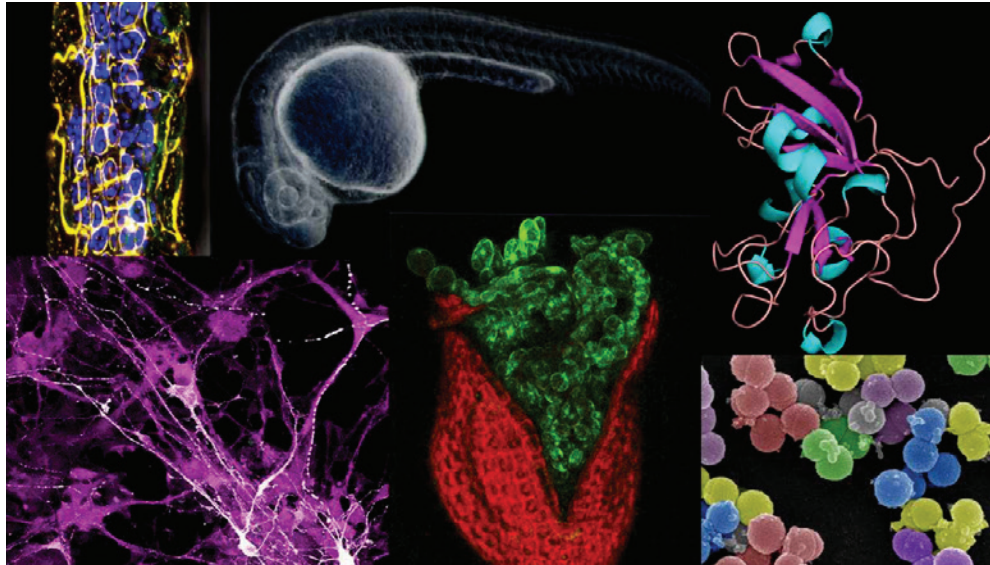
## Admission Requirements

Applicants require an Honours Bachelor's degree (or equivalent), or a Master's degree in a field within the molecular life sciences. Students with advanced academic and research aptitudes can apply for direct entry to the PhD program. Transfer into the PhD program after partial completion of the MSc degree requirements is also possible.

Applicants must obtain the support of a faculty member willing to serve as thesis advisor before applying.

## Application Deadline:

Ongoing



## Faculty

Many faculty members in the program are nationally or internationally recognized as leaders in their research fields. They include Canada Research Chairs and University Research Chairs, as well as recipients of other national career development awards, and have received many high-profile awards for research and teaching. They carry out well-funded, leading-edge research in fundamental aspects of molecular and cellular biology and address major emerging issues in the areas of cell and plant biology, biochemistry, microbiology, molecular biology and genetics, and neuroscience.

Our research is supported by the Advanced Analysis Centre and its constituent laboratories dealing with Confocal and Electron Microscopy, Advanced Genomics Technologies, Mass Spectrometry, NMR, and X-ray crystallography.

## ARE YOU INTERESTED IN:

- Molecular basis of disease
- Molecular biology and gene expression
- Cell signalling and trafficking
- Host-pathogen/commensal interactions
- Plant metabolism and biotechnology
- Protein structure and function

## CAREER OPPORTUNITIES:

- Molecular Bioscience Research
- Medicine/Pharmacy
- Public Health/Nursing
- Biotechnology
- Science Outreach and Teaching
- Food Safety and Regulation

## CONTACT INFORMATION

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