Graduate Program in Molecular and Cellular Biology
University of Guelph

www.uoguelph.ca/mcb/graduate/graduate.shtml

Graduate Program Information
40 faculty members, ~100 grad students, 30+ Postdoctoral Fellows/Research Associates and 40+ members of research staff pursue interdisciplinary studies in MCB

5 of Guelph’s 30 Canada Research Chairs, 2 University Research Chairs

Fundamental and applied research supported by federal agencies (NSERC, CIHR, NIH), foundations (Canadian Cancer Society, Cystic Fibrosis Canada, Heart & Stroke Foundation, and Kidney Foundations), provincial agencies (OMAFRA) and the private sector (>7M/year),
Host-pathogen/commensal interactions
Molecular basis of disease
Molecular biology and gene expression
Molecular trafficking
Plant metabolism and biotechnology
Protein structure and function

Plants, humans and other animals. Prokaryotic and eukaryotic microbes, viruses
Science Complex and Advanced Analysis Centre provide state-of-the-art tools applicable to molecular and cellular systems.

AAC facilities include:
- Confocal Microscopy Unit
- Electron Microscopy Unit
- Genomics Facility
- Mass Spectrometry Facility
- Nuclear Magnetic Resonance Spectroscopy Centre
- Phytotron
Among Canada’s top comprehensive Universities,

A leader in life science research that promotes human and animal health, environmental sustainability, biodiversity, food and water quality,

 Receives more than $100 million per year in public and private research funding.
Guelph...

Ranked among the top 10 places to live in Canada,
Lies within an innovative economic region - just east of Kitchener-Waterloo and 100 kilometres west of Toronto,
Rich in culture, architecture, parks and riverside green spaces,
Named one of Canada's smartest communities, its safest city, and its volunteer capital.
Types of programs

Coursework Masters – mainly courses, some independent project work/internship (typically no stipend)

Thesis-based Masters

Thesis-based Doctorate
M.Sc.

2 years of full time study

Courses

Lab-based thesis research with a faculty member (and advisory committee) develops sophisticated technical expertise,

Courses develop experience in literature analysis, written and oral communication

Graduate Teaching Assistantships develop teaching and communication skills,

Good basis for diverse careers and for transfer to the PhD program.
Ph.D.

4 years of full-time study

Fewer courses plus qualifying exam

Entry post-BSc, via direct transfer from within the MSc program, or post-MSc

Thesis research with an advisor (and advisory committee) develops scientific creativity and technical expertise,

Seminars, conferences and Graduate Teaching Assistantships develop teaching and communication skills,

Publication authorship develops writing skills,

Essential for careers involving advanced technical skills, research direction and management.
Minimum B+ average (75%) over last two years of full time study. Letters of reference indicate research potential, usually based on research lab and/or Co-op experience.

Contact prospective thesis research Advisors specializing in:

- **Biochemistry**
- **Cell Biology**
- **Microbiology**
- **Molecular Biology & Genetics**
- **Plant Biology**
- **Biophysics**
- **Neuroscience**
- **Toxicology**

(see [http://www.uoguelph.ca/mcb/research/research-mcb.shtml](http://www.uoguelph.ca/mcb/research/research-mcb.shtml))

Write a strong statement; explain your short- and long-term professional goals.

Apply any time to begin studies in January, May or September.
All students receive a stipend.

Funds derived from faculty research grants (Graduate Research Assistantship), student teaching assignments (Graduate Teaching Assistantship), scholarships

Minimum annual stipend $19K for MSc, $21.5K for PhD

Stipends with scholarships $19K – $40K, supplemented with GTAs and other awards.

Apply for scholarships before or after entry to graduate degree program

Parental leave benefits available
### Funding Examples (W14)

<table>
<thead>
<tr>
<th>Degree/Award</th>
<th>Scholarship</th>
<th>TCS&lt;sup&gt;a&lt;/sup&gt;</th>
<th>GTA&lt;sup&gt;b&lt;/sup&gt;</th>
<th>GRA</th>
<th>Total (Minimum)</th>
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<tr>
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<td>Source</td>
<td>Value</td>
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<sup>a</sup>Major scholarships are provided to MCB students by NSERC (Natural Sciences and Engineering Research Council), CIHR (Canadian Institutes for Health Research), the province of Ontario (OGS, Ontario Graduate Scholarship) and other agencies including the Canadian Cystic Fibrosis Foundation (CCFF) and the Heart and Stroke Foundation (HSF). Holders of NSERC or CIHR Scholarships receive a Tri-Council Scholarship (TCS) top-up of $5000.

<sup>b</sup>Each student is entitled to Graduate Teaching Assistantships, subject to satisfactory performance. Usually students receive one GTA per year for two years in the MSc program or three years in the PhD program. GTAs are awarded via a competitive process. The GTA compensation rate is set by Collective Agreement. GTAs constitute an essential part of the stipend for students without scholarship support and they are optional for students with major scholarship support.

<sup>c</sup>Scholarships with a combined value of up to $2000 in a given year do not affect the value of GRA support provided to students.

<sup>f</sup>GRA brings the total annual stipend to at least $2000 more than that offered on admission.
How do I choose?

Type of program?

Narrow down the choices
research field?
geographical location?

Research the programs – exploit all resources
web – look for graduate & student handbooks

Talk to faculty, instructors, TA's
What should you look for?

Project
Personality fit
Large or small research group
New or established faculty
Publications
What do other grad students think?
How do graduates fare in the job market?
Facilities
What do faculty look for?

Academic
- Research potential
- Scholarship potential
- Relevant courses (often lab-specific)

Personal
- Communication skills
- Motivation
- Organization
- Team-working skills
- Personality fit
Contact individual faculty members by email and/or telephone to arrange a visit.

Be prepared to discuss your specific interest in their research program.

Submit your application online once you have the support of a potential faculty advisor.

**Contact:**

Dr. Andrew Bendall
Graduate Studies Coordinator
abendallll@uoguelph.ca

[www.uoguelph.ca/mcb/graduate/graduate.shtml](http://www.uoguelph.ca/mcb/graduate/graduate.shtml)