Graduate Program in Molecular and Cellular Biology University of Guelph

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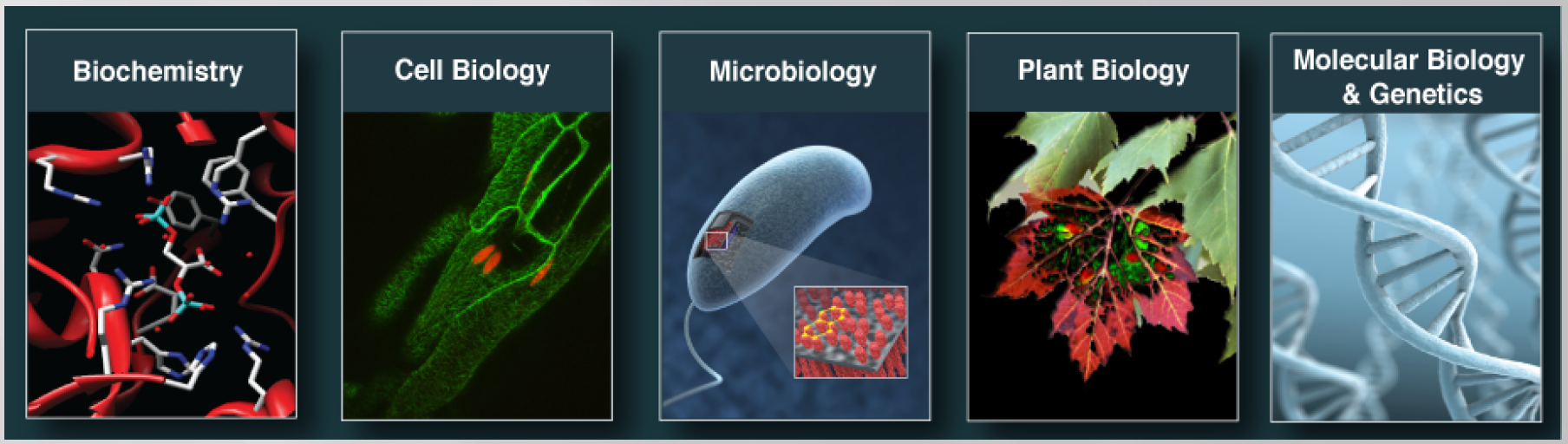
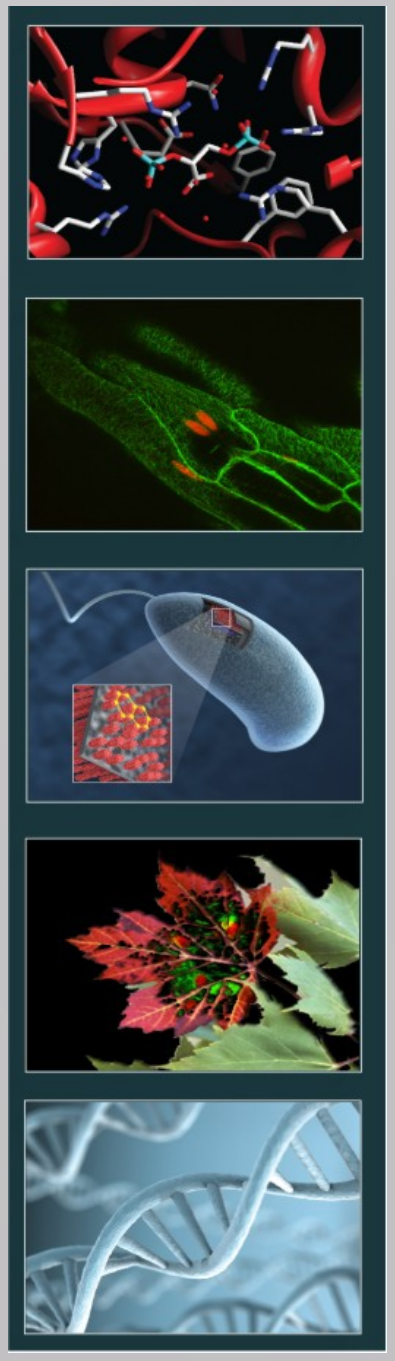


www.uoguelph.ca/mcb/graduate/graduate.shtml

Graduate Program Information

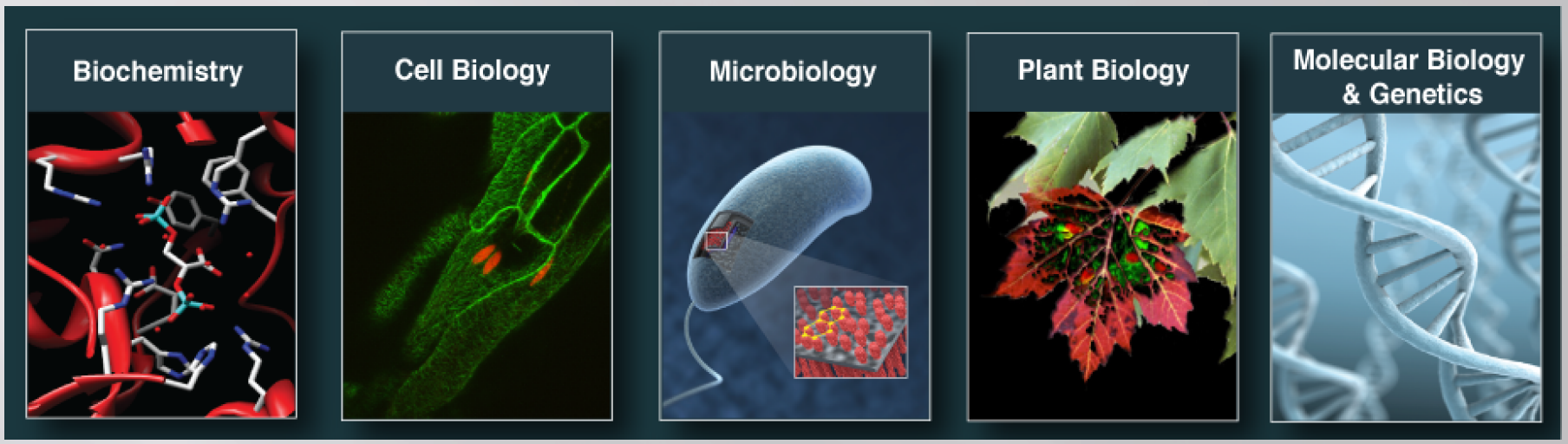
Molecular & Cellular Biology (MCB)

- 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),



MCB research foci

http://www.uoguelph.ca/mcb



Host-pathogen/commensal interactions

Molecular basis of disease

Molecular biology and gene expression

Molecular trafficking

Plant metabolism and biotechnology

Protein structure and function

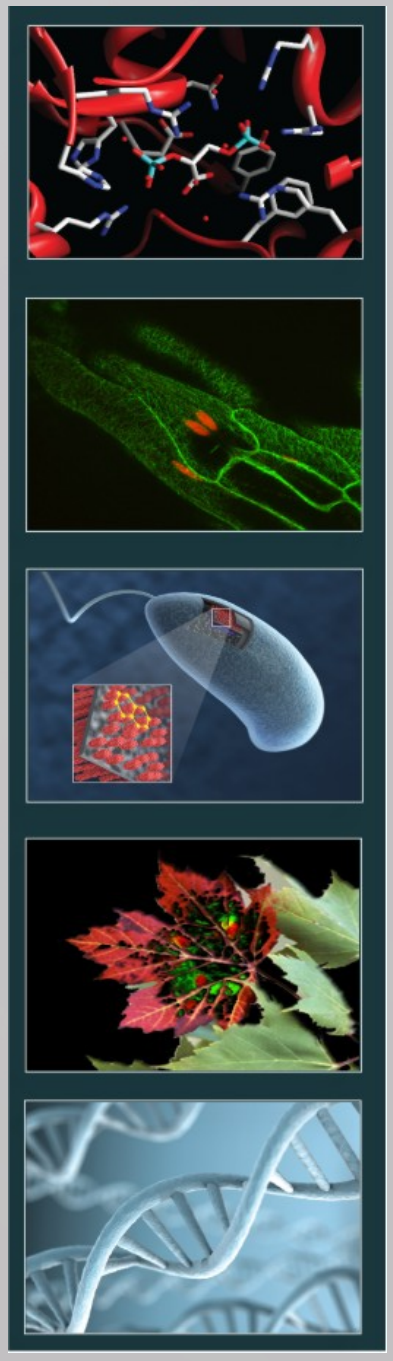
Plants, humans and other animals. Prokaryotic and eukaryotic microbes, viruses

Supporting facilities

Science Complex and Advanced Analysis Centre provide state-of-the-art tools applicable to molecular and cellular systems

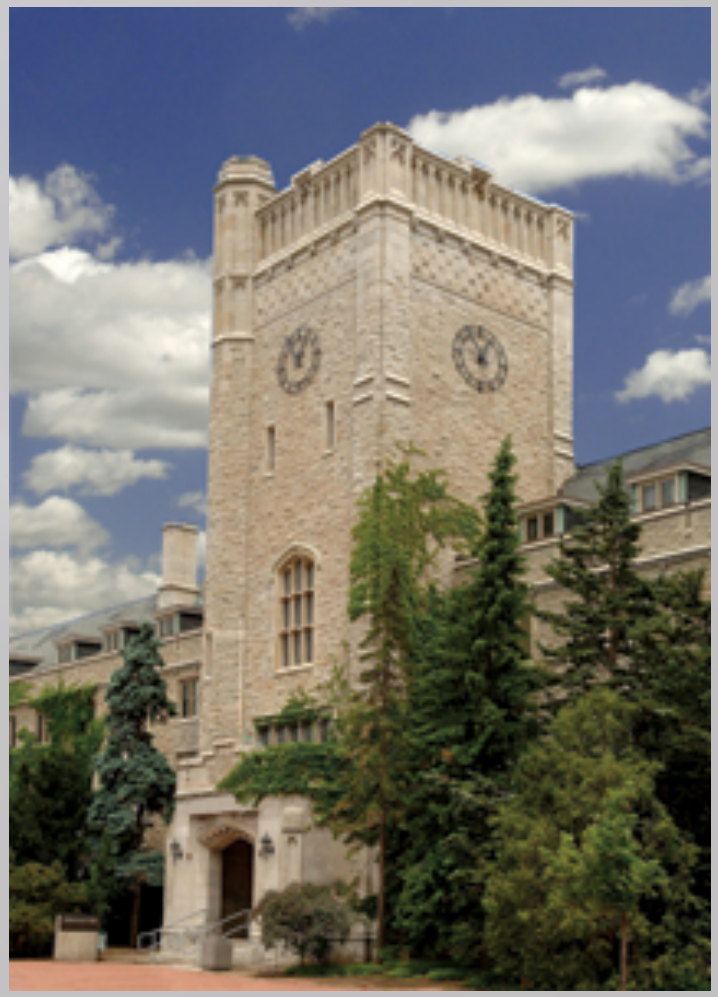
AAC facilities include:

- Confocal Microscopy Unit
- Electron Microscopy Unit
- Genomics Facility
- Mass Spectrometry Facility
- Nuclear Magnetic Resonance Spectroscopy Centre
- Phytotron



The U of G...

- 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,

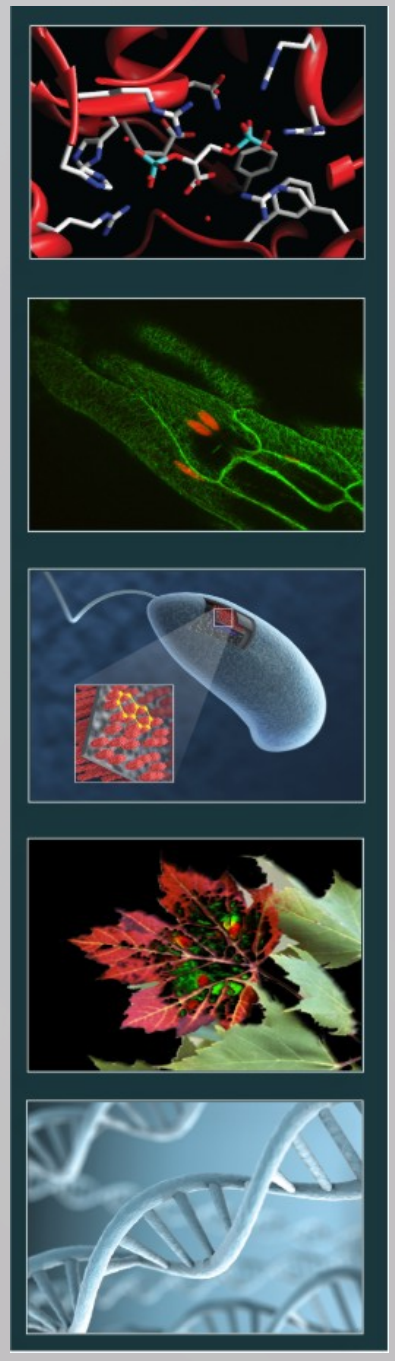
Named one of Canada's smartest communities, its safest city, and its volunteer capital.

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.

Admissions

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)

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

Apply any time to begin studies in January, May or September.

Funding

- 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

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Funding Examples (W14)

Degree/Award	Scholarship[a] Source	Scholarship[a] Value	TCS[a]	GTA[b]	GRA	Total (Minimum)
Master's PGS-M	NSERC	17,300	5000	optional	N/A	22,300
Master's CGS-M	NSERC	17,500	5000	optional	N/A	22,500
Doctoral PGS-D	NSERC	21,000	5000	optional	N/A	26,000
Doctoral CGS-D	NSERC	35,000	5000	optional	N/A	40,000
Master's CGS-M	CIHR	17,500	5000	optional	N/A	22,500
Doctoral CGS-D	CIHR	35,000	5000	optional	N/A	40,000
Master's OGS	Ontario	15,000	N/A	optional	c	c
Doctoral OGS	Ontario	15,000	N/A	optional	c	c
Master's Misc	Other Sources	1000	N/A	5432[b]	13,568	20,000
Doctoral Misc	Other Sources	1000	N/A	5432[b]	16,068	22,500
Master's	None	N/A	N/A	5432[b]	13,568	19,000
Doctoral	None	N/A	N/A	5432[b]	16,068	21,500

[a]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.

[b]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.

[e]Scholarships with a combined value of up to $2000 in a given year do not affect the value of GRA support provided to students.

[f]GRA brings the total annual stipend to at least $2000 more than that offered on admission.

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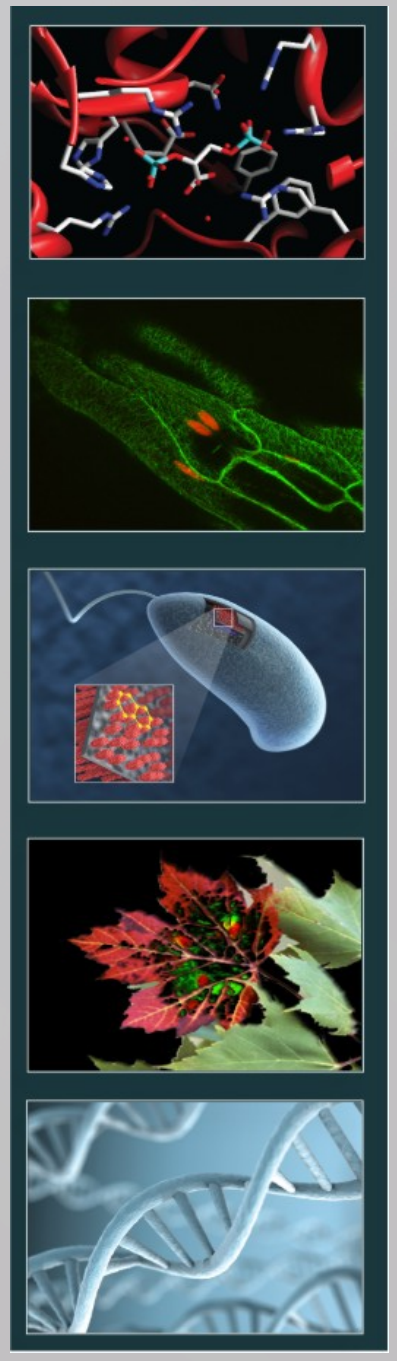
How do I choose?

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



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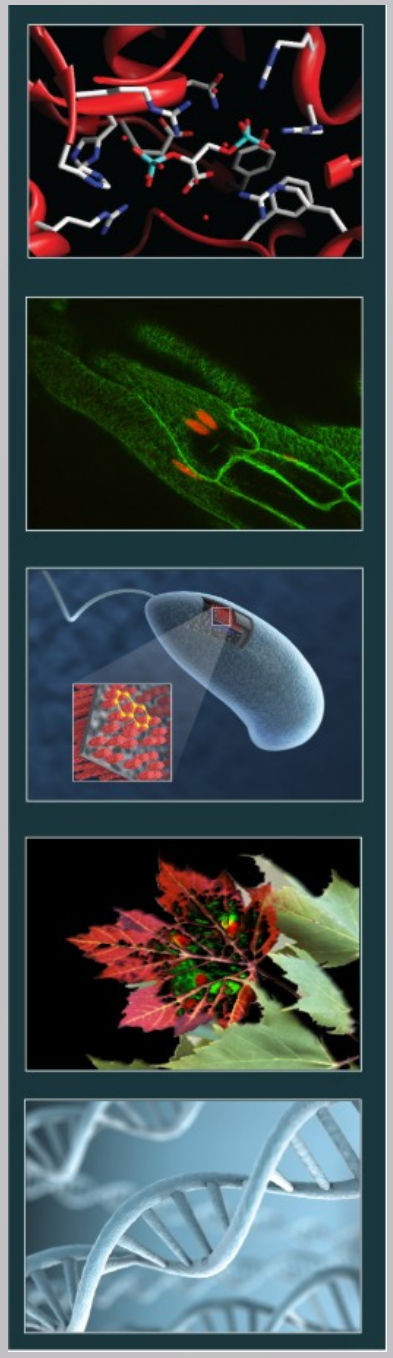
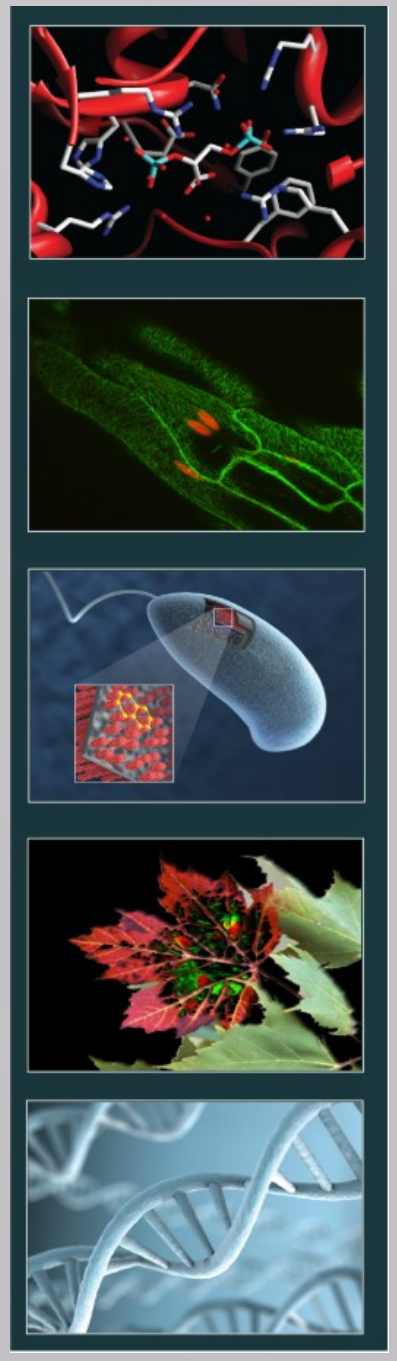
What should you look for?

- 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



Meet our faculty and students, view our facilities

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
abendalll@uoguelph.ca

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