

Biochemistry

MSc, PhD



Within a diverse and inclusive cluster of faculty and students, the Department of Biochemistry is a leader in its field. Dedicated to training the next generation of scientists and leaders, our students are supported by world-renowned faculty who make significant research contributions in key areas - from signal transduction and regulation, to molecular medicine, to gene expression and development, and everything in between.

Our students are engaged in research training that focuses on cutting-edge problems in areas such as proteomics and bioinformatics, biomolecular structure and function, and drug discovery. Our facilities are world class and continually updated to modern standards, including state-of-the-art instruments for nuclear magnetic resonance, mass spectrometry, light and electron microscopy, X-ray crystallography and high-speed computation. Our rotation system is a key feature of our training that allows newly admitted students to experience 3 different labs before deciding on a "best fit" thesis lab. This allows students to explore the breadth and depth of the research conducted and find the ideal learning environment to succeed.



Master of Science (MSc)

In addition to completing a thesis, students take 1.5 FCE*: BCH2020Y (Seminar Course in Biochemistry, 1.0 FCE), BCH2101H (Scientific Skills for Biochemists, 0.25 FCE) and one elective (0.25 FCE). Students successfully finish this program in 2 years.



Doctor of Philosophy (PhD)

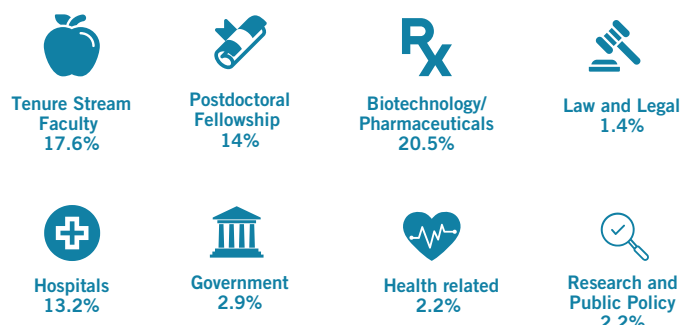
In addition to conducting independent and original research that will form their thesis, students complete 2.0 FCE: BCH2020Y (Seminar Course in Biochemistry, 1.0 FCE), BCH2101H (Scientific Skills for Biochemists, 0.25 FCE)**, and 0.75 FCE in electives. Typically, students successfully complete this program in 6 years.

* Full course equivalent. A typical 0.5 FCE is over one term (13 weeks), meeting 1-2 times per week. A typical 1.0 FCE is over two terms (26 weeks), meeting 1-2 times per week.

** In the event the student has completed this course, the student will need to take another course that should be approved by the Graduate Coordinator.

Potential career paths

In 2016, the School of Graduate Studies (SGS) tracked the career outcomes of 10,000 PhD students who graduated from the University of Toronto between 2000 to 2015. Below are some career trajectories of alumni from the PhD program in Biochemistry (n = 136).



Application Deadlines

Prospective MSc and PhD students can apply to either application cycle (i.e., Round 1 or 2).

ADMISSIONS

Winter 2024
Fall 2024

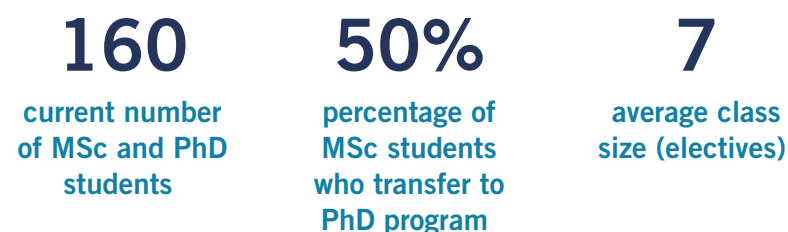
ROUND 1

October 1, 2023
January 15, 2024

ROUND 2

March 31, 2024

By the numbers



How to Apply:

biochemistry.utoronto.ca

Email: carrie.harber@utoronto.ca

Alumni profile

April Pawluk, PhD Graduated 2016



My name is April Pawluk and I completed my doctoral studies under the supervision of Professor Alan Davidson. I then continued my research into the mechanisms of CRISPR-Cas systems as a postdoctoral fellow at the University of California Berkeley.

I fulfilled my long-time dream of being a scientific journal editor with the publication Cell in 2017. Rising to the position of Senior Editor over 4 years, I handled hundreds of submitted manuscripts across the biological sciences, mediating the peer review process and making decisions about which papers to publish.

I used my perspective as a journal editor to help scientists write better grants and papers – first at Harvard's Microbiome Center and then at the Arc Institute, a non-profit organization, whose mission is to accelerate scientific progress, understand the root causes of disease, and narrow the gap between discoveries and impact on patients. In my spare time, I do freelance scientific editing with a group of former journal editors at Life Science Editors and I lead workshops on scientific writing and publishing.