

Fundamental Immunology

PhD



The Doctor of Philosophy (PhD) Program in Fundamental Immunology is an advanced research-intensive degree to train future independent research scientists and scientific leaders. Through the completion of their coursework and research activities, students acquire substantial knowledge of modern immunological concepts and methods, hone their critical thinking and problem-solving skills, and develop strong oral and written communication skills. This breadth and depth in training prepares our graduates for a wide range of careers in academia or other professional sectors.

Areas of study include developmental immunology, cancer immunotherapy, microbiome-immune system interactions, immune responses to pathogens, autoimmunity, and comparative immunology. Our graduate students conduct cutting-edge research with one of our internationally recognized faculty and will become experts in their respective fields. Their findings typically lead to publication(s) in recognized refereed journals. A key feature of our training is our rotation system which allows newly admitted students to experience 3 different labs before deciding on a "best fit" thesis lab. This allows students to explore the range of research conducted and find the ideal learning environment to succeed.



In addition to conducting independent and original research for their thesis, students complete 4.5 FCE*:

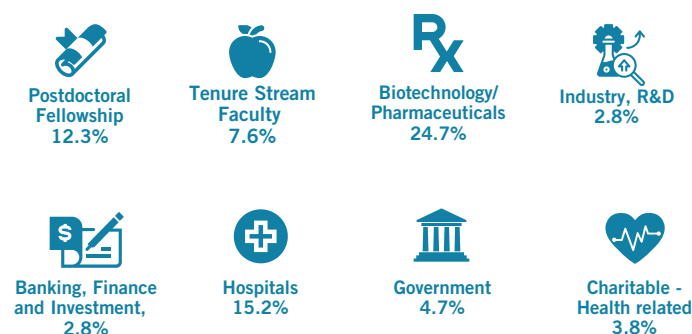
IMM1000Y (Recent Advances in Immunology, 1.0 FCE), IMM1200H (Scientific Skills for Immunologists, 0.5 FCE), IMM2000H (PhD Proposal in Immunology, 0.5 FCE), IMM2025H (Student Seminar Series, 0.5 FCE), IMM2050H (Easton Seminar Series, 0.5 FCE), IMM2075H (Special Topics in Immunology, 0.5 FCE), and 1.0 FCE elective. Typically, students successfully complete this program within 4-5 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.



Potential career paths

In 2016, the School of Graduate Studies embarked on a project to track the career outcomes of 10,000 PhD students who graduated from 2000 to 2015. Below are some career trajectories of alumni from the PhD program in Fundamental Immunology (n = 105).



By the numbers



Application Deadline

Fall 2024 Admissions

Deadline: January 15, 2024

Alumni profile

Mahmoud El-Maklizi, PhD
Graduated 2022



I wanted to be an immunologist for as long as I can remember and my PhD journey started as a step towards that goal, but ended with much deeper lessons, both for the lab and outside the lab. It taught me flexibility, creativity, accuracy, risk taking and, most importantly, focus. As I moved on to the next stage in my career, those lessons allowed me to approach my career choices from a different perspective. I looked for opportunities to allow me to step outside of the comfort zone of my PhD expertise and push me to learn new skills, new topics and subjects while keeping those skills geared towards a clear goal.

That mindset is one of the best lessons I learned, as a graduate student and as I transition to a postdoctoral fellow. Based on that lesson, the advice I would give to prospective students is not to be afraid of stepping outside of your comfort zone; it's how the best lessons are learned and how the most impactful science is made.



How to Apply:

immunology.utoronto.ca

Email: graduate.immunology@utoronto.ca