Bringing science to life for undergraduate students by providing hands-on research experiences.



Research Opportunities

Antibiotic Resistance Biochemistry Blood Research Cancer Biology Cardiovascular **Cell & Developmental Biology Chemical Biology of Disease** Diabetes **Environmental Microbiology** Genomics Immunology **Infectious Disease Microbial Metabolism Molecular Biology Molecular Epigenetics** Neuroscience Physiology

Program Strengths

Imagine you're a third-year student working with UBC's world-class Tuberculosis research team, helping to discover new treatment targets for a disease that kills millions of people a year. Or imagine working with cutting-edge bioinformatic tools and discovering new clues as to why some bacteria are becoming increasingly resistant to antibiotics.

Student demand for these types of undergraduate transformational experiences far surpass our ability and resources. That is why UBC has launched the Life Sciences Undergraduate Student Research Experience program, which will create:

- new summer internships and
- a research fund to support directed studies/honours students in their projects.

Participating students will be working in UBC's state-of-the-art Life Sciences Institute with the latest tools and techniques in bioinformatics, proteomics, high throughput screening, biochemistry, cell biology, immunology, imaging and flow cytometry. Even more importantly, they will work alongside world renowned scientists conducting ground-breaking research into cell & developmental biology, neuroscience, physiology, environmental microbiology, infectious diseases, food and water borne diseases, antibiotic resistance and the immune responses that protect us against pathogens and cancer.

Participating in 'at the bench' lab work provides exposure to real-life research and valuable experience for students who are interested in pursuing a career in the life sciences. Lab experiences enhance the student learning environment, facilitate a better understanding of research goals and exposes undergraduates to research techniques and lab skills valued by the biotechnology industry.



http://lsi.ubc.ca

a place of mind THE UNIVERSITY OF BRITISH COLUMBIA **Life Sciences Institute** email: lsi.grad@ubc.ca web: http://lsi.ubc.ca

With your support, we can create opportunities for undergraduates to have inspiring, hands-on experiences that provide valuable practical skills, learn more about their planned field of study and help prepare them to enter the workforce or graduate studies.

Research-Intensive Courses in Undergraduate Programs

Directed Studies Courses: Undergraduate students have unique opportunities to participate in life sciences research, under the direct supervision of faculty members, when they enroll in these courses (eg. BIOL448, BIOC448, MICB448). These 3 or 6 credit courses are designed to help students develop skills essential to carrying out independent research and lab work. A directed studies project provides students with valuable experience in writing up and analyzing experimental results. It also gives undergraduates the chance to interact with faculty members, graduate students, postdoctoral fellows and research staff members in a lab setting.

Honor's Thesis Courses: (e.g. BIOL449, MICB449, BIOC449, PHYL449) give undergraduate students a special research experience taking a project from inception, through data gathering, data analysis and interpretation, all the way to the writing of an honor's thesis and oral defense of the project. These 6 credit courses are coupled with additional informational courses that are part of the honor's program in the selected discipline. As with 448 experiences, students have special opportunities to interact directly with faculty, staff, graduate students and postdoctoral fellows in a research lab setting.

Summer Studentships: Special opportunities are available for undergraduate students to work on short term research projects in labs within the Life Sciences Institute and receive a stipend to support the time working on the project.





How You Can Help

Our goal is ambitious – to create a summer internship within each of the 85 laboratories in the Life Sciences Institute and to offer research funding to 50 directed studies undergraduates.

Gifts supporting the Life Sciences Undergraduate Research Experience can be made over a one to five-year period or can be endowed to create an ongoing revenue stream.



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The University of British Columbia

UBC is a global centre for research and teaching, consistently ranked among the 40 best universities in the world. Surrounded by the beauty of the Canadian West, UBC embraces bold new ways of thinking that attract exceptional students and faculty. It is a place where innovative ideas are nurtured in a gloablly connected research community, providing unparalleled opportunites to learn, discover and contribute in one's own way. UBC is a place of mind.