



**UNIVERSITY
OF ALBERTA**

Department of Pharmacology

Unique Offerings

Certificate in Biomedical Research

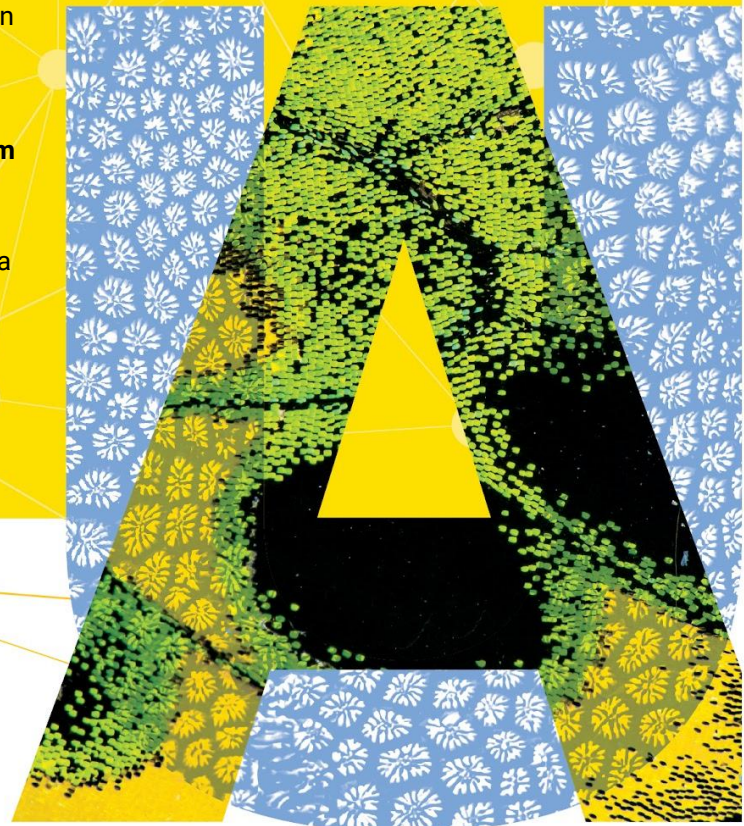
Students who pursue this certificate will be engaged in world-class biomedical research and will acquire a broad range of skills through substantive laboratory courses and independent research project experiences. As an optional embedded certificate, courses taken also count towards a student's degree.

Redefining the Classroom

We provide students with the opportunity to gain hands-on research experience by providing laboratory courses and research projects. Students can get involved in research areas such as cardiovascular pharmacology, metabolic disorders (e.g. Diabetes), molecular pharmacology and neuropharmacology.

Pharmacology research is a critical component of modern **'precision medicine'** where treatments are tailored to the individual.

The **Undergraduate Summer Students' Research Program** in the Faculty of Medicine & Dentistry provides undergraduate and medical students the opportunity to participate in summer research under the supervision of a faculty member.



More Information

ualberta.ca/pharmacology

Undergraduate Programs

While the Department of Pharmacology is housed within the Faculty of Medicine & Dentistry, the undergraduate degrees are offered through the Faculty of Science.

PHARMACOLOGY - BSc Major/Minor | BSc Honors

Pharmacology is the study of the way in which chemical substances affect living organisms. It may involve how organisms handle drugs, validation of new targets for drug action, and the design and development of new drugs to prevent, treat, and cure disease. Our degree programs include courses that cover three main areas:

- **Pharmacodynamics:** the study of the effects of drugs on the events and processes that occur in living things.
- **Pharmacokinetics:** the study of the processes which limit the duration or action of drugs.
- **Toxicology:** the study of the mechanisms by which chemicals, including drugs, cause harm to organisms.

Our programs focus on therapeutic agents and therefore provide an excellent grounding for those students who eventually wish to pursue a career in medicine or pharmacy.

Possible Careers

- Cancer Researcher
- Food & Drug Inspector
- Forensic Laboratory Analyst
- Medical Librarian
- Occupational Health and Safety Officer
- Pharmaceutical Researcher Pharmacologist
- Professor/Teacher
- Quality Control Manager
- Research Scientist
- Toxicologist

Note: Additional education or specialized training is required for many occupations.



For admission requirements: ualberta.ca/admissions

For admission related questions: science.recruiting@ualberta.ca