



UNIVERSITY
OF ALBERTA

Department of Pharmacology

Unique Offerings

Redefining the Classroom

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.

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**
- **Neuropharmacology**

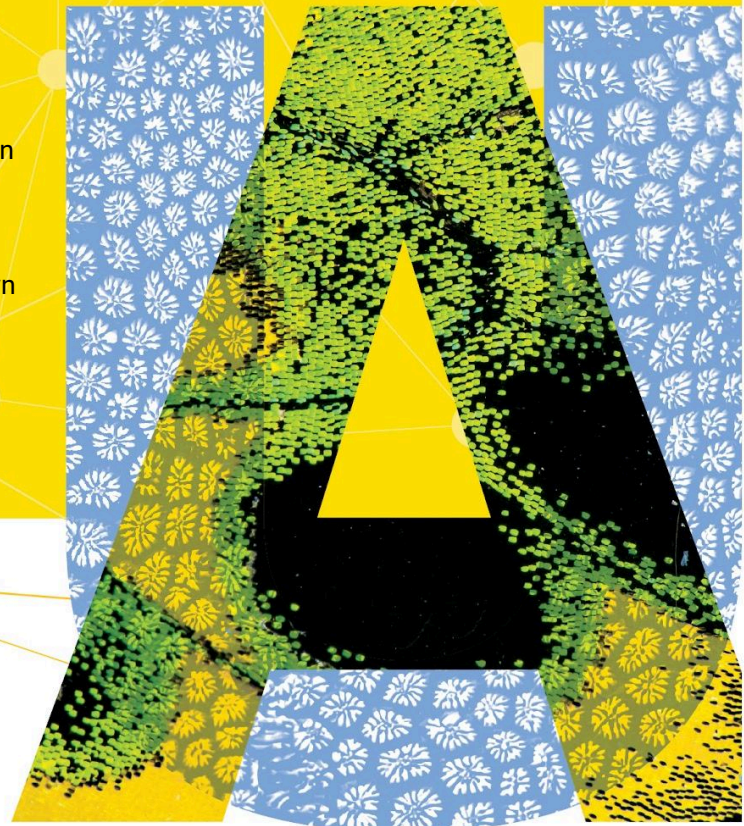
Shaping the World

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

For example, Pharmacologist Anna Taylor's lab has shown how the **microbiome changes with the use of opioids**, which may hold the promise of helping experts **combat opioid addiction** more effectively.

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