

Why are animals used in research?

- Before any human clinical trials may be conducted in Canada, federal law requires animal models must be used to assess new therapies.
- Scientists first seek non-animal alternatives, such as cell cultures and computer simulations. However – particularly in disease research and the development of new medicines – these methods cannot yet mirror the complicated processes that occur in a living system.
- Almost every major medical advance for both humans and animals has depended on the use of research animals. Examples include antibiotics, anesthetics, heart valve replacements and vaccines to prevent rabies in companion animals.

How does Algoma University decide if and how animals are used?

- Researchers at AU who propose to conduct animal research must follow a series of steps. First, their research must receive scientific merit. This is determined by a panel of independent scientists either through a major funding agency (e.g., NSERC) or one composed by the AU Research Office. Proposals will be rejected if the proposed research is flawed, unnecessary or redundant. Approval is only granted to the most meritorious proposals.
- Once the proposal is deemed to have scientific merit, the researcher must submit an Animal Use Protocol application to the AU Animal Care Committee [**blank sample of an Animal Use Protocol is available on the website**], who will evaluate the ethical merit of the proposal. The application is closely examined by members of the AU Animal Care Committee, who will make a determination as to whether the proposed research plan is reasonable, and that the answers sought can only be obtained through the use of animals.
- The Animal Care Committee, composed of members of AU faculty and staff, as well as representatives from the public, ensures the proposed procedures meet current humane and welfare standards and use as few animals as possible.
- AU subscribes to the 3Rs principles of animal use: Replacement, Reduction and Refinement. Careful design of the research project, continual refinement of procedures and emerging technologies all contribute to reducing numbers of animals used in research at AU.

What safeguards exist to protect lab animals?

- Research animals are protected on several levels: by Federal and Provincial law, by independent veterinary staff and by AU researchers themselves, who rely on humanely treated animals to provide reliable scientific results.
- The Canadian Council on Animal Care audits AU's research program once every three years, looking at both animal care compliance and proper functioning of the Committee itself. **The most recent official assessment visit was in 2012. [AU currently meets or exceeds all CCAC requirements for humane animal care.]**

- All researchers, staff, and students who work with animals are required to complete the mandatory Canadian Council on Animal Care training. An AU veterinarian is on call at all times.
- AU also has a policy that enables confidential reporting of questionable conduct relating to animal use [**Animal Health, Welfare, Care and Use Concerns Report Form available on website**].

Are there inspections?

- Inspection practices include post-approval monitoring by an AU veterinarian to ensure the terms of the Animal Use Protocol approval are being met.
- Animal facilities are inspected regularly by AU's Animal Care Committee veterinarian and annually by the Animal Care Committee.

What happens to someone who mistreats lab animals?

- Any AU personnel found to have willfully mistreated research animals are banned permanently from further contact with animals, and may be banned from University premises. They may also face prosecution under the Criminal Code of Canada (*see Sections 445 and 446*).
- There is zero tolerance for unethical or cruel treatment of animals at Algoma University.

What happens to animals once a study is completed?

- When studies are minimally invasive, some research animals may be used in further studies. Others may be humanely euthanized when an investigation is completed to obtain valuable data, which cannot otherwise be obtained through autopsies and microscopic examination.
- Humane methods of euthanasia are required by the Canadian Council on Animal Care. Typically, the animal is first sedated or anesthetized and then given a lethal dose of anesthetic. This method ensures the animal feels no pain.

What benefits are to be gained through animal research?

- There are striking similarities between the anatomy and physiology of humans and various species of animals. For example, much of what we know about the immune system has come from studies with poultry and mice, and much of what we know about the cardiovascular system has come from studies with dogs and pigs.
- Many techniques developed in research with animals are later applied to both human and veterinary clinical practice. For example, advanced surgical techniques such as total hip replacement and open-heart surgery are now available for pets thanks to animal research.
- In addition, animal research has led to vaccines that protect animals against rabies, distemper, feline leukemia, and other fatal conditions. Laboratory animals are an integral part of the research process. In fact, virtually every major medical advance of the last century is due, in part, to research with animals.

Are CCAC guidelines voluntary or mandatory?

- Participation in CCAC programs is not voluntary. AU must be accredited by the CCAC to receive funding from the federal government, which funds most university research in Canada. If the University fails to comply with the guidelines the Council has legal authority to notify the federal funding agencies, and confirmation of failure to comply could result in all federal funding to both animal users and non-animal users be withdrawn.