

Algoma University Animal Care Committee (AUACC)

Terms of Reference

1. Preamble

The Algoma University Animal Care Committee (AUACC) was established in accordance with all Canadian Council on Animal Care (CCAC) guidance. The AUACC operates to fulfill the University's legal and ethical responsibilities concerning the use of live, non-human vertebrate animals (hereafter referred to as animals) in research and teaching. The AUACC also acts in accordance with guidelines and policies established by the CCAC and the Province of Ontario Animals for Research Act with respect to the quality and operation of animal housing facilities and the care and use of animals in research and teaching.

The use of animals in research, teaching, and testing is acceptable only if it promises to contribute to understanding of fundamental biological principles, or to the development of knowledge that can reasonably be expected to benefit humans or animals.

Animals should be used only if the researcher's best efforts to find an alternative have failed. A continuing sharing of knowledge, review of the literature, and adherence to the Russell-Burch '3R' tenet of 'Replacement, Reduction and Refinement' are also requisites. Those using animals should employ the most humane methods on the smallest number of appropriate animals required to obtain valid information.

2. Jurisdiction and Authority

The president of Algoma University delegates that the V.P. Research of Algoma University (VPR) has complete authority over the Animal Care & Use Program at the institution. The VPR will ensure that sufficient resources are provided to allow proper functioning of the AUACC, including assistance for the documentation of AUACC activities. This person will be called the coordinator for the AUACC and will be available part time to ensure that Animal Use Protocols (AUP's) are well managed, that committee minutes and reports are promptly produced and distributed. The minutes will detail AUACC discussions, decisions and modifications to protocols and must be produced for AUACC meetings and be forwarded to the VPR. The coordinator will ensure that all exchanges between the AUACC and animal users are well documented and filed in a timely manner, and that animal users and ACC members are provided with the necessary information. The Coordinator will inform the CCAC Secretariat of any important changes to the Animal Care and Use program such as changes to the membership of the AUACC, or facility staff or the VPR.

As the welfare of animals is, in part, determined by the knowledge, competence and availability of trained people and quality of facilities for animal maintenance and research, the University assumes responsibility in these areas. The University will work with the AUACC to ensure that all members, animal users and caregivers are informed of and comply with the institutional animal care and use policies. The university will ensure that all members of the AUACC are provided with training opportunities to understand their work and role. This training will include an orientation session which will introduce new members to Algoma's animal care and use program and policies and procedures as well as to the animal facilities and to the CCAC policies and guidelines. It is recommended that AUACC members access the WEB CT information containing the 12 modules for the CCAC recommended syllabus. Opportunities to access journals, materials and meetings/workshops related to animal care and use, including the CCAC national workshop will be encouraged. The university will further ensure that the AUACC is well respected within the institution and that all members and the chair are valued and recognized.

The AUACC is specifically empowered by the Vice-President Research to review each research, teaching or testing project in which it is proposed that living, non-human vertebrate animals will be used to assure

that, in the view of the AUACC, the number and species of animals used, the procedures employed, and levels of pain experienced by any animal are appropriate to the proposed project. "The phrase living, non-human vertebrate animals is intended to include both animals that are living at the time the experiments are performed on them and animals that were alive at the time of their arrival on the University property and from which tissue was taken after euthanasia using acceptable humane methods."

The University agrees to assume full responsibility for all members of the AUACC and in case there are legal matters or litigation involving the University or the Animal Care Facility or the AUACC, the university agrees and consents to be responsible for all legal and resulting costs for all members of the ACC.

ANIMAL CARE COMMITTEE

At present, Algoma University does not have the need for an animal care facility and therefore some of the following do not particularly apply. However, the summary of policies will still be relevant to us & if it is decided to proceed with an animal facility, the following will apply in detail.

1. Animal Welfare

The University ACC is responsible for ensuring:

- (i) that all activities, procedures, and facilities that involve living vertebrate animals are in accord with the letter and the spirit of relevant legislation and guidelines. This shall include distribution of approved Standard Operating Procedures (SOPs) and institutional animal care and use policies.
- (ii) that adequate administrative procedures are in place to ensure proper and humane treatment of all animals used for research or teaching. Humane treatment will include the provision of appropriate space as defined by a policy on space if needed and with respect to the CCAC Guidelines and OMAFRA. Animals will be housed according to the proper SOP if needed.
- (iii) that all persons engaged in the use, care or maintenance of animals are adequately trained and qualified, and are responsive to the needs and requirements of animals in their care.
(Training programs will be developed if needed)
- (iv) that all persons engaged in animal use shall become familiar with the CCAC's Guide and Ethics statement and all other CCAC guidelines and policy statements, federal, provincial or municipal statutes, as well as institutional requirements and policies and as presented in the University training program. (At present, Algoma University does not house animals.)
- (v) that procedures for euthanasia of animals are both humane and in accord with the CCAC guidelines on: euthanasia of animals used in science, and relevant legislation and University policy .
- (vi) that the use of alternatives to living animals in research and teaching is encouraged when appropriate.
- (vi) that an animal-based research project has merit based on independent scientific merit review before it is approved. The VPR will ensure that a committee exists for peer review and that this committee consists of at least two independent experts, at least one of whom will not sit on the ACC. It is expected that the same reviewers cannot be used for all projects since experts are chosen for their expertise for their field and who have no links with the

author. This requirement exists for all future protocols as well as past protocols which haven't previously had peer review (these will require peer review at the time of renewal). AUACC will generally accept peer reviewed funded agencies for the scientific review requirements of AUPs. However, the AUACC's requirement for peer review of scientific merit may not necessarily be met by outside peer review agencies. In which case, the AUACC may require outside peer review.

Fourth year student projects generally encompass teaching and research. The AUACC would expect that in these cases, that there is merit that includes pedagogical and scientific aspects.

The ACC discourages projects past level C invasiveness in these situations unless they are very well justified, closely monitored and approved for scientific merit by outside peer review.

Teaching courses involving live animals require departmental pedagogical and scientific review only (2 members or a departmental committee attesting to the values of pedagogical and scientific merit). The AUACC does discourage the use of live animals in situations where there are viable alternatives and investigators are asked to substantiate the use of live animals.

All other research requires appropriate independent external peer review for scientific merit. (See peer review document for procedure).

2. The AUACC will take necessary steps to ensure that measures are taken to prevent unnecessary pain to animals. In particular:
 - a) AUPs must clearly state humane endpoints with respect to the proposed research. The AUACC will ensure that Principle Investigators have outlined procedures necessary for preventing and/or minimizing distress. In any experiment likely to result in pain, the animal shall be anaesthetized or given pain management so as to prevent pain and distress. Studies requiring exemption from the use of either anaesthetics or analgesics must be closely scrutinized by the AUACC and like all other protocols, such use must be approved prior to initiation. Endpoint definition and monitoring procedures are expected to be included in such protocols (refer to relevant policies).
 - b) The AUACC, if it believes that proper and humane procedures are not being followed or that unnecessary pain is being experienced by any animal, shall be empowered by senior university administration (VPR on behalf of the president):
 - (i) To stop any procedures which the AUACC, acting in accord with appropriate scientific and ethical guidelines, finds objectionable. This includes the responsibility to halt any unapproved work or work that deviates from approved protocols. If investigation demonstrates wilful or repeated neglect of responsibilities by a researcher, the privilege of conducting research with animals at Algoma University shall be withdrawn from that researcher. In the event that a researcher loses the privilege of conducting research with animals, the AUACC shall so inform relevant officers of the University.
 - (ii) Where such procedures have caused distress to the animals which cannot be alleviated and is not part of an approved protocol, to humanely destroy the animal.
 - (iii) The AUACC further will ensure that all staff working under the animal care & use program will be able to operate in a harassment-free environment. The Veterinarian is in charge of the health and welfare of all animals and as such will set up appropriate health surveillance and monitoring programs as described in the Canadian Association of Laboratory Animal Medicine. The authority of the veterinary program is given by the AUACC and this authority should not be undermined.

All animal users and staff are to be instructed in aspects of Occupational Health and Safety as part of their training such that these aspects are in collaboration with the University's OHS program.

3. Membership of the Animal Care Committee

AUACC members normally will be appointed for terms of four years, however terms may be either shortened or extended should the need arise, with **no** maximum years of service.

Incoming Chairs normally will be appointed by the VPR and with input from the Chair and current members of the Committee, incoming members will be appointed. The Chair may be one of the required members of the committee, however, this person should not be directly involved in the management of University animal facilities, be a major animal user, nor be the University Veterinarian. In the case where the Chair is personally involved in the preparation of protocols to be reviewed by the Committee, one of the existing committee members shall be appointed as temporary Vice-Chair for the purposes of review and approval of those protocols. In the case where any member is personally involved in the preparation of protocols to be reviewed, that member will not attend the meeting and therefore not vote.

The minimum membership of the AUACC normally will consist of 9 members (other persons may be co-opted as required), including:

- two faculty representatives who conduct research with animals and are therefore presumably knowledgeable in the care, welfare and ethical use of animals in research (one of which may be appointed as Chair);
- *a representative of the V.P. Research, appointed by the V.P. Research (**as acting Director, Office of Research Ethics and Grants, ex-officio*); (this person would be the coordinator & be there to help the ACC with minutes, keep track of files, AUP's etc.)
- two faculty representative whose normal activities do not depend on or involve animal use for research, teaching or testing;
- one person (not currently or formerly affiliated with the University, and not involved in animal use for research, teaching, or testing) who will represent the interests and concerns of the community;
- one safety officer from the Safety Office on campus;
- one student representative;
- one consulting veterinarian.

4. Frequency of Meetings of the Animal Care Committee

Meetings may only be held when Quorum has been satisfied (half of committee membership plus one, including the veterinarian and the community representative). The AUACC normally will meet a minimum of two times per year, which includes one annual meeting in order to:

- a) review its Terms of Reference and operating procedures;
- b) review the security of the animals and research facilities;
- c) review its policies and procedures for monitoring animal care and use in the facilities.

Members of AUACC shall ensure that all materials associated with AUACC and all discussions that take place at meetings of AUACC remain confidential.

Detailed Minutes of each meeting will be taken outlining Committee decisions and recommendations for revisions with respect to each protocol under review as well as procedural and other issues related to the care and use of animals at Algoma University. A copy of each set of Minutes will be distributed to each Animal Care Committee member. A copy will also be provided to the V.P. Research, the person to whom the AUACC reports.

In addition to meetings, members of the Committee will conduct, at least annually, one site visit to each of the animal facilities (should facilities exist). The observations from every inspection tour, together with any recommendations and/or commendations, will be discussed at the subsequent AUACC meetings and included in the Minutes. A report will be provided to the administration of each animal facility as required.

5. Responsibilities & Duties of the Animal Care Committee

The AUACC has responsibilities and duties that span a number of areas.

i. Under the **Ethics Review Directive**, the AUACC will ensure that:

a) all animal users complete and submit an Animal Use Protocol (AUP) form for approval, and ensure that the information therein is complete (supplemental information can be found in the CCAC *guidelines on: animal use protocol review, 1997*);

b) no project or program (including field studies) involving animals be commenced without prior AUACC written approval of an AUP;

c) All decisions and discussions related to AUPs will be documented in the Committee Minutes and attached to AUPs;

d) for pedagogical projects, a review to ensure that animals are only used where necessary will be first be done at the program or department level, where the need to use live animals to meet teaching objectives can be examined during Curriculum reviews. Following this, the AUACC will review the AUP to ensure ethical merit;

e) All AUPs must be reviewed once per year by the committee. Researchers must request the renewal of ongoing protocols (maximum of 3 consecutive renewals). The request must be made in writing to the coordinator using the appropriate form. Renewal information must contain a brief description of the protocol, numbers of animals for the next year, and the new termination date for the experiment. AUP renewals must include information on the progress made in the project, the number of animals used to date annually, and any difficulties that may have been encountered including the steps that the investigator will take to address the problem. See *Renewal Form*.

f) Any minor variations must be submitted to the committee via a *Modification Form*. Major variations constitute a new AUP form. After 3 consecutive renewals, protocols must be resubmitted as a new protocol through normal channels. See explanations on the appropriate forms as to what constitutes minor or major changes in the *AUP Instructions and Directions*.

ii. Under the **Animal Welfare Directive**, the AUACC will ensure that;

a) that adequate administrative procedures are in place to ensure proper and humane treatment of all animals used for research or teaching with respect to the CCAC Guidelines and Ontario Ministry of Agriculture, Food and Rural Affairs.

b) animal users report any unanticipated problems or complications, as well as on the steps they have taken to address the problem(s), to the AUACC;

c) adequate veterinary care is provided to all laboratory animals, and that access to veterinary care is available in cases of injury, illness or surgery;

d) a set of SOPs be developed for all experimental and handling procedures, husbandry, facility and equipment management, alleviation for pain or distress, proper and effective use of anaesthesia and analgesia, pre- and post-operative care and monitoring, procedures for euthanasia, and other areas as

required;

e) SOPs be communicated to all interested parties, including animal researchers and health technicians and course instructors (when applicable) and that these procedures be implemented and regularly reviewed;

f) a crisis management program for the animal facilities and the animal care and use program be formed in conjunction with the University's general institutional crisis management plan;

g) all research is monitored regularly (i.e., at least once annually) to ensure that procedures being conducted are those that have received approval (both scientific and ethical) and (if applicable) have pedagogical merit;

iii. Under the **Animal Facilities Directive**, the AUACC will ensure that;

a) procurement of animals may not occur until the AUP has been approved by the AUACC;

b) animals are housed or maintained only in areas that have been inspected and approved for this purpose;

c) all animal facilities are inspected by the AUACC on an annual basis (at a minimum) and that the facilities and animal care provided within meet provincial and federal standards;

d) the level of security in the animal facilities is adequate for the protection of the animals housed therein and personnel working with animals, and that this is reviewed on a regular basis;

e) recommendations are provided to departmental administration which oversees each facility in regard to necessary development/improvements, maintenance and use of the animal facilities in their charge;

f) any concerns raised during site visits will be followed up on to ensure that appropriate measures have been taken;

g) the VPR will be made aware of the outcomes of all inspections and reports.

iv. Under the **Education Directive**, the AUACC will ensure that;

a) all animal users have the opportunity to become familiar with the CCAC's Guide and Ethics statement and all other CCAC guidelines and policy statements, federal, provincial or municipal statutes that may apply, as well as institutional requirements;

b) the Terms of Reference meet CCAC guidelines and policies and the Terms of Reference are updated at least every three years;

c) all personnel (i.e. principal investigators, course instructors, post-doctoral fellows, research and technical staff, and students) engaged in the care or maintenance of animals be adequately trained and qualified, and that opportunities for participation in in-house or external continuing education programs be investigated and offered on a regular basis;

d) liaison occurs with the academic community to ensure researchers and instructors receive current information pertaining to provincial regulations and federal guidelines as well as current

institutional policies and practices;

e) liaison occurs and recommendations are made as needed to appropriate committees within the University so that information can be provided to the general public on matters concerning animal welfare and research and teaching activities involving animals at this University;

f) liaison occurs and recommendations are made as needed to appropriate committees within the University so that the safety and security of both the animals and persons involved with the animals are ensured;

g) liaison is maintained with the CCAC Secretariat and complete and accurate animal use information for all protocols is provided annually;

h) alternatives to use of animals in teaching and research activities be encouraged wherever possible.

6. Protocol Approval Process

Determination of scientific merit is the function of the Research Office, and the VPR ensures that scientific merit and biosafety is reviewed prior to the determination of ethical merit by the AUACC. Proposals associated with competitive funding applications to agencies with adequate peer review processes (e.g., NSERC, CIHR) generally do not require review for scientific merit. The requirement for scientific merit should normally be satisfied if the application is funded.

Following scientific merit approval, expedited ethical review and interim approval of AUPs can be given by a subcommittee of the AUACC, which must include the veterinarian, the community representative, and the Chair, and may only in exceptional cases. All discussions among the AUACC subcommittee and the protocol author must be documented, and to be subject to discussion at the next full meeting of the AUACC.

Regular protocol approval processes occur at full committee meetings, and submitted AUPs and accompanying SOPs are reviewed for ethical merit. The AUACC (all members) shall attempt to achieve consensus with respect to approving AUP forms (and all other applications required by the Committee) within 30 days of their submission. When all members are not in agreement, the committee may request more information or modifications from the investigator or ask the investigator to attend a special meeting of the AUACC to provide explanation/clarification.

Not all protocols, however, require the same level of review: the intensity of the review should vary directly with the level of invasiveness of the procedures. AUPs involving physical and/or psychological distress (pain, fear) must be fully reviewed and require strong scientific justification that is clearly supported by current knowledge. If necessary, one or more meetings with the investigator may help in determining the practice and ethical merit. All aspects of the review process, including protocol approval status, amendments, clarifications, modifications, and renewals, must be documented, regardless of the category of invasiveness.

Minor and major modifications made to an AUP following ethical approval by the AUACC require different levels of attention. Please refer to the *Algoma University Animal Care Committee Animal Use Protocol Form Information and Direction* for examples of minor and major modifications.

Minor protocol amendments, as defined by the AUACC, must be indicated on a *Modification Form* submitted to the AUACC, and can be approved by the AUACC Chair or delegate. For personnel changes (minor), the AUACC must be provided evidence of training on the basics of the ethics and regulation of animal use in science, as well as evidence of training in the specific procedures listed in the protocol. In some cases, it may be necessary for a researcher to implement protocol amendments to manage unanticipated problems or complications, prior to receiving approval by the AUACC (or subcommittee). In these cases, the AUACC expects to be informed of modifications as soon as possible.

Major amendments require the completion and submission of a new AUP to be reviewed by the full committee. Annual renewals must be approved by at least one scientist on the ACC, as well as the veterinarian and community representative, and should subsequently be brought to the attention of the full ACC for its information.

7. Disputes or appeals of decisions

In the event of a dispute arising between an investigator and the AUACC that cannot be resolved at a local level (e.g. by the investigator attending an AUACC meeting), the investigator may request the VPR, or their designate, establish an Appeal Committee to resolve the dispute. The Appeal Committee may request additional information regarding the Protocols and Procedures outlined by the investigator in the AUP, and will review this information as well as the discussion documented during the protocol review committee meeting. The decision of the Appeal Committee shall be final.

8. Post-approval Monitoring

It is the responsibility of the AUACC to ensure that all research, teaching and testing projects approved via AUP forms are being conducted in the manner that was originally stated and approved. Therefore, the AUACC may conduct site (laboratory, field) visits on occasion and without notice, and conduct a Post-approval Monitoring interview. Further, it is the responsibility of the animal user to submit a Post-approval Monitoring Form and the responsibility of the AUACC to determine whether there is concordance between what has been observed during site visits and what has been reported in the Form and the original AUP. The ACC may further ask for photos or videos of researchers performing procedures outlined in the AUP, or demonstrations of procedures if a site visit is possible. The ACC shall ensure that accurate and complete animal use information is submitted annually as required to the CCAC and OMAF and ensures that liaison with both agencies is maintained.

The veterinarian gives a report at every meeting which would include any issues that may have occurred with respect to animal care and welfare issues. If any procedures take place which were not part of acceptable procedure or as a written part of the AUP these details would also be reported on. All people using animals for research undergo an extensive training program whereby the trainer (technologist, PI or veterinarian) ensures that all procedures and handling are being accomplished properly. The trainers are also involved in the experiments when students start their experiments to ensure that they are comfortable with the procedures and at that time can reaffirm with them on the proper way to carry them out and retrain if needed. The students are aware that the staff are there to help and we encourage a very open and positive relationship with all researchers. If staff notice a person not doing something acceptable (either differing from the AUP, SOP or training guidelines), the staff person would first discuss this with the person involved to attempt to correct it. If it is a serious issue that may impact the welfare of the animal, the veterinarian is immediately notified and in turn the PI is also notified so that the behaviour stops immediately and is not repeated.

Because we are a very small facility, staff are very aware of every researcher/student that is in the facility and are able to closely monitor all details of the procedures. Housed animals are inspected daily by staff and any irregular occurrences or ill health are reported immediately to the veterinarian. Animals that need to be more closely monitored are color coded on the cage to indicate the frequency of monitoring or recording of weight, food intake, etc.

Researchers also indicate on their renewals any untoward aspects of their research including unexpected results or animal welfare/death incidence so that the ACC gets feedback. The veterinarian also confers with researchers during the year on how things are going with respect to expected/unexpected results and any animal welfare issues that may arise are relayed to the ACC (directly and immediately to the chair if the issue is an important one). See *Post Approval Monitoring form* and the *Health and Welfare Concerns* information on the VPR website.

