

**UNIVERSITY OF MAINE**  
**POLICIES AND PROCEDURES FOR THE**  
**HUMANE CARE AND USE OF ANIMALS**

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## **I. Preamble**

The University of Maine is committed to the ethical principles stated in this preamble concerning the use of live vertebrate animals for research, teaching, or testing. These principles shall guide all persons associated with the University of Maine.

Vertebrate animals may share in varying degree many sensory, emotional, and cognitive responses with humankind. It is essential that we assume responsibility for their welfare and that animal use for research or teaching purposes be conducted in a humane, compassionate manner.

To justify the ethical costs of using live animals in research, teaching, or testing, there must be reasonable expectation that such usage will contribute to the advancement of knowledge which may eventually benefit humankind and/or animals.

The University of Maine accepts and incorporates into the policy and code of ethics: (1) the National Institutes of Health *Guide for the Care and Use of Laboratory Animals*, (2) the *Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching*, and (3) applicable government regulations.

## **II. Policies**

- A. The University of Maine acknowledges and accepts responsibility for the ethical care and use of live vertebrate animals.
- B. The University shall maintain and support an Institutional Animal Care and Use Committee (IACUC), whose function it is to determine whether and how live animals may be used in research, teaching, and testing, and to educate the community with regard to the ethical use of animals.
- C. No research, teaching, or testing activities using live vertebrate animals shall be initiated until the IACUC has approved a protocol for such use. Before such approval is granted, proper consideration shall be given to the degree of pain and stress to the animals, the anticipated benefits of the proposed use, and the importance of the knowledge that may result from that use.
- D. Researchers and instructors shall abide by the humanitarian dictum that animals not be subjected to unnecessary pain or distress.
- E. The IACUC shall generally consider animal welfare of greater importance than issues of experimental expense or inconvenience.

- F. If pain or distress are necessary concomitants of an approved experiment, they shall be minimized both in intensity and in duration. In no case shall pain result in suffering.
- G. If the withholding of food and water is necessary to an approved experiment, it shall be as short-term as possible and result in the least detrimental effect on the health of the animal.
- H. Prolonged physical restraint procedures are prohibited. Short-term physical restraint procedures may be approved only after alternative procedures have been considered and found to be inadequate.
- I. Multiple major surgical procedures on a single animal are discouraged, except when they are interrelated and essential to the primary surgical objectives.
- J. Potentially painful experiments, otherwise consistent with these policies, may be approved provided the animal is anaesthetized and insensitive to pain during the entire procedure, unless justified (in writing) for scientific reasons.
- K. An animal that is observed to be in a state of severe pain which cannot be alleviated, or an anaesthetized animal that would be in such a state if allowed to regain consciousness, shall be immediately killed using a humane, acceptable method which must include as an initial action, in the case of still conscious animals, rapid inducement of unconsciousness.
- L. Experiments involving the use of tumors, toxic or infectious agents shall be designed, whenever possible, with an endpoint other than death caused by the treatment. As soon as the experimental endpoint has been reached, diseased animals should be humanely killed.
- M. Each investigator shall consider alternatives to the use of live animals in research before presenting a protocol for the use of live animals.
- N. Live animals shall be used for teaching and demonstration purposes only to achieve specific instructional objectives which cannot be achieved through available alternative methods, such as the use of videotapes, films, or computer models.
- O. The responsible faculty member shall provide sufficient supervisory staff per student to achieve the instructional objectives and to assure the humane use of the animals involved.
- P. The responsible faculty member shall use the fewest animals possible, consistent with the instructional and research objectives. Permission to

use more animals may be granted, if they are subsequently to be used as food.

- Q. Hands-on surgical procedures shall not be taught to students whose educational needs and/or long-term professional aspirations will not normally require such experience with live vertebrates.
- R. If the instructional procedures will cause pain or distress, the same guidelines governing research with live animals shall apply also to their use in teaching and demonstration.
- S. The University's policies and procedures for the humane care and use of animals shall apply to all research, teaching, and testing activities which make use of live vertebrate animals *and*:
1. are sponsored by the University; *or*
  2. are conducted by or under the direction of any faculty, staff member, or student of the University in connection with his or her institutional responsibilities; *or*
  3. are conducted by or under the direction of any faculty, staff member, or student of the University using any property or facility of the University.
- T. The University of Maine shall encourage and promote constructive communication among research administrators, department chairs, deans and directors, investigators, instructors, staff, and students as a means of maintaining a high level of awareness regarding the humane care and use of live vertebrate animals.
- U. The University of Maine shall comply with all federal, state, and local regulations pertaining to the humane care and use of animals.

### III. Definitions

- A. "Animal" means, for the purposes of this policy, any live, vertebrate, non-human animal used or intended for use in research, teaching, biological testing, or related purposes.
- B. "Animal facility" means any building, room, area, enclosure, or vehicle, including satellite facilities, used for animal confinement, transport, maintenance, breeding, or experiments inclusive of surgical manipulation. A satellite facility is any containment outside of a core facility or centrally designated or managed area in which animals are housed for more than 24 hours.

- C. "Assurance" means the Animal Welfare Assurance submitted by the University to the US Department of Health and Human Services, National Institutes of Health, Office of Laboratory Animal Welfare.
- D. "Guide" means the Public Health Service *Guide for the Care and Use of Laboratory Animals*, 1985 or succeeding revised editions.

#### **IV. Procedures**

##### *A. Responsibilities of the Investigator or Instructor*

The individual faculty, staff, or student of the University who uses animals for research, teaching, testing, or related purposes shall exercise the following responsibilities:

1. The investigator or instructor shall abide by the humanitarian dictum that animals not be subjected to unnecessary pain or stress.
2. The investigator or instructor shall design and present first to the department chair (or appropriate unit director) and then to the IACUC a protocol for the proposed care and use of animals.
3. The investigator or instructor shall not initiate any activity using animals without the prior approval of the IACUC.
4. The investigator or instructor shall make no significant alterations to the approved protocol without the prior approval of such alterations by the IACUC.
5. The investigator or instructor shall report at once to the IACUC any unanticipated harm to animals.
6. The investigator or instructor shall report annually to the IACUC on the conduct of approved projects using animals and shall seek approval for continuation of such use at least once every three years, and more frequently if the IACUC so requires.
7. The investigator or instructor shall cooperate fully with the IACUC in monitoring the care and use of animals.

##### *B. Responsibilities of the Department Chair or Unit Director*

The chair of any department or director of any other unit in which animals are used for research, teaching, testing, or related purposes shall exercise the following responsibilities:

1. The chair or director shall assure compliance with the University's policies and procedures for the humane care and use of animals in the activities conducted within the department or other unit.
2. The chair or director shall assure proper management of the animal facilities within the department or other unit and proper supervision of the animal care personnel.
3. At the request of the President, the chair or director shall nominate from among the members of the unit who use live vertebrate animals a representative to serve on the IACUC.

C. *The Institutional Animal Care and Use Committee*

1. *Responsibilities.* The Institutional Animal Care and Use Committee (IACUC) shall exercise the following responsibilities:
  - a. The IACUC shall review at least once every six months the University's program for humane care and use of animals, using the *Guide* as a basis for evaluation.
  - b. The IACUC shall inspect at least once every six months the University's animal facilities (including satellite facilities), using the *Guide* or the *Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching* as a basis for evaluation.
  - c. The IACUC shall prepare reports of the evaluations required above and submit the reports to the Institutional Official for Animal Welfare.
  - d. The IACUC shall review concerns about the care and use of animals at the University brought to its attention by any member of the community.
  - e. The IACUC shall make recommendations to the Institutional Official for Animal Welfare regarding any aspect of the University's animal program, facilities, or personnel training.
  - f. The IACUC shall review and approve, require modifications in, or withhold approval of activities related to the care and use of animals in research, teaching, or testing.

- g. The IACUC shall review and approve, require modifications in, or withhold approval of proposed significant changes in previously approved activities related to the care and use of animals in ongoing research, teaching, or testing.
  - h. The IACUC shall devise and conduct programs of education in matters relevant to the care and use of animals for the benefit of students and employees of the University.
  - i. The IACUC shall maintain records of its activities.
2. *Authority.* The IACUC is authorized to
- a. Approve, disapprove, or require modifications in the protocols submitted to it.
  - b. Monitor the care and use it has approved by any means it deems appropriate.
  - c. Suspend or terminate approved use of animals, whenever such use is not being made in accordance with the IACUC's requirements or whenever it has been associated with unexpected harm to animals.
  - d. Inspect animal facilities (including satellite facilities) at any time and without prior notice.
3. *Membership.* The IACUC shall nominate and the President of the University shall appoint members of the IACUC to three-year terms. Members may be reappointed to further terms. The President may also appoint alternates when desirable. Such alternates shall have the same voting privileges as the member for whom they substitute.

The President shall appoint one member of the IACUC to serve as Chair for a term of two years. At the beginning of the Chair's second year of service, the President shall appoint a Chair-Elect to succeed the current Chair. The Chair shall normally be a member of the University's tenured faculty who engages in research or teaching with animals and who has substantial experience in the review of research and teaching with animals.

The IACUC shall have no fewer than seven members, qualified through their combined experience and expertise to oversee the University's animal program, facilities, and procedures. In



addition to possessing the professional competence necessary to review specific activities, the IACUC shall be able to ascertain the acceptability of proposed animal use in terms of institutional commitments and regulations, applicable law, and standards of professional conduct and practice. The IACUC shall therefore include persons knowledgeable in these areas, or have access to the counsel of such persons.

The IACUC shall include at least:

- a. One Doctor of Veterinary Medicine, with training or experience in laboratory animal science and medicine, who has direct or delegated program responsibility for activities involving animals at the University.
- b. One practicing scientist experienced in research involving animals.
- c. One member whose primary concerns are in a nonscientific area, such as an ethicist, a lawyer, or a member of the clergy.
- d. One individual who is not affiliated with the University in any way other than as a member of the IACUC, and is not a member of the immediate family of a person who is affiliated with the University.
- e. The Biosafety Officer (BSO) for the University and a member of the Department of Safety and Environmental Management (SEM) shall be appointed to the IACUC as non-voting, ex officio member(s) of the IACUC.

An individual who meets the requirements of more than one of these categories may fulfill more than one requirement. However, the IACUC may not consist of fewer than seven members. No member of the IACUC may participate in the IACUC's review or approval of any project in which the member has a conflicting interest, except to provide information requested by the IACUC; nor may a member who has a conflicting interest contribute to the constitution of a quorum.

The IACUC may, at its discretion, invite individuals with competence in special areas to assist in the review of complex issues. These consultants may not approve or withhold approval of an activity or vote with the IACUC.

4. *Functions and Operations.* The Chair shall convene monthly meetings of the IACUC for the purpose of reviewing applications for approval of the use of animals in research, teaching, or testing. Except when an expedited review procedure is used, the IACUC shall review proposed protocols only at such meetings. Because members of the IACUC need to study protocols before the convened meeting, the IACUC shall normally consider only applications that have been submitted at least two weeks prior to the meeting. In acting on applications for approval of animal use, the IACUC shall follow the written procedures outlined in this document.

A quorum consisting of the majority of the membership shall be necessary for action on applications. Approval of an application shall require the approval of a majority of the members present at the meeting.

At least once every six months, the IACUC shall appoint a subcommittee of at least two members to inspect and evaluate each animal facility. Using the *Guide* or the *Guide for the Care and Use of Agricultural Animals in Agricultural Research and Training* as a basis, the subcommittee shall evaluate both the physical plant and the animal husbandry associated with each facility. The findings and recommendations of the subcommittees shall be reported to the Institutional Official for Animal Welfare.

At least once every six months, the IACUC shall review the University's program for the care and use of animals, including (in addition to animal husbandry and physical facilities), these policies and procedures, veterinary care, the qualifications of personnel responsible for animal care and use, training programs, and measures related to personal hygiene and occupational health for employees and students working with animals. Its findings and recommendations shall be reported to the Institutional Official for Animal Welfare.

5. *Review of protocols.* In order to approve proposed projects or proposed significant changes in ongoing projects, the IACUC shall conduct a review of those components related to the care and use of animals and determine that the proposed projects are in accordance with University policy. In making this determination, the IACUC shall confirm that the project will be conducted in accordance with the Animal Welfare Act insofar as it applies to the project, and that the project is consistent with the *Guide* unless acceptable justification for a departure is presented. Further, the

IACUC shall determine that the project conforms with the University's Assurance and meets the following requirements:

- a. Procedures with animals will avoid or minimize discomfort, distress, and pain to the animals, consistent with sound research or instructional design.
- b. Procedures that may cause more than momentary or slight pain or distress to the animals will be performed with appropriate sedation, analgesia, or anaesthesia, unless the procedure is justified for scientific reasons in writing by the investigator or instructor.
- c. Animals that would otherwise experience severe or chronic pain or distress that cannot be relieved will be painlessly and humanely killed at the end of the procedure or, if appropriate, during the procedure.
- d. The living conditions of animals will be appropriate for their species and maintain their health and comfort. The housing, feeding, and nonmedical care of the animals will be directed by a veterinarian or other scientist trained and experienced in the proper care, handling, and use of the species being maintained or studied.
- e. Medical care for animals will be available and provided as necessary by a qualified veterinarian.
- f. Personnel conducting procedures on the species being maintained or studied will be appropriately qualified and trained in those procedures.
- g. Methods of euthanasia used will be consistent with the recommendations of the American Veterinary Medical Association Panel on Euthanasia, and other standard references, unless a deviation is justified for scientific reasons in writing by the investigator or instructor.

Applications for approval of the use of animals shall be prepared by the principal investigator or instructor and submitted to the IACUC, via the Office of the Vice President for Research using the protocol review form found on the [IACUC website](#). If the proposed procedures do not cause more than momentary or slight pain or distress to the animal(s) (e.g., observation of behavior under conditions of little or no distress, dietary manipulations, and injections or blood sampling by qualified personnel), the Chair

may determine that review by an *ad hoc* three-member subcommittee is sufficient. In that event, copies of the complete protocol will be provided to all members of the IACUC, any one of whom may request full committee review. If no such request is received after five (5) working days, a subcommittee will be appointed to review the protocol.

All other projects shall require action by the full committee. Protocols requiring full committee review shall be acted upon at a regularly convened meeting of the IACUC. Copies of project protocols shall be provided to each member prior to the review meeting.

When a protocol undergoes a full committee review (FCR) and modifications are required to secure approval, a designated member review (DMR) may be used. The DMR will typically be conducted by the IACUC Chair. The IACUC Chair may seek the assistance of the Institutional Veterinarian, or any other IACUC member he/she deems necessary to evaluate the revised protocol.

All IACUC members must agree, in advance and in writing, that the quorum of members present at a convened meeting may decide by unanimous vote to use DMR subsequent to FCR when modification is needed to secure approval. Any member of the IACUC may, at any time, request to see the revised protocol and/or request FCR of the protocol.

Protocols receiving IACUC approval may be subject to further administrative review by the Institutional Official for Animal Welfare or by another officer of the University appointed to that purpose by the President. This review may result in limitations and restrictions on the use of animals beyond that required by the IACUC. In extreme cases, the use of animals may be denied. Under no circumstances can the administration approve a project not approved by the IACUC or ease any restrictions imposed by the IACUC.

The IACUC shall notify investigators and instructors in writing of its decision to approve or withhold approval of activities related to the care and use of animals, or of modifications required to secure IACUC approval. If the IACUC decides to withhold approval of an activity, it shall include in its written notification a statement of the reasons for its decision and give the investigator or instructor an opportunity to respond in person or in writing.

The IACUC shall conduct continuing review of activities covered by these policies at appropriate intervals as determined by the IACUC, but at least once every three years.

6. *Suspension and termination of animal use.* The IACUC may suspend an activity that it previously approved if it determines that the activity is not being conducted in accordance with applicable provisions of the Animal Welfare Act, the *Guide*, the University's Assurance, or the *Public Health Service Policy on Humane Care and Use of Laboratory Animals*. The IACUC may suspend an activity only after review of the matter at a convened quorum of the IACUC and with a vote for suspension by a majority of the quorum present.

If the IACUC suspends an activity involving animals, the Institutional Official for Animal Welfare in consultation with the IACUC shall review the reasons for suspension, take appropriate corrective action, and report that action with a full explanation, as required by the circumstances, to any extramural agency sponsoring the activity.

7. *Recordkeeping requirements.* The IACUC shall maintain
- a. minutes of its meetings, including records of attendance, activities of the committee, and committee deliberations;
  - b. records of applications, proposals, and proposed significant changes in the care and use of animals and whether IACUC approval was given or withheld;
  - c. records of semiannual IACUC reports and recommendations, including minority views, as forwarded to the Institutional Official for Animal Welfare; and
  - d. records of the qualifications of those certified to care for and use animals in University activities.

All records shall be maintained for at least three years; records that relate directly to applications, proposals, and proposed significant changes in ongoing activities reviewed and approved by the IACUC shall be maintained for the duration of the activity and for an additional three years after completion of the activity. All records shall be accessible for inspection and copying, at reasonable times and in a reasonable manner, by members of the IACUC, by representatives of governmental agencies responsible for regulating research with animals, by representatives of

extramural sponsors of University activities involving animals, and by any other person so authorized by the President or by the Institutional Official for Animal Welfare.

8. *Reporting requirements.* The IACUC shall report to the Institutional Official for Animal Welfare the actions it takes on all applications for approval of activities involving animals, and to the Director of Research and Sponsored Programs all actions pertaining to activities supported by extramural funding or proposed for such support.

The IACUC shall report to the Institutional Official for Animal Welfare at once any action to suspend or terminate approved activities, and any serious or continuing non-compliance by University personnel with the IACUC's requirements and determinations. The IACUC shall provide through the Institutional Official for Animal Welfare to the Office of Laboratory Animal Welfare of the National Institutes of Health a full explanation of the circumstances and actions taken with respect to any serious or continuing noncompliance with these policies, any serious deviations from the provisions of the *Guide*, or any suspension of an activity by the IACUC.

The IACUC shall report through the Institutional Official for Animal Welfare to the Office of Laboratory Animal Welfare at least annually:

- a. any change in the University's program or facilities which would place the University in a different category than specified in its Assurance;
- b. any change in the description of the University's program for animal care and use;
- c. any changes in the IACUC membership; and
- d. notice of the dates that the IACUC conducted its semiannual evaluations of the University's program and facilities.

Reports filed under these requirements shall include any minority views filed by members of the IACUC.

D. *Occupational Health and Safety Program*

The University's occupational health and safety program applies to all personnel involved in animal care and/or use as well as personnel that have to enter animal facilities for reasons not related to animal care and/or use, e.g., building maintenance, facilities repair, housekeeping, etc.

The Department of Safety and Environmental Management (SEM) is responsible for the overall management of the Occupational Health and Safety Program. SEM has written procedures in place covering enrollment (hazard identification and risk assessment), ongoing monitoring, and personnel training.

**Medical Evaluation and Preventive Medicine for Personnel:** The University requires that personnel hired to care for laboratory animals be immunized against tetanus as a condition of employment. Faculty and professional staff certify that they and their project personnel have received a tetanus immunization within the past ten years when they submit a protocol to the IACUC for approval.

All personnel are instructed to seek medical treatment in the event of a work-related illness or injury. For students, treatment is provided by the Cutler Health Center with appropriate follow-up care or referrals as necessary. For staff, treatment is available at any of the established medical facilities in the area.

E. *Training Programs for Personnel Who Work with Animals*

All personnel named in a protocol, who work directly with animals, shall be required to complete the Institutional Animal Care and Use Web Based Training program. Records shall be kept of the names of individuals who complete the training and are certified to work with animals. All persons involved in teaching or research protocols reviewed by IACUC shall be required to show evidence of such certification.

Beyond the web based training program, supervisors shall be responsible for additional required training of individuals under their direction who work with animals, and encouraged to call upon the veterinarian and the IACUC for assistance as needed.

F. *Whistle Blowing Policy*

The Institutional Animal Care and Use Committee (IACUC) shall provide every animal facility manager or principal investigator with a notice describing how to report concerns regarding animal care. This

information shall be posted in a visible location at every animal facility. This information will also be maintained on the IACUC website.

Complaints may be made anonymously. Complaints shall be dealt with confidentially to the extent reasonably possible. No member of the University (student or employee) is subject to any reprisal for reporting any suspected violations. Protection against reprisal for employees is also guaranteed through the collective bargaining agreements and/or the State of Maine's Whistleblowers Protection Act.