

**California Polytechnic State University, San Luis Obispo**  
**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE**  
**REGULATIONS, POLICIES, AND STANDARDS FOR THE CARE AND**  
**USE OF**  
**ANIMAL SUBJECTS IN TEACHING AND RESEARCH**

I. Purpose

Animals are used for instruction and research within a wide variety of California Polytechnic State University facilities. The overall purpose of this and related documents is to provide guidelines for the humane handling of these animals. Although most faculty, students, and staff members understand their ethical and scientific obligations, there is no uniform accountability mechanism in place. This and related documents attempt to provide a way to ensure humane animal handling and at the same time meet the increasingly demanding regulations, policies, and standards imposed by funding and regulatory agencies.

II. References

A. Animal Welfare Act, Public Law 89-544, 1966, amended in 1970 (P.L. 91-579), 1976 (P.L. 94-279), and 1985 (P.L. 99-198), and any succeeding amendments.

B. "Guide for the Care and Use of Laboratory Animals," DHEW No. (NIH) 85- 23, revised 1985, or any succeeding revision (herein to be referred to as the "NIH Guide").

C. Non clinical Laboratory Studies, Good Laboratory Practice Regulation, Federal Register 143:59986 - 60024, 1978.

D. DHEW and PHS Administration Manuals, Chapters 1-43, Animal Welfare, and any succeeding revisions.

E. Public Health Service Policy on Humane Care and Use of Laboratory Animals; Revised as of September, 1986, and any subsequent revisions.

F. Applicable provisions and regulations of Title 9, California Administrative Code, CALOSHA.

G. Applicable provisions and regulations of the California Department of Public Health.

H. Applicable provisions and regulations of the California Department of Fish and Game.

I. Applicable provisions and regulations of the Endangered Species Act of 1973, P.L. 93-205, and succeeding amendments.

J. Applicable provisions and regulations of the Marine Mammal Protection Act of 1972, P.L. 92-522, and succeeding amendments.

### III. Definitions

A. Animal. Any live vertebrate creature, excluding human beings, that is being used or is intended for use in research, experimentation, testing, training, education, demonstration or related purpose which includes the in vivo acquisition of tissue. This definition does not extend to farm animals used in production - related projects.

B. Animal Facility. Any and all buildings, rooms, areas, enclosures, or vehicles, 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 twenty-four hours.

C. Investigator(s). Any faculty members, professional researchers, staff members, or any graduate or undergraduate students involved in a project.

D. Institutional Animal Care and Use Committee. A committee (also referred to as IACUC or committee), appointed by the University President, composed of no fewer than five persons, to assure complete and adequate review of animal facilities and procedures under jurisdiction of California Polytechnic State University. A quorum will consist of a simple majority of the members. The committee will include at least: (1) 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 institution; (2) one practicing scientist experienced in research involving animals; (3) one member whose primary concerns are in a non-scientific area; and (4) one individual who is not currently affiliated with the institution in any way other than as a member of the committee, and is not a member of the immediate family of a person who is affiliated with the institution. Any one individual may fulfill more than one requirement of the committee membership. However, no committee may consist of fewer than five members.

### IV. Policy

The humane care, use, and treatment of animals used for instruction, research, or related purposes is a campus responsibility. It is the policy of California Polytechnic State University to comply with federal, state, university, and other regulatory requirements as they relate to the acquisition, care, use and treatment of animals in the performance of authorized instruction and research. The IACUC Veterinarian, in association with the rest of the committee, must provide assurance to a number of agencies that animals in all projects and activities are humanely cared for, used and treated in accordance with professionally acceptable standards. Accordingly, the committee has been charged with oversight and review of all qualifying campus animal care and use facilities and procedures.

In order to provide for the adequate discharge of this responsibility, all ongoing or proposed projects or activities in which vertebrate animals are used in teaching and/or research must be reviewed by the committee. This policy is applicable regardless of whether extramural funds or intramural funds are used, and includes those cases where no reimbursement for such study is involved.

## V. Implementation

To ensure implementation of this policy, areas of responsibility are hereby designated for those persons engaged in activities involving animals as subjects and for those persons involved in the administration of this policy.

### A. Responsibilities

1. The University President is charged with the overall administrative responsibility for implementing and maintaining a campus-wide animal care and use program to assure that all humane, ethical, and legal requirements are met. The IACUC is the university body charged with carrying out this responsibility.
2. The Chairman of the IACUC is charged with maintaining the records of the committee. Responsibilities shall include maintaining: (1) an Assurance approved by the PHS; (2) minutes of committee meetings, including records of attendance, activities of the committee, and committee deliberations; (3) records of applications, proposals, and proposed significant changes in the care and use of animals and whether committee approval was given or withheld; (4) records of any committee reports and recommendations forwarded to the institutional official; and (5) records of inspecting or accrediting determinations by other agencies. 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 committee 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 by authorized USDA, OPRR or other PHS representatives at reasonable times and in a reasonable manner.

3. The IACUC is charged with developing, recommending, and monitoring campus policies and standards relating to animal acquisition, care, and use. It shall: (1) review at least semi-annually the institution's program for humane care and use of animals; (2) inspect at least semi-annually all of the institution's animal facilities, including satellite facilities; (3) review concerns involving the care and use of animals at the institution; (4) make recommendations to the institutional official regarding any aspect of the institution's animal program, facilities, or personnel training; (5) review and approve, require modifications in (to secure approval) or withhold approval of proposed sections of PHS applications or Principles of Animal Use; (6) review and approve, require modifications in (to secure approval), or withhold approval of proposed significant changes regarding the use of animals in ongoing activities; and (7) be authorized to recommend to the President suspension of activities involving animals in accord with specifications set forth in the Animal Welfare Act and the NIH Guide (refer to II. References).

4. Investigators must follow the procedures and guidelines set forth by the IACUC, USDA, and PHS and accept the responsibility that all animal use is in accordance with university, state and federal policies and regulations.

5. One of the main functions of the IACUC is to aid teachers and researchers in designing demonstrations, laboratory exercises, and research projects involving vertebrate animals in such a way that maximum benefits can be achieved with minimal animal stress or pain. When planning such animal use, it is always wise to have protocols reviewed by a variety of sources both within the investigators's discipline or research area and without. Valuable suggestions for improving the project design and / or analysis may be obtained beforehand. The role of the IACUC also includes a helpful review of protocols pertaining to the use of laboratory animals, livestock, or pets (owned by or consigned to Cal Poly) that are used in teaching or research.

If the use of livestock constitutes a significant deviation from standard husbandry practices in the production or show

industries, a protocol should be submitted to the IACUC for its approval before initiation of the project. There may be instances in which the intended use of livestock appears to be neither standard practice nor experimental. When in doubt, submit a protocol to the IACUC for: (1) whatever help the IACUC might provide, (2) keeping the IACUC apprised of animal use on the campus, and (3) protecting (as far as possible) both the researchers (faculty and students) from unnecessary criticism or possible legal action.

## B. Procedures

1. All research projects and classroom exercises using vertebrate animal subjects must be approved by the IACUC before the study or exercise begins. The instructor / investigator has the primary responsibility for submitting the appropriate materials (complete description of the procedure, purpose, rationale, justification, protocol, alternate models, etc.; **refer to Appendix A**) to the IACUC for review, at least sixty days before the animal use is planned to commence. All research projects must be reviewed by all members of the IACUC . Classroom exercises must be reviewed by three or more members of the committee, but any member of the committee may review any classroom exercise upon request. Off campus classroom exercises also must be approved by the IACUC .
2. The project protocol must provide the information as outlined in Appendix A, Instructions for: Protocol for Animal Use.
3. Any sponsored project involving animal subjects must be submitted to the committee for approval before final acceptance and funding. The decision of the IACUC will be disclosed to all affected parties no later than sixty days after submission of applications or proposals.
4. Any projects involving animal subjects shall not begin until approved by the committee, regardless of the type of project or its source of funding, including those cases where no reimbursement for such activities is involved.
5. No changes in the project plan may be made without prior approval of the IACUC . For their own protection, investigators will bring to the committee's attention any emergent problems or proposed procedural changes which may affect the protocol conditions and/or approval status of the project.
6. All long-term projects involving animal subjects, including

classroom instructional use, must be reviewed and reapproved by the IACUC every three years.

7. Investigators should direct requests for review to the chair of the Cal Poly IACUC .

8. The IACUC will evaluate the activity, proposal, or project description to ensure:

a. that the appropriate provisions and standards cited in the references in part II are adhered to.

b. that procedures that avoid or minimize discomfort, distress and pain to the animals, consistent with sound research design, are used.

c. that appropriate sedation, analgesia or anesthesia will be used to minimize any pain or distress. Any deviation from this procedure must be justified (in writing ) for scientific reasons by the investigator.

d. that animals that would otherwise experience severe or chronic pain or distress that cannot be relieved will be painlessly sacrificed at the end of the procedure or, if appropriate, during the procedure.

e. that the living conditions of animals will be appropriate for their species and contribute to 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.

f. that medical care for animals will be available and provided as necessary by a qualified veterinarian.

g. that personnel conducting procedures on the species being maintained or studied will be appropriately qualified and trained in those procedures.

h. that methods of euthanasia used will be consistent with the recommendations of the American Veterinary Medical Association (AVMA) Panel on Euthanasia (JAVMA, 202(2): 229-249, 1993, or succeeding revised editions), unless a deviation is justified for scientific reasons in writing by the investigator.

9. Prior to review, each IACUC member shall be provided with a list of applications and proposals to be reviewed. Those parts of

applications and proposals that relate to the care and use of animals shall be available to all committee members, and any member of the committee may, upon request (Appendix B), obtain a full committee review of these sections. If full committee review is not requested (Appendix B), at least one member of the IACUC, designated by the chairperson and qualified to conduct the review, shall review those sections and have the authority to approve, require modification in (to secure approval) or request full committee review of those sections. If full committee review is requested, approval of those sections may be granted only after review of the protocol mailed to all members of the IACUC or after review at a convened meeting of a quorum of the committee and with the approval vote of a majority of the quorum present. No member may participate in the committee review or approval of an application or proposal in which the member has a conflicting interest, except to provide information requested by the committee; nor may a member who has a conflicting interest contribute to the constitution of a quorum.

## VI. Guidelines for the Use of Animals

### A. Personnel

1. Experiments or exercises involving live, warm blooded animals or the procurement of tissues from such animals must be performed by or under the immediate supervision of a qualified scientist.
2. The housing, care, and feeding of all animals must be supervised by a properly qualified veterinarian or other scientist competent in such matters.

### B. Use and Care of Animals in Research and Teaching

1. The research project or classroom exercise should be based on a thorough knowledge of the biological phenomenon under study and so designed by the investigator to yield useful results. A thorough literature search (using Med Line or other appropriate sources) and summary of the literature pertinent to the study and proposed animal use is required for all projects. Justification for using an animal model rather than a non-animal model also is required of all projects. The instructor using animals for teaching purposes must conform to the same regulations as the investigator using animals for research.
2. The experiment or classroom exercise should be conducted so as to avoid all unnecessary suffering and injury to the animals. Suffering and injury to an animal is considered to

be unnecessary if it is disproportionate to the usefulness of the results yielded by the experiment.

3. When an investigator in charge of an experiment or classroom exercise believes that its continuation may result in unnecessary injury or suffering to the animals, the investigator should terminate the procedure and either humanely kill the animal or begin recuperative post-experimental care.

4. If the procedure is likely to cause greater discomfort than that attending anesthesia, the animals must first be rendered incapable of perceiving pain and be maintained in that condition until the procedure is ended. The only exception to this guideline is when anesthesia would defeat the purpose of the experiment and data cannot be obtained by any other humane procedure. Such procedures must be clearly justified (in writing) and carefully supervised by the principal investigator or other qualified senior scientist. Likewise, instructors must justify (in writing) that the principle technique or skill being demonstrated cannot be learned without pain or discomfort to the animal. Whenever possible, alternative methods (video or computer simulation) should be used as an alternative to inflicting pain on animals.

5. Post-experiment care of animals must be such as to minimize discomfort, in accordance with acceptable practices of veterinary medicine.

6. If it is necessary to terminate an experimental animal, the animal must be killed in a humane manner that ensures immediate death in accordance with procedures approved by the American Veterinary Medical Association and the IACUC. No animal shall be discarded until after the animal is dead. Although generally discouraged, under certain circumstances, surplus animals may be donated to schools and others with a legitimate and humane purpose as an alternative to destruction. Department Animal Committees or Department Chairpersons must approve such donations and those who receive donations must first sign a statement assuming responsibility for the animals to be received (see Appendix C). Animals used in research or teaching may not be sold or given to private individuals upon completion of the project.

### C. Animal Facilities

Standards for the construction and use of housing, service, and surgical facilities should meet those described in the publication, Guide for the Care and Use of Laboratory Animals, U. S. Dept. of Health and Human Services PHS, NIH Publ. No. 86-23, or as otherwise required by

various funding and regulatory agencies.

Since laboratory rats and mice are common animals used in research and teaching, the synopsis (below) of U. S. Public Health Service Specifications for Caging, Maintenance, Animal Room capabilities is provided as a quick reference to the reader. Refer to USPHS and USDA publications for a more complete description of specifications.

Caging:

Mouse weights assumed to range from 15 to 25 grams.

Minimum floor area allowed / mouse = 12 in<sup>2</sup>

Rat weights assumed to range from 100 to 200 grams.

Minimum floor area allowed / rat = 23 in<sup>2</sup>

General Mouse and Rat Maintenance and Animal Room capabilities:

Bedding - Must keep animals Dry and Clean at all times. Change bedding 1-3 times / week

Food - Clean and Abundant for each animal

Water - Clean and Abundant for each animal

Exercise - none required, but beneficial for animals held for a long time

Humidity - 40 - 70 %

Temperature - 64 - 70 ° F

Animal ID. - All animals and their intended use are to be identified clearly on the cages. Animal ID must cross reference to detailed maintenance schedules and protocols also available in the animal room.

Records - Maintenance schedules and Protocols for all animals are to be readily accessible in the animal room

Emergency and Weekend Contacts - Names, addresses, and phone numbers of persons responsible for all animals (researchers, instructors, students, etc.) are to be conspicuously displayed in the animal room

D. Transportation

Transportation of animals must be in accordance with applicable standards and regulations, especially those intended to reduce discomfort, stress, or spread of disease. All animal subjects arriving at a terminal of a common carrier must be picked up, delivered, uncrated, and placed in acceptable permanent facilities promptly.