

## Teaching Protocols – Guidelines for PIs and TAs Training Requirements

These guidelines are intended to clarify the UMass Amherst IACUC training requirements for instructors and teaching assistants using animals in teaching. It is the responsibility of the Principal Investigator on a teaching protocol to assure everyone involved in teaching the class (staff, teaching assistants) are properly trained in the regulations, animal handling and the procedures described in the protocol before the activities using animals start.

### PI's responsibilities:

1. The professor/lecturer/postdoc/staff person teaching the course must have current certification that he/she has taken the basic IACUC training, as is IACUC policy for all PIs on animal use protocols.
2. The instructor is responsible for informing the TAs of requirements for their training for use of animals in the class. **TAs who assist in classes where animals are used and in which the instructor is present at all times are not required to take the basic IACUC classroom training. TAs who will be responsible for a class in which animals are used (i.e. conduct or supervise the lab/class in the absence of the instructor) must have current basic IACUC training certification.**
3. The instructor is responsible for training TAs, students and other personnel who will work with live animals as part of the class activities. This training must include basic information about the regulations that affect use of animals in research and teaching (when IACUC training is not required) and instruction in the techniques, and specialized procedures involving animals that will be needed in the class. The instructor may request assistance from the campus veterinarian so that proper training is provided. A hand-out for TAs who will not take the IACUC classroom training "*The Use of Live Animals in Teaching*" is attached below these guidelines.
4. The instructor is responsible for informing students, TAs, and staff of risks associated with working with live or dead animals when a significant risk is present. Risks include the risk developing allergic responses or of possible exposure to zoonotic diseases. Students should be advised that even when the risk level is low people with special health conditions (e.g. pregnant, having a compromised immune system) may be at greater risk than a normal healthy adult. On request, the Campus Veterinarian (545-0668) and/or the Biosafety Officer (545-2682) will provide information on risks associated with specific teaching protocols. The IACUC will not approve a teaching protocol that presents significant and unavoidable risk to students and staff.
5. The instructor is responsible for informing students when chemicals from embalmed or treated animals may present a hazard.
6. The instructor is responsible for knowing what personal protective equipment (PPE) is appropriate for the activities using animals, ensuring staff and students use it, and training them in its use. The IACUC recommends that disposable gloves be available for students in all laboratory sessions using animals. Face masks, disposable lab coats etc. may be required as appropriate.

## **The Use of Live Animals in Teaching**

### **(Basic Information for Teaching Assistants who do not take the classroom training)**

The use of animals in research and teaching is an ethical and political issue with much discussion centered on the relative value, or 'moral value', of humans and animals. When the needs of animals and humans come into conflict, which takes precedence? There is a wide range of views on this subject, from "animals have the same rights as humans" to "animals are here for humans to exploit".

The nervous systems of all vertebrate animals are very similar, so it is assumed that activities that cause a human pain or distress will likewise cause pain or distress to other animals. For these reasons animal use regulations generally require the use of analgesics, anesthetics and sedatives for any procedures on animals that may cause more than momentary pain or distress.

The ethical principles of animal use have helped shape animal use regulations put out by the United States Department of Agriculture (USDA) and the Public Health Service (PHS). Current legislation recognizes there are diverse viewpoints about the moral value of animal use which must be heard and respected. Thus, any activity involving live animal use in research and teaching must be reviewed and approved by a committee with a diverse membership. Proposals for animal use are reviewed by this committee based on the potential for learning new information that has potential benefit to humans or animals, or for teaching skills or concepts that cannot be obtained without the use of animals. There are provisions for ensuring that animals are used in as humane a manner as possible, and an institution must employ a veterinarian to ensure that the animals' welfare is looked after by someone with professional training in animal health. Federal regulations also require that all personnel with live animal contact receive training in the basics about the regulations, and are taught appropriate handling techniques, the use of analgesics, anesthetics and sedatives as needed, and that they are skilled in any experimental procedures that will be performed. Finally, the regulations specify basic husbandry requirements, ensuring that an animal's food, water and shelter are appropriate for its needs.

### **Animal Welfare Act**

The Animal Welfare Act (AWA), first passed by Congress in 1966 and amended several times since, is the principal federal statute setting forth standards for the care and use of animals. The AWA applies to warm-blooded animals used for research or teaching, with a few exceptions. Use of agricultural animals for teaching farm animal husbandry is not exempt from the regulations unless the activities are restricted to activities that are part of normal husbandry of the farm animals. The USDA has issued a set of regulations for animal use based on the AWA. All facilities housing animals covered under the AWA must register with USDA and are inspected by the USDA at least annually. USDA personnel are authorized to issue citations for non-compliance with USDA regulations.

### **PHS Policy**

All Institutions receiving grants from the US Public Health Service (PHS), e.g. NIH (National Institutes of Health), must also follow PHS Policy. The branch of the government that implements the OHS Policy is the Office of Laboratory Animal Welfare (OLAW). The PHS Policy covers all live vertebrate animals used or intended for use in research, training, experimentation or biological testing or for related purposes. The Policy requires institutions to comply with the AWA, and requires they follow the recommendations on animal care and use in the "Guide for the Care and Use of Laboratory Animals". The Institution must file and update annually an Animal Welfare Assurance with OLAW. OLAW can suspend or revoke PHS grants or contracts if an institution does not remain in compliance.

## **Enforced Self-Regulation**

Both USDA and PHS depend partly on a concept of enforced self-regulation to assure compliance with their regulations and policies. Any serious or continuing non-compliance with the PHS Policy, serious deviations from the Guide, and IACUC suspensions must be reported to OLAW. An approved OLAW Assurance may be withdrawn or restricted if an Institution fails to regulate itself. Any significant deficiencies from federal regulations that remain uncorrected must be reported to the USDA (APHIS).

## **Institutional Animal Care and Use Committee (IACUC)**

USDA regulations and PHS Policy require all institutions conducting research involving animals that are covered by their regulations to establish an Institutional Animal Care and Use Committee (IACUC) to oversee the animal care and use program. The IACUC membership must include at least a veterinarian, a public member who represents the community's interest, and a practicing scientist experienced in research involving animals. PHS Policy also requires a non-scientist on the committee. The IACUC's functions include review and approval of proposed activities related to the care and use of animals in research, teaching and field studies before the activities begin. The IACUC must inspect all animal facilities and study areas and evaluate the animal care program at least once every 6 months. The IACUC handles concerns regarding the care and use of animals and has the authority to suspend an activity it finds in violation of the PHS Policy, the 'Guide' or the AWA regulations. There is a whistle-blower clause in Massachusetts law that protects the rights of individuals who report concerns regarding animal care and use to the IACUC.

## **Personnel Qualifications and Training**

The AWA, the PHS Policy and the "Guide" require that Institutions ensure that all personnel caring for, treating or using animals are qualified to perform their duties. UMass Amherst has a general training course and training hand-out for all animal users. For special surgery training, training for field researchers, continuing education, contact animal care office at (413) 545-0668.

All live animal work conducted under teaching/classroom protocols must be supervised by a principal investigator who has been trained in the care and use of animals. It is the Principal Investigator's responsibility to assure that all participants are properly trained in animal handling and that the procedures described in the protocol are overseen according to the "Training requirements for the use of animals in teaching".

## **Occupational Health and Safety**

As part of the occupational health and safety program all individuals who handle laboratory animals should be given information regarding methods to minimize risks involved in their use of animals. For information about the Occupational Health Program for Personnel with Laboratory Animals consult website (<http://umaurweb2.advancement.ads.umass.edu/research/occupational-health-and-safety>).

## **Animal Adoption Program**

UMass Amherst has an animal adoption program that allows for research/teaching animals to be adopted if they have not been given any type of drug or treatment that might render them unfit for this program. Anyone interested in adopting an animal should talk to the Animal Care Director, Steve Plouff, at 545-0668.