

T.420 - PHS 398 Research Training Program Plan- Vertebrate Animals

Overview: Cornell University regards the use of animals in research, teaching and testing to be integral to the continued mission of the university. All trainees utilizing and/or handling animals for research, teaching and testing at Cornell University must be adequately trained, educated and/or qualified in the principles and their responsibilities related to the humane care and use of animals, the specific procedures that they are expected to perform with the species of animals being used and the University policies and procedures governing the use of animals in research, testing and teaching.

Training requirements for animal use: Training requirements for personnel involved in animal care and use are determined by the Institutional Animal Care and Use Committee (IACUC). All trainees named on an animal use protocol must complete the assigned training prior to protocol approval. Other training is required before animal work can actually begin. The training program has several components:

1. an online course and exam (Module 1) covering the ethical concepts and humane practice of animal care and use, including a description of the ethical and regulatory need for employing research and teaching methods that minimize the numbers of animals required to obtain valid results and limit animal pain and distress. This online course also contains information about animal allergens, protocol review procedures, regulations governing animal care and use, role of IACUC and the whistle blower policy for those concerned about animal welfare at Cornell University.
2. Procedure specific training: Specialized training based on the types of procedures to be performed, the species being used and any special considerations for the genotype. This training can be completed online; however in many cases, and based on the judgment of the Clinical Veterinarians, Vets or Vet Techs deliver hands on training to animal users so that they can gain familiarity with, and understand the complexities involved in, conducting animal procedures. Depending on the complexity of the procedures, these training sessions can span multiple sessions and involve monitoring.
3. Animal facility training: Facility managers provide training to animal users on following proper safety and security procedures while working in the facility with animals.
4. Biosafety training: In addition to training related to the care and use of animals, training related to the use of hazardous agents such as Blood Borne Pathogens, BSL2 or BSL3 training may be assigned if the animal work involves working in conditions that require this training.

Ensuring trainees are compliant: Any individual who wishes to use animals for research, teaching or testing must be named on an animal use protocol and approved by the IACUC to conduct those procedures. Protocols and personnel named on those protocols cannot be approved until every person named on the protocols have completed the training assigned by the Veterinary staff and the IACUC. Facility managers grant access to animal facilities to only those users who have completed the facility specific training.

All PIs with animal protocols are advised during their animal training, and during the protocol review process and renewal, that they are required to add any new personnel, including students, to their protocol, prior to any animal handling work commencing. Once an individual is added to the protocol, the protocol is reviewed by the IACUC, and all training is assigned. Online training courses are a pre-requisite to any hands-on animal training. Once the individual

has completed all required training identified during the protocol and skills review process, they are given access to only the animal facility in which their research takes place.

Graduate students who indicate that their research includes work with live vertebrate animals, must present proof that their work was completed under an approved IACUC protocol, in order to be eligible for their B exam.

For all NIH trainees: In addition to the protocol specific training requirements described above, all trainees on NIH grants are required to complete the online course in Responsible Conduct of Research (RCR), which includes a module on human subjects research. Regardless of whether these trainees ever use human subjects in research, this basic information about the ethical principles and applications of the Belmont Report are a key component of the RCR training. All trainees are also required to attend the semester long course in Bioethics (**BioMG 7510 Scientific Ethics**). At least one session of that course is dedicated to the ethics of use of animals in research and is taught by individuals who have deep experience with use of live animals in research and with the Cornell IACUC.

Each year, all trainees are required to participate in a symposium on responsible conduct of research, which provides an avenue for highly interactive case based discussions on complex issues regarding research integrity. Topics for the symposium have included authorship, research misconduct and the ethical considerations in the use of data and materials from human subjects in research.

For non-research students using animals: For students who are enrolled in classes that use vertebrate animals, information on the humane care and use of animals is provided by a Center for Animal Resources and education (CARE) veterinarian and/or a representative of Environmental Health and Safety (EHS). In cases where this is not possible, this information is made available to the course professor for distribution to the students.

For all Cornell graduate students: As a condition of graduation, all graduate students whose research involves live vertebrate animals are asked to provide evidence to the graduate committee, of IACUC approval for the use of live animals in their thesis research.