

University of Louisville  
Institutional Animal Care and Use Committee  
***Policies and Procedures***

## **Required Training**

Regulatory agencies require the University, through the oversight of the Institutional Animal Care and Use Committee (IACUC), to ensure all personnel working with laboratory animals possess appropriate experience and training. The IACUC verifies this via three mechanisms: 1) reviewing a description of each protocol participant's training and experience, 2) providing didactic sessions to inform all animal users of their roles and responsibilities, and 3) coordinating "hands-on" interaction with veterinary or other specialists, as needed.

The training available to scientists, animal technicians, and other personnel involved in animal care, treatment, observation, or use is designed to ensure that these individuals understand the principles of humane animal care and are qualified for their specific role. Such information is maintained in the IACUC database. Individuals who have not met training requirements are informed of the need to do so during the *Proposal* review process and animal use privileges are contingent upon meeting the IACUC training requirements. Furthermore, the Research Resources Facilities (RRF) requires facility-specific training before access is granted into animal vivaria.

To facilitate this requirement, the IACUC has adopted the following three planes of instruction:

### **Level I:**

Periodically, individuals must be exposed to laboratory animals or research facilities on single occasions with no intention of working independently (*e.g.*, students involved in a teaching exercise involving animal models, project sponsors wishing to review a procedure). Although these individuals must understand their responsibilities and limitations, as well as the hazards associated with research animal contact, the depth of training necessary is minimal. "Level I Training" consists of the informative brochures entitled, "The Use of Animals in Biomedical Research at the University of Louisville," and "Introduction to Occupational Hazards Associated with the Care and Use of Laboratory Animals." These handouts are provided by the RRF to visiting personnel who must remain under the supervision of a Level II trained staff member. Review of these documents, which provide a summary of basic tenants, authorizes individuals to work with animals, during regular working hours only (Monday through Friday, 8:00 AM to 4:30 PM), only under direct supervision and does not confer unsupervised access to animal facilities. Posted notices and sign-in sheets to document receipt of this information will be maintained at RRF entrances.

### **Level II:**

The basic training program for personnel wishing to work independently with laboratory animals is known as "Level II Training," which is composed of session presented monthly (special presentations may also be arranged). The seminar outline follows the recommendations of the National Research Council (NRC) publication, *Education and Training in the Care and Use of Laboratory Animals: A Guide for Developing Institutional Programs*. The discussion includes an overview of pertinent animal welfare recommendations, regulations, and regulatory bodies, such as:

- Russell, WMS, and RL Burch, *The Principles of Humane Experimental Technique* (1959) and an introduction to the concepts of “The Three R’s” (Replacement, Reduction, Refinement)
- Interagency Research Animal Committee, *U.S. Government Principles for the Utilization and Care of Vertebrate Animal Used in Testing, Research, and Training* (1984)
- Animal Welfare Act and USDA Regulations
- Public Health Service Act and *PHS Policy on the Humane Care and Use of Laboratory Animals*
- *Guide for the Care and Use of Laboratory Animals*
- Association for the Assessment and Accreditation of Laboratory Animal Care, International (AAALAC)

The structure and function of the Institutional Animal Care and Use Committee (IACUC) is presented. Also discussed is utilization of services such as the National Agricultural Library and National Library of Medicine available to provide information on: 1) appropriate methods of animal care and use, 2) alternatives to the use of live animals in research, 3) prevention of unintended and unnecessary duplication of research involving animals.

“Level II Training” also provides special focus on the following topics:

- Consideration of alternatives, including the concept, availability, and use of research and testing methods that limit the use of animals, minimize the number of animals required to obtain valid results, and limit animal pain or distress
- Recognition and alleviation of animal pain and distress, including the proper use of anesthetics, analgesics, and tranquilizers
- Use of controlled substances and neuromuscular blocking agents
- Conduct of survival surgery, including proper pre-procedural and post-procedural care of animals, and aseptic surgical methods and procedures
- Euthanasia
- Development of humane endpoints
- Introduction to and instructions for enrollment in the Occupational Health and Safety Program

A summary of the IACUC’s Policies and Procedures manual is presented, with emphasis on “Responding to Reported Deficiencies in Animal Care and Treatment.” Various handbooks, guides, and other sources of information are distributed to seminar attendees, including copies of IACUC *Proposal* forms, OHSP materials, the UofL OLAW *Assurance of Compliance with the PHS Policy on the Humane Care and Use of Laboratory Animals* on file with the PHS Office of Laboratory Animal Welfare (OLAW).

All research personnel who work with animals must attend at least one Level II seminar within 90 days of their association with an animal research study. Completion of Level II Training is a prerequisite for access authorization to RRF animal facilities.

### **Level III**

Special one-on-one or group training sessions provided by the RRF veterinary care staff or consultants (“Level III Training”) may also be recommended or required by the IACUC to ensure that research personnel are adequately prepared for a particular methodology. Additional didactic and/or wet-laboratory sessions are sponsored by the RRF and may also be attended on a voluntary basis.