

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

Required Training

Policy: The Institutional Animal Care and Use Committee (IACUC) verifies the appropriate training and experience of research personnel working with animals via four mechanisms: 1) reviewing a description of each protocol participant’s training and experience and/or periodically reviewing an individual’s “IACUC Participant Training Log,” 2) providing didactic sessions to inform all animal users of their roles and responsibilities, 3) confirming two-step enrollment in the Occupational Health and Safety Program, and 4) coordinating “hands-on” interaction with veterinary or other specialists, as needed. Individuals exposed to research facilities/lab animals on ***single occasions with no intention of working independently*** must complete Level I training. Review of “Level I” documents authorizes individuals to work with animals only under direct supervision and does not confer unsupervised access to animal facilities. All research personnel who wish to work independently with animals must complete “Level II Training” in order to receive approval as a participant on an IACUC *Proposal*, as well as any other IACUC-mandated training requirements (e.g., euthanasia training, rodent surgery training, etc.; *see below for further information*). **Note:** when participants are added to an IACUC Proposal in iRIS, the IACUC Office will send a notification listing any incomplete training requirements. Approval on an IACUC *Proposal* is also a prerequisite for access authorization to the Comparative Medicine Research Unit (CMRU) animal facilities. As a condition for continued authorization to work with animals, individual animal users are expected to complete a Level II Training refresher course every three years, as well as any other IACUC-mandated refresher training as detailed below, and must maintain an IACUC Participant Training Log that outlines training on all procedures for which they are expected to perform.

The IACUC’s website contains registration forms for training sessions, as well as all pertinent training documents and links: <https://louisville.edu/research/iacuc/training>.

Rationale: Regulatory agencies require the University, through the oversight of the IACUC, to ensure all personnel working with laboratory animals possess appropriate experience and training. 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. 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 CMRU requires facility-specific training before access is granted into animal vivaria.

Procedures, Guidelines, and Exceptions:

1. Level I:

- a. 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 animals, project sponsors wishing to review or participate in a procedure). Although these individuals must understand their responsibilities and limitations, as well as the

Original Approval: July 1, 2005

Last Revised: 9 February 2024

Latest Approval: 15 February 2024

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.”

- b. These handouts are provided by the CMRU to visiting personnel who *must remain under the supervision of a Level II trained staff member*. Posted notices and sign-in sheets to document receipt of this information will be maintained at CMRU entrances.
- c. To ensure a basic level of understanding the animal welfare responsibilities and occupational health risks associated with animal use, documented receipt and review of Level I Training materials is also required for individuals prior to IACUC approval as project participants until Level II Training is completed. *This includes the requirement for supervision by a Level II trained staff member during all animal use.*

2. Level II:

- a. The basic training program for personnel wishing to work independently with laboratory animals is known as “Level II Training,” which is composed of an online course offered through CITI Program titled “Working with the IACUC”. The IACUC’s website includes information on how to register for a CITI account and course enrollment: <https://louisville.edu/research/iacuc/training/research>. The course is designed to meet USDA and OLAW requirements for basic training in the humane care and use of animals. The discussion includes an overview of pertinent animal welfare recommendations, regulations, and regulatory bodies. The structure and function of the Institutional Animal Care and Use Committee (IACUC) is presented, including a summary of the IACUC’s Policies and Procedures, with an emphasis on “Reporting and Investigating Animal Welfare Concerns” A module addressing performing research at the University of Louisville is also included. As a condition for continued authorization to work with animals, individual animal users are expected to complete a Level II Training refresher course via CITI Program (titled “Working with the IACUC – Refresher”) every three years.

3. Level III

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

4. IACUC Participant Training Log

- a. To document procedure-specific training, each animal user must maintain an IACUC Participant Training Log. This Log should describe prior experience for which specific procedure proficiency was obtained and outline each newly acquired training. IACUC Participant Training Logs must be made available to the IACUC upon request.
- b. *Principal Investigators are responsible for ensuring that training is obtained and documented prior to a Participant performing any animal-related procedures unsupervised.* Participants conducting procedures for which the Log does not record an appropriate level of training may also lose animal use privileges.

Original Approval: July 1, 2005

Last Revised: 9 February 2024

Latest Approval: 15 February 2024

- c. The IACUC Office recommends that study personnel update their training logs any time they complete a new training session.

5. Euthanasia Training (effective February 1, 2019)

- a. All laboratory personnel responsible for performing euthanasia must attend a hands-on euthanasia training session with CMRU faculty and/or staff or an CMRU-certified euthanasia trainer.
- b. Implementation of this requirement will be for all new *Proposals* and three-year *Proposal* renewals, as well as to new additions of personnel to *Proposals*.
- c. Laboratory personnel may become CMRU-certified euthanasia trainers by attending a euthanasia trainer certification course with CMRU veterinary staff.
 - i. CMRU-certified euthanasia trainers are qualified to instruct other laboratory personnel in the species-specific methods they have been certified to teach. Laboratory personnel who attend a training session with an CMRU-certified euthanasia trainer will meet the hands-on euthanasia training requirement for the species-specific methods they have been trained in.
 - ii. CMRU-certified euthanasia trainers should document any training sessions they conduct with the Euthanasia Training Sign-In Sheet and promptly email the IACUC Office after the sessions with sign-in sheet of participants and species-specific methods of euthanasia taught.
- d. Laboratory personnel should update their IACUC Participant Training Logs after any training session they attend to include the method(s) of euthanasia they were trained in, the species, and the name of the euthanasia trainer.
- e. Laboratory personnel must be trained in all methods of euthanasia described in the *Proposal* that they have been given the responsibility for performing. Training should be recorded in the IACUC Participant Training Log; the specific methods of euthanasia that personnel are qualified to perform should be stated, along with the associated species.

6. Surgery Training (effective July 15, 2021)

- a. Implementation of the below requirements will be for all new *Proposals*, three-year *Proposal* renewals, new additions of personnel to *Proposals*, as well as modifications to add a surgical procedure to a *Proposal* not already approved for any other surgical procedures.
- b. **Rodents – Survival Surgery:**
 1. All laboratory personnel responsible for performing survival surgery on rodents must complete the following training requirements:
 - i. The online CITI Program course titled “Post-Procedure Care of Mice and Rats in Research: Minimizing Pain and Distress.”
 - ii. The online CITI Program course titled “Rodent Aseptic Surgery.”
 - iii. Hands-On Training **or** Surgery Observation. Surgeons may complete this training requirement by attending the Rodent Surgery I **and** Rodent Surgery II hands-on training courses with a CMRU veterinarian or designated veterinary staff, **or** by scheduling CMRU veterinarian observation of a surgery performed within the laboratory or procedure room by the surgeon. Individuals may register for Rodent Surgery I/II or surgery observation through the IACUC’s website:
<https://louisville.edu/research/iacuc/training/surgery>.
Note: surgery observation is only available to experienced personnel, as described in the IACUC Participant Training Log and confirmed by the IACUC Office. Inexperienced personnel must attend Rodent Surgery I and Rodent Surgery II. Surgery observation will

Original Approval: July 1, 2005

Last Revised: 9 February 2024

Latest Approval: 15 February 2024

- include assessment of surgical preparation, aseptic technique, administration of anesthetics and analgesics, monitoring of animals, procedural technique, suturing, post-operative care, recordkeeping, euthanasia (non-survival surgery), and any other pertinent items related to the performance of surgery and animal welfare. Surgeons determined to have inadequate proficiency during surgery observation will be required to complete the Rodent Surgery I and Rodent Surgery II hands-on training courses, at the discretion of the CMRU veterinarian.
2. These training requirements do not have to be re-completed for surgeons working with multiple types of rodent species. However, the IACUC recommends scheduling surgery observation if changing rodent species to ensure best practices are followed.
 3. As a condition for continued authorization to work with animals, individual surgeons are expected to retake the online CITI Program courses “Rodent Aseptic Surgery” and “Post-Procedure Care of Mice and Rats in Research: Minimizing Pain and Distress,” as well as complete surgery refresher training every three years. This refresher training is completed by scheduling CMRU veterinarian or IACUC Liaison observation of a surgery performed within the laboratory or procedure room by the surgeon via the IACUC’s website. Surgeons determined to have inadequate proficiency during the surgery observation will be required to complete the Rodent Surgery I and Rodent Surgery II hands-on training courses, as well as the online CITI Program courses “Rodent Aseptic Surgery” and “Post-Procedure Care of Mice and Rats in Research: Minimizing Pain and Distress,” at the discretion of the CMRU veterinarian.
- c. ***Rodents – Non-Survival Surgery:***
1. All laboratory personnel responsible for performing non-survival surgery on rodents must complete the following training requirements:
 - i. The online CITI Program course titled “Rodent Aseptic Surgery.”
 - ii. Hands-On Training *or* Surgery Observation. Surgeons may complete this training requirement by attending the Rodent Non-survival Surgery hands-on training course with a CMRU veterinarian or designated veterinary staff, *or* by scheduling CMRU veterinarian observation of a non-survival surgery performed within the laboratory or procedure room by the surgeon. Individuals may register for Rodent Non-Survival Surgery or surgery observation through the IACUC’s website:
<https://louisville.edu/research/iacuc/training/surgery>.
 2. As a condition for continued authorization to work with animals, individual non-survival surgeons are expected to retake the online CITI Program course “Rodent Aseptic Surgery,” as well as complete surgery refresher training every three years. This refresher training is completed by scheduling a CMRU veterinarian or IACUC Liaison observation of a non-survival surgery performed within the laboratory or procedure room by the surgeon via the IACUC’s website. Surgeons determined to have inadequate proficiency during the surgery observation will be required to complete the Rodent Non-survival hands-on training course, as well as the online CITI Program course “Rodent Aseptic Surgery,” at the discretion of the CMRU veterinarian.
- d. Laboratory personnel should update their IACUC Participant Training Logs after completing any training sessions.

Original Approval: July 1, 2005

Last Revised: 9 February 2024

Latest Approval: 15 February 2024

7. Laboratory & Satellite Housing Training (Effective July 21, 2022)

- a. Implementation of the below requirements will be for all new Proposals, three-year Proposal renewals, new additions of personnel to Proposals, as well as modifications to add laboratory and satellite housing procedures to a Proposal not already approved for any other laboratory and satellite housing procedures.
- b. **Rodents**
All personnel identified as responsible for husbandry will be required to complete a *Health Assessment and Husbandry Training* course provided by CMRU husbandry supervisor and veterinary staff prior to assuming this role. Species-specific online training (such as CITI program courses: “Working with Mice in Research Settings” or “Working with Rats in Research Settings”) should also be completed by all laboratory personnel responsible for daily animal health observations and husbandry.
- c. **Non-Mammalian species**
Personnel performing husbandry practices (such as but not limited to cage/tank/pen changing or cleaning; health observation; feeding; watering; or maintaining aquatic water quality or life-support systems) for animals housed in a satellite housing area must be trained to care for each species for which they will provide husbandry practices prior to assuming this role. Documentation of training must be provided to the IACUC office. Health observation training must be performed under the supervision of the Attending Veterinarian or his/her designate. Online training (such as CITI program courses: “Working with Zebrafish (*Danio rerio*) in Research Settings”, “Working with Amphibians in Research Settings”, Working with Fish in Research Settings”, “Working with Reptiles in Research Settings”, etc.) should be completed if available for the species the personnel will be providing care to. These personnel must also be listed on the associated IACUC *proposal(s)*.
- d. Laboratory personnel should update their IACUC Participant Training Logs after completing any training sessions.

8. Basic Rodent Biomethodology (Effective January 2, 2024)

- a. Implementation of the below requirements will be for all new Proposals, three-year Proposal renewals, and new additions of personnel to Proposals.
- b. All personnel responsible for handling rodents (Mice and/or Rats) will be required to complete the Basic Rodent Biomethodology Course with a CMRU veterinarian or designated veterinary staff, *or* by scheduling observation of procedures performed within the laboratory or procedure room by CMRU veterinarian (or designated veterinary staff). Individuals may register for Basic Rodent Biomethodology or technique observation through the IACUC’s website: <https://louisville.edu/research/iacuc/training/basic-techniques>.
- c. Laboratory personnel must be trained in all procedures described in the *Proposal* that they have been given the responsibility for performing. *And* should update their IACUC Participant Training Logs after any training session they attend to include the names of the procedures they were trained in, the species, and the name of the trainer.

Original Approval: July 1, 2005

Last Revised: 9 February 2024

Latest Approval: 15 February 2024