

## **Beginner Mouse Biomethodology Wet Lab – ACS890**

University of Florida Animal Care Services Training Core

Target Audience: Research Staff and PIs with limited experience in mouse handling

Course Type: 1hr contact wet lab

### ***Course Description:***

This course is designed to cover basic mouse biomethodology and handling. While general information regarding mouse biology, use of equipment, and needle safety are discussed, humane handling of mice to facilitate health evaluation and basic research techniques is the primary focus.

Enrollment in the UF animal contact program is required prior to course sign up. Students are expected to have an understanding of the primary techniques they will be performing as part of the approved animal use protocol.

### ***Course Goals:***

Personnel who complete this course successfully will be able to perform and demonstrate:

- The use of transfer tunnels to handle and observe mice
- Basic restraint utilizing the base of the tail and scruffing method
- Subcutaneous injection (intrascapular, lateral flank)
- Intraperitoneal injection

Personnel who complete this course successfully will be able to discuss proper techniques for:

- Body condition scoring in mice
- Reporting animal health concerns to the veterinary staff
- Reporting animal welfare concerns anonymously (whistleblower policy)
- Cage handling and proper disinfectant use with specific pathogen free animals
- Proper needle safety and asepsis when working with animals
- CO<sub>2</sub> euthanasia and secondary physical methods for confirming euthanasia (cervical dislocation)
- Methods for obtaining additional training in research techniques

### ***Prerequisite Courses:***

- [Mouse and Rat Biomethodology \(UF\\_ACS845\\_OLT\)](#) – online course

### ***Definitions:***

- **Discussion** – course instructors will briefly discuss associated procedures/policy
- **Demonstration** – course instructors will demonstrate techniques; however, participants will not be required to practice or verify skills
- **Hands-on** – course instructors will demonstrate techniques and assist participants in practicing the technique utilizing live animals

- **Verification** – participants will be required to demonstrate proficiency with the skill/technique to complete training

Topic	Discussion	Demonstration*	Hands-on*	Verification*
Handling a microisolator cage	X	X		
Use of disinfectants when working with SPF animals	X	X		
Acclimation of mice to handling	X			
Transfer tunnel handling and use	X		X	
Examination of mice within a transfer tunnel	X			
Recognition of normal mouse behavior (bright, alert, responsive)	X			
Reporting of sick animals to veterinary care staff	X			
Basic handling – base of tail restraint			X	X
Basic handling – body condition scoring	X		X	
Basic handling – scruff restraint			X	X
Research techniques – needle/syringe asepsis and use	X		X	
Research techniques – subcutaneous injection in mice	X		X	X
Research techniques – intraperitoneal injection in mice	X		X	X
Research techniques – CO <sub>2</sub> euthanasia in mice**	X			
Research techniques – secondary physical assurance of euthanasia (cervical dislocation)**	X	X		
Reporting of animal welfare concerns anonymously (whistleblower policy)	X			
Requesting additional training on specific mouse techniques	X			

\*All participants will be instructed to wear the proper PPE required for working with mice prior starting any activity with live animals

\*\* Euthanasia demonstrations will utilize animal models (no live animal demonstrations)

### **Participant Evaluation**

If participants are unable to demonstrate proficiency with the skill/techniques listed for “Verification,” they will be marked as “did not pass” in myTraining within the UF training system and a one-on-one training session to review the techniques will be scheduled. The IACUC office will be notified of the secondary training session schedule. If the second training session does not result in a “pass,” the IACUC office and a clinical veterinarian will be notified for additional training.