IACUC PROCEDURE: TRAINING REQUIREMENTS FOR PROTOCOL PERSONNEL

DATE IMPLEMENTED: March 21, 2014

DATE(s) REVISED: January 6, 2015; April 24, 2015; March 31, 2016; May 19, 2016; July 11, 2017

Background:
In accordance with the federal Animal Welfare Act Regulations, Public Health Service Policy, and as described in the Guide for the Care and Use of Laboratory Animals\(^1\): All personnel involved with the care and use of animals must be adequately educated, trained, and/or qualified in basic principles of laboratory animal science to help ensure high-quality science and animal well-being. The IACUC is responsible for providing oversight and for evaluating the effectiveness of the training program. All personnel training should be documented. The IACUC, along with the Attending Veterinarian, has the responsibility for determining that personnel performing surgical procedures are appropriately qualified and trained in the procedures to be performed.

At UCSB, training and instruction are available online, from the IACUC Coordinator and/or the Attending Veterinarian, and/or from designated trainers. Training requirements, and verification of training, is specifically provided according to the following system:

Responsibilities:
1. The Principal Investigator (PI) is responsible for ensuring that all personnel listed on her/his protocol(s) are appropriately trained and qualified, and for documenting that training and qualification. The PI is encouraged to use the protocol Training Roster or Procedural Training Template to document all personnel training.

2. The IACUC has established some basic training requirements for all personnel (see below), and the IACUC Coordinator is responsible for verifying the completion and documentation of these requirements prior to any protocol personnel (including the PI) beginning to work with live animals.

3. The Attending Veterinarian is responsible for assessing the surgical technique of personnel that perform surgery on animals.

**Training Requirements for New Personnel, by Personnel Classification:**

1. Principal Investigator working directly with live animals:
   a. Complete the following online training courses from Citiprogram ([www.citiprogram.org](http://www.citiprogram.org)):
      i. “Working with the IACUC” course for Investigators, Staff and Students
      ii. “Reducing Pain and Distress in Laboratory Mice and Rats” course, if she/he will be working with laboratory rats or mice.
      iii. Animal-specific courses relevant for the species of animal that she/he will be working with, if available.
      iv. “Aseptic Surgery” supplemental training course, if she/he will be performing a surgical procedure on an animal.
      v. “Wildlife Research” for animal users working with wild animals in the field.
   b. If Citiprogram does not have an animal-specific course relevant to the research, then read and review the taxon-specific guidelines that are relevant to the protocol. For example, if they are named on a protocol using birds, protocol personnel should read and review the Ornithological Council Guidelines to the Use of Wild Birds in Research, Links to these guidelines are available on the IACUC website at [http://www.research.ucsb.edu/policies-forms/policies/#IACUC](http://www.research.ucsb.edu/policies-forms/policies/#IACUC)
   c. Attend the IACUC Seminar
      i. The IACUC Seminar is offered at least once per year, or more frequently if needed, and is presented by the IACUC Chair and Coordinator. The seminar provides training on various regulatory matters, including reporting animal welfare concerns and other important topics.
      ii. This condition is not a requirement to begin work on a protocol.
   d. Read and review the IACUC Guidelines that are identified (i.e., checked) on the protocol. All of the IACUC Guidelines are available on the IACUC website at [http://www.research.ucsb.edu/policies-forms/policies/](http://www.research.ucsb.edu/policies-forms/policies/)
   e. Read and review the *Zoonotic Diseases* reference material that pertains to the species and animal experimental procedures that are to be performed on her/his animal protocol(s). This reference material is available on the CDC website at [http://www.cdc.gov/onehealth/zoonotic-diseases.html](http://www.cdc.gov/onehealth/zoonotic-diseases.html)
   g. Enroll in the UCSB Occupational Health and Safety Program for animal users by completing and submitting (to the IACUC Office) the *Animal Job Exposure Form*, which includes questions about personal medical history. This form is available on the IACUC website at [http://www.research.ucsb.edu/media/11487/ohs_form.pdf](http://www.research.ucsb.edu/media/11487/ohs_form.pdf)
h. If working in a laboratory setting, complete the EH&S Fundamentals of Laboratory Safety Training through the UCSB Learning Center. (https://learningcenter.ucsb.edu/default.aspx).
i. If working in the ARC, complete the Vivarium Facility Orientation training by contacting the ARC Manager and scheduling a date and time for the facility tour and orientation.

2. Principal Investigator NOT working directly with live animals:
   a. Complete the following online training courses from Citiprogram (www.citiprogram.org):
      i. “Working with the IACUC” course for Investigators, Students, Staff
   b. Submit an Occupational Health and Safety Waiver form acknowledging that she/he will not come into contact with live animals in research settings. This form is available from the IACUC Coordinator.

3. Personnel Working in the Animal Resource Center (ARC):
   a. Complete the following online training courses from Citiprogram (www.citiprogram.org):
      i. “Working with the IACUC” course for Investigators, Staff and Students
      ii. “Reducing Pain and Distress in Laboratory Mice and Rats” course, if she/he will be working with laboratory rats or mice.
      iii. Animal-specific courses relevant for the species of animal that she/he will be working with, if available.
      iv. “Aseptic Surgery” supplemental training course, if she/he will be performing a surgical procedure on an animal.
   b. Attend the IACUC Seminar
      i. The IACUC seminar is offered at least once per year, or more frequently if needed, and is presented by the IACUC Chair and Coordinator. The seminar provides training on various regulatory matters, including reporting animal welfare concerns and other important topics.
      ii. Note this condition is not a requirement to begin work on a protocol.
   c. Read and review the IACUC Guidelines that are identified (i.e., checked) on the protocol. All of the IACUC Guidelines are available on the IACUC website at http://www.research.ucsb.edu/policies-forms/policies/
   d. Read and review the Zoonotic Diseases reference material that pertains to the species and animal experimental procedures that are to be performed on the protocol. This reference material is available on the CDC website at http://www.cdc.gov/onehealth/zoonotic-diseases.html
   f. Enroll in the Occupational Health and Safety Program by completing and submitting (to the IACUC Office) the Animal Job Exposure Form, which includes questions about personal medical history. This form is available on the IACUC website at http://www.research.ucsb.edu/media/11487/ohs_form.pdf.
   g. Complete the EH&S Fundamentals of Laboratory Safety Training through the UCSB Learning Center. (https://learningcenter.ucsb.edu/default.aspx).
   h. Complete the ARC Vivarium Facility Orientation training by contacting the ARC Manager and scheduling a date and time for the facility tour and orientation.
4. Personnel Working in the Satellite Animal Holding Facilities:
   a. Complete the on-line training courses from Citiprogram (www.citiprogram.org) including:
      i. “Working with the IACUC” course for Investigators, Staff and Students
      ii. “Reducing Pain and Distress in Laboratory Mice and Rats” course, if she/he will be working with laboratory rats or mice.
      iii. Animal-specific courses relevant for the species of animal that she/he will be working with, if available.
      iv. “Aseptic Surgery” supplemental training course, if she/he will be performing a surgical procedure on an animal.
      v. “Wildlife Research” for animal users working with wild animals in the field
   b. If Citiprogram does not have an animal-specific course relevant to the research, then read and review the taxon-specific guidelines that are relevant to the protocol. For example, protocol personnel should read and review the Ornithological Council Guidelines to the Use of Wild Birds in Research, if they are named on a protocol using birds. Links to these guidelines are available on the IACUC website at http://www.research.ucsb.edu/policies-forms/policies/#IACUC
   c. Attend the IACUC Seminar
      i. The IACUC seminar is offered at least once per year, or more frequently if needed, and is presented by the IACUC Chair and Coordinator. The seminar provides training on various regulatory matters, including reporting animal welfare concerns and other important topics.
      ii. Note this condition is not a requirement to begin work on a protocol.
   d. Read and review the IACUC Guidelines that are identified (i.e., checked) on the protocol. All of the IACUC Guidelines are available on the IACUC website at http://www.research.ucsb.edu/policies-forms/policies/
   e. Read and review the Zoonotic Diseases reference material that pertains to the species and animal experimental procedures that are to be performed on the protocol. This reference material is available on the CDC website at http://www.cdc.gov/onehealth/zoonotic-diseases.html
   g. Enroll in the Occupational Health and Safety Program by completing and submitting (to the IACUC Office) the Animal Job Exposure Form, which includes questions about personal medical history. This form is available on the IACUC website at http://www.research.ucsb.edu/media/11487/ohs_form.pdf.

5. Personnel Working on Field Studies:
   a. Complete the online training courses from Citiprogram (www.citiprogram.org) including:
      i. “Working with the IACUC” course for Investigators, Staff and Students
      ii. Animal-specific courses relevant for the species of animal that she/he will be working with, if available.
iii. “Aseptic Surgery” supplemental training course, if she/he will be performing a surgical procedure on an animal.
iv. “Wildlife Research” for animal users working with wild animals in the field
b. If Citiprogram does not have an animal-specific course relevant to the research, then read and review the taxon-specific guidelines that are relevant to the protocol. For example, if they are named on a protocol using birds, protocol personnel should read and review the Ornithological Council Guidelines to the Use of Wild Birds in Research. Links to these guidelines are available on the IACUC website at http://www.research.ucsb.edu/policies-forms/policies/#IACUC
c. Attend the IACUC Seminar
   i. The IACUC seminar is offered at least once per year, or more frequently if needed, and is presented by the IACUC Chair and Coordinator. The seminar provides training on various regulatory matters, including reporting animal welfare concerns and other important topics.
   ii. Note this requirement is not a condition of approval.
d. Read and review the IACUC Guidelines that are identified (i.e., checked) on the protocol. All of the IACUC Guidelines are available on the IACUC website at http://www.research.ucsb.edu/policies-forms/policies/
e. Read and review the Zoonotic Diseases reference material that pertains to the species and animal experimental procedures that are to be performed on the protocol. This reference material is available on the CDC website at http://www.cdc.gov/onehealth/zoonotic-diseases.html
g. Enroll in the Occupational Health and Safety Program by completing and submitting (to the IACUC Office) the Animal Job Exposure Form, which includes question about personal medical history. This form is available on the IACUC website at http://www.research.ucsb.edu/media/11487/ohs_form.pdf

6. IACUC Members:
a. Complete the “Essentials for IACUC Members” and “Working with the IACUC” for Investigators, Staff and Students online training courses from Citiprogram (www.citiprogram.org). The community member is also required to complete the “IACUC Community Member” course.
b. Enroll in the Occupational Health and Safety Program by completing and submitting (to the IACUC Office) the Animal Job Exposure Form, which includes questions about personal medical history. This form is available on the IACUC website at http://www.research.ucsb.edu/media/11487/ohs_form.pdf.

Anesthesia & Surgery (either non-survival or survival) Training Requirement:
On-the-job surgical training and the surgical technique proficiency evaluation are provided according to the following system:
1. Protocol personnel performing surgical procedures on mammalian species other than rodents (e.g., rabbits) must be appropriately trained and qualified. To perform
surgeries without direct supervision, personnel will be required to demonstrate proficiency in their surgical technique to the AV, unless they are specifically exempted by the IACUC. Direct supervision must be provided by a qualified surgical trainer, someone who has successfully completed a proficiency evaluation with the AV for the surgical procedure in the particular species. Contact the AV if a qualified surgical trainer is not available in your lab.

2. Protocol personnel performing surgical procedures on non-mammalian species (e.g., fish, birds, reptiles, or amphibians) must be appropriately trained and qualified. To perform surgeries without direct supervision, personnel will be required to demonstrate proficiency in their surgical technique to the AV, unless they are specifically exempted by the IACUC. Direct supervision must be provided by a qualified surgical trainer, someone who has successfully completed a proficiency evaluation with the AV, or received an exemption, for the surgical procedure in the particular species. Contact the AV if a qualified surgical trainer is not available in your lab.

3. Protocol personnel performing surgical procedures on rodent species (e.g., rats and mice), which accounts for the vast majority of surgical procedures performed in our animal care and use program, will be required to complete the following training and proficiency program:
   a. Basic Aseptic Surgical Technique Seminar:
      The AV, or his designee, will cover basic rodent surgery training topics, such as: asepsis, gentle tissue handling, minimal dissection of tissue, appropriate use of instruments, anesthesia monitoring, and correct use of suture materials and patterns. Personnel performing anesthesia and surgery generally attend this training prior to engaging in surgical procedures on live animals. However, personnel may perform anesthesia and surgery without first attending this basic seminar, if they are receiving assistance and direct supervision from a surgical trainer (i.e., someone who has successfully completed a proficiency evaluation with the AV, or his designee).
   b. Procedure-Specific Surgical Training:
      All individuals to be engaged in surgical procedures must receive procedure-specific training from a qualified surgical trainer within the lab. A qualified surgical trainer is someone who has successfully completed a proficiency evaluation with the AV for the surgical procedure in the particular species. Contact the AV if a qualified surgical trainer is not available in your lab.
   c. Proficiency:
      All protocol personnel performing surgical procedures are required to demonstrate their proficiency to the AV, or his designee, and must NOT perform surgical procedures without the assistance and direct supervision of a surgical trainer or AV until they have successfully completed a proficiency assessment.

Continuing Education Requirement for Approved Personnel:
1. Every three years, all personnel working with live animals must complete the “Working With Animals in Biomedical Research – Refresher” course from Citiprogram (www.citiprogram.org). PIs that have submitted an OHSP Waiver and have no contact with live animals still need to complete the Refresher course to stay up-to-date on policies and regulations.
2. Either once a year, once every three years, or when someone’s health history and/or animal model has changed, all personnel working directly with live animals must renew their enrollment in the Occupational Health and Safety Program by completing and submitting (to the IACUC Office) the Animal Job Exposure Form, which includes questions about personal medical history. This form is available on the IACUC website at http://www.research.ucsb.edu/media/11487/ohs_form.pdf

Training Verification and Documentation, and Clearance to Begin Working with Animals:
1. Once new personnel have completed the necessary training described on the Researcher Training Checklist, they should set up an appointment to meet with the IACUC Coordinator.
   a. For this meeting, they must bring with them:
      i. The Researcher Training Checklist signed by the PI. The Checklist should list the protocol(s) that they will be working on.
      ii. The completed Occupational Health and Safety form in a signed and sealed envelope.
   b. During this meeting the IACUC Coordinator will:
      i. Emphasize that working with animals is not a right, but a privilege.
      ii. Emphasize the importance of reading the protocol(s) in its entirety, as well as any associated housing or procedural Standard Operating Procedures (SOPs). Personnel must read and review the IACUC Guidelines that are identified (i.e., checked) on the protocol. Personnel are responsible for knowing the work described in the protocol they will be responsible for and for performing the animal procedures, as described in the protocol.
      iii. Emphasize that they cannot begin working with live animals until they and their PI have been notified, in writing, by the Coordinator that they have been “cleared for participation”.
      iv. Review how to report any animal welfare concerns, emphasizing that anyone who reports a concern may request to remain anonymous. The Coordinator will also mention that there are signs posted around the vivaria and labs that have a list of contacts they can report to.
      v. Review the need for completing additional training if, in the future, the researcher needs to work on another protocol, work with a different species or perform a new experimental animal procedure. Especially if the new procedure involves anesthesia and surgery.
      vi. Provide each person working in the ARC with information on obtaining security access to the Bio2 and Psychology Vivaria. Emphasize to new personnel the importance of not sharing their access card with others and not holding the vivarium door open for personnel they do not know.
   c. If the new researcher still has any uncompleted training at the time of their appointment, then the IACUC Coordinator will provide them and their PI with a list of the pending training requirements.
2. The IACUC Coordinator will verify that new personnel have completed all the following basic training requirements:
   a. Completion of the required Citiprogram training courses.
   b. Review of the “Zoonotic Diseases” reference material on the CDC website.
c. Review of the required IACUC Guidelines and the taxon-specific guidelines on the IACUC website.

3. Clearance to begin working with animals will be formally granted when the IACUC Coordinator has:
   a. Verified that all the basic training requirements have been met.
   b. Received the completed and signed Training Checklist.
   c. Received confirmation from the Occupational Health and Safety Physician that the individual is cleared to work with animals.
   d. Received confirmation that the individual has completed her/his facility orientation, if the animal work is to be performed in the ARC.

4. The IACUC Coordinator will document:
   a. The date the individual was cleared for participation in the FMP Protocol Personnel database under "Final Clearance for Participation in ACUP".
   b. The date the individual was cleared for participation, and the date the individual and PI were notified, on the Researcher Training Checklist. File the completed Checklist in the Researcher Training Checklist binder.

Notes:
1. Some protocols may be approved to work with several species and/or procedures, but not all protocol personnel may be working with all listed species or on all of the animal procedures described in the protocol. Therefore, each person to be added to the protocol only needs to complete the training requirements that are relevant to the work that she/he will be performing on the protocol. The IACUC Coordinator will note the species that each researcher has been cleared to work with, as well as the date they were cleared for participation, in the notification to the researcher, PI, and ARC Manager, if applicable. If a researcher will be working in the ARC, the IACUC Coordinator will copy the ARC Manager on the clearance for participation email.
2. In some instances, personnel may belong to more than one classification. For example, field study protocols often contain a laboratory research component, and personnel on such protocols may be conducting research in both the laboratory and field. In instances such as these, it is important for the researcher to complete ALL applicable training requirements (i.e., those listed under #3 and/or 4, and 5 above).
3. Due to the large number of protocol personnel working at the REEF and high rate of turnover, the IACUC Coordinator will meet with the MSI Aquarist at least once per quarter to review and update the training roster.
4. Personnel working in animal housing areas, but not performing research (e.g., custodians, maintenance workers), are also required to enroll in the Occupational Health and Safety Program.
5. If a PI or surgeon notices a pattern of poor surgical outcomes (e.g., animal death peri- or post-operatively), the AV should be contacted for advice and assistance on surgical technique.