**Objective:** To provide guidance on classifications and IACUC review processes of amendments to IACUC-approved protocols.

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**Approved:** 04/23/2012; revised 11/24/2014; revised 02/27/2017; 03/23/2020; revised 02/22/2021

**Version** 1.4

The IACUC is required by federal regulations\(^1\) to review proposed significant changes to a previously approved application. IACUC approval for all proposed changes to an approved application is required prior to the 1) procurement of animals; 2) commencement of activities and 3) the implementation of proposed changes to the approved protocol.

### AMENDMENT CLASSIFICATIONS

**Minor** – A minor amendment is a change that is unlikely to reduce animal welfare or may decrease the potential for pain/distress (i.e. a refinement). Examples of minor amendments include:

- addition or substitution of qualified personnel;
- title change;
- change in funding source;
- small increase in animal numbers ≤10%;
- addition of another strain of same species;
- change in sex of animal used;
- addition of collaborator(s)

**NOTE:** Changes in personnel (other than the Principal Investigator) are not considered significant and may be processed by the Office of Research Protections and Integrity IF it can be documented that all such personnel are appropriately identified, adequately trained and qualified, enrolled in applicable occupational health and safety programs, and meet other criteria as required by the IACUC.

**Significant** – Examples of changes that would qualify for review as a significant amendment and therefore may require Full Committee Review include:

- changes in purpose or specific aim of study;
- changes in principal investigator;
- changes in the species or approximate number of animals to be used;
- large increase in animal numbers >10%;
- changes resulting in greater discomfort, pain, or in a greater degree of invasiveness;
- changes in the duration, frequency, or number of procedures performed on an animal
- changes from nonsurvival to survival surgery;
- addition of survival surgery;
- changes in method of anesthesia (either the use of or withholding of);
- changes in post-operative care; or
- changes in method of euthanasia.

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\(^1\) Regulations include: PHS Policy, the Animal Welfare Act regulations, and the *Guide for the Care and Use of Laboratory Animals*.
AV Consultation: Prior to submitting an amendment to the IACUC, the principal investigator must consult with the Attending Veterinarian regarding the category of the proposed change. If the proposed change is not in either of the categories above, the Attending Veterinarian will make the determination regarding the category on a case-by-case basis. The principal investigator must consult with the Attending Veterinarian regarding potential painful procedures as well as changes in anesthesia, analgesia and euthanasia.

Review Procedures: Minor amendments may be reviewed by the Committee Chair and/or the Attending Veterinarian and do not require full committee review unless either party requests it.

All significant amendments require full committee review. The IACUC Coordinator will distribute a copy of the amendment to the IACUC. The Committee will perform an initial review to determine whether a significant amendment can be further reviewed using the Designated Member Review process or Full Committee Review at the next convened meeting.

NOTE: A maximum of three (3) significant amendments can be approved by the IACUC without requiring submission of a new protocol. More than three significant amendments require submission of new protocol.

Amendments Eligible for Administrative Handling by Veterinary Verification and Consultation (VVC)

Specific significant changes that do not unduly impact animal welfare or alter study objectives may be eligible for administrative approval through the Veterinary Verification and Consultation (VVC) process. VVC enables the administrative approval of eligible changes to an IACUC protocol without full committee or designated member review. If VVC is implemented, the veterinarian is not conducting designated member review, but is serving as a subject matter expert to verify that compliance with IACUC-reviewed and -approved reference documents is appropriate for the animals in this circumstance. The veterinarian may refer any request to the IACUC for review for any reason and must refer any request that does not meet the parameters of this policy.

Per guidance from OLAW (NOT-OD-14-126; 08/26/2014), if an institution has defined IACUC-reviewed and -approved policies, guidelines, and/or SOPs for the conduct of animal activities, such reference documents may be used in conjunction with consultation by the Attending Veterinarian to administratively handle the following categories of significant changes to a protocol:

- **Anesthesia, analgesia, sedation, or experimental substances:** The veterinarian may verify acceptable changes to the dose, route, concentration, volume, and/or duration of an experimental substance that has already been approved for use in the protocol. The veterinarian may verify a change from one analgesic, anesthetic, or sedative agent to another provided that animal welfare is not compromised.

- **Euthanasia to any method approved by the current version of the AVMA Guidelines for the Euthanasia of Animals:** The veterinarian may verify the appropriateness of changes to the method of euthanasia, provided that the proposed changes are consistent with the current edition of the AVMA Euthanasia Guidelines.

- **Duration, frequency, type, or number of procedures performed on an animal:** The veterinarian may verify acceptable procedural changes to the duration, frequency, type or number of approved experimental procedures, as long as the change does not unduly impact animal welfare (i.e., lessens or involves equivalent pain, acute or chronic stress, distress or invasiveness), does not change study objectives, and is related to a procedure already in the protocol and approved by the IACUC. **Note:** Addition of a new procedure is not eligible for VVC and requires full IACUC review.

Per the OLAW guidance, the above categories of significant changes may be reviewed administratively as long as AV consultation has occurred AND that consultation is documented. Consultation with the
A veterinarian is documented via an email notification to the IACUC Coordinator approving the change. A list of IACUC protocols amended by VVC is provided to the IACUC at the next scheduled IACUC meeting.

Reference documents to be used for veterinary verification of eligible changes are as follows:

Anesthesia, analgesia, sedation, or experimental substances
- ACLAM e-Formulary App
- American College of Laboratory Animal Medicine Series (2015)
- Formulary for Laboratory Animals (Hawk & Leary)
- Plumb’s Veterinary Drug Handbook (Plumb, 9th edition)
- Anesthesia and Analgesia in Laboratory Animals (Fish et al)
- Laboratory Xenopus Sp. (Green, 1st edition)
- Lab Animal and Exotic Pet Medicine (Sirois, 2nd edition)
- Mader’s Reptile and Amphibian Medicine and Surgery (Divers & Stahl, 3rd edition)
- IACUC Guideline: Analgesia Chart

Euthanasia to any method approved by the current version of the AVMA Guidelines for the Euthanasia of Animals
- AVMA Guidelines for the Euthanasia of Animals
- IACUC Guideline: Euthanasia of Mice and Rats

Duration, frequency, type, or number of procedures
- IACUC Policy: Animal Transfer
- IACUC Policy: Cage Compliance
- IACUC Policy: Food and Water Restriction
- IACUC Policy: Housing of Rodents
- IACUC Policy: Housing Multiple Species in One Room
- IACUC Policy: Non-Pharmaceutical and Expired Compounds Use
- IACUC Policy: Physical Restraint of Animals
- IACUC Policy: Rodent Surgery
- IACUC Guideline: In vivo Optical Imaging of Mice and Rats
- IACUC Guideline: Nanoparticle Use
- IACUC Guideline: Rodent Genotyping
- IACUC Guideline: Rodent Tumor Load
- IACUC SOP: Rodent Blood Collection

References


