

Veterinary Verification and Consultation

Date Adopted: 9/24/21

Effective Date: 9/24/21

Last Review Date: 9/24/21

Revision History:

I. Policy

The Office of Laboratory Animal Welfare (OLAW) issued a Guidance on Significant Changes to Animal Activities (NOT-OD-14-126) which was developed to support the use of performance standards and professional judgment to reduce the regulatory burden on the Institutional Animal Care and Use Committee (IACUC). The purpose of this guideline is to enable the IACUC to authorize the Attending Veterinarian (AV) to make certain allowable changes to pre-approved IACUC protocols through the process of Veterinary Verification and Consultation (VVC).

II. Definitions

- A. Therapeutic Substance: A substance administered or applied to an animal for health or clinical purposes. These include a wide array of pharmaceutical agents such as anesthetics, analgesics, sedatives, anti-infective agents, parenteral fluids, hormones, etc., as well as some non-pharmaceutical substances such as topical cleansers/disinfectants, topical ultrasound transmission substances, styptic agents, etc.
- B. Experimental Substance: A non-therapeutic substance administered or applied to an animal for the purpose of research or education.

II. Amendments that can be administratively processed via VVC

The following amendments to an IACUC-reviewed and -approved protocol may be processed administratively by VVC and without full committee (FCR) or designated member review (DMR):

- A. Changes to therapeutic substances to include a change in agent, dose, dose interval, or route of administration consistent with the references listed herein, in PubMed, or CAB peer-reviewed literature, and/or as recommended by the AV.
- B. Change to experimental substances, including a change in test compound, dose, or route of administration, if the change does not result in a change in study objectives or result in greater pain, distress, or degree of invasiveness and is consistent with the references in PubMed, CAB peer-reviewed literature, and/or as recommended by the AV.

Institutional Animal Care & Use Committee

*Note that a change from a pharmaceutical grade to a non-pharmaceutical grade drug requires additional justification and will *not* be authorized under this mechanism.

D. Changes in euthanasia to any method approved in the most current AVMA Guidelines for the Euthanasia of Animals.

E. Changes in duration, frequency, type, or number of pre-approved procedures performed on an animal if the change does not result in greater pain, distress, or degree of invasiveness. The AV may authorize minor procedural changes to previously approved protocols providing, in the judgment of the AV, the change will not unduly impact animal welfare (i.e., lessens or involves equivalent pain, acute or chronic stress, distress or effects upon animal welfare) and is consistent with current standards of veterinary practice or specifically addressed in IACUC policy. This includes the following:

1. Change in route of blood collection to a route described in the IACUC Approved Mouse Procedures and IACUC Approved Rat Procedures which are listed on the IACUC website if at least one study staff member has been appropriately trained in the technique (mice and rats only)

2. Change in the frequency or volume of blood collected by an approved method, not to exceed 10% blood volume per week or 20% blood volume per month

3. Change in non-invasive procedures for collection of biological samples such as urine or feces, or for collection of anatomic or physiologic data including diagnostic imaging (e.g. radiography, ultrasonography and echocardiography), blood pressure measurements, and similar procedures.

*Note: Procedures that require new or revised approvals from a safety committee will not be reviewed by VVC.

4. Change in method of identification to a method described in the IACUC Approved Mouse Procedures and IACUC Approved Rat Procedures as long as at least one study staff member has been appropriately trained in the method (mice and rats only). Toe clips are excluded from VVC.

5. Altering behavioral testing methods, providing they do not involve unrelieved pain or distress, do not increase invasiveness, produce different alterations in physiology other than what is already approved, alter expected outcomes, or require additional staff training.

6. Additional or enhanced enrichment

F. Changes in stock, strain, or genetic modification, unless the new stock, strain, or modification results in abnormalities that require special support.

Institutional Animal Care & Use Committee

G. Change in breeding schemes so long as the potential for overcrowding is not present.

III. VVC Process

A. All changes to a protocol must be submitted to the IACUC via the amendment process for review.

B. Compliance personnel will administratively review the submission and determine if it meets criteria for VVC and to verify that compliance with the VVC policy is appropriate for the animals in this circumstance. The AV will then confirm whether it qualifies and review the submission. The AV may refer *any* VVC request to the IACUC for review for any reason.

Consultation with the AV will be documented, and the PI will receive written confirmation that the change has been reviewed and approved.

If the change does not qualify for VVC as determined by administrative or AV review, it will then be sent through the default review route.

C. A list of protocols administratively reviewed and amended by VVC will be provided to the IACUC at the next scheduled IACUC meeting.

IV. IACUC Approved Reference Documents

Guidance documents that are covered under this policy include the following:

- A. Drug formularies are guidance documents listing acceptable uses, dosages, and routes of administration of a wide variety of drugs that may be administered to animals. The following have been approved as a reference by the IACUC:
- ACLAM e-Formulary. Apple iOS App. Version 1.0 (2016) or later. Elsevier, Inc. Carpenter, James W.
 - Exotic Animal Formulary. Saunders. Danneman, PJ, Suckow, MA, and Brayton, CF. 2012. The Laboratory Mouse. CRC Press, Boca Raton
 - Hawk, CT, Leary, S, Morris, TH. Formulary for Laboratory Animals. John Wiley & Sons, Inc.
 - Plumb, DC. Plumb's Veterinary Drug Handbook. Wiley Blackwell.

Institutional Animal Care & Use Committee

B. The VVC process may be used to amend the dose, route, concentration, volume, and/or duration of an approved anesthetic, analgesics, or sedative. The following references have been approved by the IACUC:

- Flecknell, Paul. 2009 Laboratory Animal Anaesthesia Third Edition. Comparative Biology Centre, Medical School, Newcastle University, Newcastle UK: Academic Press Gaertner, DJ, Hankenson, FC, Hallman, T, and Batchelder, MA. 2008. Chapter 10.
- Anesthesia and Analgesia in Rodents. In R. E. Fish, M. J. Brown, P. J. Danneman, and A. Z. Karaz (ed.), Anesthesia and Analgesia for Laboratory Animals. Academic Press, San Diego
- Kohn DF, Wixson SK, White WJ, Benson GJ. Anesthesia and Analgesia in Laboratory Animals. Academic Press
- ACLAM e-Formulary. Apple iOS App. Version 1.0 (2016) or later. Elsevier, Inc. Carpenter, James W. The UWM-Milwaukee IACUC website has a chart of approved injection routes, maximum volumes/ injection route, and needle sizes for mice and rats. The VVC process may be used to change the listed injection route, volume, or needle size for injections in an IACUC approved protocol. (mice and rats only)

C. The UWM-Milwaukee IACUC website has a list of approved injection routes, maximum volumes per injection route, and needle sizes for mice and rats. The VVC process may be used to change the listed injection route, volume, or needle size for injections in an IACUC approved protocol. (mice and rats only)

D. Other References:

- Animal Welfare Act as amended (7 U.S.C. §§ 2131 et. seq.) Title 9, Code of Federal Regulations, Subchapter A, Section 2.31
- National Institutes of Health Notice Number: NOT-OD-14-126
- National Research Council (2011). Guide for the Care and Use of Laboratory Animals. The National Academies Press: Washington, D.C.
- Public Health Service Policy on the Humane Care and Use of Laboratory Animals, Office of Laboratory Animal Welfare (OLAW). 1985. Rev. 2015.