# Purpose

## To describe the veterinary verification and consultation (VVC) review process for approving significant changes to a previously approved protocol. The Office of Laboratory Animal Welfare (OLAW) ([NOT-OD-14-126](https://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-126.html)) “Guidance Significant Changes to Animal Activities” was developed to support the use of performance standards, professional judgment, and IACUC approved policies to reduce the regulatory burden on the Institutional Animal Care and Use Committee (IACUC).

# Significant Changes Allowable with VVC

## Specific significant changes (amendments) to a protocol may be processed by VVC and approved by the AV, without full committee review (FCR) or designated member review (DMR).

1. A change (i.e., addition or removal) of analgesic, anesthetic, sedative/tranquilizer, or antibiotic or other drugs, consistent with the [MSU IACUC Policies](https://www.montana.edu/orc/iacuc/policies.html) or common practice (e.g., stated in a published veterinary formulary).
2. A change (i.e., addition or removal) in route of administration, volume, or formulation of a drug or experimental agent that is consistent with [MSU IACUC Policies](https://www.montana.edu/orc/iacuc/policies.html) and does not exceed published veterinary resources.
3. Change in blood collection method or method of restraint in accordance with [MSU IACUC Policies](https://www.montana.edu/orc/iacuc/policies.html).
4. Refinements of non-surgical or surgical procedure, or other procedure resulting in less potential for pain or distress or decreased invasiveness (e.g., a change from survival surgery to non-survival surgery).
5. Changes in euthanasia to any method approved in the current AVMA Guidelines for the Euthanasia of Animals.
6. Changes in duration, frequency, type, or number of approved procedures performed on an animal, as long as the change does not result in greater pain, distress, or degree of invasiveness. The AV may use discretion and professional judgment to approve minor procedural changes if the changes will not unduly impact animal welfare (i.e., lessens or involves equivalent pain, acute or chronic stress, distress) and are consistent with current standards of veterinary practice or specifically addressed in [MSU IACUC Policies](https://www.montana.edu/orc/iacuc/policies.html). Common examples include:
7. Changes related to blood collection (e.g., frequency, volume, vessel access).
8. Revision of sample collection intervals or total samples collected.
9. Substitution of one accepted biopsy method for another for tissue or DNA analysis.
10. Altering the duration or interval between procedures (e.g., lengthening an imaging episode or the time between episodes).
11. Changing a method of identification.
12. Altering behavioral testing methods, providing they do not involve unrelieved pain or distress.
13. Addition of non-invasive sampling (e.g., fecal collection).
14. Change from use of immunocompetent animals to immunodeficient animals.
15. Change in experimental reagents (e.g., antibodies with slightly different receptor sites, antidepressants with a similar mode of action, and/or cells for tumor inoculation/transplant) that are not significantly different from approved experimental reagents, and will not, in the investigator’s good faith opinion, cause highly variant results and impact animal welfare in any way not already reviewed and approved by the IACUC

## Significant changes that **may not** be handled administratively by VVC and must undergo either FCR or DMR include, but are not limited to:

1. A change from non-survival to survival surgery
2. Any change resulting in greater pain, distress or degree of invasiveness
3. A change in housing or use of animals in a location that is not part of the animal program overseen by the IACUC
4. A change in study objectives
5. A change in Principal Investigator
6. A change that impacts the safety of personnel
7. A change in the method of euthanasia not approved by the 2020 AVMA Guidelines for Euthanasia of Animals
8. Addition of a new procedure

# VVC Process

## All significant changes to a protocol must be submitted to the IACUC for review. Protocols will be assigned to VVC if the change meets the criteria described above. The AV is authorized by the IACUC to verify the requested changes are in compliance with MSU IACUC Policies and appropriate for the specific situation and animal(s). The AV may refer any VVC request to the IACUC for review for any reason.

# Reference and Guidance Documents

1. [Diehl et.al DOI: 10.1002/jat.727](http://www.usp.br/bioterio/Artigos/Procedimentos%20experimentais/Good_practice_lab_animals.pdf)
2. [AVMA Guidelines for the Euthanasia of Animals](https://www.avma.org/resources-tools/avma-policies/avma-guidelines-euthanasia-animals)
3. [MSU IACUC Policies](https://www.montana.edu/orc/iacuc/policies.html)
4. [Making Changes: when is VVC appropriate?](https://olaw.nih.gov/sites/default/files/laban46_03_0317.pdf)