IACUC Policy
#14: Euthanasia Criteria for Rodents

Approved by IACUC on 04/07/2023.

1. Humane euthanasia before the end of an experiment can be warranted to prevent unnecessary pain and suffering for laboratory animals. These guidelines are for ACF and IACUC personnel to assist with the decision to euthanize an animal if the ACF veterinarian is temporarily not in contact. Any exceptions to these endpoints should be noted in the IACUC protocol and also brought to the attention of ACF staff to prevent communication mishaps. Every attempt will be made to contact lab staff to allow for joint consultation and to allow for collection of tissue. It is recommended that laboratory personnel leave cell phone numbers with ACF.

2. Humane endpoint criteria (only 1 needs to be present):
   a. Body condition score of 2 or less (see diagram at end).
   b. Frank blood coming from the nasal cavity, oral cavity, or rectum.
   c. Fight wounds that are larger than 1 cm² combined.
   d. Damage to the penis such that the mouse is no longer able to urinate. Note that most mice will urinate when picked up and scruffed. The bladder can also be pushed on gently to see if urine will come out.
   e. Tumors that are larger than:
      i. Mice: 1 cm² combined;
      ii. Rats: 2 cm² combined.
   f. Tumors that have a necrotic center.
   g. Moribund condition: rodent does not move or react when touched. Rodent does not right itself when placed on its side.
   h. Ulcerative dermatitis (UD) that is not responsive to toe nail trimming. ‘Moist’ UD, as it rarely responds to toe nail trimming.
   i. Jaundice, as evidenced by yellow ears.
   j. Diarrhea or blood in stool.
   k. Labored breathing, as evidenced by increased abdominal effort.
   l. Circling or rolling behavior.
   m. Head tilt.
   n. Seizures.
   o. Rapid weight loss, or weight loss of greater than 20%.
   p. Inability to reach food or water, usually with an inability to ambulate.
   q. Prolapsed rectum, vagina, or uterus.

3. Contacts
   a. IACUC – iacuc@mtu.edu
b. Contact information for ACF Staff and the ACF Director: acf-l@mtu.edu or 906-487-2878

4. Related Information
   a. PHS Policy on Humane Care and Use of Laboratory Animals
   b. The Guide for the Care and Use of Laboratory Animals, 8th Edition
   c. USDA Policy #3 Veterinary Care

5. References

Appendix 1

| BC 1 | Mouse is emaciated.  
|      | • Skeletal structure extremely prominent;  
|      | • Little or no flesh cover.  
|      | • Vertebrae distinctly segmented. |

| BC 2 | Mouse is underconditioned.  
|      | • Segmentation of vertebral column evident.  
|      | • Dorsal pelvic bones are readily palpable. |

| BC 3 | Mouse is well-conditioned.  
|      | • Vertebrae and dorsal pelvis not prominent;  
|      | • Palpable with slight pressure. |

| BC 4 | Mouse is overconditioned.  
|      | • Spine is a continuous column.  
|      | • Vertebrae palpable only with firm pressure. |

| BC 5 | Mouse is obese.  
|      | • Mouse is smooth and bulky.  
|      | • Bone structure disappears under flesh and subcutaneous fat. |

A "+" or a "-" can be added to the body condition score if additional increments are necessary (i.e., 1.5, 2.5, etc.).