



Institutional Animal Care and Use Committee

## **Policy on Mouse Toe Clipping**

Date Reviewed: 7/30/19

### **Purpose:**

The intent of this IACUC policy is to describe when mouse toe clipping may be performed and the standard procedures for performing this technique. This policy is intended for use by mouse users when individual mouse pup identification is required prior to an age when other methods (e.g. ear punch, tag, microchip) are appropriate.

### **Policy:**

Toe clipping for the purposes of identification and/or genotyping may be approved in the animal protocol under the following circumstances:

Mice up to 11 days of age may be toe clipped for identification purposes

Mice 11-14 day of age may be toe clipped ONLY if the toe tissue is also used for genetic analysis

This is considered a refinement by making it unnecessary to perform tail biopsies for tissue sampling

The following procedures MUST be followed:

No more than 1 toe per paw may be clipped

Avoid clipping digits/toes on fore paws if possible

DO NOT clip the 1st digit/toe (i.e. thumb) on either fore paw

Only remove the 3rd phalanx (i.e. last bone of a digit); in other words, amputate at the joint between the 2nd and 3rd bones/phalanges

Aseptically prepare the digit before clipping (i.e. wipe with betadine or alcohol)

Use very sharp scissors (fine pointed tips work best)

Scissors must be cleaned, preferably sterilized (i.e. hot bead sterilizer), between animals

Alternately, scissors may be sanitized with 70% ethanol or antiseptic solution (e.g. povidone iodine, chlorhexidine)

Monitor animals continuously until bleeding has stopped

Bleeding may be stopped using a piece of gauze with gentle pressure between finger tips

Vivarium staff must be contacted promptly if toe does not heal properly or if the animal cannot ambulate normally following the procedure



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Any procedure involving toe sampling that does not meet the above criteria must be described and appropriately justified in an IACUC-approved Animal Protocol.

### References:

Developmental and Behavioral Effects of Toe Clipping on Neonatal and Preweanling Mice with and without Vapocoolant Anesthesia. J Am Assoc Lab Anim Sci. 2014 Mar;53(2):132-40.

National Institutes of Health, ARAC, Guidelines for Toe Clipping of Rodents, Revised 6/13/07 (<http://oacu.od.nih.gov/ARAC/index.htm>)

Guide for the Care and Use of Laboratory Animals, 8th ed, National Research Council, National Academy Press, 2011, page 75.

Federation of European Laboratory Animal Science Associations Working Group, FELASA Guidelines for the Refinement of Methods for Genotyping Genetically-modified Rodents 2013. Laboratory Animals 47(3) 134-145.