Subject: Rodent Toe Clipping

BACKGROUND

The Guide for Care and Use of Laboratory Animals (the Guide, NRC 2011) states: “As a method of identification in small rodents, toe-clipping should be used only when no other individual identification method is feasible.” (p. 75)

IACUC Policy

The IACUC regards toe clipping as a potentially painful procedure. Toe-clipping is allowed only when no other individual identification method is feasible. Toe clipping can be performed on conscious neonate rodents as a means to identify individual animals. Whenever possible, removed toe tissue should be used as part of the genotype analysis technique thus reducing the amount of additional tissue that would need to be collected. The use of toe clipping solely for purposes of identification must be justified in the IACUC protocol. Suggested methods of identification include implantation of microchips, indelible skin markers, ear tags, ear notch/punch, and tattooing. DLAR offers training for all of these procedures.

Toe Clipping Procedure:

Procedure:
1. Rodent pups should be held in gloved hands.
2. Toes to be clipped should be cleaned with 70% alcohol.
3. One toe may be removed from three feet only.
   - Do not remove more than one toe per foot, and do not cut the small most medial/inner toe (hallux/dew-claw).
4. Very sharp scissors with fine pointed tips or scalpel blades must be used for this procedure. They must be either sterile or at disinfected with Accel TB for a minimum of 5 minutes prior to use.
   - The instrument must be cleaned with alcohol after each animal. Scissors must be re-sterilized or disinfected with Accel TB after every 5 animals. Scalpels must be discarded after 5 animals.
5. Bleeding should be immediately controlled by gentle fingertip pressure.
6. Pups should be quickly returned to their dams. Cages containing toe clipped neonates should be checked 5 minutes after toe removal to confirm complete hemostasis.

Toes may be removed from rodents 7 days of age or younger.

This procedure can be done without anesthesia. Exceptions to the maximum age of animal will not be granted.

This procedure should be implemented with caution in animals used for behavioral research. Studies have demonstrated decreased grip strength in toe-clipped animals depending on the age the toes were removed.

Resources: