TITLE: Toe Clipping in Rodents

PURPOSE: To clarify the use of toe clipping as a means of permanent identification of small rodents.

REVIEW/REVISIONS: Permanent amendment/revisions to this policy must be presented to the Institutional Animal Care and Use Committee (IACUC) for review before implementation, with the exception of updating internet URLs, if required. Continuing review of this policy by the IACUC will occur at least every three years.

EFFECTIVE DATE: 11/6/08; Revised/Re-approved: 11/4/10; 8/14/13

PERSON(S) RESPONSIBLE: IACUC members and office staff, UAC veterinarians and research personnel performing toe clipping

POLICY/PROCEDURES:

Toe clipping is the removal of the first bone of the toe, corresponding to a predetermined numbering code, as a means of permanent identification of small rodents. When performed in very young rodents, toe clipping is considered to cause minimal pain and/or distress. If toe clipping is approved by the IACUC, the following procedures are required:

- Toe clipping must be performed within the first seven days after birth.
- As toe clipping can alter the gait or weight-bearing ability of a rodent’s hind limbs, toe clipping is limited to one digit per extremity.
- Instruments used for toe clipping must be sterilized before use and cleaned and disinfected between animals.
- Topical anesthetics or analgesics may be applied. Researchers should consult with a UAC veterinarian prior to toe clipping for advice on the need for topical anesthetics or analgesics.

Toe clipping should be used only as a last resort in animals older than seven days due to the potential pain inflicted by this procedure, after due consideration of other alternatives. In animals over seven days of age, if no other methods of identification are feasible, the PI must state in the animal protocol that toe-clipping will be used as the method of identification. The PI must provide rigorous scientific justification as to the reasons that other, less painful means of identification in small rodents (ear-notching, ear tags, microchips, tattooing, permanent markers, etc.) are not feasible. In these cases, appropriate anesthesia and/or analgesia are required. UAC veterinary staff should be consulted for assistance with selection of agents.

JUSTIFICATION:

The Guide for the Care and Use of Laboratory Animal (8th edition) states: “As a method of identification of small rodents, toe-clipping should be used only when no other individual identification method is feasible. It may be the preferred method for neonatal mice up to 7 days of age as it appears to have few adverse effects on behavior and well-being at this age, especially if toe-clipping and genotyping can be combined. Under all circumstances aseptic practices should be followed. Use of anesthesia or analgesia should be commensurate with the age of the animals.”
