



University of Michigan Policy On Management of Fighting and Fight Wounds in Mice

A fundamental principle expressed in the *Guide for the Care and Use of Laboratory Animals* is the “avoidance or minimization of discomfort, distress, and pain in concert with sound science.” Fighting among adult male mice is a well-documented behavior that has even been used as the basis for studies on aggression and the physiologic effects of stress. Fighting can result in severe wounding and death, and cause significant pain and distress. Therefore, IACUC has adopted the following policy for management of fighting and fight wounds in mice.

To minimize fighting, the following group-housing practices should be followed for mice bred in-house:

- Adult male mice (older than 5 weeks) should NEVER be combined. They will almost certainly fight. This is especially true if the males have been used as breeders. This does not apply to littermates that have been cage mates since birth.

Weanlings

- Weaned males should ideally be group-housed only with their littermates.
- Males grouped from different litters should be combined within 1 week of weaning, and only with males that are 1 week apart in age or less.
- When combining males from different litters, a clean cage should be used to prevent territorial behavior.

Some strains are more aggressive than others, and will fight regardless of the age at which they are combined. In these instances, all males should be housed individually or with females. Singly-housing aggressive male mice is an approved exception to the social housing requirement.

When fight wounds are seen, the following steps should be taken:

- (1) Mice with mild to moderate wounds (those involving minimal damage to the epidermis) should be treated with topical therapy if determined necessary by ULAM veterinary staff.
- (2) Mice with severe wounds (e.g., those involving the genitals or limbs that compromise normal function, significant damage to the epidermis, or significant morbidity) must be euthanized within an hour of assessment by ULAM veterinary staff.
- (3) The aggressor (typically the mouse without wounds) should be placed in a separate cage immediately, and NEVER recombined with other males.
- (4) If there are multiple aggressors (multiple mice without wounds, or all mice have wounds), all mice should be separated.