

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE**

TUFTS UNIVERSITY &amp; TUFTS MEDICAL CENTER

T: (b) (6)

email: [iacuc-office@tufts.edu](mailto:iacuc-office@tufts.edu)Website: <http://viceprovost.tufts.edu/iacuc/>

2019-2020 Annual Report of Research Facility

Registration Number: 14-R-0065

Customer Number: 628

November 19, 2020

**Summary of Exceptions to the regulations and standards:**

1. Non-standard housing, sanitation,
  - a. Regulation: 3.128 Space requirements  
Regulation: 3.131 Sanitation.
  - b. Description: White footed mice are gregarious, particularly during the winter months, and our experience suggests that keeping 4-6 mice (one male, several females) in a shoebox cage or 12-18 mice of mixed sex allows for sufficient breeding with intrinsic regulation of the numbers of offspring produced. In this manner, we produce only enough for adequate turnover of the colony, but do not experience breeding that needs frequent culling. Although a 1:3 ratio of males to females is optimal, having nondominant males within the cage does not affect breeding. Fighting is minimal among males. In addition, we find that cleaning cages less frequently (one cage change every 2-3 weeks) enhances breeding, probably because of pheromone marking of the cage. Finally, although gravid females could be separated, we have found that such litters survive less frequently than do those allowed to remain with the other mice. The colony has been maintained differently and very successfully with no need to introduce new field-derived individuals.
  - c. Species: *Peromyscus* Number: 325
2. Non-standard housing/husbandry
  - a. Regulation: 3.126 Facilities, indoor. (a) *Ambient temperatures*.  
Regulation: 3.131 Sanitation (a) *Cleaning of enclosures*.
  - b. Description: Gnotobiotic piglets will be housed in sterile isolators in rooms maintained at 90°F to prevent hypothermia. The elevated temperature is needed because newborn piglets are unable to regulate their body temperature. The isolator units are required to protect the gnotobiotic piglets from external microbes and to protect personnel from the infectious agents that the piglets are inoculated with. Isolator units (including caging) are cleaned and sanitized following removal of piglets. Piglets will be housed within an individual cage or isolator bay for no more than 2 weeks. Thus, sanitization will occur at 2 week intervals.

Daily cleaning of isolator units and caging is limited by the fact that these are sealed units designed to protect piglets from external pathogens and to protect personnel from pathogens being utilized within the isolators. In an effort to minimize waste build-up, isolator units and caging are constructed such that waste falls through the grated flooring; trays underneath caging is emptied twice daily; and food bowls in both caging and isolator bays are emptied and wiped out if milk remains at feeding time.

- c. Species: Swine Number: 21

### 3. Non-standard housing/husbandry

- a. Regulation: 3.126 Facilities, indoor. (a) *Ambient temperatures.*
- b. Description: Piglets that are hand-reared, may be housed in rooms with the temperature of ~85 °F or a temperature controlled "Rescue Deck" equivalent standard in the swine industry. The piglets lack normal thermoregulatory ability and the elevated temperature is required for piglets to regulate their body temperature.
- c. Species: Swine Number: 4

### 4. Space requirement

- a. Regulation: 3.28(c ) (2) (i) *adequate freedom of movement*
- b. Description: For tick infestation, hamsters may be held within custom-made stainless steel mesh tubes that prevent them from turning around and grooming. Such tubes are wrapped within paper toweling and taped so that ticks that do not attach do not escape; in addition, the wrapping helps to conserve body heat. Infestation is allowed to occur for 2 hours.
- c. Species: Hamster Number 20