**Rat Husbandry and Care**

Last Reviewed: February 6, 2024

**I. Purpose**

This standard operating procedure (SOP) outlines the animal care requirements associated with the daily husbandry of rats to ensure consistent and uniform care. This procedure applies to all personnel involved in the care of rats housed in static micro-isolator caging in the Laboratory Animal Resources (LAR) facility on the campus of the University of Montana.

**II. Policy**

It is a LAR policy to meet or exceed all federal, state, and local regulations and guidelines and to comply with all institutional policies and procedures as they apply to the use of animals in research. LAR personnel must pass on-line animal training modules and attend applicable training in animal care and use, occupational health and safety, and equipment operation prior to performing activities outlined in this SOP. Animal housing rooms should be entered using appropriate personal protective gear for the species and disease or hazard containment level.

**III. Procedures**

Daily routine

* Record the room’s high and low temperature and humidity readings
* Observe animals for any signs of disease, illness or injury
  + Report any animal illness to Attending Vet and the PI
* Top off water bottles (if ½ full or less) daily
  + Check that lixits are free of debris before replacing water bottles
* Check food levels in hoppers. Top off any food that seems low, and fill large “food voids”.
* Ensure boxes are secure (lids & hoppers fastened) and dry (floods)
* Sweep and mop the floor with Peroxigard concentrate (Mon/Wed/Fri) or water mop (Tues/Thurs)
* Empty trash
* Replenish/Sanitize food and bedding bins as needed.
  + Check the expiration dates of feed
* Fill out checklist sheet, census sheet and initial daily log

Weekend routine

* Record the room’s high and low temperature and humidity readings
* Observe the animals for signs of disease, illness or injuries’
  + Report any animal illness to Attending Vet and the PI
* Check to make sure there is an appropriate amount of food in the hopper
* Check to make sure there is plenty of water in the water bottle
  + Fill if less than ½ full
* Fill out checklist sheet, census sheet and initial the daily log.

Weekly routine

* Bedding change – Monday and Thursday
* Using the transfer station, move the box with the rats from the rack to the hood, transfer rats to clean box with clean autoclaved bedding and new nesting sheets
* Wipe down the racks with Peroxigard as you move the dirty cages to the change hood.
* Replace any enrichment items as needed, and transfer old hopper, water bottle, and cage card holder to the new box
* Top off food and water
* Replace the rats in the new caging back on the rack
* Make sure the dirty boxes are covered and transport to the dirty cage wash room to be processed

Bimonthly

* Complete cage wash – Alternate Thursday from bedding change.
* Using the transfer station, move the box with the rats from the rack to the hood. Transfer rats over to new box, with clean, autoclaved bedding, and new nesting sheets
* Wipe down the racks with Peroxigard as you move the dirty cages to the change hood
* Replace enrichment items as needed
* Replace cage card holder, hopper, lid and water bottle with new items
* If the existing food appears to be in good condition, it may be transferred into the new hopper. Top off with new food
* Wipe down transfer station with Peroxigard.
  + Lift the top of the transfer hood off
  + Clean any debris that may have fallen under during the change
  + Spray and wipe down with Peroxigard
  + Replace the top of the transfer hood
* Make sure the dirty boxes are covered and transport to dirty cage wash room to be processed.

Monthly

* ASC (see ASC SOP)
* Sanitize food and bedding barrels, and enrichment containers
  + Clean and disinfect barrels once a month, after removing contents
  + Keep the feed and bedding information cards up to date

Wet Box

* Replace wet box and related items with new, clean items
* Using the transfer station, transfer rats from wet box to the new clean, dry box
* Make a note on the cage card and on the daily log sheet of wet box change and any concerns