



HARVARD UNIVERSITY
FACULTY OF ARTS AND SCIENCES
OFFICE OF ANIMAL RESOURCES
16 DIVINITY AVENUE
CAMBRIDGE, MA 02138

Husbandry Statement

Overview

The Office of Animal Resources (OAR) manages 2 barrier rodent facilities, the Biological Research Infrastructure (BRI) and Northwest Laboratories (NWL), used for breeding and experiments. All rodents are housed in individually ventilated caging.

Colony health surveillance has been performed in all animal rooms since the opening of each facility to monitor the health status of the rodent colony. Surveillance sample testing is performed primarily by Charles River. The results of the colony health surveillance program are available at <http://oar-public.fas.harvard.edu/animal-health-reports>.

Only animals purchased from approved vendors may be introduced directly into animal housing rooms. Quarantine is mandatory for animals from non-approved suppliers, and additional health monitoring, treatment and/or rederivation may be required by the veterinary staff prior to receipt or transfer into the barrier colony.

Animal housing, handling, and infection control measures

- Rodents are housed on solid-bottomed cages, bedded with corncob bedding, and all rodents are provided with enrichment (nesting material at a minimum, most also have plastic huts) as part of normal husbandry.
- The default is social housing for all compatible animals.
- Disinfecting and sterilizing compounds such as chlorine dioxide, quaternary ammonium compounds, hydrogen peroxide, and peracetic acid are used in the facility.
- Standard rodent diet is irradiated and special diets must be purchased through OAR and sterilized prior to arrival.
- Reverse osmosis deionized water is chlorinated at 2 ppm and provided via automatic watering.
- Cages, bedding, and cage furnishings are autoclaved after cleaning and prior to use.
- Animals are housed in positively pressured individually ventilated caging that receives HEPA-filtered air.
- Cages are changed using microisolation technique in HEPA-filtered, laminar-flow work stations by dedicated staff.
- Dedicated clothing is worn by OAR staff and personal protective equipment is worn by OAR staff and researchers.

Animal entry and movement

Approved suppliers

Animals of known microbiological quality obtained from suppliers approved by OAR are allowed to enter directly into the barrier rooms. These approved suppliers include Charles River, the Jackson Laboratory, Harlan, and Taconic; others may be added following veterinary review.

Other origins

To obtain animals from non-approved suppliers, an import request form must be submitted to and approved by OAR. This will initiate veterinary review of health and husbandry information from the facility of origin. All rodent shipments are coordinated by OAR. If approved for import directly into the facility, the animals will undergo quarantine in a dedicated suite and health monitoring by PCR of feces, fur swabs, and oral swabs. Additional testing may be requested before animals can be received. Animals are transferred to long-term housing rooms only after PCR results confirm the absence of excluded agents. Animals from non-approved suppliers may also be quarantined off-site and tested via PCR as above. Depending on results, animals may then be allowed to enter the facility without further quarantine, or may need to be treated or rederived before entry.



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Transfer within OAR-managed facilities

Transfer of animals between housing areas may not occur without prior permission from OAR facility supervisors and must be performed by OAR animal care staff. OAR retains a record of such transfers.

Animal exports

To export animals, an export request form must be submitted to and approved by OAR. All live rodent shipments are coordinated by OAR following approval by the recipient facility.

Health monitoring program

Routine colony health surveillance

Routine colony health surveillance is performed in all animal rooms in both OAR-managed rodent facilities. Additional focused health monitoring can be conducted on an as-needed basis. Monitoring may be performed using PCR, sentinel monitoring, or any other relevant diagnostic test on colony or sentinel animals. Colony animals are not submitted for health surveillance without the investigator's permission.

In March of 2015, sentinel animal placement and testing ceased. Currently, all animal health monitoring is performed by environmental testing, namely PCR of rack plenums. Testing occurs quarterly for prevalent agents and once yearly for a panel of rarer agents.

Use of biological material of animal origin

Biological materials and cell lines of rodent origin or passaged in rodents must be tested and certified free of rodent infectious pathogens prior to use in animals.

If an excluded agent is detected

In the event of detection of an excluded agent in the facility, an appropriate course of action would be determined by the veterinary staff, and may include a combination of isolation, retesting, treatment, euthanasia, and/or rederivation.

Agents present in this facility:

Animals colonized by or originating from facilities with evidence of the presence of *Helicobacter* species, mouse norovirus, or colonization by typical rodent commensal or opportunistic bacterial pathogens are not currently excluded.

Current outbreak status (Jan 2015)

One room in the facility tests positive for *Spironucleus muris* by environmental PCR.