

BRMS Mouse Breeding and Research Services Core

Facility Statement

The Biomedical Research Model Services (BRMS) Program facilitates animal research across the UW campus by providing animal care in 10 vivaria and services through Core Units. The Research Services Core performs a wide variety of technical procedures, including animal husbandry, to supply researches with needed animals in a timely and cost-effective manner. Inside the BRMS core facility, staff commonly breed mice for specific projects and perform studies. After techniques are performed, staff either deliver endpoint tissues or transfer live mice to laboratories. Support ranges from a small portion of the study to a complete study with final results.

Housing/Husbandry:

Mice are housed in aseptic, disposable, ventilated Innovive® cages. All cages are irradiated. All mice receive irradiated ALPHA-Dri™ bedding and autoclaved AlphaTwist® nesting material for enrichment. Igloos are provided both to breeding cages and singly housed mice. Mice are fed 2920x or 2919 (Irradiated Harlan Teklad Global Soy Protein-Free Extruded Rodent Diets). Breeder mice receive approximately 2 tablespoons of irradiated sunflower seeds in the feeder every other week during cage changing. The water is acidified. All work is done under animal transfer stations or biological safety cabinets. Rooms are maintained at 22°C (+/-2°C) and at 30-70% humidity. Lighting is on a 12-hour light/12-hour dark cycle.

Facility Equipment:

The Breeding Core vivaria consists of 15 animal rooms and 4 procedure rooms. There are 45 ventilated Innovive® mouse racks throughout the facility that can house up to 7000 cages of mice and 15 animal transfer stations. For work with biological hazards, the core has 5 biological safety cabinets. The facility also has two fume hoods, two autoclaves, one rack-washer, -80 freezer, 3 anesthesia machines, 2 microscopes, a centrifuge and a sonicator bath.

Breeding Services:

- Mating
- Weaning
- Euthanasia
- Secure Web Based Colony Records
- Transport of animals to lab or housing facility
- Timed mating
- Animal identification
- Tissue collection for PCR
- Genotyping service using Transnetyx (For more info go to: www.transnetyx.com)
- Blood collection/IP or SQ injections, oral gavage, tail vein injections
- Tissue Harvesting/Perfusion
- Special diets (irradiated)
- Other procedures as requested by the investigator

Research Services

- Intraperitoneal, subcutaneous & retro-orbital injections

- Tail vein injections
- Tamoxifen administration
- Administering special diets and water
- Weighing
- Timed Mating/Embryo harvest
- Blood Collection
- Oral Gavage
- Tumor/cell Grafts
- Tumor Measurements
- Castration/Ovariectomy
- Perfusion
- Tissue isolation/harvest
- Glucose Tolerance Testing