UMDNJ-RWJ Medical School
Vivarium
Mouse Quarantine Procedure

This mouse quarantine policy applies to all mice arriving at RWJMS with the exception of mice from approved commercial vendors such as Charles River, Taconic Farms, Harlan Sprague Dawley and Jackson laboratories or other vendors approved by RWJMS supervisory veterinarians. Mice from approved commercial vendors are held for a minimum of three days prior to release for research. Only mouse embryos or adult mice for re-derivation are permitted into the CHINJ. Only Vivarium staff is permitted into quarantine rooms. Strains of mice available from approved vendors are not permitted from non-approved vendors.

Prior to Arrival
• A veterinarian must approve incoming shipment(s) and assign risk status recommendation(s).
• Animals are housed in low or high risk cubicles on the basis of health data supplied by the exporting institution. Supervisors in coordination with veterinary staff determine when mice arrive and where animals are housed.

Initial Housing
• Caretaker staff is responsible for unpacking, checking and housing quarantined mice.
• All animal identification information is preserved (e.g. from shipping boxes, ID cards or other documentation from the export institute).
• Mice are normally housed in the same groups they arrived in. If cage density is limited, groups are separated into smaller groups.
• Any visibly sick or dead on arrival mice is immediately reported to veterinary staff.

Handling and Treatment During Quarantine
• Mice are housed in microisolator cages within the Quarantine cubicle(s).
• Cages are opened ONLY within a functioning BSL-2 hood, which is cleaned thoroughly between each quarantine group.
• Initially, mice are conditioned for 48-72 hours.
• Mice received from institutes at a high risk of carrying murine adventitial viral agents, PARV NSI, MPV, MHV, EDIM, Sendai or Pulmonis receive testing by the PCR method. Additional pathogens for International shipments or extremely high risk shipments are screened based upon veterinary determination. Veterinary staff conducts fur mite (pelage dorsal neck, inguinal) and pinworm preliminary tape screenings (anal scotch tape, fecal flotation) upon arrival. If the screenings are positive, the prophylactic treatment is extended two extra weeks and exit screenings are performed prior to release from quarantine.
  Whenever possible, extra colony mice accompany each shipment, are euthanized and if required by veterinary staff, mesenteric lymph nodes are removed for parvoviral testing and pelage is scraped and cold tested for fur mites.
• Only after conditioning are mice given feed containing 150 ppm fenbendazole for 6 consecutive weeks.
• After two days or more of fenbendazole feed treatment, mice are exposed to 2 grams of dichlorvos (Atgard®) for two consecutive weeks.
• One colony mouse per cage is directly bled five weeks into the quarantine period to optimize detection of mouse parvovirus.

Sentinel Animals
• Usually, two clean sentinel mice are ordered from approved commercial vendors and temporarily
sentinel mice to ensure contact and schedule are met.

- Sentinels are normally Swiss Webster four week old females and are marked with an ear punch if placed in cages with white quarantine mice.
- Sentinels are removed from the cages within 7-10 days and are housed in a cage labeled “Quarantine-Sentinel.” For cages not initially placed in direct contact with sentinel mice, their soiled bedding is pooled into the “Quarantine-Sentinel” box (large shipments have some pooled samples).
- After a 42 day incubation period started from initial direct exposure, sentinels are euthanized and tested for fur mites, pinworms and serological evidence of murine adventitial pathogens.
- Investigators are not to re-house, use or discard the sentinels.
- Breeding is permitted while mice are in quarantine. Investigator staff must arrange breeding with Vivarium staff.

**Introduced Animals**

- Contact the facility supervisor to set up any breeding pairs or to discuss additional requests. Any mice added to the Quarantine cubicle is treated as part of the quarantine group.

**Release from Quarantine**

- Mice are not moved from the Quarantine cubicle without permission from the veterinary staff.
- Mice with evidence of infections with agents not excluded by veterinary staff are either used terminally while in quarantine housing or must receive rederivation by embryo transplantation and documented free of the disease(s) before release.
- If mice are taken to an investigator’s lab for terminal use, the investigator must thoroughly clean any area in the lab where the mice were. All equipment coming in direct contact with the mice must receive cleaning and disinfectant after any procedures. MB10 (10 minutes exposure time), a chlorine dioxide sanitizing agent available from the Vivarium, is required.
- All quarantine cages are packed in biohazard cages and autoclaved prior to cage wash.