The intent of this Animal Care and Use Procedure (ACUP) is to describe the Cornell Center for Animal Resources and Education (CARE) quarantine program for mice coming from non-approved vendors (see definition in the introduction). This ACUP is intended as a reference for quarantine animal care personnel, the quarantine manager, CARE personnel, and for researchers who want to import animals from non-approved vendors. This ACUP is approved by the Institutional Animal Care and Use Committee (IACUC). Any deviation must be approved by the IACUC prior to its implementation.

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1. Introduction
   This ACUP describes the procedures to quarantine mice from non-approved vendors. Non-approved vendors are all rodent suppliers other than Charles River Laboratories (excluding National Cancer Institute), Harlan, and the production divisions of Jackson Labs and Taconic. The objective of the quarantine procedures is to prevent the introduction of mouse pathogens into established colonies.

2. Materials
   • Personal Protective Equipment (PPE)
   • Animal husbandry supplies
   • Sentinel testing supplies
   • Parasite treatment (Ivermectin)

3. Procedures
   a. Quarantine manager’s responsibilities:
      i. Ensure that the source institution or vendor provides the CARE veterinarian with the following information:
         • A recent (<3 months) health report of the colony
         • A summary of health issues for the last 2 years for entire facility
- A description of the husbandry and housing practices (sterile or non-sterile micro isolation, use of change station, etc.)
- A description of the health monitoring program
  ii. Ensure that the principal investigator submits an eSirius Mouse Quarantine Requisition form prior to approving entry.
  iii. After the CARE veterinarian notifies the manager of the decision to allow the mice into quarantine, coordinate shipment with source information (see CARE veterinarian’s responsibilities in section 3b).

b. CARE veterinarian’s responsibilities:
  i. Evaluate the information provided by the source institution.
  ii. If necessary, consult with the principal investigator to determine whether the mice will be received for quarantine.
  iii. Notify the quarantine manager of the decision on quarantine housing for each quarantine request.
  iv. Notify the quarantine manager of any special screening procedures for groups of animals (e.g., special instructions if mice are immunodeficient).

c. For Quarantine Access
  i. Staff:
   - Access to the quarantine area is limited to essential personnel only.
   - Research personnel requiring access must contact the quarantine manager to request permission to enter.
  ii. Animals:
   - Transfer of mice from the quarantine mouse unit is not allowed unless the transfer is approved by a CARE veterinarian.
   - Once mice leave the quarantine mouse unit, they are not allowed back into the quarantine unit unless they are processed as a new quarantine group.
   
   **NOTE:** There are exceptions to this step for breeding mice (see Breeding mice in quarantine in section 3d).

d. Breeding Mice in Quarantine
  i. Allow limited breeding during quarantine only if it has been approved by a CARE veterinarian or the quarantine manager.
  ii. If space is limited due to large animal numbers in quarantine, notify researchers that they may need to limit breeding to the most essential lines and needs.
  iii. If barrier mice must be bred to a quarantined group, the barrier mice are brought into the quarantine facility and may not return to the barrier colony until the quarantine period is complete.

e. Personal Protective Equipment (PPE)
  i. Refer to facility level ACUPs.

f. Husbandry
  i. Refer to facility level ACUPs.

  g. Observation and Special Care
  i. Observe the mice at least once daily.
  ii. Check each cage daily to ensure proper connection to the rack.
iii. Report animals with clinical signs to CARE veterinary staff.
iv. If deaths occur, store the carcasses in the designated refrigerator within the Quarantine area and inform CARE veterinary staff for potential post-mortem examination.

h. Animal Arrival
i. Decontaminate the outside of the shipping container with disinfectant.
ii. Remove the mice from the shipping container under the Biosafety Cabinet (BSC) in the quarantine room.
iii. Refer to the Quarantine Request Form to assess the housing requirement and place the mice into Bio-Containment Units (BCU) in the BSC.

i. Quarantine testing
i. Collect a fresh fecal pellet from each cage of quarantine mice and a fresh oral swab from each group of mice. One oral swab may be used for all of the mice in a group if the mice are of the same strain/importation group.
ii. Collect a fur pluck and feces from each group for ectoparasitology and endoparasitology.
iii. Euthanize one mouse from each importation group and collect transtracheal (TTW) and lung wash (LW). The mesenteric lymph node should be removed and stored at -20°C, and the cecal contents should be collected for endoparasitology examination. The manager should contact the PI prior to importation to request an extra mouse for screening.
iv. If an extra mouse is not available, a CD-1 female mouse may be purchased as a sentinel and housed with the imported group for 1 week. In this case, endoparasitology should be performed on feces from non-terminal mice, while TTW and LW should be performed on the nude mouse.
v. Feces, TTW/LW, and oral swabs should be submitted to Charles River for “Cornell PRIA” testing.

j. Ivermectin Treatment
i. After collection of samples, treat all of the animals with 0.008 mg/ml of ivermectin in the drinking water (e.g., mix 1 volume of 0.08% ivermectin sheep drench with 99 volumes of water)
   • Maintain treatment for 7 days
   • Discontinue treatment for the next 7 days
   • Repeat treatment for another 7 days, treating all the animals at the same time
   • If known previous exposure/treatment for ecto-/endo-parasites at source, the CARE veterinarian shall decide if additional ivermectin treatment is warranted on arrival of source mice for five complete treatment cycles.

k. Outcome and follow up
i. Ensure a CARE veterinarian interprets results.
ii. Proceed with one of the following options depending upon the results for each group of quarantine mice and the instructions from a CARE veterinarian:
   - Transfer the mice to an animal facility that accepts mice with the corresponding health status (refer to the excluded pathogens list in the ACUP 545, *Excluded Pathogens from Rodent Facilities*).
   - Begin a rederivation, treatment, or lengthened quarantine process for the mouse line and retest as appropriate.

**NOTE:** Exceptions to testing may be made on a case by case basis. (e.g., if mice are going into accepted pathogen housing, then *Klebsiella* and *Pasteurella* may not need to be screened.)

4. **Personal Safety**
   a. Medical emergencies: call 911
   b. When working with animals, wear appropriate PPE, observe proper hygiene, and be aware of allergy, zoonosis, and injury risks. Refer to the CARE Occupational Health and Safety webpage for more information.

5. **Animal Related Contingencies**
   a. Post contact information for emergency assistance in a conspicuous location within the animal facility.
   b. Emergency veterinary care is available at all times including after working hours and on weekends and holidays:
      - Biomedical settings: CARE (pager 1-800-349-2456)
      - Farm animal settings: Ambulatory and Production Medicine Service at (607) 253-3140.
   c. Non-emergency veterinary questions & requests for care, call or email CARE veterinary staff at 607-253-4378 or care@cornell.edu, respectively.

6. **References**
   b. LAS Rodent Quarantine Space Request Form [http://www.research.cornell.edu/care/documents/Forms/F001.01%20Quarantine%20Space%20Request.doc](http://www.research.cornell.edu/care/documents/Forms/F001.01%20Quarantine%20Space%20Request.doc)