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**1. PURPOSE**

This Standard Operating Procedure (SOP) describes the procedures for housing and caring for rodents exposed to biosafety level 2 (BSL2) biohazards. It ensures that the biohazards are contained and the risk of exposure for the people and other animals is lowered to an acceptable level.

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**2. RESPONSIBILITY**

- 2.1. Principal investigator:
  - 2.1.1. Provide relevant information on biohazard on Animal Use Protocol (AUP).
  - 2.1.2. Provide a copy of biosafety certificate to the Facility Supervisor.
  - 2.1.3. Ensure research staff is appropriately trained before conducting BSL2 experiments.
- 2.2. Facility manager:
  - 2.2.1. Ensure the animal room and equipment is suitable for BSL2 experiment.
  - 2.2.2. Supply necessary material.
  - 2.2.3. Ensure animal care staff and users are properly trained.
  - 2.2.4. Post relevant information for risk identification.
- 2.3. Research and animal care staff:
  - 2.3.1. Follow procedures minimizing risks as described in this SOP.

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**3. MATERIALS**

- 3.1. Personal protective equipment: disposable gown, gloves, sleeve covers, shoe covers, bonnet, mask, goggles or safety glasses.
- 3.2. Biological safety cabinet (BSC)
- 3.3. Microisolator cages
- 3.4. Biohazard MSDS
- 3.5. Biohazard door sign contact
- 3.6. Biohazard waste containers/bags
- 3.7. CSA-approved sharps disposal container
- 3.8. Disinfectant effective against selected biohazard (see MSDS).

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**4. PROCEDURES**

- 4.1. Wear adequate attire to enter the room. This includes long pants, socks, and closed shoes.
- 4.2. The following personal protective equipment must be worn at all times when handling infectious materials or animals:
  - 4.2.1. Bonnet: must cover all the hair.
  - 4.2.2. Mask: must cover the mouth and nose at all times
  - 4.2.3. Gown: only use disposable gowns. Tie the gown in the back. Disposable gowns are single-use only and should be disposed of when leaving the room.
  - 4.2.4. Gloves: should be inspected for tears frequently and changed as needed. Stretch gloves over the cuff of the gown to cover any exposed skin. Wear double gloves at all times.
  - 4.2.5. Disposable sleeve covers: must extend over the gloves by at least one inch. Disposable sleeve covers are single-use only and should be disposed of when leaving the room.

- 4.2.6. Protective eyewear: we recommended that you wear protective eyewear at all times.
- 4.3. Use dedicated materials and equipment (notebooks, cage cards, pens, ear punchers, instruments).
- 4.4. House animals in microisolator cages (ventilated or static) or isolators.
- 4.5. Label all cages with a biohazard sign (including biohazard symbol) and indicate the name of the biohazard used and the date of administration.
- 4.6. Perform all procedures in a BSC (changing cages, infecting animals, necropsy, etc.).
- 4.7. Decontaminate work surfaces after use or after a spill using the appropriate disinfectant.
- 4.8. Do not drink, eat, or store food for human consumption in animal rooms.
- 4.9. Wash or sanitize your hands after handling infectious material or animals, before leaving the room. Wearing gloves does not dispense from the need to wash hands.
- 4.10. Minimize creation of aerosols during all procedures.
- 4.11. Do not recap needles. Dispose in a sharps container.
- 4.12. Vermin control program must be in place in BSL2 animal rooms and the rest of the facility.
- 4.13. Changing cages:
  - 4.13.1. Change cages in the BSC. When necessary, dispose of feed and water with the dirty bedding.
  - 4.13.2. Bag dirty cages in an autoclavable bag under the BSC.
  - 4.13.3. Securely seal the bag with autoclavable elastic bands or twist ties prior to removal from the BSC.
  - 4.13.4. Spray the bag with disinfectant before moving out of the BSC into a second autoclavable bag.
  - 4.13.5. Securely seal the second bag with autoclavable elastic bands or twist ties and spray with disinfectant.
  - 4.13.6. Autoclave the dirty cages in a certified autoclave and ensure proper steam penetration
  - 4.13.7. Wait for Biological indicator results once weekly.
  - 4.13.8. After autoclaving, dispose of the bedding as regular waste and wash cages according to SOP.
- 4.14. Animal room :
  - 4.14.1. Doors to animal rooms must remain closed when infected animals are present.
  - 4.14.2. Set the room relative pressure as negative inward directional air flow compared to corridor and/or anteroom.
  - 4.14.3. Restrict access to BSL2 animal rooms to authorized personnel and users.
  - 4.14.4. Facility manager:
    - 4.14.4.1. Post biohazard sign on the animal room door with the following information:
      - 4.14.4.1.1. Name of biohazard present
      - 4.14.4.1.2. Medical requirements if applicable (e.g., vaccination)
      - 4.14.4.1.3. Name and phone number of resource people (e.g., PI and contact, facility supervisor)
      - 4.14.4.1.4. Requirements for personal protective equipment
    - 4.14.4.2. Ensure that personnel and users have received proper information on the biohazard and procedures.
  - 4.14.5. Dispose of infectious waste and animal carcasses in double biohazard bags or containers.

## SOP REVISION HISTORY

DATE	PREVIOUS VERSION	NEW VERSION
2016.03.01	(NO TEXT)	<p>4.2. The following personal protective equipment must be worn at all times when handling infectious materials or animals:</p> <p>4.2.1. Bonnet: must cover all the hair.</p> <p>4.2.2. Mask: must cover the mouth and nose at all times</p> <p>4.2.3. Gown: only use disposable gowns. Tie the gown in the back. Disposable gowns are single-use only and should be disposed of when leaving the room.</p> <p>4.2.4. Gloves: should be inspected for tears frequently and changed as needed. Stretch gloves over the cuff of the gown to cover any exposed skin. Wear double gloves at all times.</p> <p>4.2.5. Disposable sleeve covers: must extend over the gloves by at least one inch. Disposable sleeve covers are single-use only and should be disposed of when leaving the room.</p> <p>4.2.6. Protective eyewear: we recommended that you wear protective eyewear at all times.</p>
2016.03.01	(NO TEXT)	4.3. Use dedicated materials and equipment (notebooks, cage cards, pens, ear punchers, instruments).
2016.03.01	(NO TEXT)	4.13.5. Securely seal the second bag with autoclavable elastic bands or twist ties and spray with disinfectant.
2018.11.14	3.7. Sharps container	3.7. <b>CSA-approved</b> sharps <b>disposal</b> container