



ANIMAL FACILITY
STANDARD OPERATING PROCEDURE

SOP-01 : ANIMAL BIOSAFETY LEVEL (GENERAL)

SOP Title:	Animal Biosafety Level (General)
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ANIMAL BIOSAFETY LEVEL - GENERAL

1. PURPOSE

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

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 the biosafety certificate to the Facility Supervisor.
- 2.1.3. Ensure research staff is appropriately trained before conducting ABSL experiments.

2.2. Scientific Officer:

- 2.2.1. Inspecting authoritative publications to discern understudied topics.
- 2.2.2. Crafting and proposing novel, scientifically rigorous research ideas.
- 2.2.3. Co-steering joint research undertakings.
- 2.2.4. Spearheading data collection and accompanying interpretation.
- 2.2.5. Promoting beneficence and minimizing risks.
- 2.2.6. Conducting in-house research presentations.
- 2.2.7. Publishing your findings in pertinent highly-regarded academic journals.
- 2.2.8. Securing sufficient pertinent funding to supplement extant finances.

2.2.9 Ensure the animal room and equipment are suitable for the ABSL experiment.

2.2.10 Supply necessary material.

2.2.11 Ensure animal care staff and users are adequately trained.

2.2.12 Act as liaison between scientists & animal Care staff.

2.2.13 Post relevant information for risk identification.

2.2.14 Assisting in developing workplace policies and production of laboratory documentation, particularly relating to policies and standard operating procedures that meet government regulatory standards.

2.2.15. Developing Business Opportunities, Promotion & Responding to professional inquiries.

2.3. *Veterinary Doctor:*

2.3.1. Animal Health Check-up & Maintaining Animal Health Checkup Record at Regular Intervals as per CPCSEA Guidelines

2.3.2.. Conduct Environment Microbial count check at regular intervals & Maintain Records at Regular Intervals as per CPCSEA guidelines

2.3.3.. Conduct Test for Water Microbial Check and Maintaining Record at Regular Intervals as per CPCSEA guidelines.

2.5.: *Molecular Biology Lab Technician*

2.5.1. Assist in Animal Health Check up & Maintaining record along with Veterinary Doctor

2.5.2. Assist in Maintaining Animal Health Check Record with Veterinary Doctor.

2.5.3. Assist in Conducting Experiments for Testing Environmental Microbial Count & maintaining record with Veterinary Doctor

2.5.4. 2.5.5 Conduct Experiment to Test Water Microbial Count & Maintain Record

2.4. Research and animal care staff:

2.4.1. Follow procedures minimizing risks as described in this SOP.

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. Micro isolator cages

3.4. Biohazard Material Safety Data Sheet (MSDS)

3.5. Biohazard door sign contact

3.6. Biohazard waste containers/bags

3.7. The Committee for Control and Supervision of Experiments on Animals (CPCSEA) & Indian Council of Medical Research (ICMR) - approved sharps disposal containers.

3.8. Disinfectant effective against selected biohazard (see MSDS).

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 always be worn when handling infectious materials or animals:

4.2.1. Bonnet: must cover all the hair.

4.2.2. Mask: must always cover the mouth and nose

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. Always wear double gloves. Contaminated gloves must be changed IMMEDIATELY. Under NO CIRCUMSTANCES, gloves should be reused. Gloves can NEVER be worn when touching doorknobs or other items that will leave this room.

4.2.5. Disposable sleeve covers must extend over the gloves by one inch. Disposable sleeve covers are single-use only and should be disposed of when leaving the room.

4.2.6. Protective eyewear: we recommend that you always wear protective eyewear.

4.3. Use dedicated materials and equipment (notebooks, cage cards, pens, ear punchers, instruments).

4.4. House animals in micro isolator cages (ventilated or static) or isolators.

4.5. Label all cages with a biohazard sign (including a 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, autopsy, 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. All personnel must know the location of the nearest safety shower.

4.10. Minimize the creation of aerosols during all procedures.

4.11. Do not recap needles. Dispose of in a sharp container.

4.12. Vermin control program must be in place in ABSL 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 before 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 relative room pressure as negative inward directional airflow compared to corridor and anteroom.

4.14.3. Restrict access to ABSL animal rooms to authorized personnel and users.

4.14.4. Scientific Officer:

4.14.4.1. Post a 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 accurate information on the biohazard and procedures.

4.14.5. Dispose of infectious waste and animal carcasses in double biohazard bags or containers.

SL NO	BSL2 AGENTS
1	MOUSE HEPATITIS VIRUS (MHV)
2	LEISHMANIA MAJOR
3	INFLUENZA
4	DONAVANI