

# **University at Buffalo Institutional Animal Care and Use Program Policy on Animal Behavior Testing Rooms and Equipment**

## **Purpose**

This policy describes the expectations and requirements for the care and maintenance of animal behavior testing rooms and equipment.

## **Background**

Animal behavior testing is critical to many animal research protocols at the University at Buffalo (UB). Spaces for testing exist both inside the Laboratory Animal Facilities (LAF) and outside the facilities in Principal Investigator (PI) Laboratories. Spaces and equipment must adhere to all applicable regulations and guidelines for animal research.

## **Policy**

1. IACUC Approval:
  - a. Prior to conducting any test, all behavior tests (and testing locations) must first be added to the relevant IACUC protocol and approved.
2. Infrastructure:
  - a. Floors:
    - i. Should be moisture resistant, nonabsorbent, impact resistant and relatively smooth to allow for thorough cleaning.
    - ii. Should be easy to repair and resistant to cleaning agents.
    - iii. Should be capable of supporting the equipment they are holding without becoming gouged, cracked or pitted. Increased floor loading may be required to support specific testing apparatuses (ex. swim tanks).
    - iv. Floors containing unused drains should be either capped and sealed or fitted with drain covers to prevent backflow of sewer gases, vermin and other contaminants.
  - b. Walls and Ceilings:
    - i. Should be smooth, moisture resistant, nonabsorbent and resistant to damage from impact.
    - ii. Should be free of cracks, unsealed utility penetrations and imperfect junctions.
    - iii. Surface material should be capable of withstanding cleaning with detergents and disinfectants.
    - iv. Ceilings formed by concrete slab should be smooth and sealed or painted.
    - v. Suspended ceilings are less desirable, but may be acceptable IF
      - 1) They are sealed from the space above with gaskets and clips.

Effective Date: 3/2024

Next Review Date: 3/2027

First Approved: 3/2024

Revised: --

- 2) They are fabricated of impervious materials and have a washable surface.
      - 3) They are free of imperfect junctions.
    - vi. Exposed plumbing, ductwork and light fixtures are undesirable unless surfaces can be readily cleaned.
    - vii. Tape and adhesives should not serve as the primary means of securing electronics and cables. Excessive use of adhesives (tape) should be avoided, and residues left by adhesives should be thoroughly cleaned from walls and ceilings.
  - c. Heating, Ventilation and Air Conditioning (HVAC):
    - i. Unless otherwise approved, the proper temperature and humidity levels for the species should be maintained in behavior testing spaces, especially when animals are kept in these spaces for longer periods of time (several hours).
  - d. Noise, Vibrations, Lights and Smells:
    - i. To the extent possible, testing rooms should be selected to minimize external auditory, visual, tactile and olfactory stimuli.
    - ii. Nearby fire alarm systems should be considered.
    - iii. Doors should be enabled to close quietly, and traffic of personnel should be limited in testing areas.
    - iv. Special construction features may be desirable to prevent noise, odors and light from entering the room.
3. Use of Electronics:
  - a. Consideration must be given to the types and amount of electronics and other equipment used to ensure that the HVAC and electrical systems can accommodate the associated heat loads and electricity requirements.
  - b. Since computers and recording equipment cannot be disinfected, they should be located in areas within rooms where contact with animals is unlikely and covered when not in use (ex. keyboard covers).
4. Transportation of Animals to Testing Areas:
  - a. Transportation to and from testing areas must follow LAF SOP 1D1 (Transportation of Laboratory Animals).
  - b. Consideration will be given to providing testing spaces in close proximity to animal housing whenever possible.
5. Cleanliness and Surface Disinfection:
  - a. Research equipment should be sanitized (with regular validation of methods) as per LAF SOP 1 C7 (Sanitation of Research Equipment).
  - b. Behavior testing spaces should be regularly cleaned (dust removed, floors swept and floors mopped). When in use, this should happen at least once per week and is the responsibility of Research (Lab) Staff.
  - c. Behavior testing boxes (ex. operant conditioning chambers) should be regularly cleaned and disinfected. Dirt, dust, bedding and hair should not be allowed to

Effective Date:  
Next Review Date:  
First Approved: 3/2024  
Revised: --

accumulate on the inside or outside of chambers. Wastes should be removed at least daily and food/edible rewards should not be left in unused boxes. Tubing should be disinfected or discarded between groups.

- d. As per The Guide, testing equipment should be designed in such a way to allow surface disinfection between studies.
  - i. Equipment should be made of **non-porous materials**.
  - ii. If porous materials (ex. wood, fiberboard) are used, equipment must be regularly sealed to create a non-porous surface (a waterproofing sealant or paint as selected by the PI to meet research needs). Such items must be conspicuously labelled with the sealant used and the last date it was applied.
  - iii. If animals are in direct contact with the sealed wood surface, the PI must annually validate disinfection methods for EACH wooden apparatus (ex. via use of RODAC plate testing) and maintain records for regular IACUC review (during semi-annual inspections). For more information, see LAF SOP 1C7.
- e. Whenever possible, **adhesives** (ex. tape, contact paper) should be avoided, especially on surfaces that are in direct contact with animals.
  - i. If adhesives (tape, contact paper) are deemed critical in association with testing equipment, an amendment to the IACUC must be submitted for review:
    1. Scientific justification for the use of adhesives within the testing apparatus must be provided.
    2. Reasons why alternative, non-adhesive materials are unsuitable must be explained.
    3. A commitment to annually validating surface disinfection for each piece of equipment that contains adhesive on a surface in direct contact with the animal must be outlined. See LAF SOP 1C7.
    4. If adhesives are necessary, automotive tape is recommended, as it does not leave a significant sticky residue after removal (making thorough cleaning more achievable).

Effective Date:  
Next Review Date:  
First Approved: 3/2024  
Revised: --