



Policy 313

Sanitation of Investigator-Maintained Equipment Used with Animals

Responsible Official:	Research Administration
Administering Division/Department:	Research Compliance and Regulatory Affairs / IACUC
Effective Date:	3/16/2022
Last Revision Date:	12/6/2017

313.1 Purpose: Testing and procedural equipment used in direct contact with animals through the course of research manipulations are sanitized at appropriate intervals to provide a clean environment and minimize contamination between test animals. The “Guide for the Care and Use of Laboratory Animals”, 8th edition stipulates: “Whether the sanitation process is automated or manual, regular evaluation of sanitation effectiveness is recommended”.

313.2 Scope: This policy applies to testing and procedural equipment maintained by research groups under an approved IACUC. Housing materials in researcher-managed animal care programs within approved satellite locations must be sanitized following procedures within their respective animal resource program. Items sanitized under the purview of the Yerkes and SOM animal resource programs are outside the scope of this policy. This policy does not apply to surgery instrument sterilization.

313.3 Responsibility:

313.3.1 Sanitation during active use: It is the responsibility of all research personnel to ensure approved procedural equipment are cleaned appropriately, and sanitation methods validated.

313.3.2 Dedicated equipment: For equipment used by a single research group and for that used as part of a core resource, responsibility for performing sanitation methods lies with the principal investigator who owns equipment, the scientific director of the core area, or their designee.

313.3.3 Shared equipment: For equipment in shared (unassigned) spaces, a responsible individual must be identified.

313.4 Cleaning Agents and Methods: According to The Guide, “monitoring of sanitation practices should fit the process and materials being cleaned.” It is beyond the scope of this policy to prescribe methods for sanitizing all types of equipment used in animal research. Some materials are sensitive to certain classes of disinfectants and adherence to manufacturer guidance is recommended. **Attachment 1** includes general sanitization procedures as well as cleaning guidelines for some commonly used items. Most important is adherence to the following requirements:

- Cleaning methods must be described and approved in the applicable IACUC protocol.
- Cleaning methods must be validated as outlined in this policy.
- Method validation should be in accordance with the description in 313.5 and the respective animal resource program.



313.5 Method Validation Requirements: An assessment of method effectiveness can be conducted using visual inspection and one of the following microbiologic assessments: ATP (Adenosine Triphosphate) testing, RODAC (Replicate Organism Detection and Counting) plate cultures or Sterile Bacteriology Swabs. Verification of methods may be done at any time in accordance with the respective animal resource program. The validation method/s will be selected by each unit (Yerkes DAR or SOM DAR).

- **Visual Assessment:** If validation is not achievable by other methods, visual assessment would serve as the sole method of validation and must be approved in the applicable IACUC protocol.

313.6 How to perform validation

313.6.1 SOM DAR

- DAR lab will sample randomly selected units using ATPase technology.
- Record keeping will be done by SOM DAR

313.6.2 Yerkes DAR

- Refer to Yerkes SOP 4.12 Quality Assurance Program: ATP Bioluminescence Microbial Monitoring and RODAC Plating.
- Refer to Yerkes SOP 4.26 Sanitizing Research Equipment Used with Animals.
- For additional training in validation procedures, contact the Yerkes DAR Training Coordinator (yrk-dartrn@emory.edu).

313.7 Semi-Annual Inspection Standards:

Visual Assessment: All equipment is subject to visual assessment during semiannual inspections and must minimally meet the following standards at all times: free of dander, excrement, bedding, and disagreeable odors.

313.8 Attachments

Attachment 1 Cleaning Recommendations for Commonly Used Equipment

Contact Information

Subject	Contact	Phone	Email
Clarification of Policy	Office of Research Compliance and Regulatory Affairs - IACUC		iacuc@emory.edu

Revision History

- Version Published on: 4/1/2022
- Updated version: 12/6/2017
- Original version: 12/7/2014



Attachment 1: Cleaning Recommendations for Commonly Used Equipment

General Sanitization Procedures:

- All portable and fixed equipment, as well as surfaces that come in contact with animals, must be cleaned and disinfected prior to and after each episode of use by the personnel using the equipment and/or procedural areas.
- Disinfection is most effective when preceded by effective mechanical cleaning, where applicable.
- Following testing, any direct or indirect contact bedding used in chambers must be removed prior to sanitation procedures, and replaced with fresh, clean substrate.
- Direct contact bedding changes and sanitation procedures are required between test subjects where a chamber may be used sequentially.

EXAMPLE for Manual Cleaning

- 1) Manually scrub the equipment using warm to hot tap water with soap and a scouring sponge or equivalent. Use appropriate PPE to prevent injuring your skin.
- 2) Rinse afterwards with copious amounts of tap water.
- 3) Air dry or dry with paper towels.
- 4) The sponge should be specifically dedicated to washing only one piece of equipment to avoid cross contamination.
- 5) Once washing is complete, rinse the sponge, soak it with detergent, rinse the sponge with copious amounts of water, squeeze out the excess moisture, and air dry.

Anesthesia chamber(s) and nose cones: To clean, use warm water and a solution of mild soap or detergent, or use an acrylic safe cleaner. Do not use alcohol, bleach, window cleaners or harsh solvents.

Stereotaxic frames, behavioral and imaging equipment(s): If applicable, clean with warm water and a solution of mild soap or detergent; otherwise use DAR approved disinfectant.

Testing cages and transfer boxes: Spray with center-approved disinfectant between animals. Run through the cage washer

Joysticks and computer carts: To clean, use warm water and soap or DAR-approved disinfectant. Run through the cage washer if possible.

Jackets and other cloth objects: To clean put in the washing machine with hot water, detergent and bleach.

Restraint Chairs: To clean, use warm water and soap or DAR approved disinfectant. Run through the cage washer every 2 weeks if possible.

Other equipment: Fixed or too large to handle mazes, water mazes, treadmills and the like should be cleaned using hand sanitization involving a "thorough" wipe down with "approved" disinfectant. Likewise, surfaces, platforms and stages associated with imaging devices, stereotactic surgery apparatus, microscopes, and irradiators not amenable to washing should be hand sanitized.