

Institutional Animal Care and Use Committee Guidelines and Policies

GUIDELINES FOR HEALTH AND SAFETY FOR ANIMAL RESEARCHERS

In accordance with recommendations set forth in the NIH “[Guide for the Care and Use of Laboratory Animals](#)” (National Academy Press) and “[Occupational Health and Safety in the Care and Use of Research Animals](#)” (National Research Council), Rosalind Franklin University of Medicine and Science has a program of occupational health and safety for individuals who have animal contact in the course of their employment or studies. As part of this program, guidelines have been developed to reduce the risks to personnel associated with animal care and use.

The precautions identified in this document represent fundamental aspects of occupational health and safety that apply to a wide range of risks encountered in the care and use of research animals at the University. Hazards associated with working with animals include: Physical hazards (e.g. steam, bites, scratches, kicks, sharps, noise, ergonomic hazards, wet floors, electricity), Chemical hazards (e.g. anesthetics or other laboratory chemicals which may be flammable, explosive, corrosive, irritating or toxic), Biological hazards (e.g. zoonotic agents like viruses, bacteria or parasites which can be transmitted between animals and human) as well as protocol-specific hazards (e.g. use of radioactive materials or radiation, infectious agents or recombinant DNA agents which would necessitate additional review and approval from relevant committees such Biohazards or Radiation Safety).

In addition to recognizing and adhering to the general precautions identified in this document, it is essential that all personnel understand protocol-associated risks prior to initiating animal care and use activities.

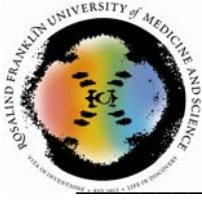
GENERAL GUIDELINES

Personal Hygiene

- Do not eat, drink, chew gum, use tobacco products handle contact lenses, or apply cosmetics in areas where animals are present.
- Keep hands away from your mouth, nose, and eyes when handling animals.
- Wash hands after handling animals and prior to leaving animal care and use areas.

Sharps

- Exercise caution when using sharps such as needles, scalpels, razor blades and glass pipettes. Special care is required in the use of needles to avoid needle stick injuries.
- Always dispose of sharps including needles, without recapping, directly into an appropriate sharps container.
- Appropriate restraint or sedation of animals during procedures involving needles or other sharps decreases the risk of injury.



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Allergens

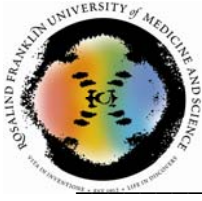
Allergic reactions are among the most common conditions that adversely affect the health of personnel involved in the care and use of animals in research. Rats, mice, guinea pigs, rabbits and cats are among the most important inducers of allergies in laboratory animal workers. Individuals who are already sensitized (for example due to pre-existing allergies to domestic cats or other pets) may be more susceptible to developing allergies to laboratory animals. Allergens present in the urine, saliva, fur, dander, bedding and other unknown sources are aerosolized during handling of laboratory animals, clipping hair, dumping bedding and cleaning animal rooms.

Procedures should be performed to minimize contact with animal dander, hair, scales, fur, saliva, urine and feces. This involves the use of personal protective equipment (PPE) such as laboratory coats, gloves, face masks, respiratory equipment and well as the use of biosafety cabinets, hoods and dump stations. The following good laboratory practices may help reduce exposure to animal allergens:

- Whenever possible, perform animal manipulations in a ventilated hood or a biosafety cabinet. If this is not possible, a dust mask or surgical mask may be helpful.
- When not working in a hood or cabinet, make sure that the animal room or other work area is adequately ventilated and that all the air handling equipment in the room is in good order.
- Wear personal protective equipment when working with animals
- Reduce skin contact with animals by wearing gloves and long-sleeved lab coats.
- Wash your hands frequently; wash hands, face and neck before leaving the work area.
- Avoid touching your hands to your face while working with animals and animal equipment.
- Consider using hair covers since allergens in the hair may be carried home resulting in prolonged exposure.
- Keep the work area clean.
- In some cases, the use of respiratory protection when handling or working around laboratory animals may be recommended in order to reduce inhalation exposure.

Allergies to latex gloves and latex-containing masks and respirators used during animal procedures are also common. Personnel with latex allergies should use alternatives such as nitrile or vinyl gloves and latex-free masks and respirators.

If you feel you may suffer from an allergy to the animals you work with, report to your supervisor and to the EHS office as well as your physician. Many allergies can be effectively managed by a combination of medical management and workplace strategies.



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Personal Protective Equipment (PPE)

Laboratory coats, scrubs, disposable coveralls or other garments should be worn to protect street clothes from contamination when handling animals. Gloves should be worn whenever handling animals, their fluids, tissues, excretions or soiled bedding to reduce exposure to allergens and potentially zoonotic agents. Follow requirements for additional protective equipment such as head covers, surgical masks or respirators, eye protection and booties as directed by your supervisor. Protective clothing and equipment should not be worn in public areas (such as cafeteria or library) and should be left in the area of use.

If a person chooses to use a respirator they must be enrolled in the Respiratory Protection Program. This program is administered by the Office of Student Affairs.

Chemicals

Burns and irritation of the skin are possible chemical injuries associated with animal care and use. Understand the risks and precautions for working with disinfectants, anesthetic gases, chemicals used for preserving tissues (e.g. formaldehyde), and other chemicals. Consult the Material Safety Data Sheet (MSDS) for each chemical in use to better understand the risks associated with a substance. Exposure to anesthetic waste gases must be minimized by using effective scavenging techniques.

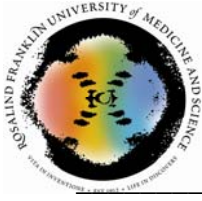
Laboratory Animal Maintenance and Transport

Animals and animal cages must be stored and transported in a contained manner to protect personnel from potential exposure to animal allergens, bites and scratches. For example, in order to minimize liberation of airborne animal allergens, laboratory personnel should ensure that filter tops are placed on mice and rat cages during storage and transport. Soiled cages may also be contained in bags as a means of minimizing allergen exposure during transport. Personnel should use non-public corridors and service elevators to minimize potential exposure to the public. Animals that are to be moved through areas of access by the public should be visually obscured.

Bites and Scratches

All animals are capable of inflicting bites and scratches. Small animals, such as rodents and rabbits usually deliver relatively minor wounds. Bite and scratch wounds can become infected by the normal bacterial flora of the animal's mouth or toenails, or by bacterial flora from the individual's skin. To prevent bites and scratches use proper animal handling techniques. Protective garments, such as gloves, gauntlets and long-sleeved laboratory coats limit injury to the hands and arms. Contact BRF staff for guidance on appropriate animal handling and restraining devices.

In case of an animal bite or scratch **immediately wash the wound with plenty of soap and water**, contact your supervisor and, if necessary, seek emergency medical care. Report all incidents of animal bites or scratches to Security at X3288.



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Housekeeping

Poor housekeeping practices can increase the seriousness of other hazards associated with animal care and use. Housekeeping should be sufficient to keep work surfaces clean and clear of clutter, obstructions, waste, and other materials. Keep walkways and egress pathways clean and free of debris at all times.

Pressure Vessels

Compressed-gas cylinders and other pressurized vessels present a substantial hazard to workers if an uncontrolled or improper release of pressure occurs. Compressed-gas cylinders **must be secured at all times and capped when not in use**. Do not transport gas cylinders without appropriate personal protective equipment (i.e., safety shoes). Cylinders are to be transported on a gas cylinder transport cart and under no circumstance shall cylinders be “rocked” or “rolled” to a new location.

Electricity

Electrical equipment in labs and the vivaria must be grounded, with plugs and cords in good repair (i.e., no frayed cords or exposed wires). Extension cords must not be used as a long-term solution in place of permanent wiring as they can create other hazards such as tripping. A qualified electrician must make electrical repairs. Contact the Operations/Maintenance Department at X3249 for any necessary electrical repairs.

High Pressure Water and Steam

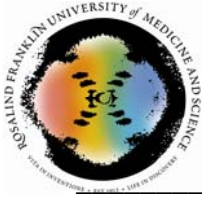
High pressure water and steam are physical hazards for animal handlers who utilize equipment such as autoclaves, power washers, cage washers. When unloading an autoclave, verify that the pressure is near zero prior to opening the door. Slowly crack open the door and allow the steam to gradually escape. Allow materials in the autoclave to cool for 10 minutes prior to removal and use heat resistant gloves and boot covers, as necessary. Do not allow untrained personnel to operate such equipment.

Wet floors

Wet floors are a prominent physical hazard in animal areas. Do your part in promptly reporting or eliminating wet floor surfaces. If it is necessary to walk across wet floors, use extreme caution. Proper non-slip shoes or protective boots are recommended for environments that consistently have wet floor surfaces. When possible, post wet floor signs to alert coworkers and visitors of this hazard.

Ergonomics

Properly designed work spaces and work place practices can reduce the risk of musculoskeletal injury. For example, storing heavy objects on the floor or above chest level should be avoided. Racks or carts should be pushed rather than pulled. The ability to change tasks within a workday helps to lessen static postures or repetitive motions that can result in injury. Contact the Office



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of Environmental, Health and Safety at X3420 if an ergonomic assessment is necessary for a particular task.

Noise

Excessive noise can result from animals, cage washers, and other sources. OSHA regulations impose limits to noise exposure. When noise levels exceed OSHA permissible exposure limits and engineering controls are not feasible, protective equipment (ear plugs) must be used to minimize exposures. Contact the Office of Environmental, Health and Safety at X3420 for noise testing, as necessary.

Waste Disposal

Uncontaminated (i.e. not containing hazardous chemical, biological or radiological materials) animal carcasses, tissues, body parts, blood and materials (e.g. gauze) visibly contaminated with blood must be placed into a non-transparent plastic bag. Bags used for uncontaminated waste disposal should be sealed and transported to the designated disposal area in the BRF.

REPORTING AND TREATMENT OF ILLNESSES, INJURIES OR ACCIDENTS:

- All injuries, illnesses or accidents shall be reported immediately to the employee's supervisor and to RFUMS Security at X3288. In case of an emergency, "911" may be dialed from any phone once an outside line has been reached by dialing "9".
- Security, with the help of the supervisor and the employee (if possible) will promptly investigate all injuries, illnesses or other incidents. Appropriate corrective measures to prevent reoccurrence shall be implemented with the assistance of the Office of Environmental, Health and Safety.
- Individuals who observe conditions or work practices that pose a potential risk should notify their supervisor and/or the Office of Environmental, Health and Safety.

ZOONOSES:

Diseases transmissible from humans to animals are called zoonoses. These are very rarely encountered in the laboratory animal setting. It is far more likely for a person to injure themselves from an experiment or other mishap in the lab than to contact a disease from an animal. However, personnel should be familiar with zoonotic diseases present in the species they work with. Zoonotic diseases can be prevented through a variety of means, including use of protective clothes, prevention of bites and scratches, proper sharps handling procedures, appropriate surveillance programs, and prompt and appropriate post-injury treatment. There are many sources of information on zoonoses on the web today. Several of these are listed here:

- [1. CDC National Center for Infectious Diseases Zoonosis Information:](#)**
- [2. Zoonotic Diseases Tutorial](#)**
- [3. University of Pennsylvania Animal Zoonoses Information Links](#)**