

Institutional Animal Care and Use Committee

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IACUC GUIDELINE: MINIMUM REQUIREMENTS FOR PERSONAL PROTECTIVE EQUIPMENT
WHEN WORKING WITH LABORATORY ANIMALS

DATE IMPLEMENTED: September 21, 2010

DATE(s) REVISED: April 7, 2011; May 20, 2011; June 21, 2013; January 24, 2014; April 12,
2019; July 30, 2020; June 7, 2024

PREAMBLE:

This guideline was created to provide guidance on the use of **personal protective equipment (PPE)** for all University of California, Santa Barbara campus individuals who use animals in research, teaching, and/or testing. It is not intended for individuals working with wild animals in a field setting, except during transportation of those animals. The guideline was developed in a cooperative effort between the IACUC, Animal Resource Center (ARC), and Environmental Health & Safety (EH&S).

Appropriate use of PPE is an important part of the University's Occupational Health and Safety Program and serves several purposes:

- To protect personnel from animal allergens and other biological or chemical hazards
- To reduce the potential for introducing animal pathogens into the animal population
- To meet the requirements of Federal regulations, animal-use accrediting agencies, research funding agencies and accepted good practices.

Therefore, for the protection of campus personnel and research animals, the IACUC can impose sanctions on those who do not adhere to this guideline. As part of the IACUC's semi-annual facilities inspection process, the IACUC members will monitor the adherence to this guideline. Sanctions may include; denial of access to the animal research facilities and/or suspension of the relevant protocol(s).

PPE GUIDELINES:

General:

1. A variety of animal species are housed and handled in campus facilities, and there are significant differences in the design and operation between our animal facilities. This can result in very different risks of hazard exposure, both for the individuals handling the animals in the facility and neighboring populations. The Principal Investigator (PI)/Supervisor/Director responsible for the animal facility (e.g., ARC vivaria) or dedicated animal procedure space must assess the hazards and exposures, and establish the PPE requirement. This risk assessment and the PPE requirements must be documented, for example, in the animal facility safety and hygiene plan, chemical hygiene plan, animal husbandry and care SOP or

in the animal use protocol. It is also the responsibility of each PI/Supervisor/Director to ensure that all personnel working in these spaces are provided with the appropriate PPE, and are trained in the need for, and use of, appropriate PPE. PPE training will be documented.

2. The following minimum attire and PPE must be worn when and where laboratory animal use poses a risk to individuals. PPE should be donned when entering the animal facility and properly worn whenever handling animals, their fluids, tissues, excretions or soiled bedding to reduce exposure to allergens and zoonotic agents. PPE must be changed when soiled or contaminated.
 - a. Full-length pants (or equivalent) and closed toe/heel shoe attire must be worn at all times by all personnel who are occupying or entering the ARC vivarium and/or a laboratory animal facility/space outside of the ARC. The area of skin between the pants and shoe should not be exposed.
 - b. Dedicated and clean lab coats or uniforms (i.e., scrubs worn by ARC staff) must be worn within ALL animal holding or procedure rooms in the ARC vivaria, laboratory animal procedure areas outside of the ARC, and/or teaching laboratories where live laboratory animals are used.
 - i. Lab coats will be provided by the ARC for all animal use areas in the ARC. Lab coats for other labs or facilities will not be permitted within the ARC.
 - ii. Lab coats will be provided by PIs in laboratory animal procedure areas outside of the ARC.
 - iii. Lab coats will be provided by PIs where live laboratory animals are used as a part of a university-approved teaching course.
 - c. Disposable gloves (nitrile, or nylon) must be worn while handling laboratory animals.
 - d. Additional PPE (bonnets, shoe-covers, safety glasses and face shield) may be required for specific applications and animal use areas (e.g., ABSL2). These additional PPE requirements will be clearly posted in the area where the use is required, and be supplied by the ARC or PI.
3. When transporting animals between the animal facility or field settings and laboratories, animals must be securely contained in transport containers that have been decontaminated prior to use. PPE should not be worn when transporting animals to and from the animal care facilities through public areas. Once PPE has been worn inside the animal facilities, it should not be worn outside the facility. PPE may be contaminated and thus pose a risk to non-animal users. Exiting or re-entering animal facilities while wearing PPE is a breach of these guidelines.
4. To minimize exposure to Lab Animal Allergens (LAA), at a minimum NIOSH-certified disposable filtering face piece respirators (N95 or greater) shall be worn when entering/working in indoor research areas when engineering controls are broken, or when they are shut down for maintenance, unless there is a documented risk assessment (see #1 above) reviewed by the IACUC showing that the use of respiratory protection is not required. Additionally, for individuals who suspect that they may be allergic or becoming sensitive to a particular species, they should inform their PI/supervisor so additional protection measures can be evaluated. **Rooms requiring respirator use shall be clearly marked by the ARC or PI (for dedicated animal procedure spaces controlled by the PI). All personnel required to use respiratory protection must receive a medical evaluation, training and fit-testing prior to respirator use.** Please contact [UCSB Respiratory Protection Program](mailto:rpp@ucsb.edu) (rpp@ucsb.edu) for more information.

5. In general, respirators are less effective than working in a ventilated hood or work area. However, even in properly controlled/ventilated areas respirators can further reduce the likelihood of developing allergies to animal dander, etc. Individuals who would like to voluntarily use a respirator in areas other than those where it is required should talk to their supervisor and contact [UCSB Respiratory Protection Program](mailto:rpp@ucsb.edu) (rpp@ucsb.edu) for more information **Respirators should never be used as a substitute for good workplace hygiene practices.**
6. Proper animal husbandry procedures (e.g., cage changing) are critical to protecting individuals and the animals. Specifically, clean animal cages carefully so that aerosols are kept to a minimum, change rodent cages under a HEPA-filtered laminar flow workstation, and use ventilated dump stations to empty dirty bedding from rodent cages/enclosures. All individuals who perform cage dumping, washing and/or changing duties in the Biological Sciences II or BioEngineering Vivarium (i.e. emptying dirty bedding from rodent cages) shall use at a minimum NIOSH-certified disposable filtering facepiece respirators (N95), unless there is a documented risk assessment (see #1 above) reviewed by the IACUC showing that the use of respiratory protection is not required.
7. As some individuals are more sensitive to animal allergens and are clearly symptomatic, additional PPE may be prescribed based on an occupational health assessment as performed by the Occupational Health Physician.

Guideline Limitations:

This guideline is not meant to cover all potential concerns that might be encountered in animal facilities, or labs, or to limit the requirements of these sites. Nor does this guideline intend to establish requirements for experiments that have special safety needs such as the use of infectious disease organisms, hazardous chemicals or radiation sources, or for individuals with special health needs, such as pregnancy or immune deficiency. Personnel with questions regarding any research-related safety concern or who may have a specific health concern should contact their PI, EH&S, or consult with their medical provider.

REFERENCES:

1. Guide for the Care and Use of Laboratory Animals 8th Edition. Institute for Laboratory Animal Resources, National Resource Council. 2011. National Academy Press.
2. Occupational Health and Safety in the Care and Use of Research Animals. Committee on Occupational Safety and Health in Research Animal Facilities, Institute of Laboratory Animal Resources, National Research Council. 1997. National Academy Press.
3. Preventing Asthma in Animal Handlers. January, 1998. DHHS (NIOSH) Publication No.97-116. Available on the Web at: <http://www.cdc.gov/niosh/docs/97-116/>.
4. University of California Policy. Personal Protective Equipment. Effective date March 31, 2014. <http://policy.ucop.edu/doc/3500597/PersonalProtectiveEquip>