

Institutional Animal Care and Use Committee

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

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 research 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, chemical, or radiological 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, coordinator, or ARC staff 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. Wild animals are also handled in a field setting, where there is an even greater diversity in the animal species and environmental conditions. This can result in very different risks of hazard exposure, both for workers handling the animals in the facility and neighboring populations. The Principal Investigator (PI)/supervisor responsible for the animal facility or the field research must assess the workplace hazards, and establish the PPE requirement, with the exception of the ARC vivaria (see #2). These requirements must be documented, for

example, in the animal facility SOP or in the animal use protocol. It is each investigator's responsibility to ensure that all personnel on their protocol(s) are trained in the need for, and use of, appropriate PPE. PPE training will be documented.

- a. If social distancing measures are required (i.e., during Covid-19 pandemic), then additional PPE requirements for personnel taking part in hands-on training should be implemented, regardless of the animal training being performed. Additional PPE, such as a N95, half-face, or full-face respirator, should be used during in-person training. If using an N95 (instead of a full-face respirator), then personnel should consider also using a face shield. **All personnel required to use respirators must receive a medical evaluation, training and fit-testing prior to using a respirator.** Please contact EH&S for more information.
2. The following minimum attire and PPE must be worn in the ARC. 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 vivarium. The area of skin between the pants and shoe should not be exposed.
 - b. Clean lab coats or dedicated uniforms must be worn within the animal holding or procedure room, and will be provided by the ARC. Other lab coats will not be permitted within the ARC.
 - c. Disposable gloves (nitrile, neoprene, or latex) must be worn while handling animals.
 - d. Additional PPE (bonnets, shoe-covers, safety glasses, or face shields) 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.
 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. At a minimum NIOSH-certified disposable filtering face piece respirators (N95) shall be worn when entering/working in indoor areas not equipped with adequate engineering controls, when engineering controls are broken or when they are shut down for maintenance. Additionally, if you suspect that you may be allergic or becoming sensitive to a particular species, please inform your PI/supervisor so additional protection measures can be evaluated. **Animal housing rooms requiring respirator use shall be clearly marked by ARC staff or satellite facility staff. All personnel required to use respirators must receive a medical evaluation, training and fit-testing prior to using a respirator.** Please contact EH&S 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. If you would like to voluntarily use a respirator in areas other than those where it is required, please talk to your supervisor and

contact EH&S 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 washing duties in the Biological Sciences II or Psychology Vivarium (i.e. emptying dirty bedding from rodent cages) shall use at a minimum NIOSH-certified disposable filtering face piece respirators (N95).

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 done 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 ARC, or EH&S.

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>