

## Guidance for Animal Facility Workers & Contractors

In accordance with UC Berkeley's [Animal Care and Use Committee \(ACUC\)](#) and the [Office of Laboratory Animal Care \(OLAC\)](#)'s guidelines and procedures, it is the responsibility of ALL University workers and contractors to ensure the health and well-being of animals used in research and teaching.

The following information serves to raise awareness about vivarium safety best practices and encourage safe work conditions for those who work in spaces with animals.

### What kind of work occurs in a vivarium?

There is a wide range of research activities that occur within our campus animal facilities. Some are long term behavioral studies that take years of work training animals, while other experiments require elaborate set ups that use different light cycles, temperatures, or variable humidity. Animal research requires very specific housing and experimental parameters to ensure the reproducibility of experiments and to protect the welfare of the animals. There are a lot of novel, diverse research activities occurring in our facilities at any given time and you must rely upon the signage on the doors to understand what is going on inside the room, prior to entry.

### What kind of animals are housed in our facilities?

There are a number of different animals in our facilities. You will primarily see mice, but you may also encounter other animals such as birds, bats, rats, hamsters, primates, fish, and frogs.

### What sort of hazards exist within our animal facilities?

- **Physical hazards** are factors within the facility that can harm the body without necessarily touching it. These include but are not limited to: radiation, lasers, strong magnetic fields, temperature extremes, or exposure to UV light. Rooms will have door signage to indicate the physical hazards within the space.
- **Biological hazards** may be an organism or a by-product from an organism that is harmful or potentially harmful to other living things, primarily human beings, including bacteria, viruses, prions, medical waste, and biological toxins. Importantly they have the potential to spread from person to person. In particular, our primates could harbor an infectious agent (Herpes B virus) that is fatal to human beings if left untreated; it can be excreted from any of their bodily fluids so avoid all contact with dirty primate materials.
- **Chemical hazards** are broken down into hazard classes and exhibit both physical and health hazards, some chemicals can exhibit more than one hazard or combinations of several hazards. Rooms that contain chemicals should be placarded at the door with the hazard classes that exist within the space.

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### General guidelines and considerations for working in our animal spaces

All animal work that occurs on campus is approved by an oversight ethics committee that ensures the animals are treated well and that pain and distress is minimized during the experiment.

Animal work is approved by trained veterinarians, faculty, staff, and other oversight agencies on campus. If you see something that looks strange, consider you might be unfamiliar with research procedures.

- No pictures, or recordings by any means, of any animals or facilities at any time, no exception.
- Animals can get sick from you, therefore, do not touch or handle any animals, ever, under any circumstance. Consider staying home when you are sick.
- For chemical and biological hazards, the four main routes of exposure are inhalation, ingestion, injection, and absorption through the skin and eyes. Personal Protective Equipment (PPE) is designed to be a last line of defense for these types of exposures.
- Read the door signage before entering a room to ensure you are equipped with the appropriate PPE and you understand the types of hazards you might encounter (e.g. safety glasses for laser).
- Do not prop open room doors at any time, the room temperatures, humidity, and air pressure differentials need to be maintained at all times to avoid stress to the animals.
- If you are working in a hallway during a medical emergency for an animal, stay in place and do as you are instructed by the veterinary staff.
- If you see an animal that appears to have escaped, report the sighting and location immediately to animal staff. Do not try to catch it.
- Any work with significant noise impacts must be scheduled at least 7 days in advance so all researchers can be notified to assess the impact to their research, prior to the work beginning.
- Some rooms may have reverse light/dark cycles; there is no entry during the dark period.
- Do not leave ceiling access panels open or unattended, rooms must be sealed at all times.
- If researchers are working within the room you wish to enter you must ask for permission to work alongside them and you must match the PPE that they are wearing

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### General Safety Practices Required to Work in a Vivarium

- Observe and obey all room signage (e.g., PPE required, ABSL2, Laser in Use, etc).
- Do not eat or drink, store food, chew gum, or apply cosmetics in any laboratory or animal facility.
- Wear long pants or leg coverings, and closed-toe shoes (e.g., no shorts or sandals).
- Gloves and other PPE are removed in a manner that minimizes personal contamination and transfer of infectious materials outside of the areas where infectious materials and/or animals are housed or manipulated.
- Wash your hands immediately after removal of disposable gloves.
- Gloves are worn to protect hands from exposure to hazardous materials. Glove selection is based on an appropriate risk assessment (e.g., chemical compatibility). Gloves are not worn outside the room, or worn to touch door knobs. Change gloves when contaminated or glove integrity is compromised. Do not wash or reuse disposable gloves, and dispose of used gloves with contaminated laboratory waste.
- Wear gloves, lab coat, safety glasses, or other PPE as directed by room signage.
- Wash any cut or scratch immediately with disinfectant soap, and notify your supervisor as well as veterinary staff in case additional urgent follow-up is needed (e.g., NHP/bat areas)
- Cover abraded skin, cuts, scrapes or sores and do not allow wound contact with the facility.
- Seek proper medical attention following any injury or accident, and report to your supervisor when you can.

### Health Considerations for Work in Animal Spaces

Working with or around laboratory animals and animal wastes can expose personnel to health and safety risks. The most common risk is the development or worsening of allergies to animals. Another less common risk is the transmission of infection from an animal to a human (zoonosis). If you have a known allergy to animals or if you have other health concerns about working around animals, a history of allergies, even though not related to rodents or worse at work, you may be at risk for increased allergy symptoms working in an animal research environment. Allergy symptoms may include any or all of the following: sneezing, runny or stuffy nose, itchy or watery eyes, cough, and shortness of breath or skin rash. You can consider wearing a dust/surgical mask and there is the option of voluntary use of an N95 ([ehs.berkeley.edu/publications/n95-respirator-voluntary-use-training](https://ehs.berkeley.edu/publications/n95-respirator-voluntary-use-training)) while in the animal facilities. If your allergy symptoms increase please seek medical attention and notify supervisory staff.

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### Entry into an ABSL2 Space

The potential infectious agents and required PPE for entry will be listed on the ABSL2 door sign. If the PPE doffing procedures are not listed, take care to not contaminate your clothing as you remove PPE. There is a wide range of infectious agents in use on campus, including bacteria like Salmonella, Listeria, Staphylococcus, and E. coli. Virus work includes herpes, influenza, rabies, and adenoviruses. Generally speaking all of our infectious agents on campus are either treatable or highly unlikely to cause serious disease in a healthy human being. Nevertheless, consult with your physician prior to entering any ABSL2 space if:

- You are pregnant
- You have a disease or are undergoing therapy that is damaging or destructive to your immune system (e.g., HIV/AIDS and chemotherapy)
- You have a disease or condition that permits easy secondary infections to occur (e.g., surgery recovery)
- You are currently ill with any infectious disease more serious than a common cold (e.g., on antibiotics)
- You cannot properly wear the protective equipment required to enter the facility.

Working safely within an animal ABSL2 containment facility requires full attention to one's surroundings and communication if something unexpected happens. Generally speaking, biological exposures take many days to present with symptoms and often the symptoms are the same as a common cold (mild fever, malaise, and fatigue). It is important to recognize a biological exposure as it happens, please speak up.