

ANIMAL BIOSECURITY

The Campus Veterinarian has developed this operational guideline to help train the users of the Animal Resource Center (ARC) in procedures designed to ensure animal biosecurity¹. The overall approach focuses on preventing entry of unwanted microorganisms into the animal facility. This exclusionary approach depends heavily on the adherence, by all users, to the procedures described in this document. As such, all users will be trained on these procedures during their vivarium orientation, and unsupervised access to the vivarium may be restricted until this training has been completed. Failure to adhere to these procedures may result in the revocation of vivarium access privileges.

1. The vivarium in the BioEngineering building is a dedicated rodent-only (mice and rats) barrier facility². This vivarium contains the "cleanest" animal rooms on campus; therefore, entry to those parts of this vivarium will be restricted if you have been working with animals in the vivarium in the Bio2 building. The vivarium in Bio2 houses several laboratory animal species including laboratory mice and rats, Nile grass rats, and zebrafish. These laboratory animals are housed in separate rooms by species. If you have animals in more than one room, then please observe the traffic pattern posted on the white board at the entrance to the vivarium to ensure that the potential for cross-contamination is minimized.
2. All animal procurement is managed by ARC staff. Please submit an animal procurement form to initiate this process. Vivarium users must never introduce animals from an outside source into the vivarium (e.g., no animals from another campus facility; no personal pets; no animals purchased from a pet store or captured from the wild). Animals from pre-approved commercial vendors are typically received on Tuesday or Wednesday. Animals coming from another research institution, will be put into quarantine for a minimum of 5 weeks so that their health status can be verified. Animals that the Campus Veterinarian has determined may be infected with an excluded agent/pathogen will need to be rederived (either during quarantine or at an off-site facility).³
3. Routine animal husbandry (cage changes) is performed by ARC staff, typically every 11-14 days. The animal husbandry schedule is posted on the door to each animal room. Please arrange your experiments around this schedule or contact the ARC Manager to arrange alternative accommodations.
4. Proper attire (long pants and closed-toed shoes/sneakers) is required to work in the vivarium. A dedicated lab coat (or dedicated scrubs) provided by the ARC must always be worn in the

¹ Animal biosecurity refers to all measures taken to identify, contain, prevent, and eradicate known or unknown infections that may cause clinical disease or alter physiologic and behavioral responses or otherwise make the animals unsuitable for research (ILAR Guide 8th Edition).

² A physical barrier was created at the entrance to the facility in order to effectively and efficiently reduce the risk that animals housed within the barrier will be exposed to and be infected by infectious microorganisms that the facility management and users have decided to exclude from the vivarium. This specific excluded agent list is available upon request. The facility barrier is secured by dedicated access control points for the entry of animals, people, and equipment and supplies.

³ Rederivation refers to the procedures (i.e., embryo transfer, caesarean surgery, or neonatal transfer) performed on mice to prevent the horizontal transmission (from the parents to the offspring) of adventitious microorganisms (viruses, bacteria, and parasites).

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vivarium. This lab coat must be donned (put on) when entering the vivarium and must be doffed (removed) when leaving the vivarium. Do not use a lab coat from an outside lab in the vivarium. Clean disposable gloves must be worn when handling animals, or their cages, or other equipment that comes in direct contact with the animals. Disposable gloves are available inside the animal holding and animal procedure rooms. Additional PPE may be required, and if so, that requirement is posted at the entrance to the animal room.

5. Inside the animal room, the rodent cages should only be opened under the hood (animal transfer station or biosafety cabinet), which must be clean, and the blower must be turned on. Animal procedures should be performed in the vivarium's procedure rooms, and not in the PI's laboratory. Minor procedures (e.g., injections) can be performed under the hood in the animal room. Most animals should never be removed from the vivarium, and once an animal is removed from the vivarium it may not return, unless the removal and re-entry are pre-approved by the Campus Veterinarian who needs to ensure that appropriate biosecurity precautions are in place for its return. If an animal must be removed from the vivarium to a laboratory or classroom, then it must be contained in a clean (fresh bedding) cage with a filtered-top, or in a take-out box (mice only). Clean rodent cages should be used instead of take-out boxes if the mice will not be immediately used for experiments in the laboratory or classroom as these will more securely and safely contain the mice. The cages should be carried by hand or transported on carts. A drape or opaque cloth material should be placed over the cages. After transportation, all empty rodent cages should be promptly returned to the soiled-side of the cage wash area in the vivarium. Take-out containers should be bagged and then disposed of as solid waste.
6. The vivarium is a shared facility, and neatness and common courtesy are expected of all users. Always clean up after yourself when you have finished working in the vivarium. This includes cleaning and disinfecting all equipment and work surfaces, especially the hoods inside the animal rooms. Cleaning implements and disinfectant spray bottles are located inside each animal holding and procedure room. Return all dirty cages to the soiled-side of the cage wash. Do not leave dirty cages in the animal room, procedure room, or hallway.
7. Any equipment brought into the vivarium must be properly cleaned and disinfected. Please contact the ARC Manager for more information on the cleaning and disinfection process. No outside equipment or supplies should be introduced into an animal's cage without prior approval from the ARC Manager or Campus Veterinarian. Any problems with the animal room equipment (cages, hoods, racks, etc.) or environment (temperature, lighting) should be immediately reported to ARC staff.
8. Any biological material (e.g., serum-containing substances; cell lines; tumor cells/tissues) administered to, or implanted in, animals must be screened for, and verified to be free of, adventitious microorganisms (e.g., viral and bacterial contamination). Please contact the Campus Veterinarian for more information on the screening and verification process.

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9. Any animal that appears sick or wounded should be promptly reported to the Campus Veterinarian either in person, by phone (805-451-5931), or by email (manuel.garcia@ucsb.edu). Please dispose of any found dead or euthanized animals in the dedicated carcass freezer and document this disposal on the log located on the clipboard on top of the freezer. Report any unexpected or unusual animal deaths to the Campus Veterinarian.

If you have any questions or concerns, please contact us:

	Campus Veterinarian	ARC Manager	ARC Office
Name:	Manuel (Manny) A Garcia	Ronni Wynn	
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