**Biosafety**

**General lab protocol:** While in the lab, all must wear full-length leg coverings, closed toed shoes, and the appropriate PPE. Guests must always be escorted by a trained lab member. No eating, drinking, or makeup in the lab. All must wash hands prior to exiting the lab.

**Sharps safety:** Safety engineered sharps, plastic blades, plastic Pasteur pipettes, and similar alternatives are used whenever possible. Contaminated needles are not bent, recapped, or removed from syringes. Contaminated sharps are disposed of in designated sharps containers that are puncture-resistant, leak-proof, and labeled for their intended use (e.g. needles are disposed of in a red biohazard, FDA-approved sharps container). Seal and dispose of the container when <75% full. NO sharps can be above the 75% fill line. Sealed sharps containers are disposed of through the [Hazardous Waste Program](https://ehs.berkeley.edu/instructions-how-use-hazardous-waste-program) directly or via the medical waste stream. Reusable sharps (knives, pins, tweezers, etc.) are cleaned following an approved protocol and stored in a sealable hard plastic container or placed in their protective covers immediately after use.

**Spill Clean-up:**Immediately report the incident to the laboratory manager or PI. Additionally, the biosafety program staff must be notified within 8 working hours (for labs) or 4 working hours (for companies) by sending an email to [bso@berkeley.edu](mailto:bso@berkeley.edu).1. Ensure that people in the vicinity are notified that a spill has occurred, and that the area should be avoided. 2. If needed, vacate the area to allow aerosols to settle. 3. Don appropriate protective clothing (e.g. lab coat, gloves, eye protection). 4. Cover the spill with absorbent material, such as paper towels. 5. Carefully pour an effective disinfectant such as freshly made 10% bleach first around the edges of the spill, then onto the spill. Avoid splashing or generating aerosols. 6. Allow disinfectant to remain in contact with the spill for the manufacturer’s recommended contact time (20 minutes for 10% bleach). 7. Carefully pick up any broken sharp material using either tongs or a dustpan. 8. Work concentrically to clean up the absorbent material. Always work from the outer edge of the spill toward the center. 9. Clean spill area with fresh towels soaked in disinfectant. 10. Place all towels or absorbent materials into a) the trash if BSL1 or b) a designated container for biohazardous waste if BSL2. 11. Remove and, if needed, segregate protective clothing for disposal or cleaning. 12. Wash hands prior to leaving the area.

**Injuries or exposures:** EH&S biosafety program staff must be notified immediately in the case of injury/major incident 510-642-3073 or [bso@berkeley.edu](mailto:bso@berkeley.edu). For academic labs (not associated with HHMI): in the event of an injury or exposure to a biological agent, the following are recommended for seeking medical attention. During business hours (Mon-Fri, 8am-5pm), please visit Urgent Care at the Tang Center. If the injury or exposure occurs outside of business hours, please seek medical attention at Alta Bates Hospital and be sure to state that you were injured or exposed in a laboratory at UC Berkeley. If you or someone else in the laboratory needs immediate medical attention, please call 911 from any campus phone. If you are calling from a cell phone while on campus, call (510) 642-3333.

**BSL1**

**Transport of BSL1 material, recommendation:** X is carried in an easily decontaminated, lidded, leak-proof, secondary container labeled with the lab’s name and contact information. **Surface disinfection:** Work surfaces are disinfected daily after use with an effective disinfectant (e.g. 70% ethanol). **Liquid waste:** Liquid waste that has been in contact with recombinant agents will be autoclaved and disposed of down the drain. Or, it can be inactivated in 10% bleach (final concentration) for 20 minutes prior to drain disposal with a copious amount of water. **Solid waste:** Solid waste will be placed in white or transparent autoclavable bags, autoclaved (with a sterilization cycle of 30 minutes for most materials), then disposed of in the general waste stream. Soil must have a sterilization cycle of at least 60 minutes. **PPE:** Lab coats are worn while in the lab and gloves are worn when working with any hazardous materials or agents. Eye +/- face protection is used when working with any hazardous materials or agents that may generate splashes or aerosols (pouring, blending, sonicating, bleaching, etc.).

**BSL2**

**Transport of BSL2 (or BSL2+) material:** X is carried in an easily decontaminated, lidded, leak-proof, secondary container labeled with a biohazard sticker, the lab’s name, and contact information. **Surface disinfection:** Work surfaces are disinfected daily after use with an effective disinfectant (e.g. stabilized hydrogen peroxide wipes). **Liquid waste**: Liquid waste will be inactivated in 10% bleach (final concentration) for 20 minutes prior to drain disposal with a copious amount of water. **Solid waste:** Solid waste will be disposed of in red biohazard bags (meeting ASTD D1709 and ASTD D1922 standards) that line a rigid, lidded container. The bags will be transported to the biohazardous waste accumulation site in a rigid, leak-resistant, closed container weekly or when full, whichever is soonest. **PPE:** Spill resistant lab coats are worn in BSL2 spaces. Gloves are worn when working with any hazardous materials or agents. Eye +/- face protection is used when working with any hazardous materials or agents that may generate splashes or aerosols (pouring, blending, sonicating, bleaching, etc.). **Work practices:** Work is done at a biosafety cabinet (BSC), and all containers are surface disinfected prior to removal from the BSC. Centrifuge rotors or buckets are loaded and unloaded in the BSC.

**ABSL1**

**AAV in rodents:** Animals injected with AAV may be immediately returned to standard ABSL1 housing but the cage card (obtained from OLAC) must be labeled to indicate the agent, date of administration, and contact information. Due to viral shedding, the cage should have an “OLAC, Do not open” cage card for the first 72 hours. Lab personnel are responsible for animal care during that time and up through the first cage change after the 72 hrs.