

Biosafety Self-Audit Instructions

Note: If there are any changes to the originally approved protocol, it is the responsibility of the PI to notify the Chair of the Institutional Biosafety Committee (IBC), Dr. Primerano, at 696-7338 as soon as possible to discuss these changes.

Things you should know:

- ❖ To determine if the agent you are using is Biosafety Level 1 or 2, check these links: <http://www.absa.org/resriskgroup.html> or <http://www4.od.nih.gov/oba/>
- ❖ **NOTE: Risk Group 1 is equal to Biosafety Level 1
Risk Group 2 is equal to Biosafety Level 2**
- ❖ **IBC Approval must be completed PRIOR to initiation of Biosafety Level 2 experiments.**
- ❖ **Personal Protective Equipment (PPE) must be provided to employees and students, and must be suitable for the biological and chemical agents used and the task(s) performed.** PPE includes lab coats, gloves, eye/face protection, and any other necessary protective measures. Note: OSHA requires that safety glasses (at a minimum, goggles or chemical splash goggles should be used as appropriate) be worn whenever a procedure requires the use of a face shield.
- ❖ **A plan for containment of sharps must be in place if they are used** (e.g., use of sharps containers and/or biohazard-labeled broken glass boxes; no re-capping of needles, etc).
- ❖ **Random inspections will be conducted by Environmental Health & Safety.**

For assistance, contact Nathan Douglas, Chemical & Biological Safety Officer: phone 696-3461, douglas2@marshall.edu.

Biosafety Level 1 (BSL1) Checklist: Minimum containment level required for all labs using biological agents	YES	NO	N/A
1. Principal Investigator (PI) is familiar with the most current " NIH Guidelines for Research Involving Recombinant DNA molecules " and CDC/NIH " Biosafety in Microbiological and Biomedical Laboratories ".			
2. The PI will report within 30 days to the IBC and NIH (ORDA) all significant problems with and violations of the NIH Guidelines and all significant research related accidents and illnesses.			
3. Access to the laboratory is limited or restricted at the discretion of the PI while experiments are in progress. The PI has the final responsibility for assessing each circumstance and determining who may enter or work in the laboratory.			
4. A plan for emergencies has been developed and is available to lab employees. This includes fire, hazardous material spills (chemical, biological, radiological), injuries, and exposures. Plans must specifically address all of the hazards in the laboratory.			
5. The PI assures proper instruction of lab staff in microbiological techniques, approved protocols, and emergency procedures, and compliance with these instructions. Documentation of training is kept by the PI (contents, trainer, attendees, and date).			
6. Lab doors are kept closed while experiments are in progress. Closed doors facilitate directional airflow, special ventilation used to control odors or aerosols.			
7. Work surfaces are decontaminated daily and immediately following spills of viable material. The decontaminant used is EPA registered to destroy: HepB / HIV / TB.			
8. All biological wastes are decontaminated before disposal. Cell culture waste flasks have fresh bleach added prior to use, and are replaced or new bleach is added weekly.			
9. Contaminated items are decontaminated before washing, reuse or disposal.			
10. Pipetting by mouth is prohibited. Only mechanical pipetting devices are used.			
11. Eating, drinking, applying cosmetics, and food storage are not permitted in the lab.			
12. Hand washing facilities are available; persons wash their hands after handling recombinant DNA or other biohazard materials and before leaving the laboratory.			
13. A plumbed eyewash station is available within 50 feet of the hazard location. The eyewash nozzle at the lab sink is activated at least weekly.			
14. Care is taken to minimize the creation of aerosols.			
15. Materials decontaminated away from the laboratory (Biotech 199 autoclave room) are packaged in two, orange autoclave bags (tightly stoppered for liquids); and are transported to the autoclave room on a cart to contain any leaks.			
16. The use of needles and other sharps is avoided when alternatives are available.			
17. The laboratory is kept neat and clean at all times.			

⇒ **If your work requires Biosafety Level 1 containment, stop here. If your work requires Biosafety Level 2 containment, complete the rest of the checklist.**

Biosafety Level 2 (BSL2) Containment	YES	NO	N/A
18. PI has established policies whereby only persons who are advised of the potential hazard and meet any specific entry requirements may enter lab or animal rooms.			
19. All persons working with human blood, body fluids or tissues receive annual OSHA Bloodborne Pathogens Training and have been offered the HBV vaccination series.			
20. The universal biohazard sign is posted on all lab access doors and on all units used to store organisms containing biohazard materials. The sign includes: name(s) of infectious agent(s), name and telephone numbers of responsible individuals, and any special entry requirements.			
21. Lab coats or other protective clothing are worn in the laboratory.			
22. Gloves are worn and special care is taken to avoid skin contamination.			
23. Face protection in the form of safety goggles and a mask is worn when a splashing or spraying potential exists. When a face shield is used, safety goggles are also worn.			
24. Personal protective clothing, including gloves, is not worn outside the lab.			
25. Animals unrelated to the experiments are excluded from the lab.			
26. Needles and syringes are used only for parenteral injections and fluid aspiration from animals. Only locking or integral-type of syringes are used. Safe needle devices are required for use with bloodborne pathogens and human materials.			
27. Extreme caution is used when handling needles and syringes to avoid autoinoculation and the generation of aerosols during use and disposal.			
28. Contaminated needles are not sheared, bent, or recapped.			
29. Sharps including needles, razors, scalpels, contaminated broken glass and Pasteur pipettes are disposed of in a sharps container or biohazard-labeled broken glass box.			
30. Windows in the lab that open are fitted with fly screens.			
31. Biosafety cabinets and other containment equipment are used for aerosol producing tasks (blending, grinding, sonicating, shaking, opening containers whose internal pressures may be different from ambient pressure) unless equipment design provides for aerosol containment.			
32. Biosafety cabinets are certified annually: list cabinets below			
Location: Certifier: Manufacturer:	Date last certified: Model: Serial No.:		
Location: Certifier: Manufacturer:	Date last certified: Model: Serial No.:		
33. Centrifuges and microfuges are located within the laboratory.			

<p>34. Lab specific biosafety information is available, and all personnel are familiar with it. Information that should be included: general information regarding biohazard agent, routes of disease transmission, recommended vaccinations, signs and symptoms of disease, personal protective equipment required, waste handling protocol, spill cleanup procedures for inside and outside containment equipment including centrifuges, exposure follow-up procedure, aerosol control procedure. See NIH Guidelines or CDC/NIH Biosafety in Microbiological and Biomedical Laboratories.</p>			
<p>35. There is no evidence of insects and rodents in the lab.</p>			
<p>36. Chairs and furniture in the lab are made of non-porous, easily cleanable materials.</p>			
<p>37. A container of decontaminant is available in or near the biosafety cabinet when work is in progress.</p>			
<p>38. An autoclave for decontaminating infectious laboratory waste is available.</p>			
<p>39. Spills or accidents involving infectious materials are immediately reported to PI and Dr. Primerano at 696-7338.</p>			
<p>40. The PI has an approved protocol from the IBC when Select Agents or USDA “High Consequence” pathogens or toxins will be used, the supply of these agents is properly secured, and doors are closed when work with these materials is in progress.</p>			

Building / Room: _____

Name of person performing audit: _____ **Date:** _____

Signature: _____

Comments: _____
