

Standard Microbiological Practices

Standard Microbiological Practices refer to the basic safe laboratory work protocols for working with non-pathogenic biological materials (i.e., BSL-1). Laboratory personnel must have specific training in the procedures conducted in the laboratory. A qualified faculty or staff person must provide this training and provide sufficient supervision to adequately operate a safe and compliant laboratory.

Work is generally conducted on open bench tops using the following standard microbiological practices.

1. Hygiene and Housekeeping

Keeping work areas clean and uncluttered reduces the chance for cross-contamination and inadvertent exposure to biohazards. To avoid ingestion of contaminated material, use a mechanical pipetting device, keep food out of refrigerators and microwaves in work areas, eat, drink, or apply cosmetics only in designated "clean" areas. Other standard practices include:

- (1) Wear a lab coat and tie back long hair
- (2) Wash hands after removing gloves, before leaving the lab, and when handling materials known or suspected to be contaminated.
- (3) Perform procedures in a manner that minimizes the creation of aerosols.
- (4) Clean work surfaces and decontaminate with a suitable disinfectant at the end of the day and after any spill of potentially hazardous materials.
- (5) Bench tops and floors should be impervious to water and easy to clean.
- (6) Remove gloves before leaving the lab, touching the face, keyboards, or control panels, and before using the elevator

2. Personal Protective Equipment

- (1) Wear gloves if skin on the hand is broken, if a rash is present, and when handling biological waste.
- (2) Remove rings or other jewelry that could puncture gloves.
- (3) Wear the appropriate glove for the hazard. Usually a type of latex glove is recommended for working with biological material.
- (4) Avoid reusing gloves unless they can be decontaminated.
- (5) Wear eyewear approved for UV light or other rays that could damage eyes.
- (6) Wear protective eyewear during procedures in which splashes of microorganisms or other hazardous materials is anticipated.

3. Security and Access

Access to the laboratory should be restricted at the discretion of the laboratory manager when experiments or work with cultures and specimens are in progress. Biohazardous material must be clearly marked with a biohazard symbol