

## Microbiology Laboratory Practice and Safety rules

### Introduction

Microbiological laboratory poses potential risks due to the exposure to virulent/potentially pathogenic microorganisms. The World Health Organization (WHO) provides basic concepts and codes of practice in laboratories to insure the safe handling of microorganisms and chemicals that are potentially harmful.

### Objectives

- Identify safe laboratory rules;
- Providing basic information regarding laboratory equipments;
- Practice some microbiological procedures.

### Basic rules

- Lab coats should be worn fully buttoned with sleeves down, long hair must be tied back;
- Wash your hands thoroughly with antibacterial soap;
- Disinfect the work areas with alcohol and bleach;
- Keep the workspace free of all unnecessary objects;
- Avoid unnecessary movements in the lab;
- Eating, drinking and smoking are strictly prohibited in the laboratory;
- Use a waterproof marker to label everything clearly;
- Inoculating loops and needles should be sterilized in a Bunsen burner before and after use;
- Turn off Bunsen burners when it is not in use;
- Work in the sterile area within a radius of 20 cm around the flame.

### Before leaving

- Ensure that all Bunsen burners, gas outlets, and water faucets are turned off;
- Discard waste materials (cultures, plates, swabs..) into a sterilizable container (biohazard bag) before disposal;
- Wash your hands with an antibacterial disinfectant.

### Safety rules

- Treat all microorganisms as potential pathogens;
- Never pipette by mouth, use pipette devices;
- keep flammable items away from the flame;
- If any type of accident occurs; call immediately your instructor.

Common Laboratory Equipment

