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The Leader In Research and Innovation

**INSTITUTIONAL BIOSAFETY & BIOSECURITY COMMITTEE (IBBC)
UNIVERSITI MALAYA**

BSL 1 SELF-INSPECTION CHECKLIST

Instructions

1. Using the checklist below, inspect your lab and note any deficiencies that need to be addressed [the Principal Investigator (PI) may assign a senior lab member or laboratory supervisor to complete the checklist but the PI must review, date and sign the checklist.
2. Sign and date the completed checklist.
3. If you have any questions, please contact the IBBC secretariat at **secretariat_ibbc@um.edu.my**

Date:

Conducted by:

Principal Investigator(PI):

Department/Room no.:

1. BASIC LABORATORY – BIOSAFETY LEVEL 1

1.1 Laboratory	YES	NO	N/A	COMMENTS
a. Limited access				
b. Proper signage: e.g. biohazard, ultraviolet light etc.				
c. Relevant SOP for work activities available and followed				
d. Laboratory equipment properly labelled (biohazardous, radioactive, toxic, etc.)				
1.1.2 Laboratory Design				
a. Facility designed for easy cleaning				
b. Corridors and exits are free from obstruction				
d. All storage shelves secured				

	YES	NO	N/A	COMMENTS
e. Bench-tops waterproof and resistant to acids, alkali, organic solvents, heat, chemicals used to decontaminate the work surface.				
f. Adequate illumination/lighting provided				
g. Adequate storage space available and appropriately used				
h. Adequate ventilation				
i. Windows fitted with insect-proof screen (when windows can be opened)				
1.1.3 Gas Cylinders				
a. All cylinders secured				
b. Caps on reserve cylinders				
c. Asphyxiating and hazardous gases only in designated ventilated rooms				
d. No excess or empty cylinders present in non-designated areas				
1.1.4 Chemicals				
a. Flammables stored in storage cabinet for flammables				
b. Chemicals segregated properly based on intrinsic properties when stored				
c. Hazardous chemicals stored safely and securely				
d. Working stock chemicals available in appropriate amount				
e. MSDS/ CSDS is available and easily accessible for all chemicals				
1.1.5 Refrigerators/Freezers/Cold Rooms				
a. No food for human consumption stored				
b. Flammables placed in explosion-proof/-safe units				
c. All material containing carcinogens, radioactivity and/or biohazards are labelled externally				
d. Cold-room has emergency release				
e. Cold-room has audible alarm or temperature monitoring system				

	YES	NO	N/A	COMMENTS
1.1.6 Electrical Equipment				
a. No overloaded extension cords or electrical strips				
b. Earths/grounds present on electrical outlets and cords				
c. No electrical connections in wet areas e.g. sinks, under showers, etc.				
d. All equipment and wiring in good working condition				
e. Power strips mounted off the floor				
f. Proper fuses in conduits				
1.1.7 Personal Protective Equipment				
a. Eyewash available in laboratory				
b. Safety shower available				
c. Personal protective equipment available (gloves, gowns, goggles, etc.) and worn				
d. Occupants properly attired				
e. Laboratory coats, gowns, smocks, gloves and other personal protective clothing not worn outside the laboratory				
f. Personal protective equipment available for cryogenic storage				
1.1.8 Waste Management				
a. Wastes segregation implemented				
b. Chemical waste containers tagged, labelled, dated and kept closed/stored				
c. Biohazardous waste containers appropriately handled and disposed				
d. All sharps (needles, broken glass, scalpel blades) are disposed in sharps bin or designated durable puncture proof containers				
e. No trash on floor				
1.1.9 Occupational Health and Safety Programme Available				
a. Hazard communication (Lab personnel advised of all potential hazards)				
b. Respiratory protection				

	YES	NO	N/A	COMMENTS
c. Hearing conservation				
d. Chemical Spill Kit available				
e. Biological Spill Kit available				
f. First Aid Kit available				
g. Emergency Response Plan (ERP) in place				
h. Reporting of Incidents, Accidents and Illness				

1.1.10 General Engineering Controls

- a. Sink available for hand-washing
- b. No exposed machine parts (pulleys, gears)
- c. Water purification system in good condition

1.1.11 General Practices and Procedures

- a. Food for human consumption stored outside the laboratory area in cabinets or refrigerators designated and used for this purpose
- b. Microwave oven(s) clearly labelled "Strictly to Laboratory Materials Only"
- c. Eating, drinking, smoking and/or applying of cosmetics not allowed in the laboratory
- d. Pressurized glass containers taped or shielded (i.e. vacuum traps)
- e. Mouth pipetting prohibited
- f. Mechanical pipetting devices available and used
- g. Protective laboratory clothing stored separately from street clothing

1.1.12 General Laboratory Housekeeping

- a. Bench-top cleaned and not cluttered
- b. Laboratory floor free from trip hazards
- d. Broken glassware handled by mechanical means (brush and dustpan, tongs, etc.)

	YES	NO	N/A	COMMENTS
e. Chemical inventory system available				
f. Pest Control program implemented				

1.1.13 Fire Protection

- a. Sprinkler heads free and unobstructed
- b. No wiring or tubing through door openings
- c. Minimum passage width of 1 meter(m) in laboratory
- d. Minimum combustibles stored in laboratory
- e. Adequate fire extinguisher available
- f. Fire alarm available and drills for evacuation implemented

Note: N/A- Not Applicable

Other comments:

Signature and stamp of PI:

Date:

Adapted from: Malaysia Laboratory Biosafety and Biosecurity Policy and Guideline, Ministry of Health Malaysia, 2015, 1st Edition (section 3.0 Laboratory Biosafety Checklist)