

## Engineering Physics / C.E.D.T. Research Hazards Safety Report

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### **Section A: Potential Hazards**

Class A: High pressure – CO<sub>2</sub> cylinder

Class B: Flammable materials – 70% and 99% ethanol

Class D2: Long-term toxic effects – Cholera toxin, hydrocortisone

Class D1B: Toxic material causing immediate and serious toxic effects - Adenine

Class E: Corrosive materials – Acetic acid

Radiation: Laser - Microscopes

Electrical: High voltage enclosed – Laser sources

Extreme low temperature – Liquid nitrogen

Potential falling objects – Items on shelves

Biohazards – CP-A and CP-B cells (Barrett's esophagus)

Very bright light – UV light, microscope light

Loud Noise – due to construction

### **Section B: Standard Procedures**

- Use personal protective equipment (PPE), such as gloves and lab coat when handling the biohazardous cell lines.
- Use the biohazardous cell lines in the biological safety cabinet.
- No open wound should be exposed while in the lab and closed-toe shoes must be worn
- When handling dangerous chemicals, in addition to the PPE, MSDS should be consulted.
- The biohazardous waste should be discarded and sealed in a plastic bag which is then disposed of in a red bin which indicated "Biohazard".
- Biological reagent should be bleached using 10% bleach before disposing. The biological cabinet should be wiped with 70% ethanol after each use. In addition, the UV light should be turned on as well.
- The personnel should also wash hands after working in the lab.

### **Section C: Emergency Procedures**

- For immediate assistance dial 5555
- In case of fire, after identifying the cause of fire, use the fire extinguishers located besides the entrance doors. If the fire is large, alert surrounding staff, pull the fire alarm, and evacuate the building from the exit to MDCL main floor.
- In case of chemical spill, acquire the spill kit based on the nature of the chemicals (base, or acid) located across the tissue culture room. You can also access the first aid kit at the same location. Cover the spill with the appropriate absorbent material. Spray the disinfectant on top of it and let sit for 30 minutes. Discard the waste and wipe down the area with disinfectant.
- In the case of skin and eye contact, follow the instructions on the MSDS sheets. The eye wash station is near the sink located in the lab. The shower is located across from the sink.