

## Medical Science Laboratories - School of Medical and Health Sciences (MHS)

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### 1. GENERAL GUIDELINES

- (a) All staff and students must know and practice the safety guidelines at all times while using the laboratory.
- (b) All laboratories are locked unless occupied by staff and/or students during class or practice.
- (c) Students should at all times practice safe and appropriate techniques while learning and practicing skills in the laboratory.
- (d) Students should be knowledgeable of the care, handling, and proper use of equipment prior to using it in the laboratory.
- (e) Students should inform course coordinators/teachers of any medical conditions, allergies, or recent injuries, illnesses, surgeries, or communicable disease as soon as possible so that necessary precautions can be taken to protect the students and others.
- (f) Any misconduct occurring in the laboratory will be reported to the Laboratory Technician at Tel: 3468 6858/3468 6845 or via email.
- (g) For any emergency such as fire, water leakage, flooding, students should immediately call Security Control Room (emergency response) and/or Laboratory Staff.

Contact information is as follows:

Contact Person	Tel. No	Location	Contact Hour
Assistant Laboratory Manager	3468 6845	Room 1903, KPC	Monday to Friday 0900 - 1800
Technical Officer	3468 6858	KPC 12/F	Monday to Friday 0900 - 1800
Security Control Room	3190 6610	G/F, KPC	24 hours

- (h) All incidents must be reported to the School Executive Officer within 24 hours or the following working day.

## **2. CLEANING AND MAINTENANCE OF THE LABORATORY AND EQUIPMENT**

It is the responsibility of the users (teachers/students) to maintain the equipment and physical space clean and tidy after using the laboratory.

- (a) Tidy up equipment in the laboratory after class.
- (b) Change and launder linen on beds when soiled, after extensive use, and at the end of each semester.
- (c) Make sure to shut it down the facility/equipment and put it back to original place after use.
- (d) Keep the laboratory clean and ensure the work area is tidy before leaving.
- (e) Turn off all ignition sources, water taps, electric switches, light and air conditioner(s), and lock all windows and doors before leaving the laboratory.
- (f) Keep the laboratory equipment in good working condition. Any faulty or broken equipment, loss and unauthorized use of facility resources should be reported immediately to the Laboratory Technician at Tel. 3468 6858/3468 6845 or your instructor.

## **3. LABORATORY SAFETY**

### **3.1 Code of Conduct**

- (a) Smoking, eating or drinking is strictly prohibited in the laboratories.
- (b) No food and beverages are allowed in the laboratory. Glassware or containers that had been used for laboratory operations should never be used for preparing or keeping food or drinks. Food storage is not permitted in laboratory freezers, refrigerators, ice chests, or cold rooms.
- (c) Long hair and loose clothing should be confined when in the laboratory.
- (d) Shoes must be worn at all times in buildings where chemicals are stored or used. Sandals or open toe shoes are not acceptable.
- (e) You must never distract or startle other workers in the laboratory. Practical jokes or horseplay in the laboratory will not be tolerated at any time.
- (f) The laboratory and supplies are primarily not used for providing medical treatment to students or staff.

### **3.2 Hazardous (chemical or biological) materials**

- (a) Standard precautions will have to be followed at all times when there is exposure or potential exposure to specimens with blood or body fluids.
- (b) Gloves should be worn during any potential contact with hazardous substance.
- (c) Safety glasses or face shield may be required for potential splashing of materials.
- (d) Laboratory gown is required to be worn for bench work.
- (e) You should always wash your hands and forearms with soap and water before leaving the laboratory area. Washing with solvents can remove the natural protective oil layer from the skin and can cause irritation and inflammation.

### 3.3 Physical Space

- (a) All cabinet doors should remain closed when not in use.
- (b) The laboratory spaces, floors, beds and bench areas should be kept clean and tidy after use.
- (c) Malfunctioning equipment should not be used, please report to Laboratory Technician at Tel: 3468 6858/3468 6845 or via email.
- (d) Laboratory doorways should be kept clear of obstacles at all times.

### 3.4. Electrical Safety

- (a) Wet materials should not be placed around electrical outlets or equipment.
- (b) Staff and students must report immediately to Laboratory Technician any frayed electrical cords, cracked plugs, missing outlet covers, etc., as well as any problems encountered while using electrical equipment.
- (c) No electrical cords will be left on the walkway. Extension cords will be properly taped to the floor if used over a walkway.
- (d) Only three-prong plugs that contain a ground wire should be used to power equipment in the laboratories.

## 4. EMERGENCY RESPONSES

### 4.1 Fire

#### 4.1.1 Minor Fire:

- (a) Alert other people in the laboratory that there is a fire.
- (b) Stop all your bench works.
- (c) Recap all the reagents.
- (d) Turn off the Bunsen burners if they are on.
- (e) Call/Designate someone in the laboratory to call:
  - (i) Security Control Room at Tel. **3190 6610** and/or
  - (ii) Laboratory Technician at Tel. **3468 6858/3468 6845**
- (f) Security Guard will contact required personnel to respond to the fire.
- (g) **If it is safe to do so**, attempt to confine and/or extinguish the fire.
  - (i) If the fire is small and the danger is not imminent, attempt to contain it with a fire extinguisher if deemed appropriate, inform others of your actions.
  - (ii) If the fire is contained, stand by in a safe location to assist responding personnel.
  - (iii) If the fire is **not containable**, follow the procedures for a major fire in the laboratory.

#### 4.1.2 Major Fire:

- (a) Alert other people in the laboratory that there is a fire.
- (b) Stop all your bench works.
- (c) Recap all the reagents.

- (d) Turn off all Bunsen burners if they are on.
- (e) Begin evacuating the laboratory immediately. Bring along your mobile phone and a wet towel (if readily at hand)
- (f) Sound the nearest fire alarm by activating the break-glass alarm in the corridor.
- (g) Inform the Security Control Room at Tel. **3190 6610** and/or Laboratory Technician at Tel. **3468 6858/3468 6845** if time permits.
- (h) Close (**Do not lock**) the door when you leave.
- (i) Exit the building using staircases as quickly as possible (**Do not use lifts**).
- (j) Proceed to the Designated Assembly Area. Do not leave the designated assembly area until instructed by the Security Guard to do so.
- (k) Be prepared to provide the responding personnel (Facilities Management Office staff) with sufficient details about the fire.
- (l) Do not re-enter the building until authorized by a Security Guard/fireman.

#### **4.1.3 Emergency Evacuation Alarm:**

- (a) Begin evacuating the laboratory as soon as you hear the emergency evacuation alarm – **regardless of the tone** (e.g. intermittent or steady).
- (b) Turn off all electrical devices and Bunsen burner and stop all your laboratory works.
- (c) Begin evacuating the laboratory immediately.
- (d) Close (**Do not lock**) doors when leaving.
- (e) Exit the building using staircases as quickly as possible (**Do not use lifts**).
- (f) Proceed to the Designated Assembly Area. Do not leave the designated assembly area until instructed by the Security Guard to do so.
- (g) Do not re-enter the building until authorized by a Security Guard/Fireman.

## **4.2 Spillage of hazardous substance**

### **4.2.1 Minor Spill (Bench top):**

- (a) Follow the procedure sheet (located in the laboratory) for chemical and/or biological spill clean up posted in the spill kit.
- (b) Complete the Spill Report Form and return to Risk and Safety Management.

### **4.2.2 Major Spill (Potentially Danger to Personnel):**

- (a) Call Security Control Room at Tel. **31906610** (emergency response) and/or Laboratory Technician at Tel: **3468 6858/3468 6845**.
  - (1) Security Guard will contact required personnel to respond to the laboratory.
  - (2) Provide your name, laboratory number, laboratory phone number, the nature of the incident, and the hazardous materials involved (product name(s) and quantity).
- (b) Assist responding personnel as necessary.

### 4.3 Flood/Water Leak

- (a) Call Security Control Room at Tel. **3190 6610** (emergency response) and/or Laboratory Technician at Tel: **3468 6858/3468 6845**.
  - (i) Security Guard will contact required personnel to respond to the laboratory.
  - (ii) Provide your name, laboratory number, laboratory phone number, and the nature of the incident.
- (b) **If it is safe to do so**, attempt to stop the flow of water or confine the flooded area using whatever materials are available.
- (c) Assist responding personnel as necessary.

### 4.4 Power Loss

- (a) Stop all your bench works.
- (b) Recap all the reagents.
- (c) Turn off the Bunsen burners if they are on.
- (d) Switch off all electrical appliances/equipment in use (except those on uninterruptible power supply).
- (e) Laboratories without power must be evacuated. You can return only when full power has been restored.
- (f) Reset/restart and check equipment to ensure it is functioning properly.

## 5. FIRST AID

### 5.1 Minor Injury:

- (a) Treat with the supplies contained in the first aid box provided in the laboratory. or
- (b) Visit the Security Control Room to request first aid assistance from one of the first aiders of the College. or
- (c) Call Laboratory Technician at Tel. **3468 6858/3468 6845** to request first aid assistance in the laboratory.
  - (i) Provide your name, laboratory number, laboratory phone number, and the nature of your injury (including any hazardous materials involved).

### 5.2 Major Injury/Serious Sickness:

e.g. the person is unconscious, mentally confused, convulsing, fainting, or has breathing difficulties, severe bleeding, major wound, pallor/cold sweating, etc.

5.2.1 Seek Help – Summon assistance from someone nearby to call for help, if available

- (a) **Call 999**
- (b) **Notify** the Security Control Room at Tel. **3190 6610**.
  - (i) Request first aid assistance from the first aider of the College.
  - (ii) Wait for the attending Security Guard/medical personnel.
- (c) Call Laboratory Technician at Tel. **3468 6858/3468 6845**



- (i) State clearly your location and whether or not ambulance service is required/called.
- (ii) Provide your name, laboratory number, laboratory phone number, and the nature of the injuries/sickness (including any hazardous materials involved).
- (d) General Consideration
  - (i) Put the injured/sick person in a comfortable posture
  - (ii) Do not move the injured person unless it is absolutely necessary or he/she is in imminent danger.
  - (iii) Check that you and the injured person are in a safe place while waiting for help.
- (e) If you have first aid training, provide appropriate first aid; or if trained, cardiopulmonary resuscitation as needed, until the arrival of further medical help. Keep observing the injured/sick person until the arrival of further medical help.
- (f) Assist responding personnel (Security Guards and Paramedics) as necessary.
  - (i) To provide a handover when further medical help arrives if necessary.

## 6. EMERGENCY EQUIPMENT

You should always **familiarize** yourself with the location and operation of the emergency equipment(s) in the laboratory.

### 6.1 Use of fire extinguisher

For Class A (ordinary combustibles), Class B (flammable liquids), and Class C (energized electrical equipment) fires:

- (a) Test that the fire extinguisher works before you approach the fire.
- (b) Protect yourself at all times.
- (c) Keep your back to the exit at all times and stand 2 to 2.5 m away from the fire.
- (d) Follow the **P-A-S-S** procedure:
  - (i) **P**ull the pin to release the handle lock.
  - (ii) **A**im the nozzle at the base of the fire.
  - (iii) **S**queeze the trigger.
  - (iv) **S**weep the nozzle from side to side to extinguish the fire.
- (e) When the fire is extinguished, slowly back away from the fire, prepared to use the extinguisher again if the fire re-ignites.
- (f) Inform Security Control Room where the extinguisher was used so that a replacement extinguisher can be brought to the laboratory.



## 6.2 Use of emergency eye wash

If you have sustained splashing of harmful substances into your eyes:

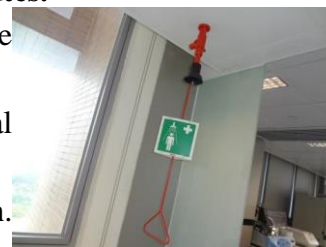
- (a) Notify others working in the laboratory that you have something in your eye and request their assistance.
- (b) Ask someone to immediately call Laboratory Technician, Tel. **3468 6858/3468 6845**.
- (c) Go to the nearest emergency eye wash station and turn it on.
- (d) Rinse both eyes with copious amounts of water for at least **30 minutes**.
- (e) Keep your eyes open with your fingers to ensure adequate flushing of the eyes.
- (f) When Security Guard(s) arrives, tell them what you were exposed to and follow their advice.
- (g) After the emergency eye wash, you should seek medical attention for exposure to chemical or biological products. If possible, bring the MSDS of the product to the physician.



## 6.3 Use of emergency shower

If you have sustained splashing of harmful substances to your face and body:

- (a) Notify others working in the laboratory that you have spilled something on yourself and request their assistance.
- (b) Ask someone to immediately call the Lab Technician, Tel. **3468 6858/3468 6845**.
- (c) Go to the nearest emergency shower and turn it on.
- (d) **Remove all articles of clothing and jewelry.**
- (e) Rinse with copious amounts of water for at least **30 minutes**.
- (f) When Security Guard(s) arrives, tell them what you were exposed to and follow their advice.
- (g) After the emergency shower, you should seek medical attention for exposure to chemical or biological products. If possible, bring the MSDS of the product to the physician.



## 7. ACCIDENT/INCIDENT REPORTING

- (a) Any incident occurring in laboratory during school hours must be reported immediately to School or Laboratory Technician at Tel. **3468 6858/3468 6845**.
- (b) After school hours, the incident should be reported to Security Control Room at Tel. 3190 6610 (emergency response)
- (c) All incidents must be reported to Security Control Room and School Executive Officer within 24 hours or the following working day.
- (d) Be prepared to provide the Security Guard with sufficient details for an incident report.