	<b>Department of Medicine</b>	Doc. No:	SOP-Medicine-24
	<b>Standard Operating Procedure</b>	Rev No:	002
	Title: <b>LABORATORY HOUSEKEEPING</b>	Page:	1 of 3

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## 1. OBJECTIVE

The objective of this document on housekeeping is to provide general guidelines on good housekeeping to ensure a safe and healthy workplace for staff, students and visitors in Department of Medicine research laboratories.

## 2. SCOPE

This SOP is applicable to all staff and students in Department of Medicine research laboratories at MD1, MD6 and NUH.

## 3. RESPONSIBILITY

3.1 Pls and supervisors must ensure the following:

- The risk management process is incorporated in safety and health regulations, directives and operational plans to minimize accident risk and that SOPs are developed for all operations entailing risk of death, serious injury, occupational illness or property loss.
- Promptly take appropriate action once the potential hazard identified.
- Promptly evaluate and take action as required to correct hazards identified through accident investigation.

3.2 All staff and students will comply with safety and health rules, regulations, and standards, and report any unsafe and unhealthy working conditions and accidents to their immediate supervisor.

## 4. KEY FACTORS TO GOOD HOUSEKEEPING

4.1 Overall cleanliness and orderliness


A laboratory can improve the conduciveness, hygiene and safety of its work environment by keeping all its work areas clean, organised and uncluttered. This can be achieved through regular housekeeping, timely disposal or removal of items that are seldom used or no longer needed.

4.2 Adequate space and proper layout

Work activity requires space and the presence of people, equipment and materials tend to obstruct orderly movement throughout the premises. A careful review of space requirements based on actual operations may suggest ways for a better layout. A well designed work space with equipment arranged for optimum workflow will improve efficiency and productivity, as well as the ease with which work activities can be carried out. The minimum unobstructed width of the corridor is 1.2m.

4.3 Correct storage and materials handling

Proper storage is necessary to facilitate the movement and placement of materials in the laboratory. This will prevent haphazard storage which can lead to blocked exit paths and/ or obstructed access to fire control equipment (e.g. fire extinguishers).

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Poorly organised storage may also result in the accumulation of unwanted items, debris and/ or waste materials especially in any available vacant space.


## 5. HOUSEKEEPING GUIDELINES

### 5.1 Work Environment

- There should be adequate ventilation and lighting in the work area.
- Appropriate hazard warning signs should be posted where necessary.
- Laboratory floor and bench areas should be free of clutter. Corridors and aisles should be free of tripping hazards, and fire exits are not blocked
- Laboratory floor should be clean and dry, and in good condition. All spills should be dealt with immediately to prevent slips and trips hazards, and risk of contamination.
- Bench tops should be kept clean, organized and free of debris, trash, spills or other materials which can pose a health hazard or cause an accident.
- Keep shelves above the work bench orderly: heavy items on the lower shelves, lighter items on the upper shelves and do not overload the shelves.
- Combustible materials, such as paper or cardboard boxes are not allowed to accumulate to create a fire hazard, impede egress or block access to other equipment.
- Place containers and equipment away from the edge of benches to avoid them from being knocked over.
- Stored materials in cabinets, freezers and refrigerators should be adequately labeled, identifying the responsible owner.
- BioSafety Cabinets and Fume Hoods should not be used for storage of laboratory materials and items so as to allow for proper airflow in the equipment.
- Sturdy step-stools or ladders should be available to reach items stored above shoulder level.
- Chairs should be covered with an easily cleaned (non-fabric) material.
- Lab coats should be hung up on hooks on a clean wall in the laboratory.
- Avoid using extension cords, equipment must be properly grounded, electrical circuits not overloaded, frayed cords must be promptly replaced, and loose cords properly coiled up.
- Working concentrations of the appropriate decontamination agents e.g. presept, 70% ethanol, should be available at all times.
- Designated bins for biohazard waste and sharps should be conveniently located, adequate in size and not over-flowing. Wastes should be disposed of safely and promptly.
- Unsafe conditions must be rectified as soon as possible.

### 5.2 Chemicals

- All chemicals shall be properly and adequately labeled and where applicable, with appropriate GHS pictograms, should be stored in their respective designated cabinets and returned to storage upon completion of usage. Hazardous and combustible materials should be kept to the minimum.
- All containers must be capped & sealed, except when being used. This is to reduce the possibility of a spill and reduce any release of fumes into the lab.
- Proper secondary containment is provided for storage of liquid materials.
- Flammable & combustible liquids must be stored in designated cabinets marked "FLAMMABLE" and must not be stored near hot plates or other ignition sources.
- Do not use fume hoods for storage of chemicals and other items.

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- All compressed gas cylinders must be securely strapped to prevent them from falling over
- All unused or old chemicals or chemical wastes will be disposed of in accordance with the waste disposal plan. Replace chemicals that have reached their expiration date.
- Maintain a good up to date chemical inventory for ease of tracking. Store only the amount of material reasonably needed. Do not over-purchase quantity of chemicals.
- Refer to Department SOPs on disposal of chemical waste (Medicine SOP04).

### 5.3 Emergency Equipment

Keep the following emergency equipment in view and accessible. Emergency equipment must be properly maintained and regularly serviced.

- Telephones
- Wash sinks
- First aid kits
- Fire extinguishers
- Fire alarms
- Emergency eyewashes and safety showers
- Spill kits

## 6. INCIDENT REPORTING

Accidents resulting in injuries must be reported to the PI and/or laboratory safety lead immediately after first aid is applied.

Seek medical attention when necessary at the University Health Centre or proceed to the Accident & Emergency units of National University Hospital after office hours.

All incidents or accidents have to be notified to OSHE within 24 hours via the online Accident and Incident Management System (AIMS) at [https://inetapps.nus.edu.sg/osh/portal/eServices/ehs360\\_aims.html](https://inetapps.nus.edu.sg/osh/portal/eServices/ehs360_aims.html).

## 7. REFERENCE

NUS General Laboratory Safety and Health Manual (NUS/OSHE/M/06)

## 8. REVISION HISTORY

Date Revised	Version No.	Author	Summary of Revisions
15-04-2019	001	Yeo Soh Bee	
15-04-2022	002	Adeline Chow	Update of approver (HOD): Prof Anantharaman Vathsala Section 5.1: Work environment: Biosafety Cabinets and Fume Hoods should not be used as storage cabinets.