NUS National University of Singapore	**Department of Medicine Research Laboratories**

New Staff / Student Safety Induction Training

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PART A: TRAINER'S CHECK LIST

Trainer's Copy

New Staff / Student Safety Induction Training for Department of Medicine Research Laboratories

A. Important Information

1. Have you been briefed on the Department of Medicine Safety and Health Policy?	Departmental S&H Policy http://medicine.nus.edu.sg/medi/safety/safety-policy.html
2. Have you obtained necessary immunization required for your work?	NUS Occupational Health Manual https://nusu.sharepoint.com/sites/corporate/procedures/safety_and_health/Occupational-Health-Manuals/NUS_OH_Manual.pdf
3. Are you aware of the ORMC (previously known as OSHE)/ Department of Medicine Safety website?	https://staffportal.nus.edu.sg/staffportal/portal/safety-security-and-sustainability.html http://medicine.nus.edu.sg/medi/safety/foreword.html
4. Have you been briefed the register of safety & health legislations applicable to the laboratory?	Register of Safety & Health Legislations Applicable to NUS https://inetapps.nus.edu.sg/osh/portal/general_safety/legalreq.html
5. Do you know where to obtain SOPs, RAs and SDS folders in the laboratory?	Identify SOPs, RAs and SDS folders.

B. General Lab Safety

1. Have you been briefed on the proper attire in a laboratory work environment?	Wear appropriate PPE, long sleeved lab coat, gloves, protective eyewear, covered shoes, etc.
2. Have you been briefed on the proper conduct in a laboratory work environment?	No food and drinks. No open flame. Clean up any spills immediately. Wash hands before leaving the laboratory.

C. Laboratory Lay-Out

1. Have you been shown the chemical storage areas?	Identify the safety cabinets for storing petroleum & flammable materials, hazardous substances, poisons, etc. Ensure cabinets are locked at all times. Chemical usage is recorded.
2. Have you been shown the freezer room and cold room?	Identify the freezer room and cold room.
3. Have you been shown the biohazard work area?	Identify biosafety cabinets.

4. Have you been shown the hazardous chemical work area?	Identify the fume hoods.
5. Have you been shown the designated cytotoxic work area? (If applicable)	Identify the gel running and gel photo taking areas. Ethidium bromide gels (if used) are strictly not allowed beyond these areas.
6. Have you been shown the designated bacteria culture work area? (If applicable)	Identify the bacteria culture area.

D. Laboratory Equipment / Techniques

1. Have you been briefed on the correct use of common laboratory equipment?	Brief on the use of common equipment: Centrifuge, drying oven, autoclave, ice flaker and pure water system, etc.
2. Have you been briefed on the proper handling of biohazard materials?	All infectious work must be performed in biosafety cabinets.
3. Have you been briefed on the proper handling of chemicals?	All hazardous chemical usage must be conducted in the fume hoods.

E. Waste Disposal

1. Have you been briefed on the proper chemical waste disposal?	Ensure all wastes are segregated and stored at the designated storage areas with secondary containment. NUS Hazardous Waste Label must be completed and pasted on the waste bottle. Paste the relevant GHS signage on the bottle.
2. Have you been briefed on the proper biohazard waste disposal?	Dispose in biohazard waste bags (yellow), double bagged, tie up and throw into designated bins. Indicate name of PI, lab location and user's contact on the bag.
3. Have you been briefed on the proper sharp waste disposal?	Dispose into correct sharp containers, seal and treat as biohazard waste.

F. Emergency Responses

1. Have you been briefed on biohazard spill containment?	Biological spill kit: Identify locations of biological spill kits. Go through content and correct use of spill kit.
2. Have you been briefed on chemical spill containment?	Chemical spill kit: Identify locations of chemical spill kit. Go through content and correct use of spill kit.
3. Have you been briefed on fire escape route and assembly area?	Identify the escape route and assembly area.
4. Have you been briefed on the emergency showers and eyewashes, fire extinguishers and fire break glass available?	Identify the locations of emergency shower and eyewashes, fire extinguishers, fire break glass

5. Have you been briefed on injuries requiring first aid?	Identify location of first aid kit
6. Have you been briefed on the Incident/ Accident Reporting and Investigation procedure?	Report any accidents or near incidences to PI, group safety lead and safety officer. All incidents are to be reported to ORMC within 24 hours via the Accident and Incident Management System (AIMS) https://inetapps.nus.edu.sg/osh/portal/eServices/ehs360_aims.html

G. NUS Laboratory Materials Management System (LMMS) and Laboratory Materials Purchase Requisition System (LMPRS)

This section is only applicable to staff who will manage and purchase chemical, biological and radioactive materials.

1. Have you been briefed on the use of the NUS Laboratory Materials Management System (LMMS)?	The NUS LMMS serves as an electronic inventory management tool that provides a real-time overview of materials (i.e. chemicals, radioactive and biological) that are in possession by the respective laboratories. It also ensures regulated hazardous material stocks are within licensed quantities and/ or are registered with the Safety & Health Management, ORMC (i.e. regulated biological materials). Inventory management of regulated materials (i.e. chemicals, radioactive and biological) shall be performed in LMMS. Request for access to LMMS for new user: Please contact Department LMMS Administrator Ms. Chow Wai Lyn Adeline (mdcchowa@nus.edu.sg)
2. Have you been briefed on the use of the NUS Laboratory Materials Purchase Requisition System (LMPRS)?	The NUS LMPRS provides a seamless integration of procurement with the inventory management system. There are 3 modules (Chemical, Biological and Radioactive materials) in LMPRS. All materials purchased through LMPRS are directly inventorised into the Principal Investigator's account in LMMS. **All Chemical, Biological and Radioactive purchases shall be made using LMPRS**. Some items can be exempted and are listed in the LMPRS Exemption List. https://inetapps.nus.edu.sg/osh/portal/Tools/LMMS.html Enquiries on LMMS and LMPRS: Ms. Jayavani Karuppasamy (oshjk@nus.edu.sg) Mr. Joel Swee Dao Wen (oshsdw@nus.edu.sg)

H. NUS ORMC Safety and Health Induction

Have you been briefed on the safety courses conducted by ORMC via LumiNUS and other additional training required? Structured Safety Training System (SSTS): https://inetapps.nus.edu.sg/osh/portal/training/ssts.html NUS LumiNUS: https://luminus.nus.edu.sg/	
Complete the following **compulsory** courses No.1 to 3:	
1. E-learning module "NUS Requirements on Safety, Health and Emergency Management" within one month upon joining the University	1.Complete OSHGEN03 (Only applicable to Staff via CHRS LMS)
2. "Online Fire Safety Training" within one month upon joining the University	2.Complete OSHFS01 (Staff access via CHRS LMS. Students access via LumiNUS)
3. "Laboratory Safety Induction Training" before start of any laboratory activity.	3.Complete OSHGEN01
Complete the following courses according to your job scope:	
4. Chemical Safety (Individuals performing activities involving the use of hazardous chemicals) **#**	4.Complete OSHCHM01
5. Safe Use and Handling of Hydrofluoric Acid (Individuals working with hyrofluoric acid)	5.Complete OSHCHM02
6. Safe Use and Handling of Pyrophoric Chemicals (Individuals working with pyrophoric chemicals)	6.Complete OSHCHM03
7. Biosafety for BSL-1 Laboratories (Individuals conducting BSL-1 work) **#**	7.Complete OSHBIO07
8. Biosafety for BSL-2 Laboratories (Individuals conducting BSL-2 work) **#**	8.Complete OSHBIO08
9. Safe Handling of Human Tissue and Fluids (Individuals working with materials of human origin)	9.Complete OSHBIO03
10. Safe Needle Usage in Research Laboratories (Individuals working with needles when conducting life science research)	10.Complete OSHBIO06
11. Safe Handling of Non-human Primate (Macaque) Derived Materials (Students and staff members who will be handling Macaque-derived materials)	11.Complete OSHBIO09
12. Viral vector Safety and Regulations Training (Individuals working with viral vectors)	12. Complete OSHBIO10
13. Laser Safety Training (Individuals performing activities involving use of Class 3b or Class 4 lasers) **#**	13.Complete OSHRAD02
14. Safe Handling of Radioactive Materials (Individuals performing activities involving use of radioactive materials or equipment containing radioactive materials) **#**	14.Complete OSHRAD03
15. Safe Handling of X-ray Machines (Individuals using X-ray machines or machines that can produce X-rays.) **#**	15.Complete OSHRAD04
16. Basic MRI Safety Training (Individuals who will be accessing a MRI controlled area but NOT operating machines/scanners.)	16.Complete OSHRAD05
17. MRI Safety Training for Operators (Individuals who will be accessing MRI controlled areas and operating MRI machines/scanners)	17.Complete OSHRAD06

Refresher training requirement: Individuals are required to retake this module after three years

Do note this is not the complete list of safety courses available. More details can be found under the ORMC Structured Safety Training System (SSTS): https://inetapps.nus.edu.sg/osh/portal/training/ssts.html

Please ensure you take the appropriate safety courses where applicable

PART B: TRAINER'S ASSESSMENT
(NEW STAFF/STUDENT)

Trainee's Copy

New Staff / Student Safety Induction Training for Department of Medicine Research Laboratories

Name of Principal Investigator : _____

Lab Location / Contact No : _____

Name of Trainer : _____

Name of Trainee / Designation : _____

Date : _____

A. Important Information	**Y**	**N**	**N/A**
1. Have you been briefed on the Department of Medicine Safety and Health Policy?			
2. Have you obtained necessary immunization required for your work? Date of Vaccination:			
3. Are you aware of the ORMC/ Department of Medicine Safety website?			
4. Have you been briefed the register of safety & health legislations applicable to the laboratory?			
5. Do you know where to obtain SOPs, RAs and SDS folders in the laboratory?			
B. General Lab Safety	**Y**	**N**	**N/A**
1. Have you been briefed on the proper attire in a laboratory work environment?			
2. Have you been briefed on the proper conducts in a laboratory work environment?			
C. Laboratory Lay-Out	**Y**	**N**	**N/A**
1. Were you shown the chemical storage areas?			
2. Were you shown the freezer room and cold room?			
3. Were you shown the biohazard work area?			
4. Were you shown the hazardous chemical work area?			
5. Were you shown the designated cytotoxic work area?			
6. Were you shown the designated bacteria culture work area?			
D. Laboratory Equipment/Techniques	**Y**	**N**	**N/A**
1. Have you been briefed on the correct use of common laboratory equipment?			
2. Have you been briefed on the proper handling of biohazard materials?			

3. Have you been briefed on the proper handling of chemicals?			
E. Waste Disposal	**Y**	**N**	**N/A**
1. Have you been briefed on the proper chemical waste disposal?			
2. Have you been briefed on the proper biohazard waste disposal?			
3. Have you been briefed on the proper sharp waste disposal?			
F. Emergency Responses	**Y**	**N**	**N/A**
1. Have you been briefed on biohazard spill containment?			
2. Have you been briefed on chemical spill containment?			
3. Have you been briefed on fire escape route and assembly area?			
4. Have you been briefed on emergency shower and eyewashes, fire extinguishers, fire break glass?			
5. Have you been briefed on injuries requiring first aid?			
6. Have you been briefed on the Incident/ Accident Reporting and Investigation procedure?			
G. NUS LMMS and LMPRS (only applicable to staff who will be managing and purchasing chemical, biological and radioactive materials)	**Y**	**N**	**N/A**
1. Have you been briefed on the use of LMMS? Are you aware that inventory management of regulated chemicals, biologicals and radioactive materials must be performed in LMMS?			
2. Have you been briefed on the use of LMPRS? Are you aware that all chemical, biological and radioactive materials purchases must be made using LMPRS, and that some items can be exempted and are listed in the LMPRS Exemption List?			

H. NUS/ORMC Safety and Health Induction	**Y**	**N**	**N/A**	**Date Safety Course is Completed (Mandatory)**
Have you been briefed on the safety courses conducted by ORMC via LumiNUS and other additional training required?				
1. NUS Requirements on Safety, Health and Emergency Management (OSHGEN03) (Compulsory). Only applicable to new staff and to access only in CHRS LMS.				
2. Online Fire Safety Training Course (OSHFS01) (Compulsory) (staff to access only in CHRS LMS, students to access in LumiNUS).				
3. Laboratory Safety Induction Training (OSHGEN01) (Compulsory)				
4. Chemical Safety (OSHCHM01) Refresher training requirement: Individuals are required to retake this module after three years.				
5. Safe Use and Handling of Hydrofluoric Acid (OSHCHM02)				
6. Safe Use and Handling of Pyrophoric Chemicals (OSHCHM03)				
7. Biosafety for BSL-2 Laboratories (OSHBIO08) Refresher training requirement: Individuals are required to retake this module after three years.				

8. Safe Handling of Human Tissue and Fluids (OSHBIO03)				
9. Safe Needle Usage in Research Laboratories (OSHBIO06)				
10. Safe Handling of Non-human Primate (Macaque) Derived Materials (OSHBIO09)				
11. Viral Vector Safety and Regulations Training (OSHBIO10)				
12. Laser Safety Training (OSHRAD02) Refresher training requirement: Individuals are required to retake this module after three years				
13. Safe Handling of Radioactive Materials (OSHRAD03) Refresher training requirement: Individuals are required to retake this module after three years				
14. Safe Handling of X-ray Machines (OSHRAD04) Refresher training requirement: Individuals are required to retake this module after three years				
15. Basic MRI Safety Training (OSHRAD05)				
16. MRI Safety Training for Operators (OSHRAD06)				
Do note this is not the complete list of safety courses available. Insert additional courses not listed above where required.				

Comments:

I have read, understood and agreed to the rules and regulations listed in the Department of Medicine Research Laboratories Standard SOP for New Staff/Student.

Signature of Trainee	Signature of Trainer	Signature of PI
Date	Date	Date