

**DEPARTMENT OF ORTHOPAEDIC SURGERY,
NATIONAL UNIVERSITY OF SINGAPORE**



AUGUST 2022 : Issue 23

TREE OF ANDRY



**SAFETY & HEALTH
NEWSLETTER**

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Special points of interest:

- DEPARTMENT SAFETY & HEALTH MISSION, OBJECTIVES & PROGRAMME
- NUS SAFETY & HEALTH AWARD (NUSSHA)
- EMERGENCY RESPONSE & PREPAREDNESS PROGRAMME
- SPECIAL SAFETY & WELLNESS FOCUS INCLUDING ACTIVITY
- NEW INTERACTIVE SECTION: SAFETY BRAIN TEASER
- NUS/ORMC SAFETY & HEALTH NEWS

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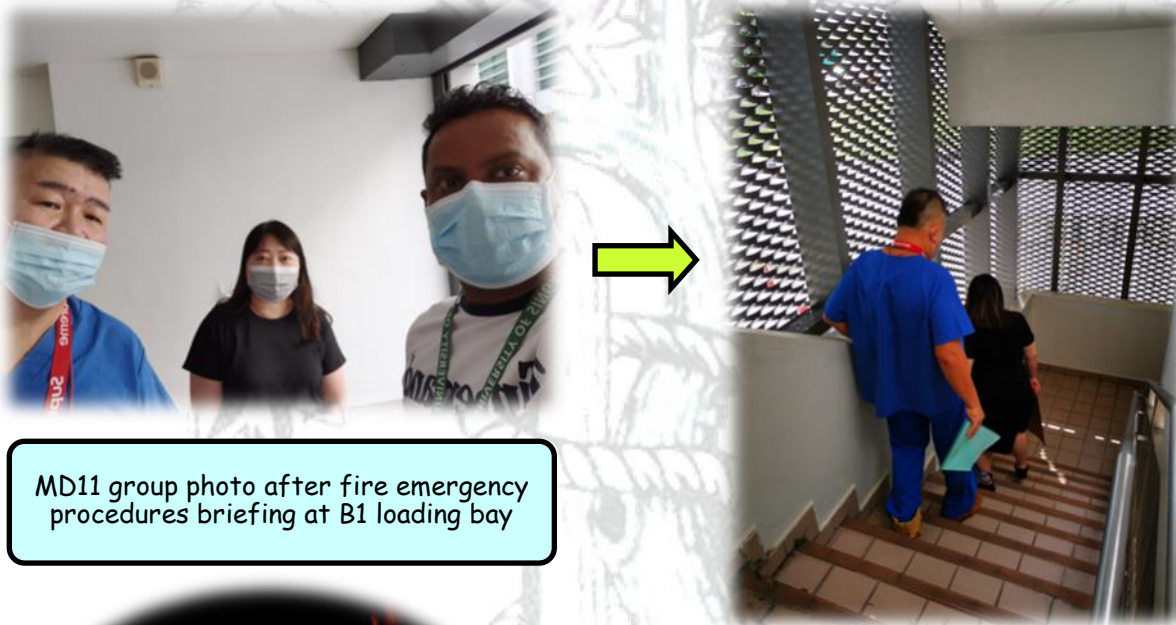
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DEPARTMENT SAFETY & HEALTH OBJECTIVES & PROGRAMME

2022 Department Safety & Health Mission							
1	To achieve zero reportable accident/incident which result in high impact incident such as those: A. Subjected to Committee of Inquiry B. Resulting in punitive measures by regulator C. Resulting in financial loss > \$1 million	2	Proactively promote S&H and addressing S&H issues in the department				
2022 Department Safety & Health Objectives							
No.	Objectives	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Current Status/Remarks	
1	Review, implement and track the annual 2021 management review improvement plans	✓	✓	✓		Ongoing	
2	Promote TWSH in the department by organizing at least 1 S&H activity by adhering to NUS guidelines on safe management measures	-	-	✓		Ongoing	
3	Prepare the department for participation in upcoming NUSSHA audit & aim for at least commendation award	✓	✓	✓		Completed	
2022 Department Safety & Health Programme							
No	Programme	Responsible	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Current Status/Remarks
1	Safety Awareness & TWSH Programme : Organize at least 1 safety, health & wellness activity to serve as an avenue to raise awareness of safety, training, health and wellness for staff & students	Department Safety & Health Committee (DSHC)	DSHC & Research Admin Meeting (08/02)	- DSHC & Research Admin Meeting (02/06) - Safety Game: Spot the hazards ((02/06)	- TWSH Activity (River Wonders Walk)(04/08) - DSHC & Research Admin Meeting (11/08)		Ongoing
2	Emergency Response & Preparedness Programme: Conduct emergency response exercises to familiarize staff & students with emergency procedures not limited to: a) Internal Fire Evacuation Drill b) Chemical & Biological Spill training c) Tabletop ERP exercise & drills	DSHC & Safety Leads	MD11 Fire Drill (31/03)	Biological & Chemical Spill Response Exercise (01/06)			Ongoing
3	Safety Inspection Programme: a) Conduct workplace safety inspections once a year b) Track the categories & number of inspection findings of current and previous years	DSHC	-	-	Internal Safety Inspection (Sept)		Ongoing
4	Safety Audit Programme: a) To conduct internal SMS Audit for Dept. core facilities & PI Labs & NUHS Tower Block Office that did not undergo internal audit last year b) Track the categories & number of internal audit findings of current and previous years c) Close all pending NUSSHA audit findings in preparation for upcoming NUSSHA audit d) Follow-up on the action plan and rectification status of the findings from the PI surveillance audit conducted by OSHE in 2021	DSHC	-	Internal Audit of Dept. Core Facilities & 1 PI (April-June 2022)	- Dept. Cross Internal Audit with Dept. of Biochemistry & Anesthesia (04/07) - NUSSHA 2023 (12/08)		Ongoing
5	Review workplace safety performance once a year to ensure continual improvement	Head of Department	2021 Mgt Review (02/03)	-	-		Ongoing
6	Training Programme: Workplace safety lead to conduct safety induction training to new staff and students	Safety lead & Safety Coordinator	-	Dept. Safety Induction (07/04 & 01/06)			Ongoing

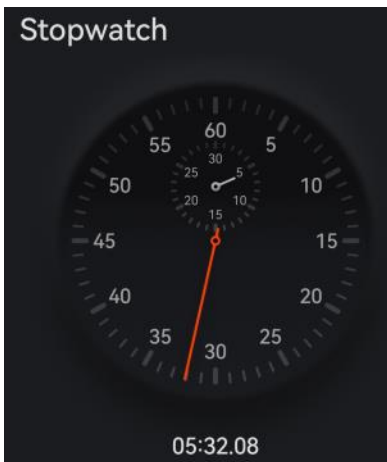
MD11 INTERNAL FIRE EVACUATION DRILL EXERCISE (MARCH 2022)

Even though we had only 3 participants for the MD11 fire evacuation drill, we still proceeded to familiarize ourselves with the fire emergency procedures as well as record our evacuation time from MD 11 to the assembly area (Multi-purpose field)



MD11 group photo after fire emergency procedures briefing at B1 loading bay

Familiarization of emergency escape routes for dept. occupants stationed in MD11 Basement 1



Time to reach the assembly area : 5 mins 32 sec

Nice weather for a short walk to the assembly area !!



CHEMICAL SPILL RESPONSE EXERCISE (JUNE 2022)

To improve the in-house spill response training and help the new staff (Yang Long) acclimatize to their lab procedures in handling manageable spill, the spill exercise was, hence, conducted in their respective lab area. Their most hazardous biological and chemicals real-life spill scenarios were simulated and the training on the cleaning procedures by the department spill responders was successfully completed.



- Alert others & put spill warning signage



- Check Safety Data Sheet, prepare spill kit & appropriate neutralizers



- Surround the spill using absorbent pad.
- Dispose broken bottle into sharp box using a tong



- Removal of contaminated PPE after cleanup
- Disposal of waste & labelling of chemical waste as per lab SOP



- Final clean up to ensure that no residual chemical is left behind



- If no neutralizer is required, use a tong and absorbent pad to absorb the chemical

File report through AIMS

BIOLOGICAL SPILL RESPONSE EXERCISE (JUNE 2022)



Alert others by putting spill warning signage



Don PPE and prepare spill kit while allowing aerosol to settle for 30 minutes



Surround the spill using absorbent pad or tissue



Final Cleanup and disposal of contaminated waste into the biohazard bag



Use tongs to clean up spill



Pour disinfectant solution from outer edge and inwards & allow disinfectant to settle for 30 minutes



Removal of contaminated PPE after cleanup and disposal of contaminated biohazard waste as per lab SOP

**File report
through AIMS**

NUHS TOWER BLOCK FIRE EVACUATION DRILL EXERCISE (JULY 2022)

NUHS TOWER BLOCK FIRE DRILL EXERCISE



CAUTION
DO NOT USE
THE LIFT TO
EVACUATE !!!



So tired climbing down the stairs from 11th storey to Assembly Area !!!



ALWAYS Evacuate to the nearest emergency staircase and DO NOT USE LIFT !!!



Floor Register Roll Call by Fire Warden

SAFETY ACTIVITY "SPOT THE HAZARDS" (JUNE 2022)

To refresh everyone memory about the importance of identifying hazards in the workplace, this safety activity "Spot the hazards" was organized after the research admin meeting on 2nd June 2022. It also provided an avenue for more teamwork safety-related interaction among all the members.



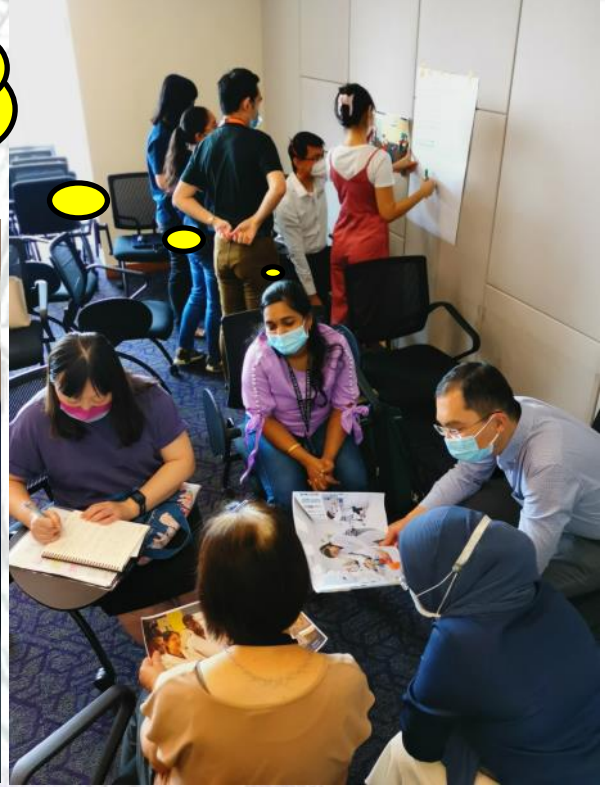
What is this type of hazard in the picture !!



The research admin meeting cohort was divided into 3 groups. 2 photos were randomly chosen by each group and "spot their hazards" were brainstormed

Are you sure this hazard is correctly identified?

The members in my team are all working so hard !!

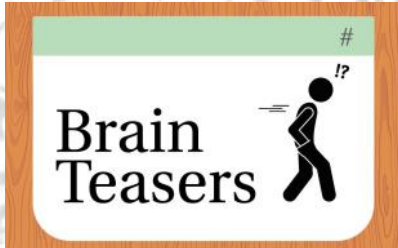


Everyone is focused on spotting the maximum number of hazards in their respective photos provided

NEW INTERACTIVE SECTION: SAFETY BRAIN TEASER

What is Hazard?

Anything with the potential to cause bodily injury



Types of Hazard:

- Physical (e.g., fire, noise, ergonomics, heat, radiation)
- Mechanical (e.g., moving parts, rotating parts)
- Electrical (e.g., voltage, current, static charge, magnetic fields)
- Chemical (e.g., flammables, toxics, corrosives, reactive materials)
- Biological (e.g., bacteria, fungi, blood-borne pathogens, virus, microbial toxins)
- Psychosocial (e.g., employees' poor mental well-being, stress, fatigue)



Can you spot how many hazards are there in this office picture?

The answers to this brain teaser "Spot the hazards" will be posted in the last section of this newsletter. Go and check the latter if you manage to guess all the possible hazards !!

The Tree of Andry

TWSH (WELLNESS) ACTIVITY (RIVER WONDERS) (AUGUST 2022)



Let's Board the bus!!!



Group Photo in front of the "River Wonders" before starting our exploration



Before we boarded the bus, we had a quick healthy lunch from Mr. Bean



Panda enjoying his tea/ bamboo-break

Wow!! The fish is very big !!



Hope everyone had a good enjoyable and beneficial wellness activity!!



NUS SAFETY & HEALTH AWARDS (NUSSHA 2023)

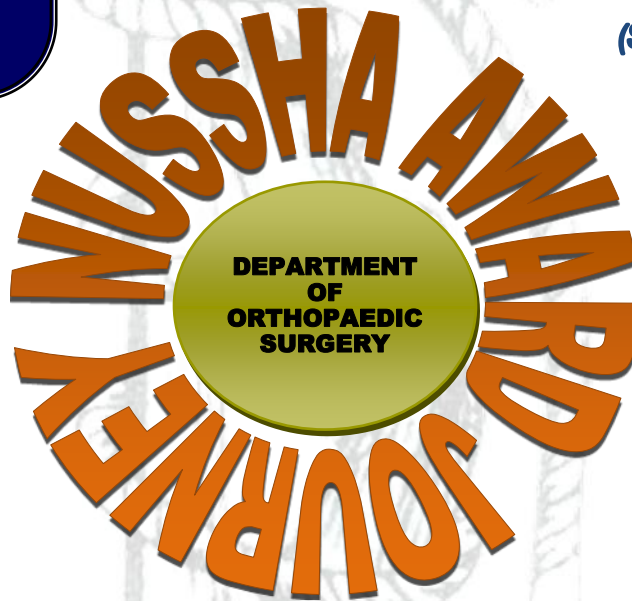


OVERVIEW OF NUS SAFETY & HEALTH AWARDS (NUSSHA)

1. Encourage departments to establish safety and health management system (SHMS)
2. Conducted together with the mandatory audits required for high hazard departments
3. Recognise departments' safety & health performance and sharing of best practices
4. Promote culture of continual improvement



2023



2010
(Merit Award)



2011
(Silver Award)



2013
(Commendation Award)



2015
(Commendation Award)



2017
(Commendation Award)



2020
(Commendation Award)

CROSS DEPARTMENT SAFETY & HEALTH AUDITS (JULY 2022)

In preparation for the NUS Safety & Health Awards (NUSSHA 2023), Department of Orthopaedic Surgery, Biochemistry and Anaesthesia cross-audited each other Department Safety & Health Management System (DSHMS). Each department allocated some internal auditors who conducted the audit process based on the documentations submitted. Through this process, we all learnt from each other to eventually improve our current DSHMS.



Department of Biochemistry & Orthopaedic Surgery Cross-Audit on 04/07/2022 while Department of Anesthesia cross-audit is scheduled in November 2022

DEPARTMENT AUDIT FOR NUSSHA 2023(AUGUST 2022)

Our department registered its interest to participate in the NUSSHA 2023 on February 2022. Subsequently, our Department Safety and Health Management System (DSHMS) was audited by Office of Risk Management & Compliance (ORMC) auditors on Friday 12 August 2022 from 9am to 5pm



Time	Description
9.00 – 9.10am	Opening by Auditors
9.10 – 10.00am	Interview with Head of Department
10.00 – 1.00pm	Interview & documentation review with Department Safety Committee
1.00 – 2.00pm	Lunch Break
2.00 – 4.00pm	Site Walkthrough
4.00 – 4.30pm	Auditor's Discussion
4.30 – 5.00pm	Sharing of Preliminary Finding

Microsoft Team meeting & interview of Head Of Department (Prof. James Hui) & DSHC members by the 2 ORMC auditors (Mr. Rajkumar & Ms. Zoey)

Fire Safety briefing of ORMC auditors by Dept. Fire Warden prior to starting site walkthrough



Cell Culture & Histology Lab



Group photo at the end of the site walkthrough by the ORMC auditors



Cadaveric Dissection & Biomechanics Lab



SPECIAL SAFETY FOCUS: ELECTRICAL SAFETY AT WORK



ELECTRICAL SAFETY AT WORK

A check list for employees.



DO...

- Disconnect or isolate all electrical equipment before working on it.
- Wear approved rubber gloves and rubber-soled shoes and boots.
- Use insulating mat on damp surfaces.
- Report electrical faults to your supervisor immediately.
- Take notice of safety signs.

DO NOT...

- Wear metal objects which may act as conductors of electricity.
- Wear loose clothing which might tangle in wiring or machinery.
- Touch water or damp surfaces.
- Touch unearthed metal or bare wires.
- Install or repair sockets and plugs, unless trained and authorised to do so.
- Break off an earth pin to fit a plug into a socket.



SPECIAL WELLNESS FOCUS: NATIONAL WSH CAMPAIGN 2022 “TAKE TIME TO TAKE CARE” OF YOUR SAFETY & HEALTH

How well do you know yourself?

Our state of health can affect our work performance. Besides physical health, take care of mental wellness in order to achieve optimal balance between work and personal life.

Seek professional help when necessary. Do not delay seeking for treatment until it is too late.

Stay informed about the National WSH Campaign and learn more tips on how to manage your safety and health to prevent injuries at the workplace.

Visit <https://www.tal.sg/wshc/newsletters>

Are you neglecting your health because of work and other commitments in life?



Source: Amina F

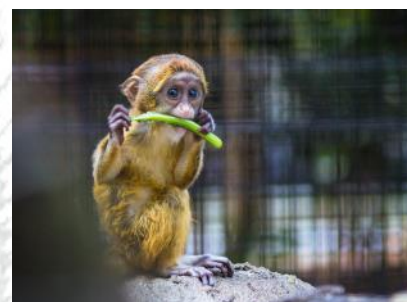


Rest & Recover

- Take Time for Breaks
- Drink Enough Water
- Get Enough Sleep

Stay Active & Eat Right

- Reduce Alcohol
- Stop Smoking
- Eat Healthy
- Stay Active
- Watch Your Weight



Source: Jimmy C

Manage Your Health

- Know Your Health Condition
- Stop Work When You're Unwell
- Don't Keep Your Medical Condition a Secret
- Maintain Your Personal Hygiene
- Manage Your Mental Stress

Take Time to Take Care



Source: Julia MC



Source: cottonbro

Check out these useful websites:

<https://www.iworkhealth.gov.sg/Pages/default.html>

<https://www.mom.gov.sg/covid-19/tripartite-advisory-on-mental-well-being-at-workplaces>

<https://www.tal.sg/wshc/campaigns>

<https://taketimetotakecare.sg/>

<https://www.tal.sg/wshc/campaigns/2022/safe-hands-campaign-2022>

SPECIAL WELLNESS FOCUS: NATIONAL WSH CAMPAIGN 2022 “TAKE TIME TO TAKE CARE” OF YOUR SAFETY & HEALTH (CONT)

Let's explore the Therapeutic Gardens in Singapore

Bishan-Ang Mo Kio Park (Pond Gardens)
Source: Mary G

Punggol Waterway Park
Source: Rajee V

Choa Chu Kang
Source: Kor FC

Pasir Ris Park
Source: Bryan P

Bedok Reservoir Park
Source: Steve C

Tiong Bahru Park
Source: SH Yeoh

Telok Blangah Hill Park
Source: Howsy

Hort Park
Source: Ankit K

Jurong Lake Gardens
Source: Sue Wee

Map Source: <https://www.onemap.gov.sg/>

References:

WSH Council

<https://www.ta.sg/wshc>

Care Kit for Employees

<https://www.ta.sg/wshc/resources/publications/resource-kits/care-kit-for-employees>

National Parks Board (NParks)

<https://www.nparks.gov.sg/>

Therapeutic Gardens

<https://www.nparks.gov.sg/gardens-parks-and-nature/therapeutic-gardens>

HIGHLIGHTS OF NUS/ORMC SAFETY & HEALTH NEWS (JAN - AUG 2022)

NUS Office of Safety, Health & Environment (OSHE) has "lift and shift" to the Office of Risk Management & Compliance (ORMC) (<https://www.nus.edu.sg/ormc/index>)

NUSMed Annual Declaration of Regulated Materials

- **Deadline: 31 January 2022**

S/N	Regulated Materials	Authorities	Regulations
1	Hazardous Substances	National Environment Agency	Environmental Protection and Management Act
2	Petroleum & Flammable Materials	Singapore Civil Defence Force	Fire Safety (Petroleum & Flammable Materials) Regulations
3	Chemical Weapons Convention Chemicals	Singapore Customs	Chemical Weapons (Prohibition) Act
4	Controlled Drugs and Temporarily Listed Drugs	Central Narcotics Bureau	Misuse of Drugs Act
5	Explosive Precursors	Singapore Police Force	Arms & Explosives Act
6	Poisons	Health Sciences Authority	Poisons Act
7	Biological Agents and Toxins	Ministry of Health	Biological Agents and Toxins Act
8	Risk Group 2 Veterinary Biologics	Animal & Veterinary Service	Animals and Birds Act
9	Radioactive Materials	National Environment Agency	Radiation Protection Act

NUS Medicine Laboratory Safety Inspection

- **Foci: Regulatory Compliance & Documentation**
- **Number of Laboratories Inspected: 158**
- **Safety Inspection Teams:**
 - NUS Medicine Safety Committee members
 - Accompanied by Principal Investigator
- **1 Minor Non-Compliance notice sent**
- **Key findings are as follows:**
 - Chemicals not appropriately labelled with chemical name,
 - concentration or appropriate GHS
 - Regulated chemical bottles not inventorised in LMMS
 - Opening of the sodium hypochlorite container not dated
 - Procedures on emergency centrifuge lid release not aware/displayed
 - Lab not well-maintained
 - Emergency shower and eyewashes not maintained
 - Equipment not elevated
 - Blockage of emergency shower/eyewash/electrical distribution/panel board
 - Electrical plugs not labelled with name and amperage
 - Chemical spill kit not maintained
 - SDS/RA not valid
 - Waste not appropriately stored

Updates on Approved Code of Practices

- **Announced on 19 Nov 2021 w.e.f. from 01 Dec Assessed through NUS Library Portal**

Additions of SS/CP into ACOP 2021	
1	SS551 (2009) – Code of Practice for Earthing
2	SS663 (2020) – Code of Practice for Safe Loading on Vehicles
3	SS667 (2020) – Code of Practice for Handling, Storage and Processing of Combustible Dust
Revision of SS/CP in ACOP 2021	
1	SS550 (2020) – Code of Practice for Installation, Operation and Maintenance of Electric Passenger and Goods Lift
2	SS580 (2020) – Code of Practice for Formwork
3	SS586 (2021) – Part 1 of Specification for Haz Communications for Haz Chemicals and Dangerous Goods
4	SS659 (2020) – Code of Practice for Scaffolds
5	Code of Practice on WSH Risk Management (2021 Revised)
SS/CP Withdrawn from ACOP 2021	
1	SS506 (2009) – Occupational Safety & Health (OSH) Management Part 1 and 2

Enhancements to WSHIR Module

- **Streamline management of hazardous inventory records on LMMS**
 - Removal of "Hazardous Materials Inventory" Section
 - Users no longer need to maintain records in two systems
 - Archive WSHIR records, if necessary, before 1 Feb 2022
- **New WSHIR section on "Training"**
 - Additional function to manage related documents (e.g. needs identification, other records, etc.)

RFM Intranet Site

- **Within NUSMed Staff Intranet (accessible by NUSMed staff only)**
 - **Policies & Guidelines:**
 - CRF contact information
 - Contractor management
 - LMMS handbook
 - Card access & BCP app user guides
 - CRF hazardous waste disposal schedules
 - **Forms and Checklists:**
 - Card access
 - BCP TTX record template
 - Lab commissioning and decommissioning
- <https://nusu.sharepoint.com/sites/med/staff/SitePages/Research-Facilities-Management.aspx>

HIGHLIGHTS OF NUS/ORMC SAFETY & HEALTH NEWS (CONT) (JAN - AUG 2022)

Annual Review of Explosive Precursors at NUSMed

- **Objectives:** Annual check for compliance & Renewal of NUSMed EPs Licences
- **Approaches:** Documentation Review
 - EPs Review Form
 - Hardcopy Usage Record (countersigning function not available in LMMS)
 - Safety Data Sheet & Risk Assessment
 - Chemical Safety Training Record
- **On-Site Audit (16 - 25 Feb 2022)**
- **Number of EPs*:** 61, owned by 23 PIs/ Lab-in-charge
- **Findings (Number of EPs):**
 - 6-monthly inventory check not countersigned (21)
 - Usage not updated in LMMS (1)
 - Quantity left / concentration on hardcopy usage record not accurate (3)
 - Safety data sheet / risk assessment not available or incomplete (15)
 - Chemical safety training record not valid (8)

* Each container of EPs is counted as one.

Enhancement to Lab Door Sign Generator

Background:

- Tool to assist lab users generate signages to communicate important hazard and contact information.
- Updated after seeking feedback during the OSHE Safety OE surveys.

Key Changes:

- Update the available hazard signages/labels to the latest standards and codes available, e.g., SS508 and BSENISO7010.
- Include more choices of hazards and PPEs based on new hazards in the University.
- Update information (e.g., locations, Contact for BP/SHC).

Actions required:

- Labs need to update their Lab Door Sign if:
 - There is a change in lab hazards; or
 - There is a change in lab ownerships.

Lab Door Sign Generator:

- <https://www.nus.edu.sg/workplacesign/labsign.aspx>

Enhancement to Licence/Permit/Waiver Module in EHS360 WSHIR

Background:

- EHS360 WSHIR Licence/Permit/Waiver module facilitate management of statutory licences under user's possession (includes N2 licence).
- NEA-RPNSD now allows users to apply one N2 licence for possession and use of more than one controlled non-ionizing irradiating (NIR) apparatus.
- EHS360 WSHIR Licence/Permit/Waiver module modified to support this change.

Key Changes:

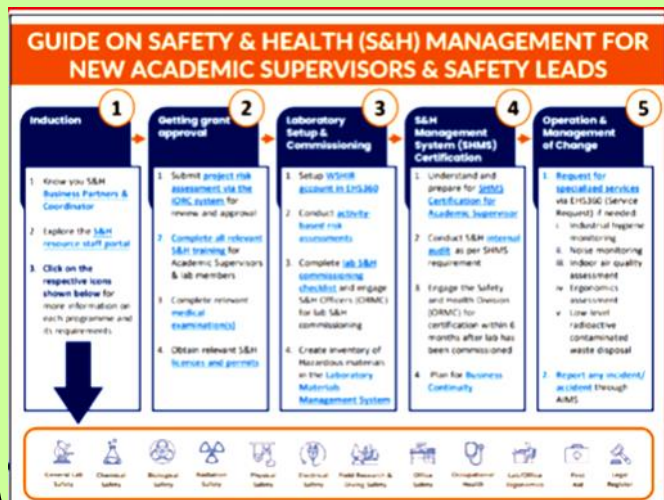
- Users can now add multiple NIR apparatus in the new "Information of NIR apparatus in licence" section under one licence.

Actions required:

- PIs and safety leads to check their WSHIR N2 licence record and feedback to Zoey Zhou (zoey.z@nus.edu.sg) or Jedison Ong (jedisonong@nus.edu.sg) if there are any discrepancies.

Supporting Guide on S&H Management For New PIs & Safety Leads

- Staff portal > Safety, Security and Sustainability
- Process guide with links to supporting manuals forms and apps
- <https://inetapps.nus.edu.sg/osh/portal/pdf/Guide%20on%20Safety%20&%20Health%2028S&H%29%20Management%20for%20new%20Academic%20Supervisors%20and%20Safety%20Leads.pdf>



HIGHLIGHTS OF NUS/ORMC SAFETY & HEALTH NEWS (CONT) (JAN - AUG 2022)

NUS Medicine Business Continuity Plan

- BCP review period: 1 Jan 2022 to 31 Dec 2022
- All PIs are required to update their BCP status for both wet and dry laboratories using the centralized NUS Medicine Research Business Continuity Plan Application System
- Staff who are unable to access the Application System can conduct and review the BCP using the NUSMed BCP Form and Form A: BCP Table-top Exercise Record
- **Deadline: Friday, 30 Sep 2022**
- For enquiries: medbox81@nus.edu.sg

Re-Classification of Drosophila melanogaster by NEA to Non-Vector

Background:

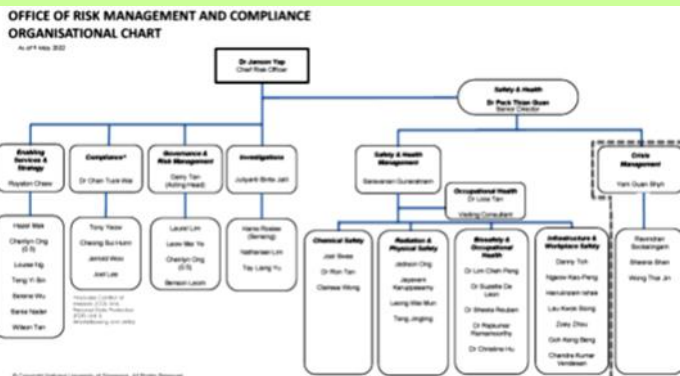
- Originally regulated as a vector under Control of Vectors and Pesticides Act 1988
- Define as (2a) any insect, including its egg, larva and pupa carrying or causing, or capable of carrying or causing any disease to human beings;
- Regulate breeding, keeping, importing, exporting, etc.
- D. melanogaster insectary requires inspection and issuance of permit with periodic validity (1 or 2 years) by NEA

Key Changes:

- NEA re-evaluated public health risks re-classified it as a non-vector
- Insectary Permit under the Control of Vectors and Pesticides Act 1998 is no longer required to breed, keep, collect, distribute, sell, import or export the fly species D. melanogaster.

Updated ORMC Organizational Chart

<https://nus.edu.sg/ormc/about-ormc/our-ormc>



NUS Fire Safety Management

- OSHE Fire Safety was reorganized to form Fire Safety Section (FS) under Campus Emergency and Security (CES) in Jan 2022
- 2 sub-units in CES FS: Fire Safety Operations Unit and Fire Safety Management System Unit

Fire Safety updates:

- SCDF has tighten fire safety controls (e.g. CERT team, compliance checks, etc.)
- Fire drills & Fire Safety Excellence Award to resume for 2022
- Scheduled building fire safety inspection increased to twice a year with frequent unscheduled building fire safety inspections
- Fire drill & inspection schedules for other MD buildings will be confirmed later

NUS Safety and Health Community of Practice (S&H CoP)

Background:

- Strengthen the Safety and Health (S&H) Community of Practice (CoP) in NUS.
- This initiative aims to develop the skills and technical competency of each SHC in order to carry out their S&H duties and roles & responsibilities effectively.
- It includes the following upskilling opportunities.
- To foster a robust partnership and CoP among the safety and health professionals.



Background:

- Structured training & development programme for SHCs
- Formalized channel for feedback from SHCs to SHM, ORMC
- Provide greater sharing of best practices among SHCs
- Raise safety & health standards across Fac/Sch/ RI/RCs

HIGHLIGHTS OF NUS/ORMC SAFETY & HEALTH NEWS (CONT) (JAN - AUG 2022)

NUS Medicine Accidents/ Incidents Sharing

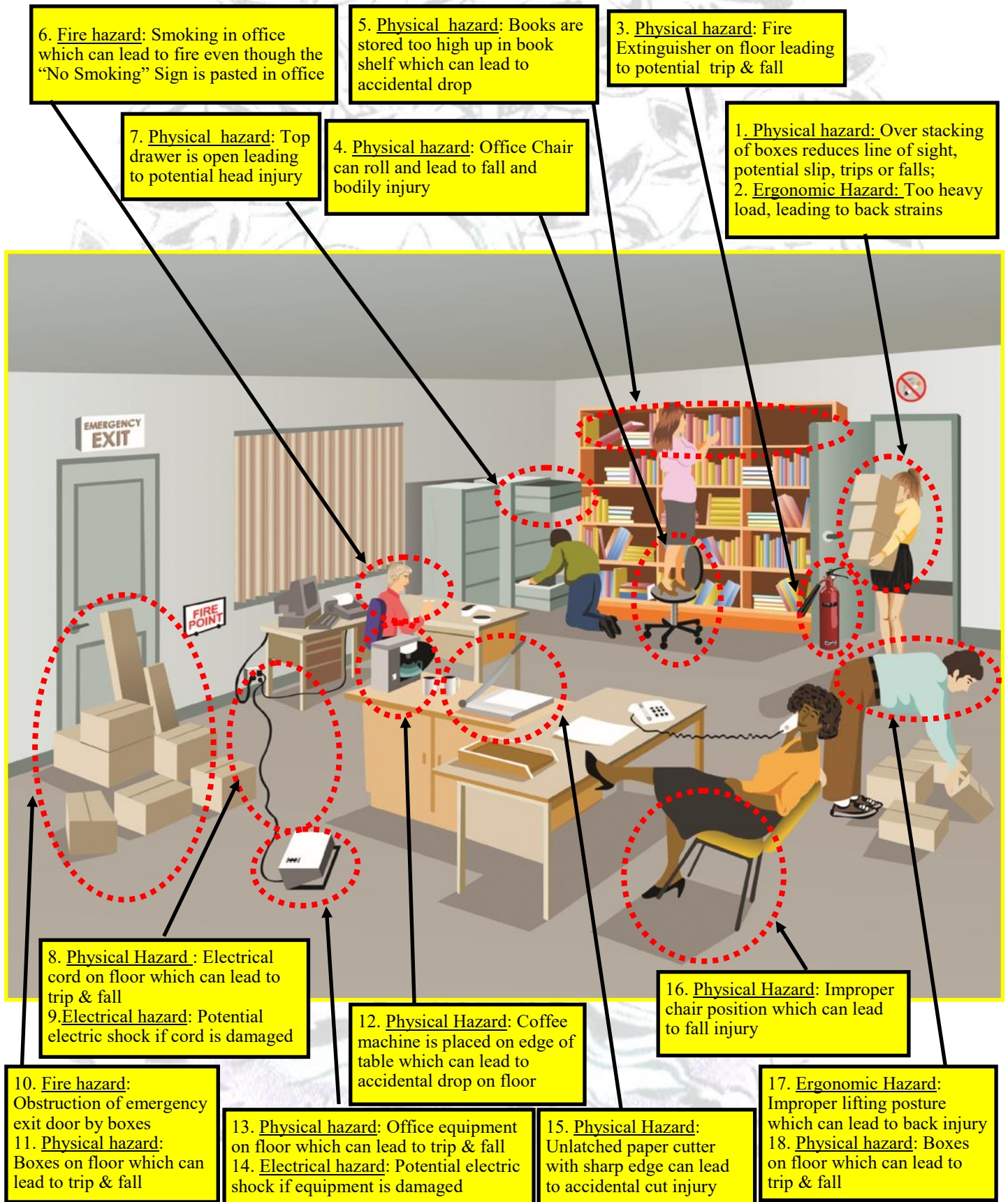
DESCRIPTION	POSSIBLE CAUSE	LESSONS LEARNT
<p>1. Biological Spill</p> <ul style="list-style-type: none"> - A T-175 flask containing 350mL of the viral vector supernatant waste was transferred to a biosafety cabinet in the culture room. Two tablets of 2.5g Presept were added directly into the flask. - The flask was capped and placed in a secondary container near the sink in the culture room to sit before discarding. During this period, the pressure in the flask built up and caused the flask to crack. - No one was in the culture room when the event happened. The waste splashed onto the wall and containers placed within that area. - The biological spill team was deployed to clean up the area immediately. 	<ul style="list-style-type: none"> - The Presept tablets were added directly to a culture flask 2/3 filled with viral vector supernatant waste. - The staff had not loosened the cap of the container to allow for release of chlorine gas when the waste came into contact with the Presept tablets. 	<ul style="list-style-type: none"> - The Presept effervescent disinfectant tablets should be dissolved in water first. - The liquid biological waste should be transferred to a sturdy biological waste bottle for decontamination.
<p>2. Chemical Spill</p> <ul style="list-style-type: none"> - A lab personnel was filtering Oil Red O (Oil Red O in 2-propanol) in fume hood when the 0.22µm filter leaked and Oil Red O splashed onto the wall. - There was no injury involved in this event. - Cleanup was done for fume hood and the wall. - Classified as near miss. 	<ul style="list-style-type: none"> - Clogged filter 	<ul style="list-style-type: none"> - To change clogged filter to new filter more frequently.
<p>3. Chemical Spill</p> <ul style="list-style-type: none"> - A drop of Ethidium Bromide spilled on a lab personnel's exposed forearm while preparing 1% agarose gel in the fume hood. - He immediately went to the sink and washed the affected area with soap and running tap water for 5 minutes before seeking medical consultation at UHC. 	<ul style="list-style-type: none"> - A few drops of EtBr spill out while the bottle was tilted to check for remaining volume. 	<ul style="list-style-type: none"> - Consider substituting EtBr for GelRed
<p>4. Cut by Object</p> <ul style="list-style-type: none"> - A lab personnel was retrieving samples from a -80°C freezer rack drawer. - Her cryo-gloves were removed before opening the drawer as the bulkiness of the gloves may hinder sample retrieval. - She pulled the drawer handle and her fingers slid along the handle, cutting her little finger through the latex glove. - First aid was rendered for the cut, and she also saw a doctor for the injury. 	<ul style="list-style-type: none"> - The ice build-up around the rack may have caused the metal handle to be slippery. - The lab personnel removed her cryo-gloves before pulling on the drawer handle. 	<ul style="list-style-type: none"> - Ensure risk assessment includes sharp hazard when handling freezer drawers with ice build-up and implement appropriate control measures. - Assess the cause of ice build-up. - Increase frequency of ice clearing from the freezer to prevent ice build-up.

HIGHLIGHTS OF NUS/ORMC SAFETY & HEALTH NEWS (CONT) (JAN - AUG 2022)

NUS Medicine Accidents/ Incidents Sharing (CONT)

DESCRIPTION	POSSIBLE CAUSE	LESSONS LEARNT
<p>5. Safety Concern over Centrifuge with Faulty Power Board</p> <ul style="list-style-type: none"> - Centrifuge was found emitting smoke while on idle. - It was switched off and labelled warn others against using it. 	<ul style="list-style-type: none"> - Vendor's engineer evaluated the centrifuge and stated that it is due to a faulty power board. - Equipment was still under warranty and a similar incident occurred previously for the same model. 	<ul style="list-style-type: none"> - Good practice to switch off the equipment when not in use, especially when they are left unattended.
<p>6. Centrifuge lid damaged during start up</p> <ul style="list-style-type: none"> - A lab personnel was centrifuging samples for his experiment when the tabletop centrifuge made a loud noise. The centrifuge was stopped immediately. - The rotor lid was found stuck between the rotor and the centrifuge chamber. 2 tube covers had also shattered inside the rotor. - The rotor was removed and cleaned. Another identical lid was used to test the centrifuge and it ran smoothly. 	<ul style="list-style-type: none"> - The rotor lid may not have been placed properly on top of the rotor 	<ul style="list-style-type: none"> - Ensure rotor lid is properly locked in place before closing the centrifuge lid to start centrifugation
<p>7. Chemical contact/exposure</p> <ul style="list-style-type: none"> - A lab personnel was trying to clean a pipette by rapidly pressing the plunger to expel liquid (IMAC buffer for protein purification) that had gotten into the barrel. - A few droplets splashed into his face. He was wearing safety eyewear. - He went to the toilet and washed his face for 10 minutes. He also saw a doctor at UHC and no physical abnormalities were found. 	<ul style="list-style-type: none"> - The intern may not be aware of the correct technique to clean a pipette 	<ul style="list-style-type: none"> - New lab personnel should be taught how to disassemble the pipette correctly to clean and check the interior for any liquid contamination. - Consult senior lab members on the cleaning process when in doubt.
<p>8. Cut by Object</p> <ul style="list-style-type: none"> - A lab personnel was cleaning a pair of curved tweezers with 70% ethanol and C-Fold paper towel when he pricked his finger. - He was wearing double nitrile gloves. - He washed his wound as per the scratch-bite SOP (wash wound with chlorhexidine soap for 3 mins, running water for 15 mins, apply pressure to promote bleeding, apply plaster) - He saw a doctor at NUH emergency clinic. - The wound was found to be minor, and he was prescribed with antibiotics. 	<ul style="list-style-type: none"> - The lab personnel used a thin layer of paper towel to wipe the curved tweezers in a "to and fro" motion towards the sharp end of the tweezers. - He was also in a hurry to return to the lab to continue his work 	<ul style="list-style-type: none"> - Hold the sharp end away from the body and carry out wiping action (hand movement) in the direction away from the sharp end. - Use a thicker layer of C-Fold paper towel. - Alternatively, place the paper towel on the bench and dab the tweezers against the paper towel to dry them. - Pay attention and reduce speed of movement when handling sharps

ANSWERS TO SAFETY BRAIN TEASER GAME



The Tree of Andry

