

The Tree of Andry



DEPARTMENT OF ORTHOPAEDIC SURGERY,
NATIONAL UNIVERSITY OF SINGAPORE

December 2013 : Issue 07

STAR : Safety Team Award & Recognition 2013 Commitment Award



Congratulations to team Ortho consisting of Amit (team leader) and Hazlan on having their safety improvement efforts recognized as a commitment in improving safety.



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A Customized Trolley System with Heavy Duty Straps for Safe Transportation of Heavy Biological Containers Equipment

Old model:
Overloading top-
pling hazards



New improved
model



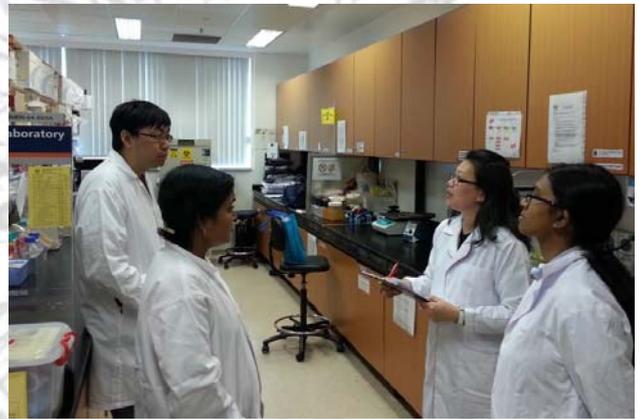
New Model in Action:
Topping prevented



Editors Chong Sue Wee
Dominic Tey
Low Siew Leng

PI Certification - Surveillance & Certification

Prof. Lee's Laboratories in NUSTEP & CRC



Yes, Auditors do read what's pasted on the wall



Dr. Alphonsus's Certification Audit in CRC



2013 OSHE Alerts

2013: OSHE Alerts

1. Fume Hood Cupboard Performance
2. Interim Biosafety Advisory For Handling & Processing Samples Associated With Novel Coronavirus & Influenza A Subtype H7 Virus
3. Advisory On Safe Charging Of Lithium Polymer Battery
4. Revised NUS Laboratory Biorisk Management Manual
5. NUS Safety & Health Guidelines For Field Trips
6. Revised Singapore Biosafety Guidelines For Research On Genetically Modified Organisms (GMOs)
7. Safety considerations for the upcoming Hari Raya Holiday & National Day Long Weekend



Notice Board:
A good way to disseminate Safety News

Emergency Response Plan : Table Top Exercise Student Working After Office Hours - A Lab Emergency

Part 1

- A graduate student was working in the laboratory after office hours
- At about 8 pm, the student accidentally spilled a cup of coffee
 - In his haste to clean up the spilt coffee, the student slipped and fell on his back
 - He was in great pain and had difficulty getting up on his feet even after 10 minutes
- He reached for his handphone which was in his lab coat pocket and discovered that the battery was flat
- The student panicked and realised that the only number he could remember was that of his PI
- He crawled to reach for the lab phone and called his PI's office number. His PI contacted the safety lead of the lab



Part 2 - 30 minutes later

- The safety lead, who happened to be still in campus, arrived within half an hour to evaluate the situation
 - Upon entering the lab, the safety lead noticed there was smoke coming out from a dry oven
 - The student was still lying on the floor and seemed to be great pain



Part 3 - One day later

- Photos of the incident was published on 'STOMP' the next day
- Family and friends of the students and safety lead were anxious to know the details of the incident
- The local media has contacted the safety lead to request for an interview

What would you do?

Emergency Response Plan : Table Top Exercise Student After Office Hour Lab Emergency



Department In-house Rules and Regulations: Section 16: Media Communications

1. Staff and students should not deal directly with the media at all times. Any enquiry should be referred to the PI.
2. In cases of Emergency, all enquiries from the media should be referred to the Official Spokespersons.
3. All statements and briefings to media are to be released through the Office of Corporate Relations. It is the responsibility of the Unit to inform staff and students not to deal directly with the media at all times. A designated staff of the affected Unit shall provide facts and relevant information to Office of Corporate Relations, who would then draft statements to the media. The official spokesperson will depend on the nature of the crisis and must be cleared with NUS President or his designate.

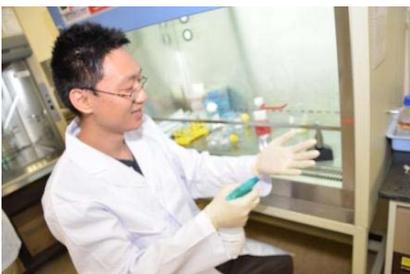
Safety Topic - Aseptic Techniques in Cell Culture

A workshop on 'Aseptic Techniques for carrying out Cell Culture work in the BSC' was conducted for several of our post-graduate students.

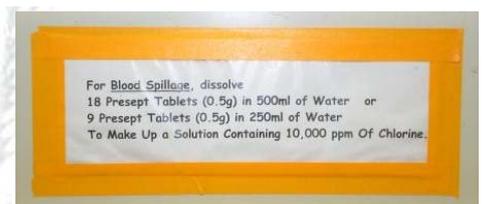
Aseptic technique is a set of specific practices and procedures performed under carefully controlled conditions with the goal of minimizing contamination by pathogens.



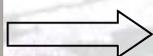
Start the BSC running for about 15 minutes —> swap the interior surface and the items with 70% ethanol —> prepare the disinfectant solution —> wear PPE —> start culture work by observing aseptic techniques



Upon completion of culture work, swap the interior surface with 70% ethanol —> discard the decontaminated waste —> keep the BSC running for 5 minutes before shutting off power



Follow the guidelines on how to prepare the disinfectant solution (Presept) in order for effective decontamination (usually 30 minutes contact time)



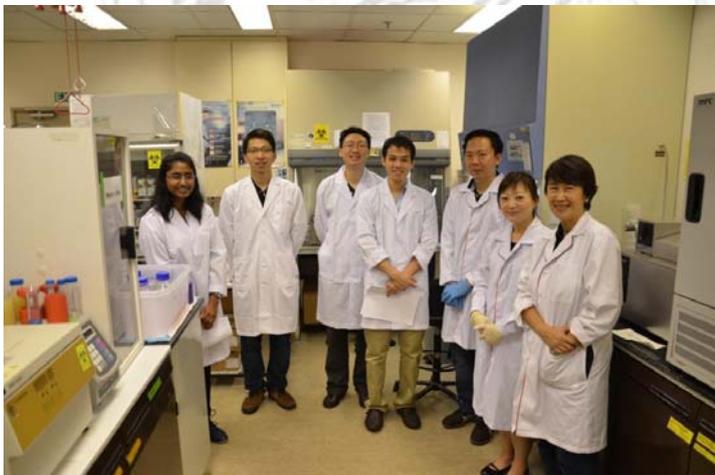
Double-bag biological wastes, label and bring to designated collection point for autoclaving

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Safety Topic - Aseptic Techniques in Cell Culture

Good aseptic technique is essential for successful long-term cell and tissue cultures. Strict adherence to these principles and practices provides the following benefits for your cultures:

- *Protects the cell line from microbial and cellular cross contamination*
- *Prevents compromise of the cell line by misidentification*
- *Protects the value of your cell line, experiments and cell culture processes*



From Left to Right:
Chris Steffi, He Ronghan, Hu Xuefeng, Jason Feng, Lewis Tan, Sue Wee, Siew Leng

Photographer: *Dominic Tey*

Biosafety cabinets may be equipped with germicidal UV lights for decontaminating work surfaces.

However, the efficacy of UV lamps has been challenged. The UV light rays must directly strike a microorganism in order to destroy it.

Over time, the UV output and germicidal capacity from the tube diminishes. Finally, there are safety concerns related to the exposure to UV light.

UV exposure is damaging to the eyes and skin, therefore, the UV light should *never* be on while the cabinet is in use.

References:

<http://www.encyclopedia.com>
<http://www.lifetechnologies.com>
<http://www.bionique.com>

Culture of Animal Cells. A Manual of Basic Techniques. *By R. Ian Freshney (2002)*
Basic Techniques in Mammalian Cell Tissue Culture. Current Protocol. Phelan, M.C. (2007)

2013 Department Safety & Health Objective

	Objective	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Current Status
1	To achieve zero reportable accidents / incidents to the Ministry of Manpower for 2013	0	0	0	Ongoing	In Progress
2	100% of the Principal Investigators undergoing PI surveillance audit to pass by 31 December 2013.	In progress				

2013 Department Safety & Health Programme

	Objective	Responsible	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Current Status
1	Organize a safety activity every three months (after the Research Administration meeting) to serve as an avenue to raise awareness and provide training for old and new staff	Department Safety Committee	Safety Quiz, Safety Induction, CRC Fire Drill	Chemical Safety Activity, ODC Fire Drill	Emergency Response Plan (A table top exercise)	Safety & Health Updates	✓ Completed
2	Participate in NUS level programmes such as ASHPA & PI Certification / Surveillance with regular activities geared to bridge the gaps identified through our PDCA cycle	Staff and Students	Ongoing	Ongoing	23 September PI Surveillance 25 September PI Certification	-	✓ Completed
3	Conduct Fire Drills at least one a year, in each of the building which our department laboratories occupy, to ensure that staff and students are prepared for emergency evacuation	Department Safety Committee, Facilitator: Dept. Fire Warden	5 April Clinical Research Centre Labs	12 June Orthopaedic Diagnostic Centre	-	-	✓ Completed
4	Conduct one Chemical Safety Exercise and one Biological Safety Exercise	Department Safety Committee, Facilitator: Chemical & Biological Safety ICs	-	22 May Chemical And Housekeeping Mock Audit Exercise	-	25 October Workshop on Aseptic Techniques for Cell Culture in a BSL2 lab	✓ Completed
5	Conduct laboratory safety inspections and audit laboratory SMS once in 6 months	Department Safety Committee	15 to 19 April (Inspection)		15 July to August (Audit)	-	✓ Completed
6	Review laboratory safety performance once a year to ensure continual improvement	Principal Investigators & Research Directors	-	-	July 2013 by Principal Investigators	-	✓ Completed

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Team Bonding 2013:

This year's Team Bonding event was held at the River Safari (8 November 2013). The theme of the event was "Rivers of the World" whereby each group of 4 to 5 members were named after a great river. Team spirit was strong as seen from the coherent movement and enthusiasm in winning the Q & A competition at each the 2 "checkpoints".



First things first – briefing and getting into groups



Each participant was given a piece a map jigsaw puzzle, and they scrambled to find others who would complete the map. "Find the missing pieces and find your group members". Then came guessing (whew) which river was represented by the map. The river name would be the Group name.



Ready to go!



Do you know.....?

The longest river in the world is the Nile River (4,157 miles long); it is located in northeastern Africa, and flows into the Mediterranean Sea. The second-longest river is the Amazon River (3,915 miles long); it is located in northeastern South America, and flows into the Atlantic Ocean. The third-longest river is the Chang (Yangtse) River (3,434 miles long); it flows across south-central China and into the East China Sea.



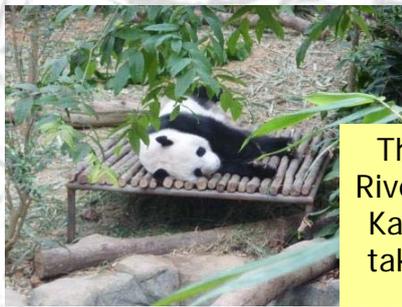
The 2 AED points in the River Safari



Very animated and enthusiastic participants for the Q & A session

For the full photo album please visit website:
<https://share.nus.edu.sg/dos/>

Team Bonding 2013:



The star of River Safari – Kai Kai, was taking a nap



I need help here...



Do you know.....?

A panda eats about 20kg of bamboo each day, that's about 100 bowls of rice!

There are fewer than 1,600 giant pandas left in the wild and only about 300 giant pandas in zoos and breeding centres.



Groups competed with each other in getting the most number of correct answers at the 2 checkpoints



Congratulations to 'Mississippi' for winning the quiz!



Team Bonding 2013:



Dinner at the Ulu Ulu Restaurant



Visitor Information:
www.riversafari.com.sg
Add: 80 Mandai Lake Road,
Singapore 729826
Opening Hours: 9am to 6pm



We had fun before going home:)



Home Sweet Home

A big thank you to our organizers, Siew Leng and Dominic for their brain-cracking preparation in coming up with the many quiz questions



One BIG Happy Family!

