CMM AIBN LAB INDUCTION INFORMATION

In an emergency call security on 53333.

1. CMM "WH&S and EMS Handbook"

- The CMM "WH&S and EMS Handbook" has more detailed information on topics discussed below. Current version is on the Induction CD. Please read it. Check the CMM website (http://www.uq.edu.au/nanoworld/) for version updates.
- Machine instructions also available on CMM server - "InstCMM" folder.
- Specific information for each Lab/Workgroup can be found on the local OH&S noticeboard and in the CMM handbook.
- **General Rule** – If you have not been trained by staff to do it/use it - DON'T DO IT! – see staff for assistance. You should complete a Training Needs Analysis form (TNA) at your CMM interview to determine your individual training requirements.
- **Be aware of your OH&S responsibilities (**http://www.uq.edu.au/ohs/?page=133956**):**
  - Comply with safe working procedures
  - Use of appropriate personal protective equipment and safety systems
  - Assist with the preparation of risk assessments for samples or new procedures
  - Report OH&S problems

2. Forms and Information– CMM, OH&S and EMS

- Useful forms are available online (http://www.uq.edu.au/nanoworld/).
- Additional information is available from the OH&S website (www.uq.edu.au/ohs**)**.

3. EMS

- The main environmental impacts/risks associated with the centre are the generation, use and disposal of hazardous chemicals. Be aware of handling, spill and disposal procedures for all chemicals you use in the centre (see risk assessments). If unsure, ask *before* you use them.
- EMS website is bookmarked and accessible on the laboratory computer (http://www.uq.edu.au/sustainability/policies-and-procedures).
- EMS notice board is located outside the microtome room (contact #'s, procedures and policy).
- Spill Kit is located next to Room 121 (beside the fridges).
- In the event of a spill, immediately inform people in the vicinity. If assistance is required, contact staff for minor spills and the Environmental Engineer (51587) or Security (53333) for major spills and other major environmental incidents.
- Chemwatch site is bookmarked on lab computer. This is where to go to look up the MSDS for any chemicals you use.
- Risk Assessments contain waste disposal and spill procedures.
- MSDS folder is located in the red box at the main entrance.

4. OH&S Notice Board

- Located outside the microtome room.
- Specific information for each Lab/Workgroup can be found on the local OH&S noticeboard and in the CMM handbook.
- Lists University OH&S structure, CMM Committee, First Aid Officers, WHSC & HSR and Fire Wardens.

5. Emergency Contact Numbers

- The Emergency Procedures Card and additional contacts are posted on the notice board outside the microtome room (Security, Environmental Engineer, CMM after-hours contacts, First Aid Officers, Fire Wardens, WHSC – Candice Goodwin and HSR – Wendy Armstrong).
- Lab phone number is (334) 63895.

6. Booking Equipment

- The instrument booking system is available on-line (via CMM homepage) and bookmarked on the lab computer (Internet Explorer homepage).
- Booking rights will not be granted until you are fully trained.

7. Fire Safety

- Building Fire Warden: Luke Matthew (63999, 0434 604789)
- Deputy Building Fire Warden: John Ravey (63872, 0401 717487)
- Floor Fire Warden: Candice Goodwin (0414624712)
- Deputy Floor Fire Warden: Deborah Lord (63877)
- In the event of a fire, warn people in the vicinity and contact floor wardens. If unavailable contact security.
- Fire extinguishers located at the entrances / exits - you may use these for small fires or to escape.
- 3 exit points: main lab entrance, office lab entrance and emergency exit.
- Fire alarms located at the emergency exits.
- Assembly point is Oval 1 (to the right as you exit the building from the main entrance).

8. Liquid Nitrogen Safety

- Low oxygen alarms (blue flashing light/ buzzer) are mounted above doors to all rooms containing potential oxygen displacing gases.
- Low oxygen emergency procedures are posted on OH&S noticeboard.
- If alarm sounds / light flashes, evacuate room immediately. Do not re-enter room until alarm has deactivated and all clear has been given. Do not enter room to assist others. In an emergency, contact staff trained in the use of breathing apparatus (John Nailon) to assist. After-hours, contact security (53333).
- When using liquid nitrogen, wear appropriate PPE (cryogloves, safety glasses and face-shield or equivalent) located in liquid N_2 storage area.
- Inspect liquid nitrogen jugs before use.

9. First Aid Kit

- Located on bench near main lab entrance, opposite emergency shower/eyewash station.
- All workplace injuries should be recorded on the University Accident/Incident Database (UQ clients) or a form (non-UQ clients). If this is more painful than the injury itself, please, at least, record the injury in the notebook next to the First Aid Kit to ensure that you are covered by University insurance.

10. Safety Shower & Eye Wash Stations

- 4 stations - located near main lab entrance, office lab entrance, opposite chemical shelves and outside Cryosample Lab (Room 115). Keep access clear. Push on handle to the right to activate eyewash. Pull on chain to activate shower.
- Eyewash and safety shower use will cause flooding – this is OK – no power sources are located at low level in the area.

11. UQ Wellness and Assistance Programs

- UQ has a Wellness Program, free and confidential counselling services, Staff Assistance Scheme, and Student Services program: http://www.uq.edu.au/ohs/?page=133854
- Davidson Trahaire Corpsych (DTC) is UQ's Employee Assistance Program (EAP) provider. Contact them by calling 1300 360 364 or visit the eapdirect website https://www.eapdirect.com.au For further information contact Jacqui Smurthwaite, UQ Staff Support and Rehabilitation Advisor on (07) 3365 1146 (Ext 51146).

12. Emergency Shutdown Buttons

- To be used in the event of an emergency where power/gas to the lab needs to be cut immediately.
- Located in main lab outside Electron Microscope 2 (Room 121), Cryosample Lab (Room 112) and every electron microscope room.
- Contact CMM staff or P&F to restore power if accidentally activated.

13. Faulty Equipment and Service Procedures

- If you discover faulty equipment/ hazard immediately report it to CMM staff. If staff members are unavailable (e.g. after-hours), leave a note on the equipment with your name, date, contact number and fault details.
- Yellow "Caution - Out of service" or red "Danger – Do not operate" tags indicate equipment is faulty and **must not be operated**. Anyone found operating equipment with these tags will be disciplined.

- Equipment servicing may require lab/area access to be restricted to only service personnel. These areas will be signed. Do not enter these areas until signs removed.

14. General PPE

- Footwear: enclosed shoes for general lab area. No thongs or open sandals. See poster on OH&S notice board.
- Areas enclosed by black & yellow tape are "chemical labs". Additional (minimum) dress requirements when working in this area are: safety glasses and lab coat (available at the lab entrance).
- Use nitrile gloves for chemicals (see Risk Assessment /staff/Chemwatch if unsure). Chloroform requires a double layer of nitrile gloves.
- Discard gloves on slight contamination, they provide splash protection only.
- The lab operates as a PC2 standard lab. Please observe PC2 guidelines (eg wash your hands on exiting lab, no food or drink in lab, no lab coats worn out of lab area).

15. Waste Disposal

- Only paper and "standard office waste" to go in general waste bins (white liners).
- Non-chemical lab waste **(INCLUDING GLOVES)** to go in clinical waste bins (yellow with yellow liner).
- Waste generated in fume hoods to go in clinical waste bins in the fumehood.
- Waste chemicals to go in specific waste chemical bottle (fumehood or flammables cabinet).
- See staff, Chemwatch or Waste Disposal Flow Chart if unsure or can't find appropriate waste container.
- The following common chemicals can go down the sink with adequate water
  -ethanol
  -acetone (in fume hood)
- HMDS is the only chemical disposed of by evaporation in the fumehood.
- All sharps to go in sharps bins.
- Anything that could puncture yellow bin liners is to be considered sharps (eg micropipette tips, orange wood sticks).

16. Used Glassware

- All non-disposable glassware is to go into the yellow wash-up container (main lab sink).
- If used in fumehood (ie had contained only water-miscible toxic chemicals), rinse first (in fumehood) and then place in yellow wash-up container on sink. No sharps in wash-up container (eg razor blades, broken glassware).
- Only use disposable glassware/plastics for resins (eg vials) – contaminated glassware is discarded.

17. Sample/Chemical Labels

- All samples/chemicals must be labelled with your name, date and chemical contents (with appropriate health/risk warnings) and dangerous goods class. Permanent "sticky" labels of common substances are available in the expanding file located on the bench opposite fumehood #1 (Chemical Prep Fumehood).
- When processing specimens in fumehood #2 (Processing Fumehood), label samples with appropriate "sticky" labels or use a processing container and Velcro the laminated chemical label to the outside of the box. Processing containers are stored in the cupboard

opposite the fumehood and the laminated labels can be found on the wall opposite the fumehood.

- Short term storage (overnight) is provided in the large lab fridge (no flammable liquids). Longer term (up to a month) storage or larger volume storage may be provided with prior consent. Label all samples and chemicals appropriately. Samples/chemicals older than one month (or not labelled correctly) will be disposed of during regular clean-outs unless prior arrangements have been made.
- Flammable liquids requiring refrigeration are to be stored in the Lovibond spark-free fridge.

18. General Chemical Use

- Read and familiarise yourself with health/risk statements for all chemicals used.
- Use the stainless steel trays provided when working with standard EM chemicals in the fumehood. Lay paper towelling on bench and tray to contain drips. After use, discard the contaminated towels in the fumehood clinical waste bins and replace with clean paper towel. Wipe down bench with ethanol after use.
- Ethanol may be used outside fumehood (adequate ventilation). All other chemicals with "avoid vapour" risk/health statements are to be used in fumehood.

19. General Chemical Storage

- Return all chemicals to their appropriate position e.g. fixatives (glutaraldehyde, paraformaldehyde and osmium tetroxide) are sealed with parafilm and stored on the fixative shelf in the large fridge.

20. Fumehood Isolation Switch

- In the event of fire or electrical fault in the fumehood, press the red isolation button located on the control panel. This cuts power to the power points and the gas supply. To reset, turn the red button to release it and then press the keypad button - "services reset".
- Fumehoods are permanently left on. Only the lights are turned off overnight.

21. Bunsen Burner

- One Bunsen burner is located in a screw top container on the shelf on the far side of fumehood #2 (Processing Fumehood). Check area is free of open flammable liquid containers before connecting to the gas outlet (under bottom shelf). Do not leave unattended. Do not use in fumehoods without notifying staff and removing all hazards.

22. Risk Assessments

- Risk assessments for general lab procedures are available in the green folder on the bench opposite fumehood #1 (Chemical Prep Fumehood), below the glassware cabinet.
- Assessments for equipment are located with machine instructions. Read, understand and sign-off on relevant assessments.
- A risk assessment for your samples/material must also be supplied before you can independently access the Centre.

23. Visitor Access

- Visitors are welcome to the lab during office hours with prior arrangements. All visits must be approved by the lab manager or designated CMM staff member. Visitors will be required to "sign in" to the building and be escorted by their host at all times. A brief lab induction will follow. CMM staff may delegate supervision to clients for low risk work (eg microscope viewing). Visitors are not to use equipment or chemicals without staff training and approval. After-hours visitors are required to complete a full induction.

24. Required Forms

- Independent lab access (and entry to training courses) will not be granted until:
  - ➢ Your local "UQ New Worker OH&S Induction Checklist" has been completed in PPMS.
  - ➢ A CMM Training Needs Analysis (TNA) form has been completed in PPMS.
  - ➢ A valid risk assessment for your sample/material has also been supplied to the WH&S Team - to be reviewed and stored on file in the lab.
  - ➢ You have a current CMM PPMS membership.
  - ➢ A UQ Learn record (training modules pdf) of your completion of the required OH&S modules (General Workplace Safety Training, Annual Fire Safety Training, Laboratory Safety Induction, Chemistry Training and Biosafety [for users of QBP Lab]).

- Equipment licences (and therefore booking rights) will not be issued until:

  - ➢ You have signed the relevant centre risk assessments covering the equipment/processes you will be using.

  - ➢ Your Training Sheet has been signed off on by your trainer to indicate that you are competent in machine use and in all WH&S & EMS issues relating to your use of the equipment.

- Access will then be granted to the lab 8am to 4pm weekdays. After-hours access (to use **only** the instruments/processes you are trained on) may later be granted following approval from the Lab Manager (Rick Webb) and the successful completion of the after-hours safety induction and assessment (detailed procedure is on the OH&S noticeboard).