CMCB
Centre for Microbial Chemical Biology

McMaster University

McMaster University **Centre for Microbial Chemical Biology** **Bioanalytical Lab, High Throughput Screening Lab, NMR and Protein Biology Lab** **MDCL-2330**		
MANDATORY LAB SAFETY TRAINING		
CMCB2330safety.pdf	**Revision No.: 4**	**Effective Date: December 1, 2014**

1.0 SCOPE

This document applies to all individuals who wish to work in the Bioanalytical, High Throughput Screening, NMR or Protein biology labs (hereafter MDCL 2330). This document must be followed and signed by the trainee's supervisor, and handed into the CMCB Research Manager at which time an appointment for lab safety orientation and site-specific training will be scheduled.

2.0 REQUIRED TRAINING

2.1 The following mandatory safety training must be completed and up-to-date prior to site-specific training and working in MDCL 2330:

1. WHMIS Training (updated annually)
2. EOHSS Fire Safety Training (updated annually)
3. Asbestos Awareness
4. Chemical Handling and Spills
5. Ergonomics
6. Slips, Trips and Falls
   http://cll.mcmaster.ca/eohss/
7. Biosafety Level 1 Training plus CMCB BSL1 quiz (both updated annually)
   If you have completed BSL2 training you are not required to take the BSL1 training and CMCB BSL1 quiz
   http://www.mcmaster.ca/biosafety/biosafety_training_bsl1.htm

If you are using the BSL2 lab in room 2333 or the robotics enclosure in 2333RE, the following additional training is required:

8. Biosafety Level 2 Training (updated annually)
   http://www.mcmaster.ca/biosafety/biosafety_training_bsl2.htm

If you are using the autoclave in room 2332, the following additional training is required:

9. Autoclave Training
   http://fhs.mcmaster.ca/safetyoffice/autoclave_schedule.html

Please bring proof of completion of the above listed courses to this orientation. This can be obtained from the safety office.

2.2 The following lab safety orientation must also be completed prior to working in MDCL 2330:

1. Review location of emergency devices: eyewash station, safety shower, fire extinguisher, fire pull alarm, fire blanket, telephone, single stage alarm, evacuation route, and other safety related items.
   - See Appendix II: Location of Emergency Devices and Emergency Evacuation Route

2. Evacuation procedure for NMR low oxygen alarm
   - In the event of an audible alarm or flashing lights, there is the possibility that there is low oxygen in the room. Move **immediately** to the hallway outside MDCL 2330, if the alarm is also audible in the hallway, it is the fire alarm, continue on the emergency evacuation route out of the building. If it is quiet in the hallway contact the NMR designate listed on the information sheet on the lab door and remain outside the lab, 10-15 feet from the main door and wait for the NMR designate to okay a return to the lab. Do not enter the lab under any other circumstances.

3. Evacuation procedure for HTS BSL 2 screening system alarm
   - In the event of an audible non-pulsing alarm from the BSL2 robotic enclosure, there is the possibility that there is Biosafety level 2 aerosol/contamination in the room. Move **immediately** to the hallway outside MDCL 2330, if the alarm is also audible in the hallway and is pulsing, it is the fire alarm, continue on the emergency evacuation route out of the building. If it is quiet in the hallway outside the lab call the HTS designate listed on the information sheet on the lab door and move 10-15 feet down the hallway away from the lab and wait for the HTS designate to okay a return to the lab. Do not enter the lab under any other circumstances.

2.3 Site specific training will be given for the individual pieces of equipment/instruments in the lab and will be conducted by the lab manager or designate. The training form must be completed and signed before the trainee is permitted to use the equipment.
- See Appendix I: Equipment Training Completion Form

Only after the above-mentioned training is completed may an individual work in the lab

3.0 RELATED DOCUMENTS

1. Standard operating procedures (SOPs) available for laboratory equipment and processes are located in the safety binder for each individual lab.
2. Working alone policy – after the above training is completed you are authorized to work in MDCL 2330 during normal working hours, Monday to Friday 9am-5pm. ***In order to work outside these hours, you must review and sign the working alone policy with the CMCB lab designate for your area.*** A copy of this policy will be provided for your records. ***Working alone without proper training could result in suspension of lab privileges.***

4.0 RESPONSIBILITY

It is the responsibility of the trainee not to use any piece of equipment without proper training, and to ensure that all appropriate safety standards are adhered to while working in the lab. It is also the responsibility of the trainee to report any broken or malfunctioning instrumentation or safety equipment to a CMCB Research Lab Technician, the CMCB Research Manager, or designate. Access to the lab could be suspended if equipment is used without proper, documented training.

☐ **PI** ☐ **Research staff** ☐ **Post-doc fellow** ☐ **PhD student** ☐ **Masters student**
☐ **Undergrad student**

_____	_____
Trainee Name	Signature
_____	_____
McMaster Email (please print)	Date

By signing below, the trainee's supervisor acknowledges that the trainee is aware of his or her responsibilities in the CMCB lab as outlined in this document, and accepts the user fees as billed monthly.

_____	_____
PI/Advisor Name	Signature
_____	_____
PI/Advisor Address and Extension	Date

To be signed by the CMCB lab supervisor once the safety orientation has been completed.

_____
CMCB Research Manager Name

_____
Signed

_____
Date

Employee/student number _____

Swipe access card number _____

Approval date _____

Appendix I: Equipment Training Completion Forms

Bioanalytical Lab

The trainee acknowledges that they have fulfilled the introductory safety training requirements and they must receive additional training before they can use the following pieces of equipment listed below.

The trainee also acknowledges that they are not permitted to work after hours until the working alone policy has been reviewed and signed.

Equipment	Date trained	Trainee signature	Bioanalytical Research Technician signature
Agilent 1290 UPLC			
Bruker microTOF and Agilent 1200 HPLC			
Thermo LTQ Orbitrap XL (company course)			

Appendix I: Equipment Training Completion Forms

HTS Lab

The trainee acknowledges that they have fulfilled the introductory safety training requirements and they must receive additional training before they can use the following pieces of equipment listed below.

The trainee also acknowledges that they are not permitted to work after hours until the working alone policy has been reviewed and signed.

Equipment	Date Trained	Trainee signature	HTS Research Technician signature
Compound libraries			
Off-line EnVision plate reader			
μ-Fill reagent dispenser			

Project title:				
System/Reader:	**e-SOPs**	**Date trained**	**Trainee signature**	**HTS Research Technician signature**

Project title:				
System/Reader:	**e-SOPs**	**Date trained**	**Trainee signature**	**HTS Research Technician signature**

Project title:				
System/Reader:	**e-SOPs**	**Date trained**	**Trainee signature**	**HTS Research Technician signature**

Appendix I: Equipment Training Completion Forms

Protein Lab

The trainee acknowledges that they have fulfilled the introductory safety training requirements and they must receive additional training before they can use the following pieces of equipment listed below.

The trainee also acknowledges that they are not permitted to work after hours until the working alone policy has been reviewed and signed.

Autoclave (2332)

Equipment	Date trained	Trainee signature	Protein Research Technician signature
Autoclave – Site Specific			
Autoclave – FHS Safety training			

Biosafety Level 2 Room (2333)

Equipment	Date trained	Trainee signature	Protein Research Technician signature
BSL2 – Site Specific			
BSL2 – FHS Safety training			

Protein Lab (2330)

Equipment	Date trained	Trainee signature	Protein Research Technician signature
Air Clean Cabinet			
Biological safety cabinet			
Bioreactor			
Cell disrupter – Continuous			
Cell disrupter – One Shot			
Centrifuges BSL2			
Experion system			

Appendix I: Equipment Training Completion Forms

Protein Lab Continued…

FPLC AKTA Explorer			
FPLC AKTA Purifier			
Inverted microscope			
NovaRay			
ProteOn SPR			
RT-PCR			
Shaker incubator BSL2			
Shaker incubators BSL1			
Sonicator			
Sorvall Superspeed			
Spectramax BSL2			
Spectramax plate reader			
Stationary Incubators BSL1			
Stationary incubators BSL2			
Synergy plate reader			
Tecan plate reader			
Typhoon imaging system			
Ultra Evolution plate reader			
Ultracentrifuge			

Appendix II: Location of Emergency Devices and Emergency Evacuation Route

Emergency Devices

- Eyewash Station
- Safety Shower
- Fire Extinguisher
- Fire Pull Alarm
- Fire Blanket
- Telephone

Emergency Evacuation Route

- Primary Route
- Secondary Route