**MOLECULAR ECOLOGY & CONSERVATION LAB GENERAL PROCEDURES**

***Last Updated:*** *8/02/18 by SB*

**Lab philosophy**

Our goal is to have a space where lab members can work on a variety of interesting molecular projects efficiently and harmoniously. Working in a lab with diverse projects allows lab members to get exposure to different techniques and ideas, but makes it important to stay organized and be considerate of shared lab space. We want to have lab space that facilitates efficient, collaborative, and fun (!) lab work. Please always feel free to ask questions or consult the safety & protocols binder if you have questions regarding lab practices. The following are a few ways in which we can keep our work environment functioning at full capacity and most importantly, safe!

**Personal Protective Equipment (PPE)**

* Please wear long pants, close toed shoes, and keep (long) hair tied back when working in the lab
* Always wear lab coat and gloves while working in the molecular lab
* Always remove lab coat and gloves when leaving the molecular lab or entering the bioinformatics lab or office space
* Keep materials and PPE from different sections separate (i.e. gloves and lab coat used for extraction should not be used for a post-PCR work)
* Please do not eat, drink, or use phones/tablets in the molecular lab. You can take a break from lab work in the office, bioinformatics lab, or outside the lab.
* Please do not touch your face, lab coats, door handles, and computers with gloves on
* Be careful to avoid cross contamination (i.e. keep supplies/space for different protocols separate as much as possible)

**Before you start working**

Before you start working on anything, always decontaminate bench space by:

1. Spray down with 10% bleach solution (in bottles on benchtop), and wipe up
2. Spray with 70% cleaning ethanol (in bottles on benchtop), wipe and let air dry
3. Put down bench paper if needed (will depend on protocol)

**After you finish working**

* Please do not leave bench paper and work out for more than one night unless cleared with SB/LK *(e.g., if you are doing work on continuous days when no one else needs the space)*
* Always label your work (sample tubes, plates, aliquots, etc.) with your initials and date
* Please clean up after yourself when you are finished. Toss your bench paper and used pipette tips then spray with bleach and wipe up, then spray with cleaning ethanol and let air dry
* Wash any dishes used
* Consolidate tips to avoid multiple of the same kind of box at one station.
* Replace empty tip boxes as needed.
* Use a paper towel sprayed with bleach solution to wipe down pipettes and any other tools you used to decontaminate them.
* Turn off equipment
* Make sure your samples/plates/reagents are stored properly with clear labels in designated locations

**Waste disposal**

* Nothing but bleach and water should go down the drain
* Dispose of liquid waste in the appropriately labelled brown waste bottles located in grey tubs near the door, if you’re not sure, please don’t hesitate to ask
* Make sure your liquid waste is compatible with the waste already in the bottle, if you’re not sure check the Safety Data Sheet (SDS) in the safety binder in the office or online at cems.unh.edu/umass/CEMS/SearchSDS, and as always, feel free to ask
* Solid waste will go in a plastic tub specific to the type of waste, if you're not sure where your waste goes, ask
* Glass waste goes in the glass box
* Needles, razor blades, and other sharps go in the sharps tubs, not the regular trash
* Paper, intact glass bottles, plastic bottles, clean aluminum foil, and empty tip boxes can go in the recycling
* Any animal tissues need to be placed in a red biobag and then put in the freezer
* Regular trash (i.e. kimwipes, tips, plastic wrap) needs to go in trash bins, and not in recycling, sharps tub or the glass box
* If any waste container is full let Shreya know

**Washing equipment**

* Properly dispose of contents, if you’re unsure where contents go consult SDS or ask someone
* Remove lab tape label
* Rinse with RO water
* Dunk in 10% bleach solution three times
* Rinse with RO water twice
* Allow to dry on bench paper
* Please put away when dry

**Reagents and supplies**

* Mark all incoming reagents with date received and your initials
* If you open a reagent for the first time mark it with date opened and your initials
* If you use up a reagent bottle (ethanol, etc.) remove the barcode sticker from the bottle and place it on the chemical inventory disposal log taped up by the door, and recycle the empty bottle
* Let Shreya know if we are running low on reagents or supplies by writing on the white board
* Let Shreya know if something is not working like it should

**Safety Trainings**

All lab members should be up to date on safety trainings. Please sign-up on ehs.umass.edu/trainings and then email a pdf of your certificate to Shreya for the following safety trainings:

* Lab Safety (classroom, every 5 years)
* Fire Safety (classroom, every 5 years)
* Bio Safety (classroom, every 5 years)
* Lab Safety refresher (online, every year w/o classroom training
* Fire Safety refresher (online, every year w/o classroom training
* Bio Safety refresher (online, every year w/o classroom training

**I'm ready to get started because I have done the following:**

* Read MEC Lab general procedures
* Completed all necessary EH&S trainings and emailed certificates to Shreya
* Looked through the safety binder
* Been given a lab tour (and am aware of where we keep the safety equipment)
* Have PPE that fits well
* Reviewed and been trained on relevant protocols

**Name Signature Date**

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