

LABORATORY SAFETY GUIDELINES

General information

- No lab work should be done before a health and safety talk.
- In case of an accident report it as soon as possible to Anja or Robert so the event is recorded in the accident book.
- Emergency numbers are next to each sink.
- In every sink in every lab you will also find soap, disinfection, tissue and an eye shower.
- Inform yourself where to find a first aid kit and extinguisher. They are usually placed next to the lab doors.
- No food or drinks or smoking are allowed in any lab.
- There is a Lab Coat Laundry service on the first Wednesday of the month, lab coats must be brought to the technician's office the day before in order to be washed.
- If you are the last person to leave the building, make sure all labs and offices in our floor are locked.
- Do not use machines without having a proper introduction to them. Always ask a technician before working with any of them for the first (or second) time.
- No lab work should be carried out during weekends and/or after hours. If absolutely necessary, inform someone where and for how long you will be in. Never stay in the lab on your own.
- Lab doors and windows should be kept closed at all times. Especially during summer time when the air conditioning is on.

Lab Guidelines

- Clean benches with 70% Ethanol before starting and after finishing lab work (including the area where the pipette stands and tip boxes are).
- Clear the bench whenever you are not there so other people can work if needed.
- If you need to make a break during your work, place your material on one side of the bench to keep some free space in case another person needs the area.
- A drawer or cupboard can be assigned to you to keep your material, ask a technician if you need this extra space. After your project is finished, empty and clean that space and sort out your material.
- All **used/dirty equipment** must be brought to the appropriate cleaning area (bee cages, empty tube jars, bottles and glass ware to the TA office & pestles, cage lids, feeders next to the bleach bucket in the bee lab).
- Bring **empty tip boxes** to the table next to the autoclave in the Molecular Lab.
- Bring **empty tube jars** to the technician's office to be washed.
- For safety and organizational reasons, **everything must be clearly labelled** with your name, date and content. Unlabelled items (tubes, boxes, bottles, plates, jars, etc.) will be emptied and discarded.
- **Take good care of the pipettes** to prevent contamination or obstructions: Avoid using more than their maximum capacity. Avoid contact between liquids in the tips and the pipette's tip holder.
- **Do not move or swap pipettes between labs.** Pipettes and benches are labelled to avoid contamination. If anything is wrong with any of them, inform a technician.
- **Avoid wasting lab resources** or even your own samples and time by planning ahead and informing your supervisor about your work plan. Kits, reagents and chemicals are very expensive.
- Make sure **freezers and fridges doors** are **properly closed** to prevent ice building, and most importantly to keep reagents and samples inside safe!

- If you notice that primers, reagents, chemicals etc., are getting empty, tell a technician as soon as possible.
- As a general rule: re-fill material that is or will be empty soon. If you don't know how to do it or where to find it, ask someone!
- For your safety and to prevent samples contamination **gloves and lab coats** should be worn **ONLY inside the lab** during lab work. Dispersion and contamination of chemicals are highly likely to happen if you leave the lab with gloves or lab coat on.
- **Things can break, inform a technician** as soon as you see something is broken.
- **Do NOT use the autoclave!** Only the technicians are allowed to operate it.
- All sharp objects that need to be discarded must be placed in the little yellow bins with red lid. They can be found in the shelves above the work benches in the labs.
- **pH meter, QIAcube, Qiaxcel** and the **TapeStation** can only be used AFTER the corresponding introduction and with the assistance of a technician. **Always ask for help** when using a new protocol or a new set up in any of these machines.

Booking system for the machines/benches:

- Before using a machine or some of the benches, write your name and time that you will be use it on the assigned calendar.
- Some bookings include sample preparation AND the machine running time (i.e. QIAcube, ca. 2h). Others include only the time the machine is running (i.e. Real Time PCR machines, thermocyclers). Inform yourself how to make the correct booking.
- When any of the machines are high on demand, talk to the other users to organize a time table which fits most. Good communication can save all a lot of misunderstandings.
- Use the booking calendars for the different machines responsibly by realistically planning ahead your lab work.
- Do not fully block a machine, and then do not run it. Be considerate and always ask someone to remove your name from a time slot if you realize you cannot make your run.

PCR lab 6th floor:

- **Empty tip boxes:** Bring them to the S1-lab and put them on the table next to the autoclave.
- **Thermocyclers and Real Time Machines booking:** ONLY book the time your samples will run in the machine.

Beelab 6th floor:

- You will find an allergy kit next to the sink.
- Safety data sheets: You find them in the Bee lab (big grey cabinet). Please always inform yourself about how to handle all chemicals/reagents you are working with.
- Bleach bucket: Put dirty pestles, slides for bee cages next to the bleach bucket.
- When using the scales, make sure they are properly leveled before using them. To do so, screw or unscrew the feet. Clean the scale and the bench after using it.
- After finishing lab work, wipe bench with ethanol and tidy up. Clean sugar solution on bench with distilled water and tissue.

Electrophoresis room 6th floor:

- Handle gel chambers with care (during washing, loading, running).
- Do not leave any ladders, loading buffers, samples or any other reagents in the room. Bring everything back to the fridge/freezer where you took them from.
- Do not leave gels in the chambers or on the visualizer. Discard any used gel, or store away unused ones.
- Turn off all equipment in the room before leaving: Chamber electricity generator, computer, printer and the BioDocAnalyze machine –UV light.
- Make sure to close the door after leaving.

Freezer room on the ground floor:

Always remember to lock the door when you leave the room.

How to handle **liquid nitrogen**:

- Operational introductions are required before using it.
- Always leave the door open.
- Do not go alone (if you are student).
- Wear protective clothes: ONLY blue cryo-gloves, eye protection.
- Do NOT use the elevator!
- Liquid nitrogen delivery is on Mondays and Thursdays. Orders must be place with a technician accordingly.

How to handle **dry ice**:

- Avoid direct contact with eyes, skin and mouth to prevent any burns.
- Use one of the little scoops which are on the table or bench to fill up ice boxes with dry ice.
- To avoid fast evaporation keep dry ice containers (ice box) properly closed.

-80 Freezers:

- Freezers are numbered. Keep a record for yourself of where you store your samples.
- Store only plastic boxes in the freezers. No bags or single tubes should be placed inside.
- On the bench you will find a list for every freezer, use them! If you put a new box in the freezer, make a note on the list (Name, date, description, number of boxes).
- Label your box with: **name, date, description**. Use permanent markers, tape will come off.
- Due to constant space constrains, do not leave empty boxes inside the freezers. Try to organize your samples so they can be stored in a minimum number of boxes.
- **Update information about your samples on the freezer list whenever necessary!**
- Remove ice with an ice scraper from inner doors and top of shelves if needed.
- If you accidentally press the red “emergency-stop” switch next to the door in the -80 room, pull out the switch AND press the green switch next to the tables.

Beekeeping room (ground floor):

- Never go alone to the hives!
- Always take a cellphone with you to call someone in case of an emergency.
- Let know at least 2 more people that you will be doing beekeeping.
- You will find an allergy kit next to door, above the sink. In case of allergic reactions:
 - Call 110.
 - Drink ½ a bottle Fenistil and 1 bottle of Celestine (Cortison).
 - Use the Epi –Pen in case of circulatory collapse.

8th floor:

- Use the fume hoods if you work with e.g. Beta-Mercaptoethanol (β -ME), Chloroform, Trizol, Phenol, DEPC etc.
- Everything that is contaminated with pesticides, β -ME, Phenol, Chloroform, Trizol needs to be discarded into the white bucket under the fume hood. There is a bucket for every chemical. If in doubt always ask a technician!
- If you use the fume hood, make sure it is working (green light). Close the fence to protect yourself from the fumes.
- QIAcube/Qiaxcel : Do NOT use the machines without a proper introduction.
- QIAcube booking: There is a calendar next to the QIAcube, where you should book both the time you need to prepare the samples under the fume hood AND the machine running time (altogether ca. 2h).

When you finish your project, tell your supervisor where he/she can find your samples/reagents.

With this signature I confirm that I have been informed about the lab rules and I will pay attention and follow them.

Date, Name, Signature

E-Mail

Returned by leaving time:

- ☐ Lab keys
- ☐ Raw data
- ☐ Samples info
- ☐ Lab book
- ☐ Clean up

Date, Name, Signature

Supervisor

