

## Lab Rules

- **General:**
  - Leave all common areas cleaner than when you found them. Clean-up all spills, droppings, or broken items.
  - Treat all equipment gently. Do not yank or pull things by their cords or electrical leads.
  - The last person to leave the lab at the end of the day should check all the rooms, making sure that all the doors of the lab are locked, all the refrigerators and freezer doors are locked, and all the instruments have been turned off.
  - Phone calls. Please limit your outgoing and incoming calls in the laboratory. Do not tie up the phone line with personal calls. Stopping work to answer the phone for others and taking messages, though courteous, is disruptive, time consuming, and sometimes an annoyance.
  - No dry ice in the sinks (dry ice cracks the sinks and drains). Let it evaporate in the ice bucket after use. Neither agarose or acrylamide gels nor solutions containing such chemicals, should be poured into the drain. It clogs them.
  - Do not pour liquids into waste baskets; they usually end up on the carpet or the floor.
  - The lab microwave should not be used for food. Never melt agarose or solutions that contain ethidium bromide in the microwave.
  - No food or drink is allowed in the lab and the walk-in cold room. There can't be any food containers or wrappers in any of the waste baskets in the lab.
  - Always lock the laboratory door when you are the last to leave, or when you leave the lab for any period of time during the evenings and weekend.
  - Always use the hood for organic solvents, concentrated acids, and volatile hazardous chemicals. Always use gloves, eye, and ear protection when necessary.
  - Please take care of the lab plants that are near your desk/bench.
- **Benches:** Space that is assigned to you, including desk, bench and shelves, should be kept in a clean and orderly condition. At the end of the day, put away all dirty glassware (completely soaked/immersed in designated tubs) and if necessary replace soiled disposable bench covers (diapers). Do not use your 'personal' lab space for long-term storage of personal items such as old books, inactive files, etc. Nothing should be stored in knee holes under your bench or desk.
- **Chemical room:** Chemical shelves and balances are to be kept clean and organized. Close the balance doors after your use. Under no circumstance is anyone to leave an almost empty container on the chemical self without re-ordering. Chemicals/reagents must be ordered when they are found in low supply, before we run out.
- **Computer:**
  - Thou Shalt Back Up Your Data Daily! If you don't, you will lose valuable data, and its as simple as that.
  - Naming of files. Please name your files using the format of yyyy.mm.dd.aaaa.doc, in which aaaa denotes an informative abbreviation of less than 8 characters.
- **Emergencies:**
  - Building-related: When something goes wrong in the laboratory that is building-related (i.e., sinks, windows, doors, floors) please call (212) 263-5275.
  - Chemical spill (from NYU's Hazard Waste Management [test](#)): For small quantities of non-toxic chemicals, sweep up the spilled material and place ALL spill clean up materials in a plastic bag. For small quantities of known liquids that are not highly toxic, flammable, corrosive or reactive, use a universal spill kit, place all clean-up materials in a plastic bag and securely tape it up, place a hazardous waste label on the bag, clean the spill area with soap and water, wash your hands, and bring

the waste to TH C161B or call Environmental Services for pick-up (off-site only). If you cannot clean the spill without assistance, call Environmental Services (even during off hours) at (212 263-5159).

- Security: Emergency 7-3000, non-emergency 3-5038, off-campus 212-263-5120 or 911.

- **Glassware:**

- Anything you put into the sink to be cleaned must have all tape & markings removed, be rinsed well with water, and submerged completely in the dirty glassware tubs. Pre-rinsing is particularly important to rid toxic or sticky substances (e.g., acrylamide gel solutions and residual gels, various chromatographic resins or beads that are sticky).
- Small things such as bottle caps and spatulas should be rinsed and placed into the plastic beakers marked caps and other small items.
- Leave special media or solutions that need autoclaving on the glassware washer's cart (Pauline's) with a note.

- **Hazardous Materials:**

Solid Bacterial Wastes: Petri plates are disposed in the large red biohazard waste container pail, and the container top is placed on firmly. Do not overfill. This bag will be picked up by custodial services to be disposed of. Liquid cultures are first killed with a small amount of bleach, letting sit for a few minutes and then rinsed down the drain with much tap water.

- **Instruments:**

- If you break something or find it broken, do not leave it for someone else to find. If a major piece of equipment breaks, tell the lab member who is in charge of it, and/or the PI. Under no circumstances is anyone to leave an instrument in non-working condition without dealing with it.
- Always turn off equipment when finished (i.e., the microscope, spectrophotometer and pH meter).

- **Lab Reagents:**

All the lab-made or expensive commercial reagents including antibodies, DNA clones, cell lines, belong to the lab. Removal of these reagents from the lab must be approved by the PI.

- **Lab Responsibilities:** Everyone has been assigned responsibilities taking care of certain instruments or tasks. If you are in charge of a piece of instrument, you should be thoroughly familiar with its operation, maintenance, calibration, and make sure that the instrument is in working condition. You are responsible for posting an abbreviated operation instruction near the instrument, and for teaching/policing its proper use.

- **Lab Notebook:**

- Organization: Use loose-leaf paper, organized in the unit of individual experiments, in a three-ring binder. The record of each experiment should include date, a brief title of the experiment, purposes or hypotheses to be tested, design of the experiment (use the  $N+(N-1)$  Rule if titration is involved; Sun Nature Rev Cell Mol Biol 2004), a detailed flow chart of the entire protocol(s), reagents and solutions, results (all data), and discussion. Staple all the pages from an experiment, once it is completed, to become a unit and place in a 3-ring binder chronologically.
- Ownership: The lab bears the ultimate responsibility, and have the ownership, of all data and owns the lab notebooks, which should be kept in the lab for at least five years for auditing purpose. A person who leaves the lab can take a copy of his notebook for personal use, but must submit to the lab all the data, lab notebooks and all the experimental materials.

- Three-ring binder” for taking notes from your reading. This is an extremely important tool for you to synthesize what you learn from the literature and to generate new ideas.
- **Office:**
  - If you eat at the secretary’s office desk, please try not to interfere with his/her work and do not dispose of food-related waste in the garbage container next to her desk.
  - The refrigerator/freezer and microwave oven in the office are exclusively for food. Do NOT use them for lab stuff.
  - All food items stored in the food refrigerator must be labeled with your name, and disposed of promptly.
  - Coffee machine: throw away the spent coffee cartridge after each use.
  - Hot water dispenser: anyone who uses up the water please immediately refill, and set the temperature at 208F.
- **Ordering:**
  - Order supplies/animals thoughtfully to avoid waste. You should be able to justify what you order a particular item, e.g., why you order a \$300 mouse constrictor instead of a \$100 one, why a particular batch of antibody (considering its specificity, species crossreactivities, suitability for a particular experimental purpose such as Western blot, immunofluorescent staining or EM localization), or why inbred mice at \$25 each instead of outbred at \$5.
  - eMail the PI (and cc the whole lab) the Order Request Form (with unit price and quantity) and provide, if appropriate, a brief explanation/justification for the order (if you are ordering an antibody, please explain why this particular one in terms of its epitope, animal crossreactivity and other considerations).
  - Once the PI or his designate approves the order, copy & paste the ordering data into “Sun.Order” file in the Google Documents website, including price, phone and Fax numbers of the companies (except Fisher, Sigma, Invitrogen, Qiagen, Operon). Fill out every purple column to avoid delays.
  - We use regular shipping (3-7 business days). So plan your experiments accordingly. For urgent ordering (needs PI’s approval), specify under “comments” the date by which you must receive the item.
  - Do NOT modify the database in the Sun.Order file.
  - The secretary will process the orders every Tuesday and Friday.
  - Once the item is delivered, sign and return the packing slips to the Secretary.
- **Radioactivity:**
  - Radioactive isotope usage and disposal must be entered in the big yellow Radiation Safety Log Book.
  - Emergencies: Call (212) 263-6888 anytime for instructions.
  - <http://redaf.med.nyu.edu/safety/radiation-safety>
- **Receiving:**
  - When orders arrive in the lab they are unpacked (empty boxes can be left outside the door, in the hall for disposal by the custodial crew). All packing slips are signed and dated by the unpacker, placed in the packing slip manila envelope on the freezer door (This includes all receipt slips from Bear Necessities & Tissue Culture Facility).
  - Before you sign the packaging slip, check to make sure you have received what is said on the slip. Sign and date the slip. Put it in the same invoice box noted above.
  - Put the received material in refrigerator or freezer if necessary, and notify the person who ordered the material.
  - Fill out the registration sheet.

- **Tissue culture room:**
    - The tissue culture room should be used **ONLY** for tissue culture work. All other steps, such as making or filtering solutions, should not be done in this room. Animals must not be brought into the tissue culture room.
    - Before starting your work:
      - Wash your hands thoroughly with disinfectant soap. This is particularly important if you have handled animals; remove the lab coat which you wore when handling animals.
      - Wipe the entire inside surface of the tissue culture hood (including the space underneath the working surface) with 70% ethanol (fire hazard!) or a disinfectant, turn on the air blower/filter for at least 10 min to establish laminar flow.
      - Pre-warm to 37°C all the media and other solutions that you will add to the cultured cells (must use de-ionized water to refill the water bath in the tissue culture room).
    - When you are done:
      - Turn off the blower and the gas burner (never leave the burner on when you are away from the hood). Clean the entire surface of the hood (including the area underneath) with a disinfectant.
      - Turn off the pipette-aid and the microscope.
      - Take off the glass pipette from the vacuum rubber tube, suck in ~5 ml of bleach through the rubber tube. Turn off the vacuum after all the alcohol has gone into the bottle, pour the content of the vacuums bottle carefully into the sink in Lab 2 (never into the one in tissue culture room), rinse the bottle with tap water, add 5-10 ml of bleach, and re-connect it to the vacuum tube.
    - Always check to make sure that there is distilled water in the plastic tray in the tissue culture incubator.
    - The chambers of the CO<sub>2</sub> incubator need to be thoroughly cleaned and decontaminated every 2 months-otherwise there can be extensive growth of mold and bacteria which can be a major cause of contamination.
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