

Guidelines for Yeo Lab equipment maintenance

Updated 1/10/11

Balance	Please keep it clean after use. Remove all the dust. Occasionally weigh the calibration weight (100g, in the drawer) to make sure the balance is functional.
Biosafety cabinet	Please make sure the BSC is cleaned and sanitized with 70% ethanol. Pick up all the loose tips and tissues on the floor.
Cell culture waste	Whoever sees it full first should take off the waste flask and bleach. Return the emptied flask with a little bit of bleach in.
Cell incubator	Check the water level in the basin, CO ₂ level, and temperature, and notify the person in charge if anything is abnormal.
Centrifuge	Turn it off and leave the lid open when it is not in use. If there is a noticeable amount of condensed water, please wipe it off with paper towel. Do not put water in the rotor!
Cryotank	Cell stocks should be exposed to liquid nitrogen vapor at all times. Keep your boxes in racks at lower levels if possible. Be mindful of the liquid nitrogen level whenever you access the tank, and notify the person in charge immediately if you find it low.
Freeze dryer	Follow the procedure in the instruction posted on the freeze dryer. Observe the cardinal rule – break the vacuum before turning it off!
HPLC	<p>Make sure your mobile phase and the container are clean. Check the cleanliness of the mobile phase inlet filter. If pressure is >200 bar, stop using HPLC immediately and check the source of blockade in the following order:</p> <ul style="list-style-type: none"> (i) Disconnect the column and check the back pressure without the column (ii) Flush the pump with the black knob open to remove any entrapped air. (iii) Check the Teflon frit. If found dirty, replace it. (iv) If the above steps do not solve the problem, back flush the column at 10% of your usual rate (e.g., 0.1 ml/min) with high percentage of ACN or ACN, occasionally alternating with water. (v) Replace the guard column. <p>Do not store the vials more than one day. Samples in the vials become useless over time. They may be unstable, lose their chemical integrities, and/or the concentrations can change. Analyzing old samples again does not do any good for you!</p> <p>Remove loose tissues, gloves, squeeze bottles, and beakers, once you are done.</p>
Microscope	Turn it off when it is not in use.
pH meter	We have two electrodes (standard, microelectrode), which are about 0.2 units off from each other. Whenever you use a new electrode, be sure to recalibrate with standard buffers (pH 4, pH 7, pH 10). Calibration protocol is available in the drawer. If buffer colors are not fresh or the buffers have been replaced more than 2 months ago, please replace with new buffers (in the shelf), and make a note of the replacement date. When it is not used, the pH meter should be hooked up to the standard electrode, which is stored in the saturated KCl solution. Whoever used the special microelectrode is responsible for recalibrating the pH meter for the standard electrode.
Spray dryer	Always wear goggles. Clean the glassware after use with great care.
Zeta sizer	Close the laptop when it is not used. Make your own backup of raw data.