Lindberg Lab Tips 2/12

- DATE EVERYTHING!! Especially anything you put in the freezers or refrigerators, but also all data. The year too! The first sample in any long series bears the date and exptl details.
- BACK UP everything! (especially cells; freeze them down before doing any experiments)
- File a plasmid map in the Blue Book within 2 weeks of construction. Make sure the location of your plasmid is accurately specified. Label with backbone and species -as well as insert ("mPOMC-pcDNA3")
- Leave 10% of your tube contents and freeze. There are very few experiments where leaving 10% of your sample behind will cause total loss of data. This permits reassay!
- Add 0.1% sodium azide to most solutions (but not solutions that ever touch animals or cells). It doesn't affect our enzymes at all (but mold will!)
- Samples and standards should always be in the same buffer.
- Dilute your unknowns so that they are in the middle of the standard curve (or repeat the assay to get them there).
- Don't accept replicate variation of greater than 15%. Something is wrong!
- Use different standard colors for control tubes and experimental tubes- I always label control tubes black, and exptl. tubes red.
- Put a standard lane on the left side of every gel- this way you will never have a direction problem. Use 5 ul of the colored standards for blots and 2 ul of the non-colored standards for Coomassie stains. Make sure the standards used correspond to the gel percentage: the higher the percentage, the lower Mr the standards used.
- Always put the handle of the Eppendorf tube on the outside when centrifuging; the pellet will then always be right below the handle.
- Use a sponge to soak up Coomassie dye during destains. Heat solutions in the microwave if you want destain or stain to go faster.
- Thaw samples completely and mix gently before pipetting by inversion or pipetting. Vortexing denatures proteins.
- Make sure you know how to seat a rotor, the allowed speeds of each rotor, and the allowed speeds of each type of plasticware.
- Polystyrene is very protein-adsorptive. Don't use it with dilute protein solutions in the absence of carrier protein. Polypropylene is less absorptive, but many of our sticky proteins will still need detergent or carrier protein.
- Always do positive and negative controls to make sure your assay is working and is well-controlled.
- When working with a new protocol, read to the bottom before starting! Make sure you interrupt at approved places if you stop in the middle.
- Always do feasibility calculations the day before; also, make and chill your buffers the day before. Write out (typing is best) your protocols the day before.
- If you deviate from your protocol on the day of the experiment, write it down on the same sheet as the protocol! You never know when you will want to repeat the deviation -it may work better!
- Don't work at night on new things you might need help with-- if no one is around.
- Always write the PURPOSE of the experiment in a sentence at the top of the page
- Always write the overall RESULT/CONCLUSIONS of an experiment on the first page so you can easily see what happened --years later. This need only be a sentence!