Lab Notebook Guidelines

There are three main purposes for a lab notebook.

1) Your notebook should contain an accurate and detailed record of how you carried out the experiment. Your records should be so detailed that you or even another person can *exactly* repeat your experiment.

This means you should record things like the settings you used on the amplifier, stimulator, or Powerlab. You should note what the names were that you gave to your computer files of data and where you stored them. Note any occasions when you departed from the procedures in the Crawdad manual. Indicate where in the preparation you made your recordings; a drawing can be helpful for this, one that's large enough to make out the details. You will find it easier to set up the electronic instruments in future labs if you make a sketch of how you set them up today.

Note anything that you did or detected during the course of the experiment. What was the resistance of the electrode that you used; did it change during the course of the experiment? Note when you changed the saline in which the preparation was bathed. In short, write down everything.

Your lab notebook should be a bound notebook (not looseleaf) and should have your name and the course name and number in it (so that if you misplace it, you have a chance to recover it.) Keep your notebook in pen, not pencil (but not water-soluble ink). If you make a mistake, draw a line through the error and write the correct information beside it.

2) Your notebook should contain a faithful record of all the results of your experiments, whether you can make sense of them or not.

3) Finally, your notebook should contain your thoughts about what you think your results mean or other observations. If you're suspicious of a result, for example, say so and explain why. If you think that there is some explanation for your results, jot that down. For example: "changing sodium concentration seems to change the size of the action potential; the action potential must be dependent on sodium in some way." Or: I think the electrode was broken for this measurement, which may explain why this value is different from the others".

Obviously, your notebook should be contemporaneous with your work in lab. That is, don't try to reconstruct what you did from memory afterwards; keep a running record of what you are doing while you do it. One member of each team will be doing the experimental manipulations, but the other member can be keeping a written record in the lab notebook at the same time.

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