

How To Keep A Research Notebook

It is vital to the interest of the lab that everyone keep their research notes in proper form. It is also a mandate of NIH and HHMI that the research they support be properly documented.

- Notebooks should carry an index at the front with dates, page numbers and a short identifying statement for each experiment.
- Each experiment should be dated, including the day, month and year. Every page should be dated. INCLUDE A TITLE AT THE TOP OF EACH PAGE.
- Each experiment should start with a purpose/rationale.
- Each experiment should describe materials used in a thorough way. i.e., the receipt of new batches of enzymes should be recorded; detailed quantitative description of buffers, etc., should be given or reference made to the formula elsewhere in the same notebook; specific reference should be made to common stock solutions, including the date of the stock.
- All data generated should be recorded. All results that are independent of the notebook pages themselves should be dated and should have markings that identify the data points, i.e.:
 1. Tapes from scintillation counters should have dates, the samples that correspond to different sets of data should be identified, etc
 2. For autoradiograms, each film should bear the date of the experiment, date and length of exposure, the orientation should be noted and/or lanes should be identified

(These results should be taped or stapled into the notebook or placed in a plastic sheet next to the experimental the write-up.)

- This deserves its own bullet: LABEL ALL LANES!
- All experiments should end with a list of conclusions.
- The statement of purpose, materials, and general outline of the experiment should be in written form before it is begun, and should be amended as the experiments proceed.
- Even experiments that "don't work" should be documented. Do not throw away any data because you don't "think" it is important.
- It is often helpful to sequentially number and keep a log of all your minipreps as way to keep track of many complicated clonings.
- Notebooks are the property of the lab. They will remain here when you leave. (You can take copies with you)
- Remember when you leave the lab, your reputation will rise or fall as your successors refer to your notebooks and do or do not find them in good order.