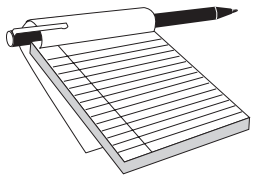
UNIVERSITY OF MINNESOTA

Guidelines for Maintaining Laboratory Notebooks



Why Maintain Detailed Laboratory Notebooks?

- To support the validity of results reported to peers and sponsors.
- To use as evidence for proving inventorship or first-to-invent.
- To show completion of an invention before the dates of other prior art references.

Records Should be Permanent, Complete, and Continuous

- Use a bound notebook with numbered pages.
  - A bound notebook creates a presumption that the records have not been forged or altered by replacement, deletion, or insertion of pages.
  - Include an index and a glossary defining tradenames, acronyms, codes, or laboratory jargon at the front of the notebook.
- Entries should be made consecutively.
- No pages or spaces on pages should be skipped. If blank spaces are left on a page or pages are skipped, then a line should be drawn through them to demonstrate that the blank spaces are intentional.
- Use indelible ink for entries.
  - Color coding data should be avoided.
  - Pencils should not be used.
- All entries should be completely legible.
- Do not erase. If changes must be made (errors corrected, etc.), the erroneous information should be lined through, dated, and signed. Reasons for alteration should also be noted if they are not obvious.

How Much Detail?

- Records should err on the side of thoroughness and completeness. Lab notebooks should contain enough information so that a technically sophisticated outsider will be able to understand what was done without the assistance of the person who actually made the entries.
- Record:
  - What was done (even seemingly trivial information and observations)
  - Why it was done (e.g., objectives and goals)
  - Who suggested it
  - Who did it
  - When it was done
  - What were the results (both positive and negative results)
  - What conclusions were drawn (avoid words with legal meaning such as “obvious”)
- All details of an experiment should be listed, signed, dated, and witnessed. This includes data and final results of experiments, protocols and design of experiments, calculations on which the results are based, manufacturer and model of equipment used, and a key to any abbreviations used.
- Record all research and development efforts including ideas generated during brainstorming sessions.
- Record dates when an idea was formed and when work on the idea was started and completed.
- Record plans for future experiments and their protocols.
- Test results obtained at a later date should be recorded on a separate page and cross-referenced to the page containing the earlier entry.