

# DOs and DON'Ts for Laboratory Notebooks

Whether you're drafting your thesis, disclosing research findings at a conference or in a journal, or considering commercial applications for your research, your laboratory notebooks are a vital record of the development of your research.

Below are some helpful guidelines for ensuring complete, thorough and accurate documentation of your intellectual property.

## 1. **DO** record goals, hypotheses, ideas and plans, including:

- Details of planned projects and experiments to show the conception and intent of an idea.
- Details of lab meeting discussions, theories and conclusions reached.
- Ideas or suggestions, including improvements to existing ideas, as well as their sources (e.g. literature or patents relied on in developing an idea), and names of individual contributors to those ideas.

## 2. **DO** make comprehensive records, including:

- Full, clear and accurate descriptions of your experiments, including procedures, methods, equipment and preferred operating conditions.
- All data as it was obtained and not just data that you think will be important from a project standpoint. This includes experimental results (positive or negative), and all explanations of the results.
- Rough sketches, photos, diagrams, tables, calculations, or other pertinent information if appropriate.

## 3. **DO** organize the notebook

- Label at least the top of each page with the date and subject matter.
- Start recording each new experiment at the top of a new page.
- A separate notebook can be used for each project.

## 4. **DO** sign and date the entries

- Each page of the notebook should be signed and dated by the researcher.
- Joint work should be signed by all of the contributors, and the text should indicate which work is applicable to each researcher.

## 5. **DO** have the entries witnessed

- An independent witness should review, sign and date each page regularly (e.g. weekly), indicating that s/he has "read and understood" the recorded information. S/he needs to understand that the material is confidential.
- The witness must understand the technology, but should not be someone involved in the research.

## 6. **DON'T** leave gaps or make undocumented changes

- Use permanently bound notebooks so that no additional pages can be added. Never remove pages from the notebook for any reason.
- Record all entries in indelible ink, not pencil.
- Fill each page consecutively as work is performed. Do not leave large blank spaces or empty pages between entries. If a blank space is left on a page, draw a line through the blank space to prevent subsequent entries.

## 7. **DON'T** modify prior entries at a later date without noting and dating changes.

- Do not erase or "white-out" errors. Instead, draw a line through the incorrect word, figure or sentence. When possible, insert the correct entry directly after the original mistake.
- If changes (corrections, or additions of data received subsequent to the original entry) are required at a later date, either:
  - Add changes to the original entry. Make sure to date and initial the new entry separately; or
  - Record changes on a later page. Date and cross-reference the new data to the earlier entry.

## 8. **DO** include attachments

- All attachments (e.g. graphs, data printouts, photos etc.) should be either permanently stapled or otherwise affixed to the notebook (e.g. in an envelope stapled to the page), or filed, in chronological order, in a binder that corresponds specifically to the notebook in question.
- All attachments should be given an identification number, and this identification number should be referenced in the notebook.
- Attachments should be signed, dated and witnessed.

## 9. **DO** store completed notebooks

- Completed notebooks should be indexed and safely kept. Notebooks that relate to inventions on which patents have been granted should be kept for the life of the patent plus six years.

### Planning to talk publicly about your discovery?

Any activity that makes your invention "available to the public" can affect your ability to obtain a patent and hence to commercialize your discovery. These activities include journal publications, theses and thesis defences, abstracts posted on the web, poster displays, departmental seminars and even discussions with anyone outside your immediate research group.

Before you share your discovery beyond the lab, you should consider the following steps to protect your intellectual property:

#### • **Confidentiality Agreements**

A Confidentiality Agreement should be signed before any information about your intellectual property is exchanged with companies or individuals outside of your immediate lab or group of collaborators.

#### • **Material Transfer Agreements**

A Material Transfer Agreement should be signed before any materials (biological or other) or models are transferred to companies or individuals outside of your immediate lab or group of collaborators.

#### • **Patent Application**

PARTEQ Innovations can help determine whether your discovery is a patentable invention, and assess your discovery for commercial potential. Call us for more information.

### Thinking about commercializing your intellectual property? Good documentation helps to:

- Demonstrate inventorship by identifying the contributions of all researchers.
- Demonstrate that your invention is novel by documenting relevant dates – from conception through development – of the invention.
- Demonstrate that your invention is not obvious. Properly recorded notes will include not only successful, but also unsuccessful, attempts at the invention. Documented unsuccessful attempts attest to the non-obviousness of an invention.

### Questions about protecting your discovery?

PARTEQ Innovations provides technology transfer services to Queen's University. We are a not-for-profit group dedicated to supporting the Queen's research community in protecting and commercializing research discoveries. Through our expertise in patent law, business development and technology management, we can help you make informed decisions about your intellectual property.

For more information, please contact our commercialization team:

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