

# **Keeping a Laboratory Notebook**

## **1) Introduction**

Laboratory Notebooks properly written up provide important reference and source data for regulatory submission. These rules are designed to ensure well documented research records and will ensure maximum efficiency when the data are submitted for scrutiny by an appropriate regulatory authority. Properly completed notebooks also present evidence that the University has discharged its duty of care under Health and Safety legislation. All writing should be in black or blue permanent ink. No pencils should be used. All dates should be in the format; DD/MM/YY. Any times should be written down using the 24 hour clock. Notebooks should not be taken off University premises unless the author is on sabbatical at another location. Laboratory notebooks remain University property at all times.

## **2) Issue and Identification**

The Laboratory Manager or his staff will be responsible for the issue of all laboratory notebooks. Each laboratory note book will be issued to a specific individual for a specific project and be given a specific number. The number will be in the format; MKCnumber/year e.g. MKC10/00. Different laboratory notebooks should be used for different projects, and an individual may possess more than one laboratory notebook.

## **3) Contents**

A comprehensive set of instructions (appendix 1 of this SOP) is included inside each notebook. These instructions must be adhered to in order to ensure well documented research and to achieve maximum patent protection.

## **4) Witnessing and Audit**

Laboratory notebooks must be witnessed as soon as possible after a particular entry has been made. The date of entry is the effective date for patent protection purposes. As a general rule the book will be witnessed by the worker's main supervisor. In the absence of the appropriate witness the witness should be a project leader of the group of the witness or their nominated deputy.

## **5) Storage**

When a project is deemed to have finished (i.e. when no research or development work is being performed on that project), the completed notebook should be returned to the head of the Laboratory, who will arrange for secure storage.

## **Appendix:**

### **Instructions**

Laboratory notebooks provide important reference data. In some cases they provide the "source data" for a technical file or regulatory submission. Intellectual property is a major resource, and it is essential we protect it. It is important to record not only the experimental data but also an explanation of the purpose of the experiments performed. Also record and witness any other significant ideas which might constitute intellectual property. Properly completed notebooks also present evidence that the University has discharged its duty of care under Health and Safety legislation. These rules are designed to ensure well documented research records and to afford maximum protection.

### **Identification**

- a) Each laboratory notebook will be assigned an unique number, and will be issued to a specific individual. Different notebooks should be used for different projects, and an individual may possess more than one notebook.
- b) The notebook number, project. name, and date of issue are to be entered at the time of assignment on the page provided in the front of the notebook.
- c) The signature page is intended to allow the identification of all staff who make entries in the notebook, or who witness such entries. It should contain their names together with specimen signatures.

### **Index**

- a) The index is to be entered in ascending page number order at the start of each experiment and dated. The index must contain the full title of each experiment. The title should be unique to each experiment and enable the precise nature of the experiment to be identified. Where two or more experiments are being conducted concurrently, it may be confusing if all work is reported literally chronologically. The use of separate notebooks for different series of experiments is preferable to the serial recording of contemporaneous work, as the recollection of events may change with hindsight.
- b) A line must be drawn through any unused part of the index.

### **Content**

- a) All entries must be made in blue or black ink or ball-point. Where possible the use of red should be avoided. Pencil must not be used.
- b) Should an error be made in a notebook entry the author should draw a line through the incorrect part; obliteration with "liquid paper" must not be used. Blank pages or unused parts of pages are voided by crossing them out with diagonal lines. All corrections or deletions should be accompanied by an explanation signed and dated by the author.

c) The author should include all experimental results and conclusions legibly in the book. Entries should be sufficiently explicit to enable that experiment to be repeated by a fellow scientist.

d) Where other forms of data recording are used the author must cross reference both the notebook and the raw data such that future retrieval and reference are made possible.

e) Graphs, spectra or other data formats should be attached to a notebook page using adhesive rather than paper clips or staples. The author should sign across the join between the attached material and the underlying page. Data can be stored separately in a file bearing the same unique notebook number, but only if it is not possible to fix it permanently into the notebook. A separate file is required for each notebook. The attachment whether included in the notebook or filed separately should be annotated with the notebook number and page signed and witnessed, and be clearly referred to in the text.

f) Notebook entries should be signed and dated by the author at the end of each experiment and in a long experiment at suitable intervals during its course. The entries must be countersigned by the supervisor as soon as possible. This will indicate that the witness has read and understood what has been recorded.