GUIDELINES FOR PREPARATION OF HONOURS/MASTER OF SCIENCE THESIS

SUBMISSION, STRUCTURE AND SETTING OUT OF THE THESIS

- 1. Thesis Submission
 - Four copies of the thesis are to be submitted for examination. Your thesis must be submitted using spiral binding with a soft cover (preferably clear).
 - One additional copy of the abstract is to be submitted. Your name and student ID must be inserted on the top right hand corner.
 - Electronic copy of your thesis. This can be submitted by email/usb to Mary Ljubanovic E: mlju@unimelb.edu.au
 - Your thesis must be submitted by 4.00pm on the submission due date to Mary Ljubanovic, Honours Administrator, Department of Medicine (RMH), 4th Floor, Clinical Sciences Building, Royal Melbourne Hospital (Royal Parade entry). <u>WARNING</u>. It is not possible to grant extensions except in the case of serious illness or bereavement. Late work must be stamped "Late" and will have a grading penalty applied.

After they are examined, a thesis copy will be deposited in the Department of Medicine (RMH) Library. You may need, therefore, additional copies for your supervisor/s, yourself or another person (e.g. parent, friend).

 The thesis must be laser-printed, single-sided using a standard word processing software program (e.g. Microsoft Word) on A4 paper. You may use either Arial or Times New Roman fonts only. The use of font-spacing or other text compressing software, eg Pagemaker or other desk-top publishing software is not permitted.

Note: The Department of Medicine (RMH) has a laser colour printer located on the 4th Floor, Clinical Sciences Building which is available for printing copies of your thesis – as an access code is required please contact Mary Ljubanovic. In addition a coil binding machine is available – which must be booked prior – please allow at least 1 hour to bind 4 copies.

- 3. You must submit an electronic version of your thesis saved as a Word document. This electronic version must exactly match your written version. The electronic version will be randomly audited using "anti-cheating" software that detects plagiarised material. IMPORTANT: plagiarism is an extremely serious offence at the University of Melbourne- penalties include failure with no right to resubmit or expulsion from the University. You will be required to formally declare in writing that your thesis is your own work. Being found guilty of plagiarism can have life-long consequences for you.
- Text must be <u>double-spaced throughout</u>.
 Tables and Figures and legends are not required to be double-spaced.
 Figures, tables and their legends do not constitute body text.

- 5. Pagination.
 - Title Page. Page numbering not preferred but is permitted.
 - Number the Dedication, Declaration, Acknowledgement, Table of Contents, Abstract and Abbreviation pages in Roman numerals (i, ii, iii, iv etc.)
 - Number the Body of the Thesis in Arabic numerals (1, 2, 3 etc). Number the Appendix (if any) in Roman numerals
 - Use a minimum font size of 11.
 - Leave a minimum 2.5 cm margins all round the text.
 - Number Tables, I, II, III, IV, etc. and Figures 1, 2, 3 etc. in order of first mention in the text.
- The order of presentation in the thesis is: 6.

Title page Dedication page ie to Parents (optional) Declaration (must be signed) Acknowledgements Table of contents Abstract Abbreviations used (if any) Introduction) BODY OF **Aims** Methods, acknowledging appropriate ethics clearances) THESIS Results) Discussion) References Tables* Figures*, with legends **Appendix**

- * You may include as many figures and/or tables as you deem necessary. Figures and tables should be on separate pages labeled with their sequential number (i.e. Figure 1....Table I, II etc). Do not mix figures or tables within your body text.
- Title page: This should contain the thesis title, your full name and degree(s), what the thesis is being submitted for (i.e."Thesis submitted to University of Melbourne for the Degree of BSc with Honours"), and the date of submission, and student ID.
- Abstract: Special attention should be paid to the abstract at the front of the thesis since this is an especially important part upon which your examiners make their judgment. It should be factual and informative, summarizing the main purposes and results of the work. It should be 1 to 2 pages long (ie longer than a normal paper abstract and more informative). It should enable anyone who has not read the full thesis to understand the objective of the research, the approach used, the results found and their significance. It is best written when the rest of the paper is completed. Avoid using abbreviations and references in the Abstract.

- 9. Abbreviations: These should be kept to a minimum. List abbreviations used on a separate page after the Abstract and consult the Department of Medicine or journals such as Cell or for approved abbreviations and also for any uncertainties in style.
- 10. Body of the thesis (Introduction, Aims, Methods, Results and Discussion): This should be no more than 35 pages of typed text, double-spaced (A4 pages). You should aim to make your body text concise and use it to give a complete account of your project. IMPORTANT marks may be deducted for exceeding 35pages of body text. Examiners may remove all pages in excess of 35 pages. As the thesis constitutes a formal assessment you may not exceed 35 pages of body text- this is to ensure fairness for all candidates

For appropriate material, you may use one or more appendices at the end of the thesis. Lengthy experimental procedures description, mathematical derivations, etc. could be placed in this section. Appendices facilitate future ready reference to valuable details without impairing the readability of the thesis. Where appropriate, references should be made to the original source when established techniques are used, mentioning only innovations in any detail. Important: do not use the Appendix for material that should be included in the body text. Appendices are very rarely needed. You should concentrate on writing clearly and concisely.

All data should be shown in some form. "Data not shown" is not acceptable for a thesis.

You may divide the introduction, methods, results and discussion into numbered subsection if desired eg.

- 1. Main heading
 - 1.1 subsection
 - 1.2 subsection etc
- 11. **Acknowledgements:** You must honestly acknowledge help from associates, etc, at the end of the thesis, pointing out clearly those measurements, calculations, diagrams, etc, which were executed by persons other than the writer of the thesis.
- 12. *Ethics:* You must acknowledge in your Methods section that the project had received prior ethical clearance(s) and was performed in accordance with the appropriate Hospital, University and NMHRC guidelines. Projects involving human subjects must acknowledge conformity with the Helsinki guidelines.
- 13. *References:* These should include all authors, the title, and inclusive page numbers. One of two systems can be used:
 - (a) The "name and year" system is the preferred form (to follow instruction to Authors for *Cell*). For example "....... as shown previously (Miller, 1989; Fallon and Loughlin, 1993)"

The references should be listed alphabetically at the end of the text in the following style:

- Fallon, J.H., and Loughlin, S.E. (1993). Functional implications of the anatomical localization of neurotrophic factors. In Neutrotrophic Factors, S.E. Loughlin and J.H. Fallon, eds. (San Diego, California: Academic Press), pp. 1-24.
- Miller, C. (1989). Genetic manipulation of ion channels: a new approach to structure and mechanism. Neuron 2, 1195-1205.
- (b) Alternatively, the references may be numbered in order of appearance in the text as: "....... as shown previously [7]."

 "...... as shown by Miller [7]."

The references are listed at the end of the text in numerical order in the same style as above.

Copies of the journal *Cell* are available in the Department to consult for referencing.

Note that bibliographic software such as Endnote makes this process relatively easy as complete references can be downloaded over the web and inserted directly into your Endnote library. Endnote also allows you to use a template with the preferred "Cell" citation formation. Endnote is supported by the University of Melbourne and may be downloaded centrally from the University's website. The Brownless Medical Library also provides assistance in the use of Endnote.

- **14.** *Tables:* Give them fully explicit titles centered at the top of the Table and provide footnotes as superscripts, denoted as lower case letter (ie "a", "b", "c") in order of appearance where necessary. Avoid presenting the same data in a Figure and Table. Give all units in Table headings in the text and make sure they are consistent throughout.
- 15. Figures: Pay great attention to the preparation of figures. Give fully explicit titles and an adequate legend either underneath the Figure or on the opposite (facing) page so that it can be easily referred to while studying the Figure. Give all units on Figure ordinates and make sure they are consistent throughout. The four submitted copies of the thesis must have originals of all half tone photographs or of laser scanned images (eg Northern and Western blots). Paste photographs on non-transparent paper. Do not draw curves beyond data points unless you have special justification.

Figures, tables and their legends do not constitute body-text

DOS AND DON'TS

. Writing the thesis will take much longer than you think. In order to make it easier:

- Discuss the content and format with your Supervisor before starting.
- Read the literature from the start of the year and read deeply and widely. Make an Endnote reference entry for each paper you read.
- Make an outline and a timetable for writing and discussing each chapter.
- Make a style sheet specifying all the detail of layout, formatting, graphs, tables, abbreviations. Use of a style sheet ensures you have consistency over the whole thesis.
- Make sure you know how to use your word-processing program and learn how to use the Table of Contents function. The university supports Microsoft Word but not other programs.
- Show your Supervisor a draft of each section as you write it and get his/her criticisms and suggestions.
- Submit a complete draft to your Supervisor one month before final submission.
- Save regularly and make backups.
- Write the thesis in your own words it must be your original work. It is forbidden at all times to use sentences or paragraphs from other authors' works such plagiarism is readily detected and constitutes a very serious offence that carries severe penalties. Under University guidelines, students found guilty of plagiarizing the work of others may be failed without rights or ability to resubmit or may be expelled.
- 3. Carefully check for omissions, spelling errors, typographical errors, inconsistencies (especially in units used).
- 4. When using computers, remember to keep back-up copies of all the work you prepare on a CD or USB stick in order to avoid any disastrous accidents!

DECLARATION TO ACCOMPANY THESIS SUBMISSION

This page should be copied and included with your thesis

| DECLARATION BY SCHOLAR: |
|--|
| I, (student's name) |
| certify that |
| the thesis comprises only my original work, except where indicated in the accompanying Acknowledgement statement * |
| the thesis conforms to the specifications outlined in the Honours Handbook. |
| Signature: |
| Date: |
| DECLARATION BY SUPERVISOR: |
| I confirm that the declaration above of(student's name) thesis are a true and fair representation of the student's work. |
| Signature: |
| Date: |

*Your Acknowledgement page must declare, as appropriate:

- the extent to which the student has used the work of others
- the contribution of the student to work carried out in collaboration with others
- a description of work submitted for any other qualification
- a description of work carried out prior to enrolment in Honours.

GUIDELINES FOR EXAMINERS OF HONOURS THESES

The written thesis together with an Oral Presentation constitute the Research Project and contributes 75% to the total mark of the BSc Honours Year.

Thesis 80% of Research Project Oral Presentation 20% of Research Project

Examiners are asked to consider several issues when assessing the thesis. They will keep in mind this is an Honours Thesis which has for most students been completed over a 7-8 month period. The quality and quantity of the work will be assessed in the light of the relative difficulty of the techniques applied and/or the systems in which the work was performed. The nature of the project may have a major influence. An Examiner's assessment will make the following considerations:

- 1. Does the student understand the general area being studied?
- 2. Is the background literature review appropriate and complete?
- 3. Has sufficient experimental work/quantitative data collection been performed?
- 4. Have the experiments been performed properly?
- 5. Have the results been interpreted appropriately and discussed in the light of information currently available?

A score out of 100 is given and an overall impression as a <u>short paragraph</u> for release to the student is provided.

The following marking scheme is applied:

N (fail) <65% H3 65-69% H2B 70-74% H2A 75-79% H1 ≥80%

The Examiner's awarded mark will reflect the **thesis only.** Examiners are invited to attend the student's oral presentation and their input at this time is valued, but the thesis will be read and the Examiner's impression formed before the presentation.

GUIDELINES FOR EXAMINERS OF MASTER OF SCIENCE THESES

Examiners are asked to consider several issues when assessing the thesis. They will keep in mind this is MSc Thesis which has for most students been completed over a 2 year period. The quality and quantity of the work will be assessed in the light of the relative difficulty of the techniques applied and/or the systems in which the work was performed. The nature of the project may have a major influence. An Examiner's assessment will make the following considerations:

- 1. Explanation of aims of study
- 2. Logic and critical thought
- 3. Clarity and conciseness
- 4. Extent of body of work undertaken
- 5. Interpretation of data
- 6. Soundness of rationale and methodology
- 7. Evaluation and use of literature
- 8. Implications of findings
- 9. Presentation
- 10. Style, grammar and syntax

A score out of 100 is given and an overall impression as a <u>short paragraph</u> for release to the student is provided. The following marking scheme is applied:

N (fail) <65% H3 65-69% H2B 70-74% H2A 75-79% H1 >80%

The Examiner's awarded mark will reflect the **thesis only.** Examiners are invited to attend the student's oral presentation and their input at this time is valued, but the thesis will be read and the Examiner's impression formed before the presentation

Class H1 (80-100%)

A Report graded as 'upper H1' (>85%) is strong in all areas of assessment. Overall the Report shows:

- outstanding command of expression and logical argument in a skilfully structured manuscript;
- superior evaluation and integration of existing literature;
- evidence of significant insight and original thought in dealing with the critical issues;
- sophisticated understanding of research methods, with evidence of careful attention to critical design issues in the execution of the project;
- outstanding presentation and reporting of a body of work;

- thoughtful and appropriate choice of analytical approach (where appropriate) and clear and coherent interpretation of the Report data;
- comprehensive understanding of the importance of the results in the context of the theoretical framework.

A 'lower H1' (80-85%) student displays many of the same strengths but is less well-balanced with weakness in some areas.

Overall: An H1 Report (upper or lower) is written by a student obviously capable of undertaking a PhD. *Grading over the entire range of 80-100% is essential*. The habit has been for examiners to grade between 80-85% for outstanding submissions, with 90% being a rare exception. A grade of 90% and above implies the Report is at the standard expected of an academic/researcher in the field and could be published in an appropriate journal.

Class H2A (75-79%)

A H2A Report shows a good understanding and exposition in most areas although with some notable weaknesses. The Report has most of the following characteristics:

- the manuscript is well written, logically argued and generally well structured;
- the evaluation and integration of the existing literature is very sound without being outstanding;
- reasonable insight and some evidence of original thought in dealing with the critical issues
- evidence of a solid understanding of research methods;
- adequate design of the research project, although possibly containing minor but retrievable errors;
- choice of data analysis that is appropriate for the design (although less well justified than might be expected of H1 standard), and clear presentation of results;
- generally sound but pedestrian interpretation of results and their relevance to the published literature.

Overall: An H2A Report is written by a student who is capable of undertaking a PhD or MPhil. The report should highlight areas where the work can be improved.

H2B (70-74%)

A H2B Report has most of the following characteristics:

- generally competently written, although some problems exist in the logical organisation of the text and expression;
- provides an adequate coverage of the literature, although it is more descriptive than interpretive, and arguments are often disjointed;
- occasional evidence of insight into the issues underlying the Report or essay, but little evidence of original thinking;
- basic but somewhat limited understanding of research methods;

- the design of the research project is generally adequate but is marred by some errors and oversights;
- reasonable choice of data analysis, although other approaches may have been more appropriate or powerful;
- presentation of results lacks clarity;
- interpretation of results or other studies is adequate but limited.

Overall: The Report shows an adequate understanding and exposition of relevant issues but there are notable weaknesses in several areas. An H2B Report is written by a student who may be capable of undertaking an MPhil under close supervision.

Class H3 (65-69%) and below

Theses that are graded at H3 and below have most of the following characteristics:

- the work is not well written and shows flaws in the structuring of logical arguments;
- coverage of the literature is weak, with insufficient information provided to support the arguments made, or conclusions drawn;
- little evidence of insight and ideas are highly derivative;
- knowledge of research methods is deficient;
- serious flaws exist in the design of the research project, making it difficult for the research to meet its aims;
- data analysis techniques are inappropriate;
- the results are poorly presented;
- interpretations are superficial, show a weak understanding of the results and their relevance to the theoretical framework.

Overall: The student shows a poor understanding of the relevant issues and there are major weaknesses throughout the Report. The student has not mastered the higher-order skills required at this level and would likely not be able to undertake further research