MASTER’S THESIS PREPARATION GUIDELINES

THESIS COMPONENTS

A thesis is the result of a thinking process. You will need to describe your thinking process in detail, including how you coped with difficulties during the research period and reached logical conclusions. You also need to explain the fundamentals, the research background in detail, and positive and negative results of the basic and pilot experiments. If the thesis contains multiple themes, define the relationships among the themes. The thesis can be written either in Japanese or in English. Please choose either language and do not write in both languages simultaneously.

HOW TO FORMAT YOUR THESIS

Use Times New Roman in 12-point font with one-and-a-half (1.5) line spacing for the body of the thesis. You should use A4 size white paper and set all margins (top, bottom, and sides) to 25 mm. Place page numbers at the bottom in the center.

Do not put a page number on the cover page. The List of Publications and Presentations (“発表論文目録および学会発表目録” ) should be the first page, and the pagination should continue throughout the rest of the text.

For the final submission after modification following your defense, please prepare one copy in a simple binding (e.g., binding cord, file, folder, and thermal binding with a clear plastic front cover and a card back cover) and submit it to the Student Affairs Office.
STRUCTURE

A) Cover (Title)

Prepare the front cover page in accordance with the following sample. If the title is written in English, then the Japanese translation must follow inside parentheses.

| 平成○○年○○月 |
| 北海道大学大学院医学院 |
| 医科学専攻修士課程 |
| 修士学位論文 |

論文題名
Studies on…………………………
(Japanese translation of the title)

提出者：Candidate’s Name

所属分野：………………教室

指導教員：Supervisor’s Name

B) Table of Contents

List only the page number of the first page of chapters from “List of Publications and Presentations” to “References”. Do not list a range of page numbers. If your thesis is divided into chapters as instructed in section F, please include these chapter titles in your table of contents.

Example:

<table>
<thead>
<tr>
<th>Example</th>
<th>Page#</th>
</tr>
</thead>
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<tr>
<td>List of Publications and Presentations</td>
<td>1</td>
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<td>12</td>
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<tr>
<td>References</td>
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</tr>
</tbody>
</table>
C) List of Publications and Presentations

**Publications:** Include all papers regardless of the stage of publication with the name(s) of the author(s), the title, the name of the journal, and the publication year. If the paper has been published, include the publication details, such as the number, volume, and pages. If the paper has been accepted for publication, use the term “in press”. If the paper has been submitted for consideration, use the term “under review”.

**Presentations:** Include presentations at nationwide or international conferences only with the name(s) of the presenter(s), the title, the name of the conference, the date, and the location.

**Example:**

<table>
<thead>
<tr>
<th>List of Publications</th>
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<tr>
<th>List of Presentations</th>
</tr>
</thead>
</table>

D) Summary

Summarize your thesis. The summary should be more than 1,000 words and less than 1,200 words in English (or more than 2,500 and less than 3,000 characters in Japanese), and it must be composed similar to the following example:

**Summary**

**Background and Purpose:**

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Subjects and Methods (or Materials and Methods):**

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Results:**

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Discussion:**

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Conclusion:**

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
E) List of Abbreviations

    Although the use of abbreviations is not desirable, if you used them, then follow the instructions below.

    Write the term in full and its abbreviation inside parentheses when the term is mentioned for the first time. The List of Abbreviations should contain all the abbreviations used throughout the thesis in alphabetical order. Some abbreviations can be used without writing out the full terms or being defined in the List of Abbreviations. Please refer to the Instructions for Authors of the Journal of Biochemistry (Tokyo) (XII. TERMINOLOGY AND ABBREVIATIONS; 8. Accepted Abbreviations and Symbols: Table II).

    **Example:**

    | List of Abbreviations |
    |------------------------|
    | LCM                    | laser capture microscopy |
    | miRNAs                | microRNAs                |
    | UTR                    | 3’-untranslated region   |

F) Introduction

    You must structure your introduction as follows:

1. Background (with the significance of your research and an explanation of issues related to your theme)

2. What is already known

3. Based on 1 and 2, what you are trying to address and find out

    **Note:** If there are multiple themes, and each theme needs to be discussed separately, then please describe each theme in a different chapter after the Introduction. Each chapter should have the following structure:

    **Chapter #**

    1. Title of the chapter

    2. Introduction of the chapter

    3. Methods

    4. Results

    5. Discussion

    *After chapter 2, please logically explain how it is related to the previous chapter.*
G) Methods

Reproducibility is the key so that the person who reads your thesis can reproduce the research or experiment. Use figures, tables, and pictures as appropriate; include the names of manufacturers of lab equipment or reagents.

In regard to an experiment or a recombinant DNA experiment, please state that the experiments were conducted according to the related laws and regulations, or internal guidelines. Please state the names of the regulations and guidelines. If the thesis has undergone an ethical review, then state the result of the review. For research involving human subjects, explain the points related to informed consent.

H) Results

Please divide the results section into subsections, give subsection a subtitle, and describe each subsection. Figures should be at a minimum resolution of 600 dpi in black and white or 300 dpi in color and should follow immediately after the first mention in the text. Figures should not be placed in the appendix. All figures and tables should be numbered in Arabic. Please place the number and caption below the figure or above the table.

Note: Please describe the results of the experiments conducted during the graduate study period, including the basic experiment, the pilot experiment, and the screening experiment.

Example:
I) Discussion

Please logically discuss the findings from your research with supporting evidence and compare your findings with those from previous research. It is also important to discuss the limitations of your research.

J) Conclusion

Itemize the findings you obtained from your entire research. Summarize their significance and provide suggestions for further research in one or two pages.

K) Acknowledgements

If your thesis contains the result(s) of research funded by national or public research institution(s), please include this information in a note as follows:

Example:

This work was supported by [NAME OF INSTITUTION] under grant #JP12345678.

L) Disclosure of Conflict of Interest

Disclosure of a conflict of interest is essential because it will be taken into consideration when the results are examined and will contribute to a fair judgment of the thesis examination. You should disclose all relationships or interests that could influence or bias your work. If you have received any financial support from any third party related to your thesis, then please provide detailed information.

Example1: The author declares no conflict of interest.

Example2: About 10% of this study was supported by [NAME OF THE THIRD PARTY].

Example3: The author has received equipment [NAME OF EQUIPMENT] for research from [NAME OF THE THIRD PARTY].
M) References

References cited in the text should conform exactly to the Harvard system of referencing. That is, you need to reference in the main body of the text when you refer to another person’s work without putting a superscript number. Your reference list should be formatted according to the style used in the journal *Cell*. Japanese-language references must be listed together with English-language references. If you wish to cite information from a work that has not been released publicly (e.g., a pending manuscript, personal email, etc.), please do not include the work in your reference list. In addition, the list must be arranged in alphabetical order using the surnames of the author(s) and by the year of publication. For references with the same author(s) and the same year of publication, you may differentiate one from the other by adding an uppercase letter at the end of the publication year (i.e., xxxxA, xxxxB).

**Example of Citation:**

The spotted hyaena is a large carnivore that lives in social groups or ‘clans’ in which females socially dominate males (Kruuk, H., 1972). Most but not all natal males disperse (that is, males leave the clan in which they were born and immigrate into a new clan) (East, M. L. and Hofer, H., 2001) whereas female dispersal is very rare (Höner, O. P. et al., 2005). Immigrant male social status

**Example of References List:**


※ 1 Magazines/Journals
※ 2 Books
   Author. (xxxx). Title of the Book (Place of publication: Publisher).
※ 3 Same author, same year
※4 Chapter in a book

Author. (xxxx). Chapter title. In Title of the Book, Editor, ed. (Place of publication: Publisher), pp. page number–page number.

※ If there are 10 or fewer co-authors, please include all the co-authors (see the example of a reference list indicated above). If there are more than 10 co-authors, please write only 10 authors followed by et al.

※ Please write the year after the author names (e.g., Yin, D., and Tuthill, D. (2000)).

※ Please write the name of the journal according to the form used in Pub Med. If word in the name of the journal is represented by an abbreviation, put a period after the abbreviated word (e.g., J. Exp. Med.). If a word in the name of the journal is not represented by an abbreviation, don’t put a period.

※ Write in the order of volume, first page–last page. Put a comma after the volume number. There is no need to include the issue number (e.g., 191, 1423–1428.)

※ There is no need to include information such as “doi～” or “PMID”.

※ If you cite anything from a website, please note its URL and the date of retrieval. If there is information regarding the citation, it is desirable to cite from the original.