

(TITLE OF THESIS)

(Capitals, Bold, and Inverted pyramid form)

[First-name Middle-name Last-name]

PhD THESIS

Year



SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND
TECHNOLOGY, TRIVANDRUM

An Institution of National Importance established by an Act of the Indian Parliament
(Act No.52 of 1980)

Dept. of Science and Technology, Govt. of India
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TITLE OF THESIS

(Capitals, bold, and inverted pyramid form)

A THESIS SUBMITTED BY

[Firstname Middlename Lastname]

TO

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND
TECHNOLOGY, TRIVANDRUM.

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE AWARD OF

DOCTOR OF PHILOSOPHY

YEAR

DECLARATION BY THE STUDENT

CERTIFICATE

I, hereby certify that I had personally carried out the work depicted in the thesis titled, “.....
.....”;

.....) (except*

No part of this thesis has been submitted for the award of any other degree or diploma prior to this date.

Signature

Name of the Candidate

Date

(* If external help was sought, declare and acknowledge)

CERTIFICATE BY THE RESEARCH GUIDE
(*in institute letterhead)

Name of the Guide:

Division/Department:

This is to certify that (name of the student).....
, department/division of of this
institute has fulfilled the requirements prescribed for the Ph.D. degree of the
Sree Chitra Tirunal Institute for Medical Sciences and Technology,
Trivandrum.

The thesis entitled, “.....
.....” was
carried out under my direct supervision. No part of the thesis was submitted
for the award of any degree or diploma prior to this date.

*Clearance was obtained from the Institutional Ethics Committee / Institutional
Animal Ethics / Institutional Committee for Stem Cell Research / Other
appropriate committees (if any, specify) for carrying out the study.

Signature
Name of the Guide

Date

*As and when applicable. If an external co-guide was present, a similar declaration should be
made, provided a substantial part of the thesis work was done under co-guide.

CERTIFICATE BY THE RESEARCH CO-GUIDE
(*in institute letterhead)

Name of the Guide:

Division/Department:

This is to certify that (name of the student).....
, department/division of of this
institute has fulfilled the requirements prescribed for the Ph.D. degree of the
Sree Chitra Tirunal Institute for Medical Sciences and Technology,
Trivandrum.

The ----- work under the thesis entitled,
“.....
.....” was
carried out under my direct supervision. No part of the thesis was submitted
for the award of any degree or diploma prior to this date.

*Clearance was obtained from the Institutional Ethics Committee / Institutional
Animal Ethics / Institutional Committee for Stem Cell Research / Other
appropriate committees (if any, specify) for carrying out the study.

Signature
Name of the Co-guide

Date

- Thesis generated from affiliated institutes shall use their letterhead. The letter should have line “ PhD program affiliated to the Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum)

APPROVAL OF THE THESIS

(in institute letterhead)

The thesis entitled

.....

Submitted by

.....

for the degree of

Doctor of Philosophy

of

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND
TECHNOLOGY, TRIVANDRUM

is evaluated and approved by

.....

(Name & Signature of the Guide)

.....

(Name & Signature of thesis
examiner)

ACKNOWLEDGEMENTS

(This section is for acknowledging all the individuals and organizations that were instrumental to your work. The candidate is free to modify this page as seen fit.

The acknowledgment of the thesis is written in gratitude to all those who were instrumental in bringing the thesis to fruition. The language used should be formal.

Acknowledge those who have assisted technically (including materials, supplies), intellectually (assistance, advice), and financially (funding agency, institutional support, travel grants).

It is mandatory to acknowledge the institute and the funding agency if any.)

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* Results and Discussion Sections could be combined, if needed.

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Table 1.1	Title of the Table	
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Table 2.1	Title of the Table	

LIST OF ABBREVIATIONS (Optional)

S No	Abbreviation	Full Form

If a large number of abbreviations are used in the thesis, which may be unfamiliar to a reader, a list of abbreviations may be useful

SYNOPSIS

(TITLE OF THESIS)

(Capitals, bold, and inverted pyramid form)

SYNOPSIS

BY

[Firstname Middlename Lastname]

for PhD Degree

of

**SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND
TECHNOLOGY, TRIVANDRUM**

(The typed pages may be stapled and submitted three months prior to the submission of the thesis. When synopsis forms part of the thesis, the cover page need not be included)

SYNOPSIS

In the thesis, the synopsis should be placed before the main text, and when it forms part of the thesis, it should carry the heading ‘SYNOPSIS.’

1 INTRODUCTION

1.1 General Introduction

The thesis should generally begin with a general introduction presenting an overview of the purpose and significance of the study. The introduction should show why the topic selected is worth investigating. This will generally be done with reference to existing research, demystifying areas that have not been explored, need to be explored further, or where new research findings justify a reconsideration of established knowledge.

1.2 Layout and format

This section has been added here to provide guidelines on layout and format to the students for thesis writing. One of the essential requisites in preparation of the thesis is the consistency of the design and adherence to the specific instructions given in the following subsections.

1.2.1 Font

The thesis should be written in English. It must be typewritten on A4 size paper (21 cm x 29.7 cm) in a clear and legible font (e.g., Times New Roman 12). As far as possible, use the same font for the entire thesis, but, if necessary, different fonts may be used within Tables, Figures, and Appendices. The thesis has to be printed single-sided. Double-spacing should be used in the Abstract and text of the Thesis. Single spacing should be used in long Tables, block quotations separated from the text,

footnotes, and bibliographical entries. Paragraphs should begin with one indent. indented, and there need not be an empty line between paragraphs.

A larger size type may be used for the Thesis title and Chapter headings, as long as it is no larger than 18 points. Boldface type may also be used on the title page and for headings, as well as in the text for special symbols or for emphasis. Reduced type may be used within Tables, figures, and Appendices, but it should be at least 9 points in size (partly because of microfilming requirements) and must be completely legible. The Thesis should be free from grammatical, lexical, and punctuation errors. In addition to the computer spellchecker, a thesis should be proofread to check that errors do not remain that are not detected by the spellchecker. The Thesis should consistently use either American or British spelling but should not alternate between the two. When using numbers in the text, all numbers upto ten, and if the first word of a sentence is a number, they should be written in words. Writers not fluent in English are encouraged to have their manuscript professionally edited before submission to improve the English.

1.2.2 Chapter and Page Layout

Begin each chapter on a new page. Do the same with each element of the front matter (list of Tables, Acknowledgments, etc.), the Reference section, and each Appendix. Avoid typing a heading near the bottom of a page unless there is room for at least two lines of text following the heading. The Chapters should begin on a new page, but sections and subsections should not. A "display" page (a page that shows only the Chapter title) can be placed at the beginning of Chapters or Appendices.

1.2.3 Page numbering

Pages should be numbered at the bottom right, using Arabic numerals (1, 2, 3) beginning with '1' on the first page of the Introduction and continuing consecutively to the end of the manuscript, including References. The preliminary pages are numbered in lower-case Roman numerals, beginning with the declaration page.

1.2.4 Header and Footer

SCTIMST, Trivandrum should be printed in the footer.

1.2.5 Margins

A margin of at least 4.0 cm must be left at the top and left side of each page and a margin of at least 2.5 cm on the right and bottom. The last letter or character in the longest line on the page determines the margin.

1.2.6 Appropriate use of headings and subheadings

Headings should be distinguished from the surrounding text by larger font size, a different font, bolding, italics, or a combination of these. All headings of the same level should use the same style, and headings at lower levels should be less prominent than those at higher levels. Examples:

CHAPTER TITLE: (Times New Roman 16 Point -Bold Uppercase)

Heading for the section: (Times New Roman 14 point - Bold Italic)

Heading for sub-section: (Times New Roman 12 point – Bold)

Heading for sub-sub-sections: (Times New Roman 12 point- Italic)

All headings should be left-aligned, except chapter headings, which may be centered. The headings and subheadings should preferably be numbered, as required.

1.3 Format of the Thesis

The manuscript consists of three main parts: Preliminaries, Text, and the Annexure. It is to be arranged in the following sequence:

1.3.1 Preliminaries

1.3.1.1 Cover Page

The outer cover should carry the following details: -

The full title of the thesis

The candidate's name

Ph.D. Thesis - Year

Institute Emblem

INSTITUTE NAME

Thiruvananthapuram

It should be printed preferably in navy blue color with white letters.

1.3.1.2 Title Page

The title page should provide the following information in the following order:

The full title of the thesis

The statement- "A thesis presented by"

Candidate's name,

'to'

Institute's name

The statement: "In partial fulfilment of the requirements for the award of Doctor of

Philosophy"

The year of submission

Type the title of the thesis using CAPITAL LETTERS throughout. If it occupies more than one line, double space between lines and arrange in inverted pyramid form. Express formulas, symbols, and abbreviations in words on the title page, even if the "shorthand" forms are conventionally and widely accepted.

1.3.1.3 Declaration~ by the student

The student should make this declaration.

1.3.1.4 Certificate by the Research Guide

The guide has to provide a certificate.* co-guide

1.3.1.5 Approval of the Thesis

To be signed by Guide and External examiner

1.3.1.6 Acknowledgements

The acknowledgement of the thesis is written in gratitude to all those who were instrumental in bringing the thesis to fruition. The language should be formal. Acknowledge those who have assisted technically (including material, supplies), intellectually (assistance, advice) and financially (for example, funding agency institutional support, travel grants)

1.3.1.7 Table of Contents

The thesis must have a table of contents page listing chapter headings, section headings and sub-headings as well as appendices and their corresponding page numbers.

1.3.1.8 List of figures, Tables, or Illustrations

A separate listing of Figures, Tables, or Illustrations should be included on a separate page immediately following the table of contents

1.3.1.9 List of Abbreviations (optional)

If a large number of abbreviations are used in the thesis, which may be unfamiliar to a reader, a list of abbreviations may be helpful.

1.3.1.10 Synopsis

The synopsis is a summary of the contents of the thesis. The synopsis is submitted prior to the submission of the thesis and will carry a cover page. It should be concise and comprehensive and should have the following details: The background and objectives, hypothesis, methods, significant findings and significance/implications of the findings.

It should be self-complete and contain no citations for which the thesis has to be referred. The synopsis should not include internal headings, diagrams or other illustrations, and the length of the synopsis should not exceed six pages.

1.3.1.11 Back Cover Page

Back COVER page

Institute emblem (from the lower 1/3rd of the back cover)

Address with website

1.3.2 Text

1.3.2.1 Introduction

1.3.2.2 Literature Review

1.3.2.3 Materials and Methods

1.3.2.4 Results

1.3.2.5 Discussion

1.3.2.6 Summary and Conclusion

1.3.2.7 Bibliography

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1.3.3.1 List of publications from Thesis

1.3.3.2 Curriculum Vitae

1.3.3.3 Appendices

1.3.3.3.1 APPENDIX A – Approvals and Permissions (TAC, IEC, etc.)

1.3.3.3.2 APPENDIX B – SUPPLEMENTARY TABLES

1.3.3.3.3 APPENDIX C - PUBLICATIONS

1.3.3.3.4 APPENDIX D – Plagiarism Check Report

1.3.3.3.5 APPENDIX E – Others

1.3.4 Aims and objectives

After precisely defining the research problem, the introduction should propose a solution to this problem. This response should make explicit the objective of the research, not simply state an intention to explore or discuss. The study should be based on a well-defined hypothesis, which should be clearly stated. How the research makes an original contribution to the theoretical body of knowledge and also the study's practical significance should be mentioned.

1.4 Scope of the study

It is especially critical that the introduction is well written. Without a clearly defined purpose and strong theoretical grounding, the Thesis or dissertation is fundamentally flawed from the outset.

1.5 Structure of the Thesis

The final section of the Introduction should provide a brief overview of each of the main chapters that the reader will encounter

2 LITERATURE REVIEW

It is called the Literature Review because the contents of this chapter are based on published material. The purpose of the literature review is to summarize, evaluate and compare the main developments and current debates in the field, which are specifically relevant to the subject of research embodied in the thesis. The literature review should also aim at and ways to address these issues with the current research program.

A critical review of the available solutions to the problem that was addressed and identifying the knowledge gaps in the current literature would establish benchmarks against which the study's contributions can be assessed. Therefore, the most recent information relating to the field of research has to be presented.

3 MATERIALS AND METHODS

The following information is meant to serve as a general suggestion and not as a rigid prescription. The supervisor and the student may decide how this part of the dissertation should be structured.

Although this section varies depending on the method and analysis technique chosen, the chapter describes and justifies the methods chosen for the study and why this method was the most appropriate. Following the description of the research design, provide a detailed description of the procedure followed.

Citations in this section should be limited to data sources and references of where to find more complete descriptions of the procedure. Description of the statistical analysis and tests performed are also to be given

4 RESULTS

The results are actual statements of observations, including statistics, tables and graphs. Mention negative results as well as positive. Use S.I. units throughout the thesis. Break up results into logical segments by using subheadings. Key results should be stated in clear sentences. Do not repeat in the text all the values given in tables. Do not present the same data as graph as well as a table. Use one of the appropriate styles of presentation.

4.1 Captions and numbering: Tables and Figures

Each table should carry a number and a title clearly describing the data presented. Similarly, each figure/ illustration should carry a number and caption that clearly describes the nature of the data presented. The caption should be at the top of a table and the bottom of a figure. The numbering should be logical and opted consistently throughout the thesis. They can be numbered consecutively throughout the thesis in roman numerals or can be based on chapter and section numbering, in the order in which they are placed in the text. The Figures, Graphs, Tables should be embedded in the text of the thesis, immediately after the first mention of it in the text, on the same page if there is room, or on the following page.

Captions and titles of Figures and Tables should be centralized appear on the same page as the material itself. All Tables and Figures must be referred to in the text by numbers and not by a phrase such as "the following table".

Tables or Figures of peripheral importance to the text may be placed in an Appendix. As illustrations, a common table, a table spanning across multiple pages, a horizontal table, and a figure are provided as Table 1, Table 2, Table3, and Fig.1, respectively.

Table 1. The number and title should be presented above each table: bold.

Numeric Variable	Text Variable	Remarks
(Bold headings of the table)		
123.09	In contrast to right-aligned numeric variables, the text should be aligned to the left for clarity	Avoid repetitive symbols—E.g., %.
4567.12	Use consistent decimal points	The borderlines should be restricted to the main header and sub-headers only.

Table 2. Large tables spanning across multiple pages.

Numeric Variable	Text Variable	Remarks
(Bold headings of the table)		
123.09	In contrast to right-aligned numeric variables, the text should be aligned to the left for clarity	Avoid repetitive symbols—E.g., %.

Numeric Variable	Text Variable	Remarks (The headers should be repeated)
4567.12	Use consistent decimal points	The borderlines should be restricted to the main header and sub-headers only.

Table 3. Horizontal tables.

Remarks		The headers should be aligned to the left side of the page.
Variable y		
Variable x		



Fig.1. The number and title of the figure/ illustration should be placed below.



(a) Caption for subfigure A



(b) Caption for subfigure B

Fig. 2. The subfigures should be arranged in a borderless table (center-aligned) with captions directly beneath the figures.

5 DISCUSSION

The purpose of this chapter is not just to reiterate the findings but to discuss the observations in relation to the theoretical body of knowledge on the topic. This chapter should also address the implication of the findings. Interpret results in terms of the background laid out in the introduction. Include the evidence or a line of reasoning supporting each interpretation. Break up the section into logical segments by using subheads. Outline the limitations of the study, and propose areas for future research.

6 SUMMARY AND CONCLUSIONS

Start with a few sentences that summarize the most important results and conclude by giving the strongest and most important statement that highlights the outcome of the study. The conclusion should provide answers or solutions to the questions or problems raised in the introduction. The argumentation of the thesis should be summarized briefly, and if appropriate, elaborate on how the research findings and results will contribute to the field in general and what sort of broader implications these may have. Suggestions may be made for further research where appropriate, but this is not a requirement

7 REFERENCES

All publications cited in the thesis should be presented in a list of references following the text. Students are advised to restrict the total number of references to 200. The student is responsible for the accuracy of the references. References should follow the SAGE - Harvard style. The SAGE - Harvard style is available with all major bibliographic software like Zotero, Endnote, Mendeley, Reference Manager, BibTeX, RefWorks, etc.

For the preparation of the referencing manually, use the attached guidelines on SAGE – Harvard style Referencing Guide. (Sage Publishing, 2021)

Special Clause

The DAC may recommend deviation from the above-said template for individual PhD theses, if deemed necessary, to the academic division in writing well in advance before the candidate submits his/her synopsis.

Scholars are free to use one or two spaces after every period, question mark and exclamation point, but it must be consistent throughout the thesis. (Johnson et al., 2018)

The final hardbound submission to the academic division should be single-spaced with double side printing and textbook size., specifications

Font size Times New Roman

ANNEXURES

List of publications from Thesis

Curriculum Vitae

Appendices

APPENDIX A – ETHICS COMMITTEE APPROVAL

APPENDIX B – SUPPLEMENTARY TABLES

APPENDIX C - PUBLICATIONS

APPENDIX D – PLAGIARISM CHECK REPORT

References

Johnson RL, Bui B and Schmitt LL (2018) Are two spaces better than one? The effect of spacing following periods and commas during reading. *Attention, Perception & Psychophysics* 80(6): 1504–1511. DOI: 10.3758/s13414-018-1527-6.

Sage Publishing (2021) Sage Harvard Style. Available at: https://uk.sagepub.com/sites/default/files/sage_harvard_reference_style_0.pdf (accessed 20 June 2021).