Icahn School of Medicine at Mount Sinai

Medical Student Research Office

How to Prepare a Research Proposal

Research proposals are frequently written in order to obtain either a job or funding for a project. As a student, you might need to write a research proposal if you want to apply for a Scholarly Year or a grant. That means you are in a situation in which you have to convince the reader that what you want to do is important.

The proposal must be well organized, clearly written, and formulated to make a story. Put yourself in the position of the reviewer. It is to your advantage to make your proposal succinct, clear, and focused. Your advisor, Dr. Zier or Dr. Wyatt can help you with any questions you have. Work with your mentor and have him/her read your drafts. You'll learn a lot from the feedback you get.

You have to tell the reader what is it you want to do, why it is important, and specifically how you are going to accomplish your aims. Most proposals will have a 5-10 page length, depending upon the situation. No matter what the length, make it interesting.

Formatting Instructions

Font: Use an Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. (A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.)

Page Margins: Use standard paper size (8 ½" x 11). Use one inch margins (top, bottom, left, and right) for all pages.

Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes: You may use a smaller type size but it must be in a black font color, readily legible, and follow the font typeface requirement. Color can be used in figures; however, all text must be in a black font color, clear and legible.

The Structure of the Proposal

Cover Page - Include your name, the title of the project, your mentor's name, the institution and department where the project will be carried out. The title should let the reader clearly know what the study concerns.

Abstract - A brief summary, 250 words, of the goals of the project, it's significance, the methods you will use, and a concluding statement about future implications if you are successful.

The following four sections comprise the Research Plan. For ISMMS programs, the research plan should not exceed 10 pages. However, please consult specific program guidelines to confirm the required length. The indicated number of pages for each section is suggested for a 10 page proposal.

Specific Aims: Describe the hypothesis(es) you are testing or the question you are asking. What are your research objectives? Be concise, clear and logical. Your aims be developed to test your hypothesis (or to answer the question you posed).

Background/Significance: What is known in the literature about the problem and which published studies have led you to formulate your hypotheses or develop the question you are asking? Provide a critical review (evaluate, rather than just citing) of the most pertinent work which led to the idea for your study, suggested the hypothesis you are testing (question you are asking), and made your approach feasible, etc. How does this project relate to other problems or areas of medicine? This is an opportunity to explain why your work is important.

Preliminary Studies: Describe what has already been accomplished, by you (or by your colleagues if you are just beginning the project), in order to make the study feasible. Where appropriate, provide data, even if preliminary. If the preliminary studies were not done by you, make this clear. Explain how these results led to your current plans. Mention if you have obtained IRB or IACUC approval and, if this is a clinical study involving human participation, the process for obtaining informed consent of subjects.

Research Design and Method: Describe the methods you will use and why you have chosen them. What will they show? How will you analyze the results? What kinds of problems could be expected? Are the methods adequate to test your hypothesis(es)?

Timetable: Provide an approximate timetable for accomplishing your aims. This is an excellent way to determine whether your research plan is feasible.

References: Reference all literature cited in the proposal. Unless the program's instructions say otherwise, use any format you find in the literature.