Guidelines for PhD Research Proposal
Department of Microbiology and Immunology

Students should prepare an NSERC type research proposal (no budget required) that summarizes their proposed PhD research. This is a good opportunity for students to start to develop their grant writing skills, so supervisors should take an active role in the process, providing the student with feedback on both the content and organization of the proposal. The proposal should, however, be the student’s work so extensive editing by the supervisor is not appropriate.

The following guidelines for preparing the proposal have been modified from the NSERC website.

How to Prepare a Winning Proposal

No amount of care and effort in preparing a grant proposal will compensate for a weak research program. However, a poorly prepared proposal can prevent a strong research program from being supported. The following items are important in preparing a Discovery Grant application for NSERC.

General Presentation

Using headings similar to those below, describe the research to be supported.

- Overview - a brief overview of the project in the context of the field and why it is significant
- Background - relevant literature pertinent to the proposal
- Recent progress - recent results to provide a rationale for the proposal
- Objectives - state major hypotheses to be tested and/or short and long term objectives
- Research plan - methods and proposed approaches, possibly sub-grouped under specific hypotheses or questions to be addressed
- Significance and timelines – priorities and anticipated significance of the work

Format

- Print must be in black ink and of letter quality.
- Use 1.5 line spacing with no more than six lines per inch.
- A maximum of 8 pages (references and figures on additional pages).
- References should be numbered in the text, and complete references (i.e. authors, date, title, journal and page numbers) cited in a separate section
- The accepted font is Times New Roman regular 12 pts (condensed fonts are not acceptable).
- Use white paper, 8 1/2 x 11 inches (21.5 cm x 28 cm), portrait format, with a single column, unless specified otherwise.
- Set margins at 3/4 of an inch (1.9 cm) (minimum) all around.
- Print on one side of the page only and include page numbers

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Note: All text, including references, must conform to these standards. Incomplete applications and/or applications that do not meet the presentation standards may be rejected or be at a disadvantage in comparison with those that are complete and respect the presentation standards. Avoid using acronyms and abbreviations or explain them fully.

The research proposal

Remember that the intent of the NSERC Discovery Grants program is to fund a research program (with long-term goals) rather than a single short-term project or a collection of projects. Thus, a good research proposal will:

- place the research within the context of what is currently happening in the field;
- summarize relevant prior work in the field;
- articulate the goals;
- describe a research plan and methodology;
- indicate why the research is useful or important; and
- provide a progress report on work accomplished with previous funding.

A major portion of the proposal should be devoted to a careful description of the research objectives and of the methodology that will be used. For the research plan, you should at least know how you are going to start out and have some ideas for future options. Applications are judged according to the following criteria.

- your research program promises a notable advancement or innovation in the discipline or results of importance to a broad range of applications;
- you have identified well-formulated short- and long-term goals;
- attaining these goals would be a significant contribution to the discipline;
- you have a good chance of attaining the goals with the resources available.

Describing your ideas

Your proposal will be evaluated by experienced, but non-expert, researchers. It is up to you to provide the information necessary for a positive decision. Acknowledge difficulties honestly. If there are potential problems, say so. It is reasonable to assume that you have thought through your proposal more thoroughly than the reviewers have; consequently, if they see problems that you do not seem to have noticed then they may view your proposal negatively.

In writing a research proposal, you have to address two audiences: 1) the internal and external reviewers, who are likely to be knowledgeable in your field of interest, and 2) the remainder of the committee, who are in your discipline but may have limited knowledge of the area in which you are working. Your proposal must have something for both audiences; there should be enough depth and detail to satisfy the expert, but you must also convince the non-expert of the importance and impact of your proposed research.

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NOTE: Transfer from MSc to PhD after the first full year will alter students’ fee status from thesis-only to full fee. This amount will be deducted from the stipend you receive. You will only be eligible for an FGS scholarship starting the following September. Further explanation can be obtained from the Graduate Coordinator or Secretary.