

Qualifying Exam, Part II Form



A Qualifying Exam, Part II form should be submitted by a graduate student once he/she has completed the oral exam, presented the research proposal, and submitted the written proposal to the Thesis Committee.

Instructions:

1. Please type or print clearly into each field.
2. Complete Part I and II. An incomplete form will not be accepted.
3. Read and understand the PhD Immunology Program Qualifying Examination Process.
4. Obtain appropriate signatures and submit a copy of the completed form to Lina Hansen (lhansen@stanford.edu). Keep the hard copy for your records.

Part I: Student Information

Last Name	First Name	Middle Name	Stanford ID#
Phone #	E-mail		
Faculty Advisor			

Part II: Approval Signature

Committee Meeting Chair (print name)

The Thesis Committee below have read the proposal, heard the student's presentation, and given it a letter grade (a "C" is failing). At least two members must have read the proposal.

The Faculty Advisor must include a paragraph, separately, evaluating the student's written research proposal.

Committee Member Name	Signature	Grade	Date
Committee Member Name	Signature	Grade	Date
Committee Member Name	Signature	Grade	Date
Committee Member Name	Signature	Grade	Date

For Office Use Only:		02/2020
Received By: _____	Date: _____	

**PhD Immunology Program
Qualifying Examination Process – Part II
General Oral Examination and
Dissertation Thesis Proposal**

The Qualifying Examination Process for the PhD Program in Immunology occurs in two steps: 1) the Rotation Presentations (Part I) in which the first year graduate student presents the results of one lab rotation before the Immunology Graduate Program Committee in late June, and; 2) The General Oral and Dissertation Thesis Proposal (Part II), due by December 17th of the second year; Part II of the Qualifying Examination Process includes an oral exam and presentation of the dissertation research proposal before the student's Thesis Committee.

The members of the Thesis Committee and its Chair are chosen by the student and the Faculty Advisor. At least two of the thesis committee must be members of the Immunology program faculty; this may include the Faculty Advisor. The Faculty Advisor is not present for the Dissertation Thesis Proposal (Qualifying Examination, Part II). The deadline for completing Part II of the Qualifying Examination Process is before the end of Fall Quarter in the second year.

Part II of the Qualifying Examination Process: Students should be prepared to answer questions that test their general Immunology knowledge, however the major focus of the exam will be on the student's Dissertation Thesis Proposal. Students should prepare a presentation of 45-50 minutes on the proposed research focusing on the background and context of the research question to be addressed, experimental design, data interpretation and potential problems. Preliminary data should be included. Faculty will question the student about the general area of proposed research and the research plan including interpretation, methods, and background questions relevant to the proposal. Questions outside the research proposal may also be asked by the Thesis Committee. After discussing the presentation with the student, the Committee will then meet briefly in a closed session, without the student present. The Thesis Committee will assign a grade for the General Oral Examination and Dissertation Thesis Proposal (Qualifying Examination Process, Part II) and the Chair of the Committee will provide a written report. The student will be informed of the results. Upon successful completion of the examination, the student may apply for PhD candidacy.

For the written proposal, the student will follow the instructions for an NIH research grant in terms of format. The written proposal should be 18 pages double-spaced, instead of the standard 13 page single-spaced NIH (RO1, PHS form 398) proposal. All tables, graphs, figures, diagrams, and charts must be included in the 18 page limit. **Failure to follow the NIH format, including exceeding font size (Arial font, 11 pitch), 0.5" margins, or page limits may result in the Committee's decision to have the student rewrite the thesis before giving a passing grade.** It is strongly recommended that the student work closely with the Committee, particularly the Faculty Advisor, in preparing a hypothesis-driven thesis proposal. Students should review successful NIH grants prepared by Faculty members.

These are available through the Immunology Program Administrator. Please see specific formatting instructions for the written version of the orals below:

- *Specific Aims.* List the broad, long-term objectives and what the specific research proposed is intended to accomplish. What is the problem you are trying to solve? Why is it important? Include the hypothesis. The hypothesis answers the questions: what is it that you intend to do? And why is the work important? The single, biggest mistake made in grant applications and thesis proposals is failure to succinctly state a testable hypothesis. PHS 398, Part I. Section 5.5.2: "State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved. List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology."

- *Research Strategy.* The Research Strategy is composed of three distinct sections: Significance, Innovation, and Approach. Note that the Approach section also includes preliminary studies. What is the current scientific background of the thesis project? The existing body of knowledge in the relevant areas of the thesis project should be critically evaluated. What gaps are there in this body of knowledge? Where does your thesis project fall? State concisely the importance of the research described by relating the specific aims to the broad long-term objectives. The Research Strategy should be organized in the specified order with appropriate headings: Significance, Innovation, and Approach. The following is excerpted from PHS 398, Section 5.5.3:

a. Significance

- Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

b. Innovation

- Explain how the application challenges and seeks to shift current research or clinical practice paradigms.
- Describe any novel theoretical concepts, approaches or methodologies, instrumentation or intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention(s).
- Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation or interventions.

c. Approach

- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Unless addressed separately in the Resource Sharing Plan, include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspects of the proposed work.
- *Human Subjects.* Provide sufficient information for any human subjects studies.
- *Vertebrate Animals.* Provide sufficient information for any animal subject studies.
- *Literature Cited.* Literature citations should be listed at the end of the proposal. Each literature citation must include the title, names of all authors, book or journal, volume number, page numbers, and year of publication.

If the qualifying exam proposal has multiple Specific Aims, then the student may address Significance, Innovation and Approach for each Specific Aim individually, or may address Significance, Innovation and Approach for all of the Specific Aims collectively.

The student should include any preliminary studies that will help establish the appropriateness and feasibility of the thesis project. The student is expected to make use of the faculty advisor's preliminary results if he/she has not already obtained a significant amount of preliminary results.

In light of the early deadline for the General Orals and Qualifying Examination, Dec 17th, a student's thesis project may change several months after the dissertation proposal is defended. If such a change occurs, the student should inform his/her Thesis Committee by submitting a short, three-page written report describing the necessary changes. If no changes are necessary, then the student should proceed in a normal fashion, e.g., scheduling the thesis committee meeting a year later.

After Part II of the Qualifying Examination Process is completed, the designated Chair of the Thesis Committee and the Faculty Advisor will both provide a written evaluation (paragraph) and grade the dissertation proposal. The Qualifying Exam, Part II Form should be signed by all of the committee members. The evaluation will describe the strengths and weakness of the proposal. If needed, the Thesis Committee may request that the student meet with them again in six months to update them on the progress of the research project. The Thesis Committee will then assign a letter grade. A student receiving a grade lower than B, may be asked to rewrite the dissertation proposal. If the Thesis Committee does not give a passing grade to the student's rewritten version, then the Graduate Program Committee will meet to consider whether extenuating circumstances warrant permitting the student to be examined a second time. The second opportunity to take the Qualifying Exam should occur before the student's third year begins. If the Graduate Program Committee permits a second examination and the student still fails, he or she will be dismissed from the Program. The dismissal shall be made in writing.

After successful completion of the Qualifying Examination, the student may apply for admission to Ph.D. candidacy (<https://stanford.app.box.com/v/appcanddoct>). Admission to Ph.D. candidacy means that the student has completed the Qualifying Examination Process (Parts I and II) and most of the course requirements of the Immunology Program and is now ready to begin thesis research leading to a dissertation and University oral exam. The Application for Candidacy for Doctoral Degree form must be filled out and submitted to the Program Administrator at the end of the winter quarter of the second year. Timely submission of the Application for Candidacy for Doctoral Degree is an important graduate milestone and is required for certifying satisfactory degree progress for many fellowships, in particular the NSF and the SGF. The schedule will be adjusted to fit the needs of MOM, MSTP and MD/PhD students, or students who transfer from another program.

A second important graduate form and milestone is the Dissertation Reading Committee Form, which is due before the end of the second year (<https://stanford.app.box.com/v/docdiss-reading-committee-form>). The student may wish to retain the members of his or her Thesis Committee; or if the project should change direction or if a different expertise is needed, the student may wish to consider changing the faculty membership for the Dissertation Reading Committee. The faculty members of the Dissertation Reading Committee are committed to guiding the student through the dissertation research project and will sign off on the final dissertation.