

University of Connecticut Health
Immunology Graduate Program
Polices and Procedures Manual



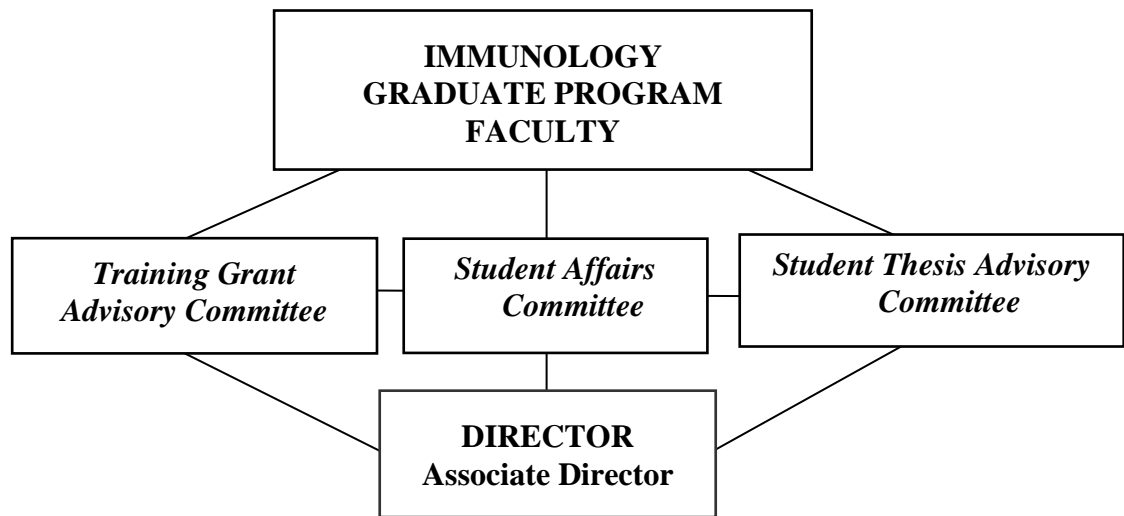
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I. MISSION STATEMENT

The focus of the Immunology Graduate Program (hereafter referred to as IGP) is to educate and train students to become independent investigators and educators who will contribute to expanding knowledge in the areas of basic and/or applied immunology. This goal will be achieved by coursework, research seminars, laboratory experience, presentations, and review of the immunology literature. The program will develop the student's ability to conceive and solve experimental problems, critically evaluate data and communicate information. Graduates of the IGP at the University of Connecticut Health Center should become productive members of a community of scientists and educators that increase our understanding and application of the basic principles of immunity to the treatment and prevention of disease.

II. ADMINISTRATIVE STRUCTURE OF THE IGP

The graduate program is organized into three administrative levels:



Administrative Structure of the IGP

The program has an administrative **Student Affairs Committee (SAC)**, consisting of 4 faculty members and a student representative. Their role is to create curriculum policies, and/or changes, to facilitate communication between students and faculty, and to act as an Advisory Committee to the IGP faculty and Program Directors in cases of student misconduct. The Chair of the SAC represents the IGP in the Curriculum Committee of the Health Center Graduate Programs Committee (GPC).

The **Immunology Training Grant Advisory Committee (ITGAC)** is comprised of three IGP faculty members: the Director of the Training Grant and 2 additional members appointed by the Training Grant Director. The principal investigator of the Training Grant assumes automatically the directorship of the ITGAC. In the event that the principal investigator is unable or unwilling to serve as the director, the director of ITGAC shall be elected by a

majority vote via written ballot (via email) from the IGP faculty. The ITGAC primarily functions in the appointment of trainees to the Training Grant, in the establishment of policy concerning the Training Grant, and in providing advice to the IGP and the Director(s) of the IGP regarding renewal of the Grant.

In addition, **Student Thesis Advisory Committees** (thesis, temporary for first-year students) report progress to the Student Affairs Committee and/or the Directors, and once yearly to the entire IGP faculty so that the progress of each student is evaluated by the entire faculty.

IIA. IGP Director

The Director of the IGP serves as the coordinator of the administrative and the educational activities of the IGP, and as the representative of the IGP on the University of Connecticut Health Center Graduate Program Committee (GPC), an entity that considers and makes policies concerning all graduate students at the Health Center. The Director is assisted by an Associate Director, who has the capacity to assume the role of Director in case of inability of the Director to perform her/his function. The Director(s) of the IGP shall serve for a period of three years. At the conclusion of the term, the Associate Director becomes the Director. At this time a new Associate Director is elected by a majority vote of the IGP faculty.

IIB. Committees

IIB1. Immunology Training Grant Advisory Committee (ITGAC)

The Director of the Immunology Training Grant appoints two additional members of the IGP faculty to serve for the project period of the Training Grant. The IGP director serves as an *ex officio* member of the ITGAC. The ITGAC advises the Director of the Training Grant on Appointment of Trainees and Training Grant policy.

IIB2. Student Affairs Committee (SAC)

The SAC acts as a review and steering committee establishing the curriculum of the Immunology Graduate Program (IGP), and student-related affairs as outlined below. One of the members of the SAC shall be the Chair, who shall be nominated by the Director(s) of the IGP and be approved unanimously by the SAC. The SAC operates in an advisory role to the IGP faculty and the Directors of IGP. Any proposed changes in the teaching curriculum or governance of the IGP must be ratified by the IGP by a majority vote.

IIB2.1 Composition

The SAC consists of four elected (or appointed) IGP faculty members, and a student representative. The student representative is appointed by the IGP Director.

A term of service for each committee member will be three years. One member will rotate in the SAC each year, and be replaced by a new member appointed by the IGP Director.

IIB2.2 Curriculum

The SAC will provide a preliminary review and/or propose: (1) curriculum changes to the IGP faculty, and (2) course proposals. The SAC will perform periodic reviews of offered courses and provide recommendations (based on the course review) to the IGP faculty.

IIB2.3 Students

To improve communication between students and IGP faculty, the SAC will act as a liaison between the faculty and students. In all the categories described above, the SAC can recommend items for IGP faculty approval.

III. FACULTY

The Immunology Graduate Program faculty participates in the Program in one or more of the following ways: (i) provides a laboratory for research work in the graduate thesis and/or laboratory rotation, (ii) teaches didactic coursework, (iii) provides guidance, assistance and/or advice in student seminars and advisory committees; (iv) participates in recruitment of new students; and (v) attends IGP faculty meetings. The IGP adheres to the guidelines and regulations of the University of Connecticut Graduate School. The Graduate School recertifies the graduate faculty every three years.

Procedures and Guidelines for Admitting New Members into the Faculty of Immunology Graduate Program

IIIA. Administrative Procedures

IIIA1 The nominee must be a Graduate Faculty, and also hold the rank of Assistant Professor or higher.

IIIA2 Graduate Faculty holding a primary appointment in the Department of Immunology will automatically be granted admission to the IGP.

For Graduate Faculty who do not have a primary appointment in the Department of Immunology:

IIIA3 The nominee shall be proposed by a member of the IGP.

IIIA4 The Program Director shall provide the members with the nominee's CV, bibliography, status of research grant support, and teaching experience.

IIIA5 The nominee is required to present a research seminar to the IGP faculty and students.

IIIA6 To be admitted as a Faculty member to the Program, the nominee must be approved by 2/3 of the entire faculty of the Immunology Graduate Program. The voting will be by secret ballot at a meeting of the IGP, via e-mail, or by mail if the candidate has been discussed at an IGP meeting.

IIIB. Guidelines

IIIB1 The major requirements for a faculty member to enter the program is that he or she provide a graduate student the best possible introduction to research and guide the student to the successful completion of a meaningful and significant thesis. In order to meet these requirements, an individual must have maturity, originality and independence as a scientist. To provide a long-term, suitable environment for a student to complete his or her thesis work, a major advisor should have a high caliber ongoing research program, and have reasonable assurance of being able to financially support a graduate student.

IIIB2 In addition to the above, it is highly desirable that the nominee has done or is prepared to do a significant degree of teaching in one or more of the immunology graduate courses and/or medical/dental curriculum.

Some of the objective criteria to which weight shall be given in judging whether a nominee meets the above-mentioned requirements are: (1) possess a sufficient number of publications in peer-reviewed journals in which the individual is senior author; (2) have research funding of his or her own (i.e., one in which the nominee is Principal Investigator or Program Director of a consortial grant). Research funding may be extramural or intramural.

IV. RECRUITMENT OF STUDENTS

The Immunology Graduate Program participates in the coordinated recruitment procedures of the UCHC Graduate Programs Committee. Applications are reviewed by the Admissions Committee. The Program Director can recommend members of the IGP to the Dean of the Graduate School or the Chair of the GPC for participation on the Graduate School Admissions committee. Participation in Graduate School recruitment weekends is highly encouraged for IGP members seeking graduate students.

V. CURRICULUM

VA. General Guidelines and Honor Code

The IGP follows the requirements and guidelines of the Graduate School of the University of Connecticut. The curriculum below serves as a guideline that may be modified for each student. Overall, course requirements are set by the student’s Advisory Committee. The course work presented for the Ph.D. degree, including the required research credits, should generally equate to 44-48 credits beyond the baccalaureate or its equivalent and 24 credits for students with prior M.S. degree.

First Year Course

- MEDS 6448 Foundations of Biomedical Science 2 semesters – 4 credits each
- MEDS 5329 Immunobiology I 1 8-wk. session – 2 credits
- MEDS 5330 Immunobiology II 1 8-wk. session – 2 credits
- MEDS 6497 Journal Club 2 semesters – 2 credits

- MEDS 6496 Laboratory Rotation 2 semesters – 2 credits
- MEDS 5380 Cell Biology 1 semester – 4 credits
- MEDS 5469 Advanced Genetics & Mol. Biol. 1 semester – 3 credits
- MEDS 5310 Responsible Conduct in Research 1 semester – 1 credits

Second Year Course

- MEDS 5335 Advanced Immunology 1 semester – 4 credits
- MEDS 6447 Presentation of Scientific data 1 semester – 1 credits
- MEDS 6444 Mol. Micro. and Pathogenesis 1 semester – 3 credits
- MEDS 6497 Journal Club 2 semesters – 2 credits
- MEDS 6496 Laboratory Rotation 1 semester – 1 credit
- GRAD 6950 Doctoral Research 1 semester – 6 credit

Third Year Course

- GRAD 6950 Doctoral Research 2 semesters – 12 credits
- MEDS 497 Journal Club 0-2 credits

Fourth and Fifth Year Course

- GRAD 6950 Doctoral Research 2 semesters – 12 credits
- Write Thesis As arranged
- Defend Thesis As arranged
- MEDS 6497 Journal Club 0-2 credits

Honor Code:

Academic Misconduct such as cheating, plagiarism, or the aiding or abetting of another individual in such acts will not be tolerated. The consequence of committing such actions will result in the failure in the course. Failure in a course necessitates recommendation by the advisory committee as to whether or not the student shall be permitted to continue graduate study.

VB. Typical Graduate Student Time Table

First Year	Second Year	Third Year	Fourth through Sixth Year
20-credits course work 3 laboratory rotations Plan of study due after completion of rotations	Choice of major advisor 20-credits course work General examination	General examination deadline (Submit written proposal by October 1; Pass of the exam: Dec. 31) Thesis work Dissertation Proposal due following the pass of general examination	Thesis work Thesis written Oral examination

First Year

Laboratory rotations (3, 1st semester, 2nd semester, summer)
Approximately 20 credit hours of coursework taken
Review of Student

Second Year

Choice of major advisor and committee
Plan of Study devised and approved and copy to IGP administrators
Approximately 20 credit hours of coursework taken
Research-in-Progress Seminars
Review of student

Third Year

The General Examination must be passed by December 31
Dissertation Proposal submitted within one month after passing the General Examination
(and approved) and copy to IGP administrators
Thesis work
Research-in-Progress Seminars
Review of student

Fourth and Fifth Year

Research-in-Progress Seminars
Review of student
Thesis work finished
Thesis written
Thesis read and approved
Oral Examination

VC. Thesis Advisory Committee

In accord with the Graduate School requirements, the student's Advisory Committee consists of at least three members, all of who must be graduate faculty. One member must be the student's major advisor, and at least one other member must also be an IGP faculty member. In addition, an extramural faculty is generally an ad hoc member of the committee and will, at a minimum, serve as a reader of the student's thesis (refer to Section VF3). The extramural faculty can assume a larger advisory role if deemed appropriate by the advisory committee. The Student's Advisory Committee provides advice regarding research directions and coursework, and is responsible for reviewing the progress of the student on at least a yearly basis.

VD. Research-in-Progress (RIP) Seminar

Once a year, a student will present a seminar describing his/her thesis research. The student's advisory committee must attend the seminar and meet with the student immediately afterward to review progress and provide constructive feedback for setting future research goals.

VE. General (Ph.D. Qualifying) Examination Procedures

The examination to be admitted to candidacy for the Ph.D. degree (General or Qualifying Examination) in Biomedical Science administered by the Immunology Graduate Program is the preparation of a grant proposal based on the student's thesis research. Students are ineligible to take the qualifying examination before the plan of study has been fully approved or if they are not in good academic standing (grade point average below 3.0). The following procedures are used to administer the examination.

VE1. Examination Committee

The Graduate School requires five (5) graduate faculty members to serve on the examination committee. The student's Thesis Advisory Committee will constitute three of the five members. All five committee members will read the written proposal and participate in the oral examination. The three Advisory Committee members will be responsible for voting to pass or fail, although their votes should take into consideration the opinions of the other Examination Committee members. An outcome of "pass" requires a unanimous vote by the Advisory Committee. To assure fairness and consistency, the IGP Program Director will serve as the chairperson and act as a moderator for both the written and oral components of the examination. The Program Director will not vote to pass or fail unless he/she happens to be a member of the Advisory Committee. When the Program Director's student is sitting for their qualifying examination, the Associate Director will perform this role.

VE2. Written Proposal

The written proposal generally follows the NIH R01 format. In addition to a Specific Aims page, the Research Strategy will be 6 pages single-spaced or 12 pages double-spaced using a 12-point font and 1 inch margins. The Research Strategy should consist of sections for Significance (approximately 1 page), Preliminary Data (1 page) and Experimental Designs that should correspond to approximately three years worth of work (4 pages). The Significance should provide background to the research topic as well as explain why the questions being addressed are important to the field. The Preliminary Data can include one figure from the student's lab (that was generated by another individual), the remainder of the data must be generated by the student. The Experimental Designs will contain either 2 or 3 Specific Aims. These designs should not include detailed descriptions of standard procedures, but students should clearly articulate hypotheses, experimental strategies, potential results and interpretations. It is also important that sections for potential pitfalls and alternative approaches be included. While it is expected that the major advisor and student will have had extensive discussions regarding the student's thesis project prior to the student beginning the general examination, the major advisor should not directly assist the student in preparing the written proposal. The deadline for submission of the written proposal is October 1st of the student's third year, and once submitted the committee will have two weeks to read and evaluate the document. The criteria for a satisfactory written proposal are based on the overall quality and feasibility (as defined for the Approach on page I-85 of the F32 instructions). Particular attention will be paid to the overall strategy, methodologies, and analyses to be used to accomplish the specific aims. It should be clear how the data will be collected, analyzed, and interpreted. Also, potential problems, alternative strategies, and benchmarks for success should be explained. The committee may

request revision of the written proposal if substantial deficiencies are found, and only one revision will be allowed.

VE3. Oral Defense

The oral defense will be scheduled to occur within two weeks of the approval date of the written proposal. The student is responsible for scheduling the exam, including finding a room and a time for their exam. It is suggested that this be coordinated well in advance. If necessary, the IGP administrators can assist with finding a room for the examination. The oral defense will begin with the student making a short presentation (5 slide maximum) that focuses on the stated hypotheses, and the experimental design as related to completing the specific aims without repeating background information already documented in the proposal. This will be followed by a question and answer period. Questions will address specific topics related to the proposal, as well as test the student's general knowledge of immunology and other relevant scientific areas. The Major Advisor will be present but silent during the oral examination. Following the question and answer period, the Examination Committee will meet *in private* to discuss and then vote (refer to Section VE1) to determine whether the student passes, fails, or be asked to revise some component of their examination. If revision is deemed appropriate, the committee will decide what form these revisions should take (e.g., re-writing the proposal, a second oral examination, etc). Two weeks will be allowed for revisions, and the committee will only consider one revision.

VE4. Implication of Failing the General Examination

Failure of the exam constitutes dismissal from the program with the possibility of receiving a terminal Master's degree for work completed.

VE5. Passing the General Examination

Students advance to Ph.D. candidacy after successful completion of the General Examination.

VF. The Dissertation

All forms mentioned bellow, as well as detailed instructions for preparing and submitting the dissertation (see "Doctoral Dissertation Guidelines") can be found at:

<http://studentservices.uchc.edu/registrar/gradschool/index.html>

VF1. Dissertation Proposal (Prospectus)

The dissertation proposal must be fully approved and submitted three months prior to the date of the oral dissertation defense (see "Dissertation Proposal for the Ph.D. Degree"). Nevertheless, students are highly encouraged to submit their dissertation proposals soon after passing the general examination. In particular, students performing research within the Department of Immunology must submit their dissertation proposal by June 1st of the 3rd year to be eligible for support by departmental funds in the 5th year (should the need arise). This policy applies to all

graduate students with major advisors whose primary appointments are in the Department of Immunology.

VF2. Writing the Dissertation

The student, in consultation with the Major Advisor, writes the Dissertation. It should begin with an Introduction that summarizes the history of the general area and the major outstanding questions, followed by a General Methods section. The following chapters will present and discuss the various experimental results, and in the final chapter the student will highlight the implications of their findings within the larger context of their field of study as well as explore potential future directions of study. The Dissertation submitted to the Thesis Advisory Committee should represent what the student considers to be a complete and final document. Since the thesis work should represent a significant scholarly contribution to the student's field of scientific research, it is expected that manuscripts detailing the thesis research will have been submitted to scientific journals before or soon after submission of the thesis.

VF3. The Private Defense

A Private Defense will be scheduled once the dissertation has been submitted to the Thesis Advisory Committee. An outside reader (expert in the field) should be included on the committee. The outside reader need not be present at the defense. If not, they should forward questions to the major advisor to be posed to the student during the private defense. Committee members will examine all aspects of the thesis, including experimental data and interpretations, as well as the student's knowledge of the literature and broader issues related to the thesis topic. Committee members will then vote to accept, conditionally accept or reject the thesis. A final decision of "accept" requires unanimous approval (see "Doctor of Philosophy Dissertation Tentative Approval Page"). A "conditionally accept" outcome will lead to a re-vote following modifications to the thesis and/or a second private defense. There will be no time limit between the first and second private defense.

VF4. The Public (Oral) Defense

The student can schedule the Public Defense (Oral Defense or Thesis Seminar) no sooner than 2 weeks following their successful Private Defense (see "Announcement for the Ph.D. Dissertation Oral Defense"). Members of the Immunology Graduate Program, as well as the larger academic community will be encouraged to attend. The "Report on the Final Examination for the Doctoral Degree" must be signed by a minimum of five participating faculty members. There will be no further deliberations by the Thesis Advisory Committee, and the conclusion of the seminar will mark the beginning of the celebration!

VI. IGP ANNUAL MEETING

The IGP faculty members will meet at least once each year, preferably at the end of academic year to discuss matters arising and issues related to improvement of the Program.

VII. IMMUNOLOGY SEMINAR SERIES

The Department of Immunology sponsors a seminar series that hosts outside speakers who are renowned experts in the field of immunology. Students are expected to attend these seminars on a regular basis to foster their intellectual development and strengthen their general scientific knowledge base. In addition, the speakers eat lunch with a group of students and post-doctoral fellows, and each student is expected to participate in these lunches several times each year. Students will invite and host a seminar speaker themselves once each year. This seminar will be named in honor of Dr. Carol Wu who played an integral role in the activities and directorship of the IGP, but whose career was tragically cut short by her untimely death.