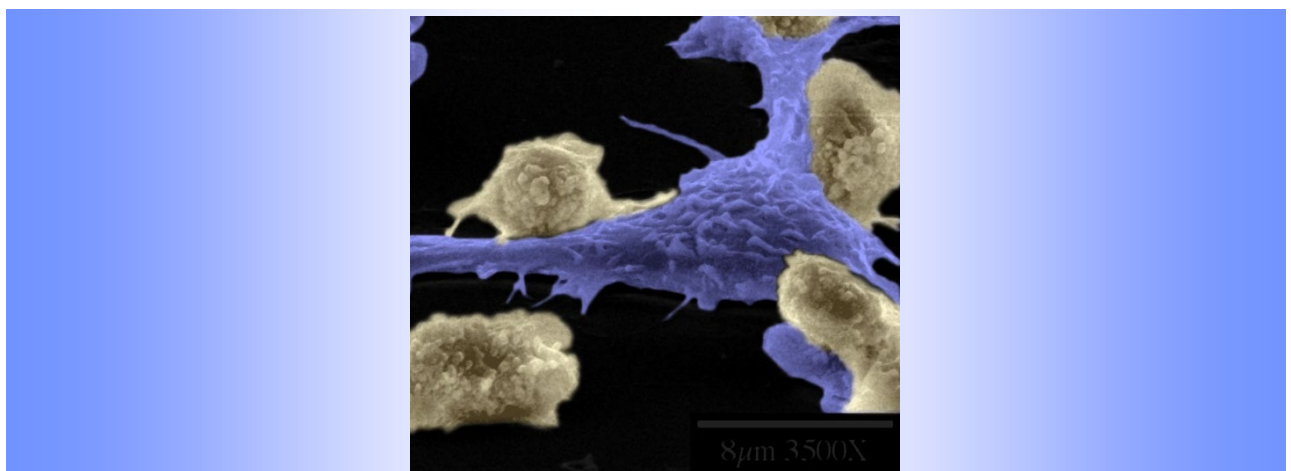


# Tumor Immunology PhD Track

Graduate Studies Program

Student & Faculty Handbook

2021-2022



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# Welcome to Immunology!



This is an exciting time for the field of tumor immunology. Our field advances at a seemingly breakneck pace. The Tumor Immunology Program at Roswell Park is set within a world-class comprehensive cancer center, which offers you the unique opportunity to participate in these advances by integrating investigator-initiated science into clinical and translational research.

Our goal over the next few years is to provide a highly interactive, multidisciplinary course of study and high-level research that ultimately prepares you for successful careers as scientists in cellular, molecular, and tumor immunology.

This handbook is a guide for the journey. In it, we describe the course of study, departmental policies and requirements, and provide information for incoming students. Program and Student leadership are resources for any assistance you may need.

I look forward to working with and getting to know you. Again, welcome to Roswell Park!

A handwritten signature in blue ink that reads "Michael Nemeth".

Michael Nemeth, PhD  
Director of Graduate Studies  
Tumor Immunology Program

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response in leukemia and lymphoma, elucidation of multidrug resistance mechanisms

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Professor of Oncology, Department of Medicine  
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Associate Professor of Oncology, Department of Surgical Oncology  
Immunotherapies, melanoma, animal modeling, regional therapies, clinical translation

**Yasmin Thanavala, PhD**

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Professor of Oncology, Department of Immunology  
Development and delivery of vaccines, immune suppression, inflammation, hepatocellular carcinoma

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Member, UB Graduate Faculty  
Professor of Oncology and Chief of Leukemia, Departments of Medicine and Immunology  
Leukemia, hypoxia, angiogenesis

# Program of Study

The Department of Immunology has research programs in diverse aspects of immunology with an emphasis on understanding why immune responses are compromised against cancer, directly coupled with efforts to therapeutically elicit more potent anti-cancer immunity. This is accomplished through collaborative programs that are grouped into 4 major areas of focus:

1. Identifying the molecular mechanisms by which tumor cells become resistant to immune recognition and killing;
2. Characterizing the molecular and cellular elements of the tumor microenvironment that influence tumor cell growth and immune control;
3. Designing new strategies to enhance active specific immunotherapy; and
4. Translating novel laboratory findings into investigator-initiated clinical trials.

The specific research topics under investigation by the faculty include: dissection of molecular pathways controlling lymphocyte trafficking to the tumor microenvironment; molecular basis of the role of interactions between the host immune system and tumor cells; epigenetic mechanisms influencing the antigenic profile of tumor cells and their immunogenicity; role of cytokines in the induction of humoral and cell-mediated immunity; the biology of professional antigen presenting cells in cancer; immunization strategies for enhancing systemic and cellular immunity by various vaccine delivery modes; molecular mechanisms of immune cell trafficking in the tumor microenvironment; immunosuppressive mechanisms of myeloid and lymphoid cell types; effector T cell function and development of long-term immune memory; antibody-based strategies to control tumor-driven angiogenesis; antibody-based immunotherapy of solid and hematologic tumors; adoptive T cell immunotherapy; molecular basis of the crosstalk between cells of the innate and adaptive immune system and their impact on tumor growth; enhancement of tumor immunogenicity; and impact of stress and metabolism on immunity. The faculty has expertise in a broad range of cutting-edge technologies that encompass molecular and cellular immunology, recombinant gene and protein expression, and imaging.

The PhD degree typically requires four to six years of full-time study and research. Students are encouraged through various opportunities to critically analyze data, to question existing paradigms, and to propose new solutions to long-standing problems. These goals are achieved through courses, seminars, journal clubs, and research with a highly motivated research and teaching faculty. There are frequent opportunities for students and faculty to present and discuss data and ideas in open forums. Close collaborative interactions exist between the basic research faculty and the clinical staff at Roswell Park. Thus, students can observe first-hand the interactions between basic and translational research and, ultimately, the clinical applications that result.



## Graduate Program Requirements

All students in the Tumor Immunology Track take a core curriculum over the first two years of study that consists of didactic coursework in Tumor Immunology, Cancer Biology, Biochemistry, Genetics, Molecular Biology, Ethical Conduct of Research and Grantsmanship. In addition, students are required to participate in Student Seminar and Journal Club throughout their graduate study. Guidelines for these courses are provided in subsequent sections.

During the **1st year**, all students complete **3 research rotations**, after which a research mentor is selected, and a supporting thesis committee is established to advise and guide the student in their major field of interest. In subsequent years, the student concentrates on laboratory research; participates in advanced seminars; passes a Qualifying Exam (QE) which consists of writing and presenting an NIH-style grant; and prepares and defends a dissertation.

A typical program for the first 2 years of study is shown below and on the following pages along with detailed descriptions of the required courses.

**Grades: UB requires that all graduate students maintain a 3.0 GPA. Failure to maintain a 3.0 GPA will result in the student being placed on academic probation.**

### Course Work:

#### Required Years 1 and 2

Integrated Cancer Sciences I/II	RPG501/502	Fall - Year I
Introduction to Biostatistics	STA527	Fall- Year I
Responsible Conduct of Research	RPG504	Fall - Year I
First-Year Student Journal Club	RPG601	Fall - Year I
Independent Study	RPG514	Fall - Year I
Advanced Immunology	RPG559	Spring - Year I
Integrated Cancer Sciences III	RPG503	Spring - Year I
Immunology Journal Club	RPG565	Spring - Year I
Immunology Student Seminar	RPG553	Spring - Year I
Lab Rotations/Research	RPG606	Spring - Year I
Trends in Tumor Immunology	RPG561	Fall -Year 2
Principles of Flow & Image Cytometry	RPG564	Fall -Year 2
Basics in Grantsmanship I	RPG603	Fall -Year 2
Basics in Grantsmanship II	RPG604	Spring -Year 2
<b>Remaining Semesters:</b>		
Immunology Journal Club	RPG565	
Immunology Student Seminar	RPG553	
Graduate Research	RPG608	

## Typical Program of Study PhD Students (Years I & 2)

Semester	Course	Credits
<b>FALL Year I</b>	RPG501/502 Integrated Cancer Sciences I/II (4-cr each)	8
	STA527 Introduction to Biostatistics	4
	RPG504 Responsible Conduct of Research	1
	RPG601 First-Year Student Journal Club	2
	RPG514 Independent Study	3
	RPG599 Techniques and Analyses for Cancer Sciences (TACS) <i>Elective Course</i>	1
<b>Maximum Credits</b>		<b>19</b>
<b>SPRING Year I</b>	RPG503 Integrated Cancer Sciences III	4
	RPG559 Advanced Immunology and Recitation	4
	RPG565 Immunology Journal Club	1
	RPG553 Immunology Student Seminar	1
	RPG606 Lab Rotations/Research	9
<b>Maximum Credits</b>		<b>19</b>
<b>FALL Year 2</b>	RPG561 Trends in Tumor Immunology	2
	RPG564 Principles in Flow and Image Cytometry	4
	RPG603 Basics in Grantsmanship I	1
	RPG565 Immunology Journal Club	1
	RPG553 Immunology Student Seminar	1
	RPG608 Graduate Research	10
<b>Maximum Credits</b>		<b>19</b>
<b>SPRING Year 2</b>	RPG604 Basics in Grantsmanship II	1
	RPG565 Immunology Journal Club	1
	RPG553 Immunology Student Seminar	1
	RPG608 Graduate Research	6
<b>Maximum Credits</b>		<b>9</b>
<b>TOTAL CREDITS ALL SEMESTERS</b>		<b>66</b>

## Typical Program of Study MD/PhD Students

### PROGRAM OF STUDY (72 Total Credit Hours)

<i>Pre-requisites (UB):</i>		
Course		Credits
IMC 502	Fundamentals I	7.2
IMC 504	Fundamentals II	3.8
IMC 510	GI & Metabolism	5.5
IMC 500	Medicine and Society	2.0
IMC 602	Cardiovascular	7.2
IMC 604	Pulmonary	8.0
IMC 606	Neuroscience I	2.3
IMC516	Microbiology/Immunology	5.0
	Laboratory Rotations	
<b>Total</b>		<b>36.0</b>

<i>Required courses (Roswell Park):</i>			
Semester	Course		Credits
<b>FALL YEAR 1</b>	RPG501/RPG502	Integrated Cancer Sciences I/II <i>Required to Audit Immunology Unit</i>	NC
	STA527	Introduction to Medical Statistics	4
	RPG504	Responsible Conduct of Research	1
	RPG561	Trends in Tumor Immunology	2
	RPG603	Basics in Grantsmanship I	1
	RPG553	Immunology Student Seminar	1
	MST601	Seminar	1
	RPG565	Immunology Journal Club	1
	RPG608	Graduate Research	1
RPG599	Techniques and Analyses for Cancer Sciences (TACS)	NC	
<b>FALL 1 TOTAL CREDITS</b>			<b>12</b>
<b>SPRING YEAR 1</b>	RPG503	Integrated Cancer Sciences III <i>Audit as Needed</i>	NC
	RPG559	Advanced Immunology	4
	RPG604	Basics in Grantsmanship II	1
	MSTP Seminar		1
	RPG553	Immunology Student Seminar	1
	RPG565	Immunology Journal Club	1
	RPG608	Graduate Research	6
<b>SPRING 1 TOTAL CREDITS</b>			<b>14</b>

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## Typical Program of Study MD/PhD Students

<b>FALL YEAR 2</b>	MSTP seminar		1
	RPG553	Immunology Student Seminar	1
	RPG565	Immunology Journal Club	1
	RPG608	Graduate Research	1
<b>Elective (Optional)</b>	RPG564	<b>Principles in Flow and Image Cytometry</b> <i>*If taken for credit, adjust other coursework accordingly</i>	<b>(4)*</b>
<b>FALL 2 TOTAL CREDITS</b>			<b>4</b>
<b>SPRING YEAR 2</b>	MSTP Seminar		1
	RPG608 Graduate Research		1
<b>SPRING 2 TOTAL CREDITS</b>			<b>2</b>
<b>FALL YEAR 3</b>	MSTP seminar		<b>1</b>
<b>FALL 3 TOTAL CREDITS</b>			<b>1</b>
<b>SPRING YEAR 3</b>	MSTP seminar		<b>1*</b>
	* Note that if you are finishing in Spring year 3 you will need to register for 3 credits instead of 1; you must have 72 credits to graduate		
<b>SPRING 3 TOTAL CREDITS</b>			<b>1</b>
<b>FALL YEAR 4</b>	MSTP seminar		<b>1</b>
<b>FALL 4 TOTAL CREDITS</b>			<b>1</b>
<b>SPRING YEAR 4</b>	MSTP Seminar		<b>1</b>
<b>SPRING 4 TOTAL CREDITS</b>			<b>1</b>
<b>CREDITS TOTAL</b>			<b>72**</b>

Students are required to attend the Immunology seminar course and journal club every semester of their study until they achieve sufficiency.

Since MSTP Seminar is only ½ a semester, the students are expected to attend RPG student seminar the remainder of the semester.

NC, non-credit

\*\*This total includes 36 credits transferred from medical school classes

## Course Descriptions

**Listed alphabetically:**

**Advanced Immunology (RPG559):** This advanced immunology course is led by Dr. Danuta Kozbor and team-taught by Roswell Park faculty. Lectures concentrate on an in-depth analysis of a variety of current topics in basic immunology, tumor immunology and clinical immunology. Lecture content stratifies into three major thematic blocks: Fundamental Immunology, Immunoregulation, and Immunotherapy. Each block ends with an in-depth discussion of a high impact research article reflecting the theme of the given block, as well as an exam testing basic knowledge and concepts related to problem solving, experimental design, and data analysis.

**Basics in Grantsmanship (RPG603/604):** This course is led by Drs. Sharon Evans and Scott Olejniczak. The grant elements covered in semester 1 include the anatomy of a biomedical research proposal, techniques in effective grant writing, the peer-review process for federal grant applications, student-led mock study sections, ethics of research, and student presentations of their research plan in a 5-slide format. In addition to the scientific elements, semester 2 includes workshops and review/revision sessions for written assignments covering an NIH Biosketch, Specific Aims, Significance, and Innovation. There is special emphasis on clarity of the scientific problem, gap(s) in the field, rationale, hypothesis, aims, and potential impact to the field. Each of these sections must be pre-approved by the Major Advisor prior to submission to the course. The course also provides instruction on issues related to ethical conduct of research.

**Immunology Journal Club (RPG565):** The course is led by Drs. Joseph Barbi, Robert McGray, and Daniel Fisher. Faculty and students discuss current, hot topics in immunology/tumor immunology. All students are required to participate by critically evaluating and presenting at least one current published paper per year and asking relevant and informed questions of presenters. The goals are to train students to critically evaluate the scientific literature and provide students with the experience of making oral presentations on diverse topics. An additional component of the course is a round-table discussion in one class on the implications of publication misconduct.

**Immunology Student Seminar (RPG553):** Students are required to present an annual formal seminar on their thesis research. Student seminars are coordinated by Drs. Scott Olejniczak and Joseph Barbi and attended by the entire faculty and student body. First-year students present a summary of each of their rotation experiences. Second and third-year students meet with the course coordinator one week before their presentation to gain additional guidance on strategies to optimize the quality of their presentation. Students are required to evaluate the presentations of their peers to provide constructive feedback. In most cases, students schedule their required semi-annual thesis committee meetings to follow their student seminar. Otherwise, students fulfill this requirement at times distinct from their seminar presentation, which may lead to three separate encounters with their committee. This seminar forum is also used to offer students career advice.

## Course Descriptions

### **Listed alphabetically:**

**Integrated Cancer Sciences I/II (RPG501/502):** These courses are led by Drs. Eugene Kandel and Michael Nemeth and are designed to impart core knowledge of cancer biology, biochemistry, genetics, molecular biology, therapeutics, immunology, and prevention reflecting the 5 academic tracks. The Immunology Unit is coordinated by Dr. Yasmin Thanavala and lectures are delivered by Drs. Evans, Hylander, Thanavala, Gollnick, Barbi, Dey and Repasky of the Department of Immunology. Senior students in the Immunology Program also act as teaching assistants. The immunology elements emphasize fundamental concepts and mechanisms of immunology focusing on major components that are further developed in Advanced Immunology, including: Inflammation and Innate Immunity; Humoral (B-cell) Immunity; Adaptive (T-cell) Immunity; and Immunotherapy.

Therefore, ICS I/II is designed to offer students sufficient background knowledge in fundamental concepts to prepare them for more advanced courses in their chosen discipline. Dividing the fall semester core training into two 4-credit blocks facilitates the ability of students to remediate their academic standing in the event of a substandard performance in only one part of the core during their first semester.

**Integrated Cancer Sciences III (RPG503):** This course is led by Drs. AnnMarie Block and Mary Reid and is divided into several themes reflecting: 1) an overview of cancer medicine; 2) selected tumor types that illustrate major conceptual or therapeutic challenges, successes and failures in cancer medicine; and 3) bench-to bedside approaches to cancer research. Emphasis is on tumor types and/or therapeutic approaches in which Roswell Park is a leading expert. Lectures, readings and discussions provide information about diagnosis/pathology of cancer and therapeutic approaches. Students are introduced to non-human subject research, IRB procedures and clinical trial design as part of discussion of these areas of cancer medicine. This is the translational component of the ICS series that exposes all students to a cancer-focused curriculum uniquely distinctive from more traditional university-centered academic departments.

**Introduction to Biostatistics (STA527):** This course is led by Dr. Dietrich Kuhlmann at SUNY-UB and covers: data collection and presentation; calculation of sample size; techniques of data analysis, including multifactorial methods and the choice of appropriate statistical methods and tests; descriptive statistics; probability distributions; tests of hypothesis; regression modeling; analysis of variance; nonparametric methods; confidence intervals; and problems of medical measurement and diagnosis.

**Principles in Flow and Image Cytometry Course (RPG564):** This course is led by Dr. Paul Wallace and Alexis Conway of the Flow Cytometry department and reviews principles, theoretical background and applications of flow and image cytometry techniques. Students are expected to: 1) understand experimental design and principles of flow and image cytometry; 2) become knowledgeable in cytometry applications, including the study of phenotype, cellular proliferation, cell death, intra- and intercellular signaling and functional assays; 3) be able to apply such strategies in planning and critically evaluating flow and image cytometry studies; and 4) become familiar with research and clinical applications of flow and image cytometry.

## Course Descriptions

*Listed alphabetically:*

**Responsible Conduct of Research (RPG504):** This course is coordinated by the Associate Dean and team-taught by Roswell Park Graduate Faculty. Upon completion of this course, students will: 1) understand the need for responsible conduct in research based on regulatory mandates; 2) identify situations in which ethical principles apply to research activities; and 3) recognize situations requiring action to avoid or report various forms of research misconduct and understand federal and institutional policies to protect against or report misconduct. The topics covered include: scientists as responsible members of society, with emphasis on the pillars of misconduct (i.e., fabrication, falsification and plagiarism); mentor and mentee responsibilities and relationships; scientific collaborations; responsible authorship/publication practices; conflict-of-interest; protocol completion for animal research and human subject protection; discussion of case studies.

**Techniques & Analyses for Cancer Sciences (TACS) (RPG599):** TACS is coordinated by pre-doctoral trainees Stephanie Tzetzto and Rob Zollo and is directed by Dr. Katie Kokolus. It is taught by pre-doctoral trainees beyond their first year in keeping with its mission of being a course created and led by graduate students. TACS introduces first year pre-doctoral trainees and master's candidates to the rationale, methodology, and interpretation for utilizing specific techniques in cancer research. This course will be divided into 12 one-hour lectures, spanning differential techniques of DNA, RNA, and protein-based assays. Lectures will address the underlying basis of each technique, provide an overview of experimental procedures (including contact information for the Shared Resources and experts at Roswell Park), and provide literary examples of published data for peer review. First-hand experience with each technique will be discussed, focusing on key controls and tips for improving experimental performance. In addition to lectures, practical application of each technique will be assessed via scientific scenario-based interactive sessions.

**Trends in Tumor Immunology (RPG561):** This course led by Drs. Jason Muhitch and Prasenjit Dey is designed to offer 2nd-year students an in-depth inspection of cutting-edge topics in tumor immunology by discussing current literature in an interactive forum. A series of didactic lectures are provided by Roswell Park faculty on 'hot' topic issues in tumor immunology. In addition, the course provides students with the opportunity to develop hypotheses, specific aims, and experimental designs to address novel questions on each topic in student-led presentations. This course builds on knowledge acquired from ICS I/II/III and Advanced Immunology. Students will be graded based on an exam and the quality of their presentation.



# Overview of Program Requirements

## Seminars/Journal Club

**Seminar:** Every student is required to give one seminar presentation/year. First year students will present their rotation experience, students in their 2<sup>nd</sup> year and beyond will present research seminars.

**Journal Club:** Students will give journal club presentations during the year.

## Laboratory Rotations

First year students will perform 3 laboratory rotations, with the possibility of a 4<sup>th</sup> in the uncommon event a match is not achieved. Student rotations will follow one of two paradigms: 1) for students newly entering the program, which constitutes the largest source of entering PhD students, rotations will begin the first week of January of the Spring semester. Rotations are 6-8 weeks; 2) for students that directly enter the Immunology track as a result of earning their Master's from the University at Buffalo and seek to pursue the PhD degree in the same track, these rotations begin in October of the Fall semester. Rotations are 8-10 weeks. For either rotation model, the Director of Graduate Studies must approve individual rotations. (See *additional guidelines in subsequent section.*)

## PhD Committee Selection

During the 1<sup>st</sup> year, the Director of Graduate Studies will supervise and assist the student in planning their academic program. Students in the PhD only program will establish their thesis committee in the early Fall (October) of their second year, while those in the MD/PhD program will do so in the early Fall of their first year. The Thesis Committee is comprised of at least three (3) core members (the major advisor and two additional core committee members) and a fourth member who is from an outside graduate program. **Each core member must be on the Immunology Graduate Faculty and/or the NRSA T32 Tumor Immunology Training Grant, and a Member of the UB Graduate Faculty.**

The outside (fourth) member is generally a Member of the UB Graduate Faculty. *Associate Members* of the UB Graduate Faculty *may not* serve on doctoral committees as *core members* but may serve as additional (fourth) committee member. On occasion, individuals who are neither *Members* nor *Associate Members* of the UB Graduate Faculty may serve as additional committee members if their expertise will be of value to the student. The Thesis Committee must be approved by the Director of Graduate Studies. Immunology Program members are listed in the handbook; the best way to determine whether someone has a graduate faculty appointment is to check the UB directory [Roswell Park Graduate Division - The Graduate School at the University at Buffalo - University at Buffalo](#).



## Qualifying Exam

Each student is required to pass a qualifying exam at the end of their 2<sup>nd</sup> year of study. MD/PhD students will take this exam at the end of their first year. The exam consists of three parts: (1) a seminar presentation of the specific aims of the dissertation proposal; (2) a written proposal in the NIH pre-doctoral grant format outlining their research project; (3) an oral examination. The goal of the exam is to evaluate the candidate for comprehensive knowledge of the broad field of immunology in which their dissertation will focus. The student should also demonstrate the ability to apply analytical thinking to research questions and develop a linear strategy for investigating specific questions. **See *additional guidelines and instructions for qualifying exam in subsequent sections.***

## Application to Candidacy (ATC)

The **Application to Candidacy** ("ATC") is required to formally establish candidacy for conferral of the PhD degree. According to SUNY-UB regulations, doctoral students must have their ATC submitted prior to registering for fewer than nine credit hours per semester. Immunology students typically register for less than nine credits at the beginning of the 5<sup>th</sup> semester (Year 3; after completing the Qualifying Exam). Therefore, **Immunology PhD students are required to submit the ATC form prior to the semester in which they submit the Certification of Full-Time Status form. *Additional guidelines for the ATC and Certification of Full-Time Status are provided in a subsequent section.***

## Thesis Committee Meetings

Students are responsible for scheduling their meeting and updating the Track Coordinator. ***Students are required to have an in-person, semi-annual progress summary meeting with their Thesis Committee every six (6) months after they have passed the qualifying exam.*** If feasible, at least one (1) of the two (2) committee meetings is scheduled following the annual student seminar. (If this is not feasible, the student must still hold both meetings each year, which may occur separately from the student seminar. In this case, students will meet with their Thesis Committee on three separate occasions.) Students should provide a brief summary of their project objectives with slides for each committee meeting. The Chair of the committee is selected from the Thesis Committee members (excluding the mentor) and will be responsible for preparing a written progress report detailing the project's strengths and weaknesses, as well as recommendations for the project after each committee meeting. This progress report is typically based on a written summary provided by the student to show active engagement. ***Following approval by all committee members, the Thesis Committee Chair addresses the report directly with the student. The report is sent to the entire Thesis Committee, including mentor; Director of Graduate Studies; Chair of the Progress Committee; and Track Coordinator. The original is delivered to the Associate Dean.***

## Thesis Committee Meetings (cont.)

**Preparation of the Semi-Annual Student Progress Summary Meeting:** It is ***required*** that the student prepare a summary report of their scientific progress and accomplishments for submission to the Thesis Committee seven (7) days prior to the meeting. The first meeting is scheduled six (6) months after the student passes the qualifying exam and at six (6) month intervals thereafter. This report is divided into four (4) major sections:

**Section 1** provides a point-by-point reply to the prior committee comments (or issues raised during the qualifying exam).

**Section 2** provides data updates consisting of an abstract, model, figures/tables with brief legends.

**Section 3** provides a description of future directions.

**Section 4** provides a summary of other scientific achievements, such as invited talks, awards received, grants submitted/funded, poster presentations and conferences attended.

Importantly, during Year 4, **Section 2** of the progress report should take shape as a manuscript reflecting dissertation research. Subsequent committee meetings should then build on the framework and content of that manuscript. Thus, by the end of Year 4 into the start of Year 5, precise gaps can be identified to help focus on and resolve remaining experimental questions necessary to complete the manuscript and leading toward fulfillment of the publication requirement.

A ***sufficiency meeting*** in person is required to determine if a student has made sufficient progress on the research project to allow them to write the dissertation. **The expectation of sufficiency is that the student has completed all experiments for manuscript submission and their thesis and will devote their full time to writing and editing these documents.** As part of this evaluation, the Thesis Committee will review plans, if necessary, to fulfill the publication requirement prior to the formal defense of the thesis.

**If the publication requirement has not been met:** The student must present their body-of-work in the form of figures as prepared for a manuscript. **All experiments** for the planned manuscript must be completed. At this meeting, the student must present their timeline for manuscript submission and identify the primary journal as well as alternatives. If the manuscript has not been submitted by the anticipated date, the student will hold another Thesis Committee meeting to discuss their progress.

If the Thesis Committee decides that the student has not reached sufficiency due to additional experiments required for the manuscript, the Committee Report must indicate the expected timeline for these experiments. The student will hold another meeting to take place at the end of the timeline. The focus of this meeting should be on the additional experiments and whether the student has now reached sufficiency. This meeting may be held sooner than the required 6-month period.

## Overview of Program Requirements

If the publication requirement has been met: The student must present a broad overview of their thesis that includes the significance and rationale for their research, the overall hypothesis, and their key findings and how they relate to the field. The student must present their timeline for writing and defending the thesis. If the thesis has not been submitted by the anticipated date, the student will hold another Thesis Committee meeting to discuss their progress.

### Dissertation

A dissertation is expected to be an original and significant contribution to the discipline of immunology and/or tumor immunology. It should contribute to academic knowledge and be based on empirical research. Students are encouraged to present their findings at national or regional conferences. **Prior to the oral defense of their doctoral dissertation, each doctoral student or MD/PhD student is required to publish a first-author, peer-reviewed report or, at a minimum, to obtain a favorable (positive) review that indicates a manuscript would be reconsidered for review at the same journal.** In the absence of meeting the publication requirement, the oral defense can only proceed upon a student's submission of a formal written petition and approval by the thesis committee and the Director of Graduate Studies/Program Chair. Additionally, the student must obtain approval of an outside reader by the thesis committee and the Director of Graduate Studies/Program Chair as well as the signature of the Associate Dean of the Roswell Park Graduate Division. **As you are getting ready to complete your studies at Roswell Park, please review the guidelines and checklist for the thesis defense and the information regarding the Separation Procedure on Pages 32-33.**

### Oral Defense of Doctoral Dissertation

The PhD degree is not completed or conferred until the dissertation is approved by the thesis committee and successfully defended at an oral presentation before the entire Immunology faculty.

When approaching the completion of their dissertation and after obtaining approval to write a thesis from the thesis committee (at the sufficiency meeting), the student is required to schedule a dissertation defense. Sufficient time should be given for the thesis committee members and the outside reader to read the written dissertation (generally 3-4 weeks). The student is responsible for sending the Outside Reader Response Form along with the dissertation to the outside reader. Once the review of the Outside Reader is received, the student then submits the completed Outside Reader Response Form to the Dean of the Roswell Park Division Graduate Program at which point the defense date can be scheduled. The student must also inform the Track Coordinator and Director of Graduate Studies in the Immunology Department at least one week in advance of the scheduled defense so that the Department can post a public announcement of the defense. The oral defense must be attended by the candidate's major advisor/professor, thesis committee, and outside reader, although arrangements can be made via teleconference or web based video conferencing in some exceptional cases. Travel arrangements and the itinerary for

# Overview of Program Requirements

the outside reader should be prepared in consultation with the Track Coordinator.

Students will present a seminar (~45 minutes) on their research, followed by an open session for questions from the departmental faculty and student body and a closed session for examination questions from the thesis committee arising from the dissertation.

## Timeline to Degree

The PhD degree must be completed within seven (7) years.

To graduate, the following must be on file in the UB Graduate School:

- An approved Application to Candidacy (with all necessary attachments, including original transcripts)
- An M-Form (Multi-purpose Form) which ensures that the defense of the dissertation was satisfactorily completed and that all academic requirements for the degree have been satisfied. This form must be signed by the major professor, the committee members, and the Director for Graduate Studies (or Chair of the Department). It is the student's responsibility to ensure that this form is submitted to the UB Graduate School by the deadlines established for each conferral date.
- Electronic submission of dissertation through the UB Graduate School website: [Electronic Thesis & Dissertation \(ETD\) Guidelines - The Graduate School at the University at Buffalo - University at Buffalo](#)
- Doctoral Degree Recipients Survey available on the UB Graduate School website: [Doctoral Degree Recipient Surveys - The Graduate School at the University at Buffalo - University at Buffalo](#)

In addition, the UB Graduate School will verify satisfactory completion of all courses and minimum number of credits to be applied toward the degree.

## Additional Requirements

- Continuous registration must be maintained until the degree is conferred.
- Credits cannot be transferred from any course in which a grade lower than a B was earned.
- A minimum of 72 credit hours of graduate study must be completed.

## Academic Review / Probation

The Director of Graduate Studies and Chair of the Progress Committee will review the student's transcripts at the end of each semester. Any student who fails to maintain a 3.0 GPA for one semester will be placed on academic probation. If the student fails to raise his/her GPA above 3.0 in the following semester, the student's academic record will be reviewed by the Immunology Executive Committee and the student may be terminated from the Immunology Graduate Program.

# **Detailed Tumor Immunology Program Requirements & Guidelines**

## Laboratory Rotations

1. Each student must complete a minimum of three (3) rotations. Exceptions to this rule are possible but must be approved by the Director of Graduate Studies (DGS) on a case-by-case basis. For students entering via the umbrella program (comprising the majority of entering PhD candidates) first rotation will begin in January. Each rotation will proceed for 6-8 weeks. Students earning a Master's in the Immunology track and seeking to pursue the PhD degree in the same track, may start immediately and initiate their first rotation in October. In this instance, each rotation will proceed for 8-10 weeks.
2. Students are responsible for identifying a laboratory for rotation. Students will be provided with a list of labs that are accepting students. A minimum of two out of the three required rotations should be performed in a laboratory that has indicated willingness to take on a new student trainee. Faculty research presentations will be scheduled as appropriate.
3. **The DGS must approve all rotations. Students are required to schedule a meeting (or communicate via email) with the DGS before/after each rotation.**
4. Mentors must be a **Full Member** of the **UB Graduate Faculty**, as well as a member of the Immunology Graduate Program or the NRSA T32 Tumor Immunology Training Program. A list of full Members of the Immunology Graduate Program is on pages 2-4. In certain extenuating circumstances (e.g., need to learn a specific technique) a student may be approved to rotate in a non-Immunology graduate program PI's lab without plans to join the lab for dissertation research. Only in rare instances can a non-Immunology graduate faculty PI be considered as a mentor. In this case, a student should first discuss the situation with the DGS. It will be determined if the requested faculty member is a full Member of the UB Graduate Faculty. If a rotation is approved, at the time of the final laboratory selection, a student will need to petition in writing the Immunology graduate program's Executive Committee for permission to join a lab in which the mentor is not a member of the Immunology Graduate Faculty or a mentor in the NRSA T32 Tumor Immunology Training Program. Students need to provide a compelling reason for joining an outside laboratory and explain how the proposed project fits into the Immunology graduate program. A CV must be provided for the mentor (outlining track-record for training graduate students and commitment to graduate education and research). The mentor will also need to provide assurance that they can financially support a graduate student for the full period leading up to graduation. After review of these materials, a final decision will be made by the Immunology Graduate Program Executive Committee.
5. In making this important decision regarding mentors, the student needs to carefully consider which lab is the best fit with respect to scientific interest and training opportunities. To this end, students should schedule a meeting with their student advisor before/after each rotation for guidance on laboratory selections.
6. The student is responsible for scheduling a meeting with the potential major advisor (PI) to discuss research opportunities. The student should prepare for the meeting by reading the PI's papers and website and talking to other students to become familiar with the PI's research.
7. The mentor must agree to take on the responsibility of guiding and funding a new graduate student and will provide a formal commitment in writing to the DGS.

## Laboratory Rotations

8. After each rotation, students will present a brief (~10 min) summary of their research experience in student seminar.
9. Selection of a laboratory for dissertation research *cannot be made until after the 3<sup>rd</sup> rotation*. However, it is appropriate for the student to indicate whether there is a strong interest in joining a specific laboratory early in the rotation process.
10. Selection of a laboratory for dissertation research must be made after conclusion of the final rotation (i.e., before the end of the first year of study).
11. After a student selects a laboratory, they will begin drafting a Specific Aims page broadly describing the scope and impact of their prospective project, significance, gap in the field, and sound rationale for tentative aims. The student will then dedicate the summer researching the literature and conducting experiments. At the end of the summer, the student is expected to deliver a presentation to their respective laboratory about their proposal. The Major Advisor approves these activities, followed by a sign off by the DGS.



# **Immunology Student Seminar (RPG553)**

*Drs. Scott Olejniczak and Joseph Barbi, Course Leaders*

## *Administrative Guidelines:*

1. Attendance is required for all Immunology graduate students. 1<sup>st</sup>/2<sup>nd</sup> year students must register for credit. While upper-level students do not need to register for this course, their attendance is required on the honor system. *Any student who has been granted sufficiency does not need to present a seminar, as their final seminar will be at the thesis defense. The student is still required to attend and participate as a senior student.*
2. 3<sup>rd</sup> year students must meet with Drs. Olejniczak or Barbi the week before their scheduled seminar date to review their presentation. Students are responsible for scheduling the meeting.
3. Semi-annual thesis committee meetings should be scheduled on the same day as the student seminar if at all possible. Students should notify their Thesis Committee of the date of their seminar in advance; hardcopies of slides should be provided to Thesis Committee members at the seminar.
4. A student moderator/facilitator will be assigned for each seminar. In this capacity, the student moderator will introduce the student speaker and oversee the question/answer session following the seminar. Students will be invited first to ask questions. Thereafter, the comments of the faculty will be solicited.
5. Seminar titles should be submitted by Thursday the week before seminar to the Track Coordinator. The Track Coordinator will prepare an announcement to be sent and limited to *IMMUNOLOGY ANNOUNCEMENTS*. However, thesis defense and other invited seminar speaker announcements are made public to *ALL RESEARCH*.
6. Changes in the presentation schedule must be reviewed and approved in advance by Drs. Olejniczak and Barbi and/or the DGS.
7. Students are responsible for loading their presentations at least 10 minutes before the seminar.
8. Evaluation sheets are required to be completed by the students. The evaluation sheet is the record of attendance at the seminar. Completed evaluation sheets should be returned to the Track Coordinator by Friday of that seminar week. Drs. Olejniczak and Barbi will compile all the ratings and comments and email the seminar presenter the evaluation summary.
9. Drs. Olejniczak, Barbi, and the DGS (“cc” to Track Coordinator) must be contacted in the event a student is unable to attend seminar for an approved reason (e.g., attending national/regional meeting, illness or family emergency).



# **Immunology Student Seminar (RPG553)**

*Drs. Scott Olejniczak and Joseph Barbi, Course Leaders*

## *Administrative Guidelines (cont.):*

10. Seminars should be on thesis research, except for the 1<sup>st</sup> year students who will present an overview of their rotations.
11. The student should avoid attempting to cover the *entire* research proposal. Focus on major aspects of the investigation. Present a cohesive, focused idea with data that either support the hypothesis or caused a change of direction. Practice the seminar several times before the scheduled presentation (and use student peers for feedback). Slides should be designed to give the audience a clear conclusion and message. Speak clearly and interact with the audience to highlight key points. Avoid reading from notes or a computer monitor and use eye contact with the audience. Make the audience interested in the ideas being presented and express enthusiasm in the research. Remember to have fun and tell a story.
12. Seminars are ~ 30 to 40 minutes long. The seminar should include: (a) introduction/background; (b) gap in the field and hypothesis; (c) significance/impact; (d) innovation; (e) objectives; (f) conclusions; (g) pitfalls and solutions; (h) overall significance; and (i) future plans.
13. Students should provide thoughtful answers to questions. Higher level answers often are supported by relevant experimental evidence from the literature or from the student's own data. Knowing the author of a pertinent publication is impressive to your audience.
14. Students should always look professional for a seminar. Business-casual attire is appropriate.
15. Learning how to give a great seminar is one of the most important skills needed to enhance a student's career. Any suggestions for changes to the student seminar format are welcomed.

## Qualifying Exam Timeline

### **Step 1: June – August (Year 1)**

- Select research laboratory.

### **Step 2: August – September/October (end of Year 1/early Year 2)**

- Student receives their seminar date from the department.
- The thesis committee is selected.
- Student is responsible for notifying thesis committee of the seminar date.

### **Step 3: January – April (Year 2): Pre-QE Thesis Committee Meeting (*required*)**

- Student will broadly discuss the scope of the project and the specific aims (*further delineation of aims will occur after QE seminar*).
- A member of the qualifying exam committee is assigned by the chair of the QE committee for each QE who will moderate the QE seminar and closed session.

### **Step 4: March – July (Year 2): Qualifying Exam Seminar\***

- Student prepares a draft of specific aims and arranges a departmental seminar to present the thesis proposal. This should be one page in length and contain a brief intro/background section and the specific aims. The draft must be provided to the qualifying exam committee, including committee chair, 1 week prior to the scheduled seminar.
- The student will present a departmental seminar on their proposed research topic. The seminar will be presented to the entire department and will encompass background information and broadly-based specific aims (*see guidelines in subsequent sections*).
- The student's thesis committee and a member of the qualifying exam committee will meet following the seminar to discuss the student's performance and will award a pass/fail for this stage. This meeting will also include a detailed evaluation of the specific aims with the goal of helping the student improve and/or modify as necessary. The committee will vote to accept or reject the aims.

### **Step 5: Revision of Specific Aims\***

- The student will be given 1 week from their seminar date to modify/finalize their specific aims (if requested by the committee) and will provide the thesis committee and chair with a revised specific aims page for approval. The committee will vote to accept or reject the specific aims.

(continued next page)

\*For MD/PhD students, Steps 4 & 5 will be achieved in the first year.

\*For PhD students, Steps 4 & 5 will be achieved in the second year.

## Qualifying Exam Timeline

### Step 6: Proposal Preparation

- Once the Specific Aims page is approved, the student will be given 4 weeks to prepare a proposal. The proposal will be written according to the NIH NSRA pre-doctoral fellowship guidelines (see subsequent sections for more details).

### Step 7: Oral Examination (completed by September, start of Year 3):

- The oral exam is scheduled by the student and chair of the QE at least 1 week, but no more than 2 weeks after the thesis committee and a member of the qualifying exam committee receives the final draft of the proposal. The exam is a closed session, chaired by the qualifying exam committee member, and will cover areas of general immunology and the proposal. This exam will not include a formal seminar; however, the student with permission from the committee can present an abbreviated seminar (2-3 slides maximum) summarizing the scope of the project, rationale, impact, specific aims and how the aims are to be tested. The examination typically lasts for 2 hours but may be longer if additional time is required for full evaluation of the candidate. The committee will vote to pass or fail the student based on this exam. Pass/Fail is decided by majority vote by all members of the examination committee including the mentor. The student must pass the qualifying exam to become a PhD candidate. For passing students a recommendation might be made, in some instances, for additional assignments to address deficiencies in specific areas (e.g., presentations on a particular topic in lab meeting/student seminar) or to shorten the time to the next thesis committee meeting.
- Students who fail the oral examination will be required to take an oral retest. In some cases, students may also be requested to rewrite the proposal for the retest. An additional QE committee member will participate in the retest. **The student must pass the retest to remain in the graduate program.** Failure to pass the oral examination will result in the student receiving a terminal Master's degree.
- **Basis for petition for re-examination:** Should a student fail the retest, petitions for a re-examination will only be considered by the DGS and the Executive Committee based on irregularities in the process, not on the committee's decision *per se*. If a re-examination is deemed justified, a newly constituted committee will be convened that includes members of the parent QE committee (chair of QE committee plus two members). The mentor will not be involved in the final re-examination.

# Format for Qualifying Exam Seminar *Specific Aims Presentation*

## General Comments:

The purpose of this presentation is two-fold: 1) to evaluate the student's ability to clearly present and defend the rationale, hypothesis and Specific Aims of their proposal in an oral format, and 2) to enable the thesis committee and qualifying exam committee member to evaluate the proposed Specific Aims. The student's thesis committee and a member of the qualifying exam committee will meet following the seminar to discuss the student's performance and will award a pass/fail for this stage. This meeting will also include a detailed evaluation of the Specific Aims with the goal of helping the student to improve and/or modify them.

The week before the seminar, provide the committee and the Qualifying Exam member with a Specific Aims page, which should be made up of a paragraph outlining the problem to be addressed, the hypotheses to be tested, the specific aims to be used to test these aims, and the broad long-term objectives of this research. This should not be more than a single page in length. It is important to get the message across clearly and succinctly. Additional guidelines on format/content of the Specific Aims are in the instructions for the written proposal in subsequent sections.

The **Specific Aims** page should:

1. cover the background to the question - it is important for someone to understand the significance of this area of investigation
2. highlight what information is lacking in the field (i.e. emphasize novelty of project)
3. elucidate a clear hypothesis of the proposed study
4. briefly mention preliminary data or supporting literature that led to the hypothesis (if this is pertinent)
5. focus aims to address the specific questions
6. state significance of proposed study to the field

Prior to the seminar, the proposed Specific Aims have not been approved; therefore, experimental designs to test the Specific Aims should not be presented in detail in the seminar.

Preliminary data are NOT required but may be used to support the rationale for the proposed Aims. Presentation of supporting information from the literature is also permitted.

## **Format for Qualifying Exam Seminar *Specific Aims Presentation***

### **Additionally:**

- The seminar should include Background, Significance, Rationale, Hypotheses and Specific Aims.
- The seminar should briefly sketch the background leading to the Specific Aims, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill.
- How those gaps are to be filled by the current proposal should be provided in terms of hypotheses and rationale, which led to Specific Aims to test the hypotheses.
- It is also important to state concisely the importance and health relevance of the research described in the proposed project by relating the specific aims to the broad, long-term objectives. If the aims of the application are achieved, state how scientific knowledge or clinical practice will be advanced. For example, state the significance of the research proposal to provide the answer to the questions: “So what, who cares, why bother?”
- The seminar should be ~45 minutes in length.
- Slides should be numbered, and copies of the slides should be provided to the committee before/at the seminar.

## Preparation of QE Written Proposal

The written proposal should follow the requirements for an NIH/NCI NRSA F30/F31 pre-doctoral fellowship application – see specific instructions below as well as the Department of Health and Human Services Instructions at <http://grants.nih.gov/grants/guide/pa-files/PA-11-111.html> for additional directions.

Additionally, information about what needs to go into each section and why this is so important is provided in the Basics in Grantsmanship course (RPG 603/604) taken by all Immunology predoctoral students in the Spring semester of their second year, preceding the qualifying exam. The Track Coordinator also has on reserve a book from NIH, 'Grant Writers' Workbook' that discusses grantsmanship guidelines.

### Format Specifications

Follow instructions for font and format specifications.

#### 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.

Type density, including characters and spaces, must be no more than 15 characters per inch. Type may be no more than six lines per inch.

Use black ink that can be clearly copied.

Print must be clear and legible.

### Paper Size and Page Margins

Use standard size (8 ½" x 11") sheets of paper.

Use at least one-half inch margins (top, bottom, left, and right) for all pages.

### Page Formatting

The application must be single-sided and single-spaced.

Consecutively number pages throughout the application.

# Preparation of QE Written Proposal

## Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes

A smaller type size is acceptable, but it must be in black ink, readily legible, and follow the font typeface requirement.

## Grantsmanship

Use proper English and avoid jargon.

If terms are not universally known, spell out the term the first time it is used and note the appropriate abbreviation in parentheses. The abbreviation may be used thereafter.

## Page Limits

**All proposals must follow the page limits described in table below.** All tables, graphs, figures, diagrams, and charts must be included within the Research Strategy page limit. Suggestions for Suggested lengths of subsections within the Research Strategy are also indicated on table.

Section of application	Page limits
Title	1 page
Specific Aims	1 page
Research Strategy (excluding references)	6 pages
○ Significance (1-2 pages)	
○ Approach (3-4 pages)	

## Title of Project

**Do not exceed 81 characters, including the spaces between words and punctuation.**

Choose a descriptive title that is specifically appropriate.

## Research Plan Format

The Research Plan should be self-contained and include sufficient information to evaluate the project, independent of any other document. *Be specific, informative and avoid redundancies.* For grant writing tips, see [http://grants.nih.gov/grants/grant\\_tips.htm](http://grants.nih.gov/grants/grant_tips.htm). Carefully follow all instructions.

## Content of Research Plan

The Research Plan consists of the following items. Begin each section of the Research Plan with the following section headers:

1. Specific Aims (1 page)
2. Research Strategy (6 pages)

The Research Strategy Section is composed of three distinct sections – Significance, Innovation, and Approach. Note: Approach section also includes Preliminary Studies (optional).

## ***Components and Format of Research Plan:***

### **Specific Aims (1-page limit)**

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 (6-page limit)**

Organize the Research Strategy in the specified order and using the instructions provided below. Start each section with the appropriate section heading—Significance, Innovation, Approach. Cite published experimental details in the Research Strategy section and provide the full reference in the Bibliography and References Cited section.

#### **(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.



## Preparation of QE Written Proposal

### **(b) Innovation**

For NIH F30/F31 predoctoral applications a separate *Innovation section* is not required. However, it can be powerful to include concepts related to innovation within the Significance section, i.e., 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. 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.

### **(d) Preliminary Studies**

Discuss the preliminary studies and/or data pertinent to this application if appropriate. Remember that preliminary data are NOT required for the qualifying exam proposal. However, preliminary data can be an essential part of a research grant application and help to establish the likelihood of success of the proposed project.

## **Bibliography and References Cited**

Provide a bibliography of any references cited in the Research Plan. Each reference must include names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. Follow scholarly practices in providing citations for source materials relied upon in preparing any section of the application. *The references should be limited to relevant and current literature.* While there is not a page limitation, it is important to be concise and to select those literature references pertinent to the proposed research.

## Preparation of QEWritten Proposal

### Submission Guidelines

*Timeline:* Being approved to candidacy is an important milestone that indicates your progression into the final, research-focused phase of your training. According to UB regulations, doctoral students must have their ATC submitted prior to registering for fewer than nine credit hours per semester. For Roswell students this is typically the beginning of the fifth semester. Therefore, **we will require that PhD students submit the ATC form prior to the semester in which they submit the Certification of Full-Time Status form.** Note that completion of the Prelim/Qualifying Exam is not a prerequisite for submission of the ATC.

Students must be in good academic standing (GPA  $\geq$  3.0) and have a minimum of 36 credits to submit ATC.

The ATC form can be downloaded from UB Graduate Program website: [PhD Program Application to Candidacy \(ATC\) \(buffalo.edu\)](#)

- Attach a copy of unofficial UB graduate transcript as described in the form instructions (required).
- A copy of the completed ATC must be submitted to the Track Coordinator, prior to submission to Dean's office in the Education Department for final signature before being sent to UB.

The following SIGNATURES are required:

- Student
- Major Professor
- Committee Member(s)
- Chair or Director of Graduate Studies
- Academic Dean
- No Divisional Committee signature is required!*

The **Certification of Full-Time Status form** ([Certification of Full-Time Student Status for PhD Students \(buffalo.edu\)](#)) only needs to be submitted once unless the degree conferral date changes. In that event, a new full-time form should accompany the Amendment to the ATC ([Petition to Change Expected Conferral Term or Amend the ATC \(buffalo.edu\)](#)).

## Thesis Defense Guidelines & Checklist

The following is a guideline in preparation for a thesis defense. It is recommended that this form be used by both the mentor and student. Check the corresponding box as you move along in your planning. You are responsible for obtaining appropriate signoff by the DGS or Program Chair.

1. Sufficiency meeting (DGS or Chair signature: \_\_\_\_\_)
2. Publication requirement fulfilled (DGS or Chair signature: \_\_\_\_\_)
3. Mentor and student identify outsider reader (Outside Reader Form can be obtained from the Track Coordinator)
4. Get outside reader approval from the Thesis Committee, Director of Graduate Studies, and Dean of Roswell Park Graduate Division
5. Outside reader must agree to review and attend seminar
6. Establish a defense date (include Track Coordinator at the beginning of this process!)
7. Check availability of members who must be in attendance on the day of your defense
  - Chair
  - Outside Reader
  - Committee Members
  - Director of Graduate Studies
  - Dean, Roswell Park Graduate Division
8. Notify the Track Coordinator of outside reader – they will arrange travel (flights), hotel, honorarium, itinerary (meals, conference rooms)
9. Copy of thesis given to Chair, DGS, Outside Reader, and Committee Members 3-4 weeks prior to tentatively scheduled defense date
10. Student responsible for providing outside reader with Outside Reader Approval Form and following up so form submitted to Dean's office one week prior to defense
11. Thesis defense announcement **must** be sent out one week prior to defense.
12. M-Form - is a fillable online form that should be completed, printed, and signatures obtained on the day of Defense.   
[M-Form for Verifying Completion of Graduate Program Requirements for Master's Degrees With Thesis and all PhD Degrees \(buffalo.edu\)](#)
13. Submit signed M-Form to the Track Coordinator to be held until final completion of requested revisions to thesis are completed.
14. Complete Exit Interview(s) including meeting with Department Administrator

## Departing from Roswell Park

### **Before your defense:**

- Inform the Track Coordinator of your readiness to defend as soon as possible but before any plans are made (e.g., confirming plans with outside reader).
- Notify the Department Administrator of your intent to depart from Roswell Park a minimum of four (4) weeks in advance. If you intend to stay in your mentor's lab beyond your defense date, we need to know this well in advance. Please talk with the Administrator for specific options.
- If you are on an F-1 visa and plan to convert to an OPT, please work with UB's Office of International Affairs and Roswell Park's Associate Dean of Education. As a courtesy, notify the Department Administrator of your plan.

### **When you know your departure date:**

- Complete the Separation Notice in your Workday profile no later than two (2) weeks prior to your last day on payroll (departure date).
- Complete the "[Data Attestation](#)" form found on i2 **no later than two (2) weeks** prior to your last day on payroll (departure date).

### **Please note:**

- Failure to comply with the above procedure may result in forfeiture of final paycheck.
- You are required to be on campus the final days leading up to your departure date, i.e., you cannot accept a new position and leave prior to your departure date without adjusting the departure date. Adjustments are made only in rare cases with extenuating circumstances.
- Your locker, desk and lab area must be cleaned prior to your departure. It is recommended that you review with the Lab Lead any handoff of materials, etc.
- Your ID badge is to be turned in on your departure date to the Track Coordinator or designee.
- When you turn in your ID, provide a forwarding address (if available) and personal e-mail.
- Suggestion regarding Roswell Park e-mail: we can no longer extend your e-mail privilege beyond your departure date. At least 30 days ahead of departure date, set an out of office message notifying colleagues of your new e-mail. Due to a glitch in our system, messages sent to your deactivated Roswell Park e-mail will not receive a "bounce back" message until 90 days past date of departure. This means if you don't notify people who e-mail you of your pending departure, they may not know that you have left Roswell Park.

## Information for New Students

### CONTACTS:

**Dawn Cartenuto**, Track Coordinator, 716-845-3257. Contact for all administrative questions.

**Dr. Michael Nemeth**, Director of Graduate Studies (DGS), 716-845-1775. May be contacted for academic guidance and any issues/concerns that you have with the Program.

**Dr. Adam Kisailus**, Associate Dean of Education at Roswell Park, Research Studies Center (RSC), Rm. R-226, ext. 5944. Contact for questions/issues related to overall pre-doctoral experience.

**Cheryl Krieger**, Department Administrator, 716-845-3256, CGP L5-311 Contact for any questions or concerns not resolved by those listed above.

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- Please notify the Track Coordinator of any **address changes**.
  - You are **required** to file for **New York State Residency**. The Education Office can provide information.
  - Inform Track Coordinator of **Class Registration(s)** each semester.
  - Inform Track Coordinator of **Lab Rotations**.
  - Payroll** is processed on a bi-weekly basis. On the Tuesday at the end of the pay period, your timecard must be submitted electronically in Workday in order for Payroll to release your paycheck to us for distribution. If you fail to review and submit your time in Workday three (3) times in a one-year period, your direct deposit will be suspended. Remember that you can complete a direct deposit form and have your pay automatically deposited into your bank account.
  - Time Off:**
    - You are **required** to **request time off approval** from the DGS during your lab rotation period. After you have selected a thesis advisor, approval requests should be addressed to your advisor and the DGS.
  - Travel:**
    - You are **required** to complete and submit the **Student Travel Approval Request** form to the Track Coordinator. This form must be completed and given to the Track Coordinator **prior to making travel arrangements**.
    - Provide all travel information to the Track Coordinator who will complete the Roswell Park Administrative Leave Form (A+ request).

**Forms must be completed in advance of making reservations for attendance at all out-of-town conferences.**  
**Do not presume you are authorized to travel/attend conferences until these forms are completed.**
    - After travel, provide the Track Coordinator with allowable, reimbursable receipts in a timely manner.

*If you do not follow the travel procedure, you may be responsible for any costs associated with the travel that are deemed not allowable.*

## Information for New Students

*Additional information you may find useful:*

- UB Graduate School information**, as well as course registration, can be found online. Please use the online system to register and check your grades. The UB Graduate School Website address is <http://www.grad.buffalo.edu>.
- Roswell Park's intranet** is known as "i2". Address: [i2.roswellpark.org](http://i2.roswellpark.org). Find it while logged into the Roswell network.
- You are required to comply with all **Roswell Park Employee and Student policies/procedures** and all **UB Student policies/procedures**
- Posters** can be printed at no cost using Roswell Park's Creative Service department
- 5<sup>th</sup> Floor CGP** (main Immunology offices/labs) **has 2 meeting rooms** – larger room is in the lab area "Team Meeting Room" and smaller room is in the office area "Small Conference Room". Rooms should be booked in advance.
- Consider joining **professional organizations** such as AAI or AACR. Check with your PI regarding reimbursement.
- Pay attention to **meeting announcements/flyers** that you receive in your e-mail; attend non- mandatory seminars when possible.
- Attend Education Department **student forums** to be involved with extracurricular activities.
- Renew your ATC** if needed.
- There is an **Employee Health Clinic** on campus. If you injure yourself while on campus, please notify your PI, lab lead or Department Administrator or go directly to Employee Health.
- Security Escorts** are available by calling x3069 (Public Safety). Please take full advantage of this if you are working late.