Welcome
to the Cancer Research Graduate Program
Admissions and Registration Questions

Q. If I’m accepted into the Cancer Research Graduate Program (CRGP), when can I start my graduate career?

A. CRGP students can enroll for the Spring Semester in January, or at the beginning of a Summer Session, or as late as mid-August when fall classes begin. New students begin research rotations in the first semester when they start. It is often most advantageous to begin rotations in the summer. This allows a student to rotate through labs without the additional coursework that occurs in the fall.

Q. So I can apply for admission in the Spring Semester?

A. Yes. Under this scenario the student would spend the spring semester completing the requisite three research rotations, then begin his/her dissertation research. In the summer, each CRGP student attends the Short Course. Due to the sequential nature of the first-year courses, a student starting in January would not begin the first two lecture courses (BRTP 821 and 822) until the following fall.

Q. How do I get started?

A. When students arrive on the first day, they should go to the Eppley Institute Administration office on the second floor of the Eppley Institute building. There they will need to fill out and process the Personal Data Form and I-9 paperwork to be put on the payroll. Students must bring two pieces of identification. Acceptable forms of identification include: driver’s license, social security card, birth certificate, and passport. At this time, the student must also fill out the W-4 form. The Administration Office will also help schedule a physical examination that is required by UNMC. Students should have a photocopy of their immunization records for this exam. The Eppley Administration Office will also provide the student with the UNMC Drug Policy, UNMC Safety Manual, and instructions on how to obtain parking privileges and identification cards. Graduate students are paid monthly and receive their paychecks on the last day of the month. Student stipends are taxable.

Q. Who can help me when I arrive at UNMC?

A. The CRGP program coordinators are Dr. Joyce Solheim (CRGP Graduate Committee Chair) and Misty Pocwierz (CRGP Administrator). Dr. Solheim will help you set up your rotations and explain courses of study. Additional contacts you may need are also listed below.

CRGP Graduate Committee Chair
Dr. Joyce Solheim
jsolheim@unmc.edu
Phone 402-559-4539
Office: Eppley Science Hall 8006

CRGP Administrator
Misty Pocwierz
misty.pocwierz@unmc.edu
402-559-4092
Office: Eppley Institute 2nd Floor
Consult the UNMC Graduate Studies Office website for information on forms and deadlines for the steps in the graduate student process, as well as for guidelines about vacation and other types of absences:

www.unmc.edu/gradstudies

The forms are at http://www.unmc.edu/gradstudies/phd_forms.htm

Graduate Studies Director
(for registration questions)
Terri Vadovski
402-559-6532
Office: Academic and Research Services Building 2nd Floor

Student Housing
402-559-5201

Student Health Program Assistant
Tere Batt
tbatt@unmc.edu
402-559-5158

Student Health Insurance
Pat Oberlander
Bennett Hall, Room 6001
poberlander@unmc.edu
402-559-7276
http://www.unmc.edu/stucouns/services/insurance.html

Q. How are questions specific to international students taken care of?

A. Questions pertaining to visa status or INS paperwork should be addressed to Steven Daubendiek, International Advisor, of the UNMC Office of International Studies and Programs.

Steven Daubendiek
International Studies and Programs
sdaubend@unmc.edu
402-559-6414

Q. How many credit hours should I enroll for each semester?

A. Until they advance to candidacy, full-time students must have at least 9 credits during the fall and spring semesters, 4 credits for the 8-week summer session, and 3 credits for the 5-week summer session. Except for special circumstances, a student must be enrolled continually throughout his/her graduate training.
Rotations and Advisor Choice Questions

Q. What is the purpose of doing research rotations?

A. Research rotations help students explore various approaches to cancer research before choosing an advisor for their dissertation work. Choosing an advisor is one of the most important decisions a graduate student will make. An advisor is responsible for overseeing a student’s research and providing guidance and recommendations that are critical for his/her scientific career. Thus an amiable and productive student/advisor relationship is crucial for a successful graduate career. With that in mind, both research interests and personal interaction must be considered when choosing a lab.

Q. How do I decide in which laboratories to do research rotations?

A. The best way to choose research rotations is to peruse the research interests of CRGP faculty members, meet with potential mentors, and then choose a lab that is doing research that interests you. The following internet site contains a list of CRGP faculty and links to their research descriptions: http://www.unmc.edu/eppley/about/faculty.html. A new student does not have to choose all three rotations prior to beginning the program. In fact, it is often advantageous to delay choosing rotations 2 and 3 until you become more familiar with the CRGP and its faculty.

Q. How many research rotations are required?

A. Three, 5-7-week (most typically 6-week) research rotations are recommended. Two rotations are the minimum, and only by permission of the CRGP Graduate Committee Chair (taking into account the extent of the student’s prior experience in research, particularly research in UNMC laboratories). If needed to produce a good match between student and advisor, a fourth rotation can be arranged.
Coursework and other Requirements Questions

**Q. How long does it take to complete the required coursework and research?**

A. The average Ph. D. student completes his/her degree and dissertation requirements in about 5 years. M.D./Ph. D. students typically require four years to complete their Ph. D. training, although completion in three years is possible.

**Q. What is the required Grade Point Average (GPA) that must be maintained in the coursework?**

A. Per UNMC Graduate Studies requirements, students must maintain a minimum GPA of 3.0, or they will be on academic probation. Once on academic probation, a student must bring the GPA back up to at least 3.0 within one year to remain in the UNMC graduate program. The CRGP also has the additional academic requirement that students who obtain a C+ or lower grade in any course that is being applied toward the CRGP course requirements must retake the course and obtain a higher grade.

**Q. What is required for completion of the CRGP coursework?**

A. The courses in the CRGP offer a strong emphasis on learning from the most up-to-date research. CRGP students typically complete the four BRTP courses in their first year, and in their second year take Principles and Methodologies in Cancer Research, which is a team-taught course focusing on new developments related to research in the cancer field. The CRGP students also often take 1 or 2 other courses, with the choice of the course(s) depending on their area of research. Beginning in their first summer (and continuing each summer thereafter), CRGP students take the Short Course in Cancer Biology. This Short Course focuses on a different cancer-related topic every year. Outstanding external scientific experts who are knowledgeable about the topic are invited to participate in teaching the Short Course, and each of the 3 or 4 experts presents an overview session and a research seminar, and then holds a discussion session with the students. During the Spring Semester prior to the Short Course, the students also have a faculty-led Journal Club in which the students take turns presenting articles by the Short Course speakers, as well as related articles on the Short Course topic. As part of their Seminar credit, CRGP students also attend 3 seminar series. The first is the weekly CRGP Graduate Student/Postdoctoral Fellow Seminar Series, in which CRGP Graduate Students begin presenting in the fall of their second year, and continuing presenting yearly until they graduate. The second is the weekly Eppley Institute Seminar Series, which usually features external speakers, and the third is the monthly Cancer Center Grand Rounds, which focuses on translational or clinical research.
TYPICAL CRGP COURSE SCHEDULE

Fall Semester, Year 1
BRTP 821 – Macromolecular Structure & Function (required) 4
BRTP 822 – Molecular Cell Biology 3
CRGP 896 – Research Other Than Thesis 1
CRGP 970 – Seminar (taken each Fall and Spring Semester, with the
          Spring Semester Seminar including a weekly Journal Club) 1
Total credits 9

Spring Semester, Year 1
BRTP 823 – Genetics and Gene Regulation 2
BRTP 824 – Cell Signaling 3
CRGP 896 – Research Other Than Thesis 3
CRGP 970 – Seminar (taken each Fall and Spring Semester) 1
Total credits 9

Summer Semester, Year 1
CRGP 940 – Short Course in Cancer Biology (taken each Summer) 1
CRGP 999 – Doctoral Dissertation credits sufficient for a full-time Summer
          Semester load (4 cr for 8-week session plus 3 cr for 5-week session) 6
Total credits 7

Fall Semester, Year 2
CRGP 880 – Principles and Methodologies in Cancer Research 3
CRGP 970 – Seminar (taken each Fall and Spring) 1
CRGP 999 – Doctoral Dissertation 5
Total credits 9
**Spring Semester, Year 2**

An additional course may be taken in this semester (or in the Fall semester, depending on when the course is offered, as listed on the student’s Program of Studies (e.g., Biophysical Chemistry, Advanced Immunology, Biostatistics, etc.) variable

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRGP 970 – Seminar (taken each fall and spring)</td>
<td>1</td>
</tr>
<tr>
<td>CRGP 999 – Doctoral Dissertation</td>
<td>variable</td>
</tr>
</tbody>
</table>

Total credits  9

**Remaining Semesters (as necessary to complete the degree)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional courses as listed on the student’s Program of Studies</td>
<td>variable</td>
</tr>
<tr>
<td>CRGP 970 – Seminar (taken each fall and spring)</td>
<td>1</td>
</tr>
<tr>
<td>CRGP 999 – Doctoral Dissertation</td>
<td>variable</td>
</tr>
</tbody>
</table>

Total credits  9

**Q. What else is required for the CRGP Ph.D. degree besides the coursework?**

A. Students must complete an original research project, write and orally defend a grant application for the comprehensive exam requirement, submit at least 1 first-author research manuscript for publication, write and orally defend a dissertation in the format specified by the UNMC Graduate Studies Office, and submit the dissertation to the Graduate Studies Office. In addition, before graduation all students must complete the Responsible Conduct in Research Course held by the UNMC Graduate Studies Office. During the course of their studies, students are expected to meet regularly with their Supervisory Committees, and they are required to provide the CRGP Graduate Committee with a thorough update on their accomplishments each year that documents progress in the program.

**Q. Is a Masters Degree offered if a student does not wish to complete the program?**

A. The CRGP is intended to be for training of Ph.D. students. The faculty recognizes, however, that circumstances may warrant a student’s leaving the program prior to completion of the requirements for the Ph.D. The student may qualify for a Master’s degree provided that the following conditions have been met: (1) completion of all didactic coursework, (2) completion of the Responsible Conduct in Research Course, (3) completion of a research project consistent with a Master’s degree level of achievement, (4) completion of a comprehensive examination (which may be either a grant application or a review manuscript, (5) completion of a Master’s thesis, (6) concurrence of the mentor and the student’s Supervisory Committee, and (7) concurrence of the CRGP Graduate Committee.
Supervisory Committee Questions and Answers

Q. What is a Supervisory Committee?

A. The student’s mentor, plus 3-4 additional faculty members with expertise related to the student’s Project who have been selected by the student and mentor, comprise the Supervisory Committee. For CRGP students, a majority of the Supervisory Committee members must be CRGP faculty members. The Supervisory Committee oversees the approval of the student’s course of study (as listed on the Program of Studies form) and the research project, evaluates the written and oral comprehensive exams, and evaluates the written dissertation and its oral defense. This Committee is an important resource for the student’s education.

Q. How do I set up my Supervisory Committee?

A. Each graduate student should consult with his/her advisor to choose the Supervisory Committee members. Once they are chosen, the student should contact each of the faculty members to set up a brief meeting, and then meet individually with the faculty members to describe the research project and ask the faculty member to serve on the Supervisory Committee. Once 3-4 faculty members (in addition to the mentor) have agreed to serve on the Supervisory Committee, the student should complete the “Recommendation for Appointment of a Supervisory Committee” form, get it signed by the members of the CRGP Graduate Committee (not the Supervisory Committee), make a copy to keep, and give the original to the Graduate Studies Office. The first Supervisory Committee meeting should be held (ideally) soon after the Supervisory Committee is formed.

Q. If one of my Supervisory Committee members leaves UNMC, can he/she continue to serve on my Supervisory Committee?

A. Yes, if the student, mentor, and other Supervisory Committee members agree that he/she should continue, if the faculty member who has left agrees to continue, and if the faculty member has retained a faculty appointment at UNMC. He/she may attend your Supervisory Committee meetings and stay informed about your progress via phone and email. The faculty member must be physically present at your defense to hear the seminar and sign the dissertation.

Q. What happens if one of my Supervisory Committee members must resign?

A. A minimum of 4 faculty members must be on the Supervisory Committee. If this criterion is met with the remaining Committee, then the student must only notify the Graduate Studies Office (in writing) of the resignation. The addition of another faculty member is necessary if there are fewer than 4 members. The CRGP Graduate Committee Chair and the Dean of Graduate Studies must approve the new Committee member.

Q. How should I prepare for my Supervisory Committee meetings?

A. A meeting time and location for each Supervisory Committee meeting should be arranged several weeks in advance, since it can be difficult to find a time when all the members can attend. The administrative staff assistant who helps your laboratory can schedule a room for the meeting.
At the first Supervisory Committee meeting, the student should present a draft of the completed Program of Studies form, and ask the Committee members whether they have any suggested additions. (The Program of Studies form is available on the Graduate Studies Office web site.) Once the completed form is approved, the student should ask the mentor and the CRGP Committee Chair to sign the form, make a copy to keep, and submit the original, signed copy to the Graduate Studies Office.

At each Supervisory Committee meeting, the student should provide an updated research description, in the form of a PowerPoint presentation. It is advisable to have a Supervisory Committee meeting right after the annual CRGP seminar presentation, as well as having Supervisory Committee meetings on other dates. At each Supervisory Committee meetings, the student should provide an updated portfolio (a CV plus a written abstract of new research findings) for each member of the Supervisory Committee. The student should discuss with the members of the Supervisory Committee how recent educational experiences and accomplishments are contributing to progress toward the career goals. After each Supervisory Committee meeting, the student or mentor should write minutes of the meeting (listing who was present and what was discussed and concluded), and email the minutes of the meeting to the Graduate Studies Office, to the CRGP Administrator, to the CRGP Committee Chair, and to all the members of the Supervisory Committee. The minutes of the Supervisory Committee meetings provide important documentation of progress for the student.
Comprehensive Exam Questions and Answers

Q. What is the comprehensive exam?

A. The comprehensive exam is a research proposal that is written by the Ph.D. student and presented to an Examining Committee in written and oral form. The completion of the comprehensive exam is required for a student to advance to Ph.D. candidacy.

Q. When do I have to complete my comprehensive exam?

A. In order to remain in the CRGP, all CRGP students must complete the oral defense of their comprehensive exams by the time they have been in the UNMC graduate program for 3 years. Exceptions will only be granted in the following cases: maternity or paternity, death in the immediate family, or official leave (for any reason, including family, medical, or military leave) taken from the UNMC graduate program during the first 3 years. It is strongly recommended that students schedule their comprehensive exam defense early, since inability to find a defense date that accommodates the schedules of all the members of the student’s Supervisory Committee will not be accepted as a reason to extend the deadline. Students who entered the UNMC graduate program after Jan. 1, 2012 will be required to complete their comprehensive exam defense within this time frame. It is recommended that each student hold a meeting to discuss his/her proposed Specific Aims with the Supervisory Committee by a date no later than 6 months before the final comprehensive exam defense deadline (and preferably earlier than 6 months).

Q. What forms must be submitted before and after the comprehensive exam?

A. The three relevant forms are on the web site of the Graduate Studies Office (at http://www.unmc.edu/gradstudies/current/degree-requirements/phd/phd-forms.html). There is a form for scheduling the comprehensive exam, another form for reporting the result, and a form for confirming advancement to Ph.D. candidacy after passing the exam.

Q. What will be the topic and format of my comprehensive exam?

A. The topic is chosen by the student, with the approval of the Supervisory Committee. The topic should not be research that the student has already completed, nor a topic extracted from one of the mentor’s grant applications. The topic may be research that the student is interested in doing in the mentor’s lab in the future; however, the topic does not have to be related to the student’s (or mentor’s) research project.

The format is the Specific Aims, Research Plan, and Literature Cited sections of the National Institutes of Health R21 application. The R21 grant mechanism is intended to encourage exploratory and developmental research by funding a 2-year research project with a total budget of $275,000 (just to give an idea about the scope of the proposed project).
For the font, Arial 11 should be used, with margins of at least 0.5 inch on each side, and single spacing should be used. Examples of R21 grant applications are on the internet at [http://www.niaid.nih.gov/researchfunding/grant/pages/appsamples.aspx#r21](http://www.niaid.nih.gov/researchfunding/grant/pages/appsamples.aspx#r21), and there are some tips for NIH grant writing at this page: [http://grants.nih.gov/grants/grant_tips.htm](http://grants.nih.gov/grants/grant_tips.htm).

The Specific Aims section is limited to 1 page, the Research Strategy is limited to 6 pages, and the Literature Cited section does not have a page limit. The Specific Aims page should include a title, give a brief background that supports the rationale for the project, state the central hypothesis of the proposed research, and list the Specific Aims of the project (typically 2-3 Aims). In the Research Strategy section, there should be 3 sub-sections: Significance, Innovation, and Approach. The Significance sub-section should provide any additional background information that will assist the Examining Committee with understanding the project and appreciating its importance. The Innovation section should clarify the novelty of the project. The Approach sub-section should describe and show the supporting preliminary data, and describe the research design and the procedures to be used to accomplish each Aim. In the Approach sub-section, the student should include how the data will be collected, analyzed, and interpreted, as well as potential difficulties and limitations in the procedures and alternative approaches that could be employed to achieve each aim. In the Literature Cited section, the references should be listed that are cited in the body of the proposal. The references should include author(s), year, title, journal name, volume, and inclusive page numbers.

**Q. How will I get preliminary data for the comprehensive exam grant application?**

**A.** The preliminary data will consist of published figures and tables (with references) from the scientific literature that support the rationale for the central hypothesis and Aims and the feasibility of the Approach. The CRGP does **not** want students to include fictional data as preliminary studies in the comprehensive exam. The Supervisory Committee will give students some leeway on what types of preliminary data are acceptable. For example, NIH study sections generally require an investigator to have the transgenic mouse before they will fund a grant to study the effects of the transgene. (Reviewers are naturally concerned that there may be technical problems in generating the mouse.) For the comprehensive exam, it would be appropriate for a student to state that the mouse would be made as part of the proposed project, and the Supervisory Committee will expect you to know how a transgenic mouse would be generated.

**Q. What are the steps in the preparation and evaluation of my comprehensive exam?**

**A.** After getting the topic approved, but before writing the full grant, the student should write the Specific Aims page and send it to the Supervisory Committee. With the Aims page, the student can also include the Significance section and a brief outline of the Approach. Getting approval of the Aims can sometimes be completed via email. A meeting with the Supervisory Committee (with a brief PowerPoint showing a few background slides, the Aims, and an outline of the Approach) is not required for approval, but it is strongly recommended because it allows all the members to discuss the Aims and Approach with the student simultaneously and reach consensus.
After approval of the Aims, a modified version of the Supervisory Committee should be formed to serve as the Examining Committee. The student and mentor should discuss who would be a UNMC faculty member (CRGP or non-CRGP) who has expertise suited to the comprehensive exam topic (and who is not already part of the Supervisory Committee). The name of the faculty member should be proposed to the Supervisory Committee members, and they can approve or disapprove of the choice.

Once the choice of the external member has been approved, that faculty member, along with the other members of the Supervisory Committee, will be given a copy of the exam to review after it has been written. The student’s mentor may attend the oral exam to observe, but is not allowed to ask questions or assist the student in formulating answers to the examiners’ questions.

Typically, the questions that arise during the oral defense test the student’s comprehensive knowledge that is related to elements of the grant proposal. For example, a student should understand how the proposed project fits in with other research in the field. If a student proposes to use a specific technique, he/she should be prepared to explain the principles behind how that technique works.

**Q. How long will the comprehensive exam process take?**

**A.** The precise answer to this question will vary from student to student. However, here is an example timeline:

1. Gain approval of Specific Aims/formation of Examining Committee: **January 15**
2. Submit written grant application: **March 15**. Ask the Examining Committee for notification within 10 days if there are any major problems that should prohibit defending the grant application. (If such a notification is received, the student is advised to rewrite the proposal before scheduling the oral defense.)
3. Oral Exam: 21-28 days after grant application submission: **April 5-April 12**

(Committees are encouraged to allow the defense sooner than a month after submission whenever possible. However, Examining Committee members have many deadlines that they cannot delay, and so may need up to 28 days to complete the review. The Examining Committee will inform the student on the day of the defense about their vote. If the student would like to receive a brief written evaluation of the performance in the written and/or oral portions of the exam, the student can request such an evaluation from the Examining Committee.

**Q. What if it does not go well?**

Relax, it is very rare for CRGP students to be denied a Pass for the oral defense on the first try. Students who have received admittance to the CRGP have been chosen from a competitive field because they are excellent. However, students are sometimes asked to re-try the comprehensive exam to address the specific deficiencies of the first attempt. Per the UNMC Graduate Studies guidelines, if more than one member of the Examining Committee recommends a Fail result, the student fails the exam, and will be informed of the specific deficiencies. A second attempt will be scheduled at a later time, and the student must pass the second time to stay in the graduate program. There is lots of help available to make sure that the exam goes well for students.
Dissertation and Graduation Questions

Q. *When can I begin writing my dissertation?*

A. When you and your mentor believe you are ready to begin the preparation of the dissertation, present a draft of your dissertation Table of Contents, along with a research update, to your Supervisory Committee at a meeting, and ask your Committee if they have any suggested changes. The tentatively final abstract and dissertation should be available for review by the Supervisory Committee four weeks before the final oral exam is scheduled. Before you begin preparing your dissertation, review the “Instructions for Preparation and Submission of Doctoral Dissertation”, which can be found at the following Graduate Studies web site:

http://www.unmc.edu/gradstudies/current/degree-requirements/phd/

Q. *What happens if the Supervisory Committee does not approve my dissertation?*

A. It can be accepted once the basis for the disapproval has been corrected, and the Supervisory Committee has reexamined the document and confirmed that the corrections have been made. If these criticisms involve extensive changes, the question of postponing the final oral examination should be considered by the Supervisory Committee.

Q. *What forms must be submitted and what else needs to be done to graduate?*

A. Consult the information on the Graduate Studies Office web site about this:


Note that prior to graduation there must be evidence of submission of dissertation material to a peer review journal given to the Graduate Studies Office. (In other words, you must have submitted a first-author research manuscript to a scientific journal for publication in order to graduate with a Ph.D.)