THE UNIVERSITY OF CHICAGO

CELL AND MOLECULAR BIOLOGY

2016-2017

GRADUATE PROGRAM HANDBOOK

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PROGRAM OF STUDY
IN BRIEF

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Quantitative Approaches Bootcamp

Incoming students from all programs in the Biological Sciences Division are strongly encouraged to attend the week-long Quantitative Approaches Bootcamp, held at the Marine Biological Laboratory in Woods Hole, Massachusetts, in September each year. CMB students are expected to attend.

Founded in Woods Hole, Massachusetts, in 1888, the MBL is a private, nonprofit institution and an affiliate of the University of Chicago. The MBL is dedicated to scientific discovery and improving the human condition through research and education in biology, biomedicine, and environmental science.

The Bootcamp will include workshops, tutorials, seminars, and social activities designed to develop students' computational, statistical, and professional skills, familiarize them with the MBL, and help them get to know their fellow first-year students in the BSD.

First Year

The first year of graduate study is spent in coursework, exploring research opportunities and performing laboratory rotations. Students are expected to have made a commitment to join Cell and Molecular Biology (CMB) by the end of the first academic year (spring quarter).

Students are required to undertake short research projects in at least three different laboratories before beginning their dissertation research. These rotations are performed during the first academic year – one each quarter. Additional rotations and/or later rotations require approval from the Curriculum Committee.

Seminars given by invited speakers are regularly offered and students are strongly urged to attend. In addition, a seminar course, *Introduction to Research,* has been organized particularly for first year students. This course consists of a series of presentations by faculty to introduce their research programs.

Students are also expected to attend the yearly CMB Annual Graduate Progam Retreat and, beginning in their second year, present their research in progress each time.

At the end of June, students take the Preliminary Examination as a first step towards candidacy for the Ph.D.

Second Year

Students choose research advisors by July 1 of the Summer Quarter after the first year, and begin developing a research project. By early Fall Quarter, each student assembles a thesis committee: it is composed of the student's advisor and three other faculty members. Its members are proposed by

the student and the student's advisor, and must then be approved by the Curriculum Committee. The student then prepares a written proposal for dissertation research and defends this proposal before the thesis committee (the Qualifying Examination) by the end of Fall Quarter. Passing the Qualifying Exam permits the student to enter into candidacy for the Ph.D. Students must have their subsequent meeting with their thesis committee by the end of Spring Quarter of their second year.

Third Year and Beyond

After the Qualifying Exam, the student concentrates full time on thesis research. All students are required to serve as teaching assistants (TAs) for two quarters; CMB students are expected to perform one TA in the third year and one in the fourth year. Finally, each graduating student writes a dissertation describing his or her research, presents the work in a public seminar, and defends it before a faculty examining committee.

Evaluation

Formal evaluation of each student's progress continues every academic year. In the first year and a half the evaluation is based on the student's performance in courses, laboratory rotations, and the Preliminary and Qualifying Examinations. In subsequent years, the student's regular meetings with their thesis committee form the basis of evaluation. After each meeting, the committee's report is posted on the CMB graduate program chalk site, where it can be accessed by the student and the members of the student's thesis committee.

In addition to the regular, formal thesis committee meetings held throughout their term as graduate students, we expect students to have frequent informal conversations with professors in their courses, their research advisor, and members of their thesis committees. In this way, students can obtain frequent appraisals of their progress and constructive advice.

REQUIREMENTS FOR THE MASTER OF SCIENCE DEGREE

Students leaving the program before completing the Ph.D. may apply for a terminal degree of Master of Science. The terminal Master's will only be awarded to candidates who 1) have been matriculated for four quarters or more, 2) have successfully completed all course requirements required for the Ph.D. (as outlined below) without having received more than one C in a core course and one C in all other courses, 3) have successfully completed the Preliminary Examination with an unconditional pass or having satisfied all conditions for passing and 4) are otherwise in good standing at the time of application. Successful completion of the Qualifying Examination is not a requirement for the Master's. All applications for a terminal Master's degree must be made in a formal letter to the Curriculum Committee, in which the candidate withdraws from the Ph.D program and asks to receive a M.S. degree. It should be understood that because students apply and are accepted to a doctoral program, the awarding of Master of Science degrees is exceptional and strictly at the discretion of the Curriculum Committee.

REQUIREMENTS FOR THE PH.D. DEGREE

A Ph.D. candidate must fulfill certain formal coursework requirements, pass one preliminary and one qualifying examination, and present a satisfactory dissertation describing the results of original research. Students are required to submit, if not publish, at least one first author paper prior to their defense. Given the significant length of time required for submission and then publication of original research, students are strongly encouraged to begin planning for submission as soon as research developments warrant.

Cell and Molecular Biology expects its students to have a knowledge of and proficiency in cell biology, molecular biology, and the genetic approaches to these areas. This requirement will normally be met by fulfilling the formal coursework listed below, but the curriculum affords flexibility. Courses taken at other institutions, in other departments, or as part of the Medical School curriculum may substitute for CMB courses with the approval of the Curriculum Committee.

F**ormal Coursework**

To obtain a Ph.D. in the Division of Biological Sciences, nine graded courses are required. The CMB graduate program requires a "quality" letter grade; a grade of "Pass" (or "P") will not fulfill the requirement, unless a course only provides pass/fail grading. To fulfill the requirements for a Ph.D. in our graduate program, a student must take one course in each of three areas during the first year: 1) genetics, 2) cell biology, and 3) molecular biology. In addition to these core courses, a second course in one of these three areas is required to develop greater proficiency in a subdiscipline. The total of four required courses can be selected from the following:

In genetics:

Genetic Analysis (MGCB 31400, Bishop and staff) Autumn

In cell biology:

Cell Biology I (MGCB 31600, Turkewitz, Glick) Autumn
Cell Biology II (MGCB 31700, Glotzer, Kovar) Winter

In molecular biology:

Molecular Biology I (MGCB 31200, Rothman-Denes, Bishop) Winter
Molecular Biology II (MGCB 31300, Staley) Spring

Students should note that several courses have prerequisites for enrollment, or require the consent of the instructor.

Three additional graded electives must be taken, one of which may be a reading course.

A student is also required to do three laboratory rotations before selecting an advisor and laboratory to pursue a Ph.D. dissertation. These rotations will be graded, and two of the graded rotations will count towards the divisional course requirements for the Ph.D.

Before registering for courses each quarter, first year students will meet with members of the Curriculum Committee and obtain approval for the courses and rotations they intend to take; their academic advisor must sign the student's quarterly course approval form, which is then submitted to the Graduate Program Administrator. Registration will not be approved unless this form has been appropriately completed, signed, and submitted.

Students are required to take a minimum of three courses plus a rotation in Fall Quarter, and two courses plus a rotation in Winter and Spring Quarters. To take fewer than the required courses in any quarter, a student must obtain the approval of his/her academic advisor and the Curriculum Committee. A student may not drop a course without the approval of his/her academic advisor and the Curriculum Committee.

Reading courses taken for a grade must be approved by the Curriculum Committee prior to registration. Students must petition the Committee for approval in writing, and include with the petition a copy of the course syllabus. When approval has been given, the student must register for the reading course during the regular quarterly registration session. Every reading course must conform to the following requirements: 1) it must meet weekly, 2) the instructor must provide a syllabus for the course and an evaluation of the student's performance, both of which will become part of the student's file, and 3) the student must submit a written paper.

Students entering CMB with advanced coursework at graduate level should inquire whether this coursework can substitute for required electives.

In courses (not including rotations), students must maintain a grade average of "B" or better, and cannot have more than two "C's" overall or more than one "C" in a core course. The Curriculum Committee will advise students not in good standing at the beginning of each quarter in their first year.

Introduction to Research

All first-year students are required to participate in MGCB 31900, *Introduction to Research*. This course is comprised of presentations by faculty designed to provide incoming students with information on a variety of research opportunities available to them.

Training Grant Requirements

Students should be aware that, in addition to the divisional and program course requirements, training grants may also have course requirements that funded students must fulfill. The Molecular and Cellular Biology training grant requires students to take one course each in molecular biology, cell biology, and proteins. The Genetics and Regulation training grant requires students to take one course each in transmission genetics, molecular biology, and population or evolutionary genetics. If you have questions about training grant course requirements, you should consult the Training Grant Administrator.

Laboratory Rotations

Students undertake short research projects in at least three different laboratories before beginning their dissertation research. Before discussing a rotation with a potential mentor, students should read the literature from the lab and formulate a clear interest in the research conducted by the lab. Before finalizing a rotation, students should discuss their rotation options with their academic advisor. All students must obtain the approval of their academic advisor for each rotation they propose to undertake and the student must submit a completed and signed Lab Rotation Approval form to the Graduate Program Administrator. If a student is considering a rotation with a faculty member who is not a trainer in CMB, s/he must petition the Curriculum Committee for approval.

Rotations are performed during the Fall, Winter, and Spring Quarters. Each rotation lasts ten weeks, coinciding with the academic quarter, except in the case of Fall Quarter when rotations

begin several weeks before the quarter starts and extend roughly two weeks beyond the end of the quarter. The purpose of the rotations is to expose students to different research problems and environments, broaden their acquaintance with useful laboratory techniques, and introduce them to the conceptual framework of experimental design, execution, and interpretation. The student should write a 1- 2 page report on his/her rotation project(s) and submit this to the lab PI, who will in turn provide the student and the Curriculum Committee with an evaluation of the student's performance at the end of the rotation.

Teaching Assistantships

Teaching skills are an important component of a successful academic career. All students are required to serve as teaching assistants (TAs) for two quarters. Students are expected to perform one TA in the third year and one in the fourth year. Exceptions to these guidelines will require the approval of the Curriculum Committee. All TA choices require the approval of a student's PI. The Curriculum Committee has selected courses that are expected to provide a good educational experience for the TA, and these are listed online at https://studentemployment.uchicago.edu. Responsibilities may include leading discussion groups, lecturing, writing problem sets and exams, grading and running laboratories. At the end of each course,
the instructing faculty member will evaluate the TA's performance.

First Year Advisory Meetings

In their first year in the program, students will meet with the members of the Curriculum Committee each quarter in the week prior to registration. At this meeting, the Curriculum Committee members will help students to select appropriate courses and provide guidance on lab rotations.

Vacations

As graduate students who are fully registered and receiving a full stipend for four academic quarters, all students are required to be on campus, in residence, and engaged in study or research during all four quarters, including the summer quarter. During their first year in the graduate program, vacations generally coincide with the university's academic calendar. Prior to joining a laboratory, first year students who wish to take a vacation at other times, including during summer quarter, must obtain the approval of the Curriculum Committee. After joining a laboratory, the amount and the timing of vacation must be agreed upon by a student and his/her advisor.

The Preliminary and The Qualifying Examinations

The Biological Sciences Division requires that "a general oral or written qualifying examination, separate from course examinations, must be passed by the student upon the major subject offered and such subordinate subjects as may be required by the program concerned." In Cell and Molecular Biology, this examination has two parts; the examination procedure has been designed to ensure that preparing for the examination is an educational experience for the student. Questions about these examinations that are not answered by the information that follows should be directed to the Curriculum Committee.

Preliminary Examination (Part I)

After completing coursework in their first year in the graduate program, students take their Preliminary Examination at the end of June. The purpose of this exam is to determine students' readiness to start working independently on their doctoral research. The exam presupposes general knowledge in the areas of molecular genetics and cell and molecular biology, and students' ability to use that knowledge in analyzing current questions, ideas, hypotheses, and models in these fields, as well as familiarity with the methods used in these fields. It is important that students be able to think about different experimental approaches that can be used. Course work during the first year, attendance at seminars, and reading the current literature should be good preparation for the exam.

Any students with more than one grade of C in the four core courses, or who has not maintained at least a B average, will not be permitted to take the Preliminary Examination unless the Curriculum Committee grants a special exemption.

The format for the exam is a research proposal on a topic chosen by each student. To encourage creativity and independent thinking, the topic should not be closely related to the student's doctoral project or to projects on which they have previously worked, including undergraduate projects and rotation projects. Additional inappropriate projects include those closely related to projects ongoing in rotation labs. Students must identify an important general area in which research is needed, frame an interesting specific research question in that area, design a set of experiments to test an explicit and compelling hypothesis, and discuss how the potential results will be interpreted. A critical aspect of the exam is understanding the limitations of different approaches and defining alternative, complementary approaches. This format is designed overall to develop students' ability to formulate interesting hypotheses from the current literature.

After discussing possible topics for their proposal with faculty, students should prepare an abstract describing the topic they plan to develop in their proposal. The abstract should be one page or less in length and should include:

- an opening section defining the question to be addressed and stating an explicit hypothesis for what the answer to the question might be
- only essential background
- a clear and logical "set-up" of the hypothesis to be addressed
- a defense of the importance of the question
- the proposed specific aims (the experimental goals); include the explicit experimental hypothesis that is the focus of the aim
- general experimental strategies for each aim

References should be included and a key, relevant review should be attached.

The written proposal should include the student's name and a title and be five single-spaced pages in length, including figures (please follow the NIH format of Arial eleven-point font and half-inch margins). This limit does not include references, for which there is no page limit. The scope of the experiments proposed should be roughly what a graduate student might achieve in three to four years of doctoral research. The proposal should be organized as follows:

- Specific Aims (one page). This section should expand and develop the abstract (see description of contents above). The maximum number of specific aims permitted is three, since it would be difficult to discuss a larger number in sufficient depth; students are

advised to provide only one specific aim, to allow sufficient space to address interpretations of possible outcomes as well as alternative approaches.

- Background. Give a brief introduction, providing only essential background on the topic and elaborate on the significance of and interest in the question and the impact testing the hypothesis would have on the field, if successful.
- Experimental Design. Outline the approaches to be used to address the experimental hypothesis. It is important to develop a clear rationale for the experimental design; the minute details of the experiments are less important.
- Address possible outcomes, pitfalls, alternative approaches and implications of the results. This can be integrated with the Experimental Design section, or presented separately.

The student will submit the final proposal in hard copy (if requested) and by email to the examining committee and to the Graduate Program Administrator the Friday before the week when the oral examinations are scheduled. To assist the examiners, the student should also provide a copy of the most useful published review of the field.

The oral exam lasts for approximately 120 minutes. Students should prepare thirty minutes of material: they should briefly present the proposal objectives and the motivation for these objectives; two powerpoint slides are allowed. The faculty examiners question the students about the significance of the question, the foundation for the hypothesis, the potential impact of the hypothesis, the focus of the aims, the experimental rationale, possible interpretations, and alternative approaches that might be important. Because part of the purpose of the exam is to test a student's general knowledge in the area of molecular genetics and cell and molecular biology, faculty may ask some general questions to probe the student's knowledge.

The examining committee will evaluate the written document together with the oral presentation, using the following criteria:

1. Knowledge of fundamental ideas and paradigms in cellular and molecular biology and genetics
    a. Does the student's current knowledge have sufficient breadth to enable him to draw from related fields in the analysis of a given problem?
    b. Does the student's knowledge of the chosen area of her proposal have sufficient depth to enable her to understand its current status and identify current questions?

2. Quality of research strategy posed
    a. Is the logical structure of the strategy sound?
    b. Have the possible experimental outcomes been considered and their interpretations relative the original hypothesis been carefully evaluated?

An important goal of the exam is to provide an opportunity for students to improve their writing skills. In general, students should not be surprised if they are asked to revise the written document after the exam. In the past, students showing deficiency in writing have been required to take a course in writing.

Based upon the student's performance, the examination committee recommends one of the following:

A. Pass unconditionally
B. Pass conditionally, with revision of written proposal and/or oral presentation required. The revised proposal should be submitted within two weeks in hard copy and by email to the examining committee and to the Graduate Program Administrator, and the oral presentation

should take place within a month. All members of the examining committee will evaluate the revised proposal and oral examination. The student will be informed of the final decision one week after completing the requirements.

C. Pass conditionally, with further course work required in one or two areas.
D. Unsatisfactory, with the recommendation that the student retake the exam within the quarter.

The Curriculum Committee then meets to consider this recommendation, taking into consideration the student's overall academic performance as well as his/her performance on the examination. Students who perform unsatisfactorily on the exam and are permitted to retake it must do so by the end of the Summer Quarter. During the interim, students will continue to receive stipend support. The examining committee for the retaken exam will be selected by the Curriculum Committee Chair, and will contain at least one member of the first examining committee and at least one new member.

If the exam is retaken and the student does not pass, the student will be asked to leave the program.

Choosing a Research Advisor and Forming a Thesis Committee

At the end of the Spring Quarter of the first year of graduate study, the student will choose a research advisor. If a student would like to join the lab of a faculty member who is not a trainer in CMB, s/he must petition the Curriculum Committee for approval. A thesis committee is formed after the student, in consultation with their mentor, submits a list of appropriate faculty to the Curriculum Committee. The list should be submitted by mid-October, with a formal written petition requesting approval of the composition of the thesis committee. The thesis committee will be comprised of at least four faculty, three of whom are trainers in CMB. The list should indicate the faculty member who has agreed to serve as Chairperson, the choice of which should follow a discussion with the student's mentor. Note: the Chairperson must be a trainer in CMB. The Chairperson is responsible for preparing detailed reports after each committee meeting (see "Regular Meetings" below) that provide clear feedback to a student concerning his/her progress. It should be noted that committee members as well as the mentor have a collective responsibility in overseeing a student's training. Once a thesis committee is constituted, its composition can be changed only by petitioning the Curriculum Committee. Such changes may be necessitated by differing circumstances, including a shift in the student's experimental focus or unavailability of a faculty member.

The Qualifying Examination (Part II)

It is important to note that the Qualifying Exam is not a thesis defense: it does not require preliminary results although they can be used if available. Additionally, the student should have demonstrated to the mentor by this time sufficient development of experimental skills and good laboratory practices, such as regular reading of relevant literature. The exam tests the student's ability to:

1. Propose a coherent set of avenues to answer the question (SPECIFIC AIMS);

2. Choose a topic: that is, formulate an important biological question (SIGNIFICANCE);

3. Summarize critically the current literature on that topic (BACKGROUND);

4. Describe a series of experiments, taking into account possible pitfalls and therefore alternative approaches (METHODS OF PROCEDURE).

The written proposal should be modeled after an NIH grant application which should consist of specific aims (one page), background and significance/impact (two pages), a description of experimental approaches, limitation and alternatives, and references. The entire proposal should be no more than 10 pages. Figures must be included as part of the page limit, not as additional pages at the end. References are not included in the 10 page limit. It is not appropriate to describe reaction volumes, salt concentrations, etc., unless conditions are crucial to specific reactions. Examples of past proposals will be available in the Graduate Program Administrator's office.

The oral exam should be scheduled to take place by mid-December. The written proposal should be submitted to the members of the thesis committee and to the Graduate Program Administrator no later than one week before the oral exam. In the event that circumstances indicate a different schedule and/or the student's thesis committee is unable to meet prior to this time, the student must secure permission to postpone the exam from the Curriculum Committee. **All members of the student's thesis committee must be present for the Qualifying Examination.**

CMB Mini-Retreat

The CMB Mini-Retreat is held in spring quarter. Faculty, students, postdocs, and others associated with CMB are invited to this event; each one features presentations on research-in-progress by graduate students and postdocs, and is designed to encourage informal interactions between participants. Graduate students are required to present at the Mini-Retreat at least once.

Publication Requirement

To receive a Ph.D. in Cell and Molecular Biology, each student must submit, if not publish, at least one first author paper prior to their defense. This requirement formalizes the expectation that every CMB doctoral student will make an original contribution to the scholarship in his/her field. Additionally, the requirement ensures training in fundamental aspects of our discipline: preparing a manuscript for submission to a journal, replying to reviewer comments, and finalizing the manuscript for publication.

The student's thesis committee will assess whether a particular publication is sufficient to meet the requirement. Students may request an exception to the publication requirement by petitioning the Curriculum Committee and providing a supporting letter from the thesis committee.

Regular Meetings with the Thesis Committee

Students are required to meet with their thesis committee six months after their first meeting (the Qualifying Examination) and at least annually thereafter, until the fifth year, at which time the thesis committee should meet every six months. To schedule a meeting, students should consult the members of their thesis committee, determine a date and time agreeable to all, and then notify the Graduate Program Administrator. The Graduate Program Administrator will reserve a meeting room, post the meeting details on the CMB graduate program chalk site, and ensure that a report form is given to the committee chair.

No less than one week prior to the meeting, the student should submit to committee members a written summary of experimental progress since the last meeting as well as future objectives; a copy should also be submitted to the Graduate Program Administrator. The summary should include the original aims and a discussion of how the original aims have been modified, if applicable. The summary should also contain descriptions of experiments focused on these aims and, in particular,

the data to be discussed at the meeting. Students are also encouraged to define in a brief statement the issues that would most benefit from the Committee's input. In addition, the summary should include a c.v. for the student that indicates meetings attended, poster or oral presentations, publications, awards, teaching assistantships, serving as a student representative, and supervising undergrads or rotation students in the lab.

At the beginning of the meeting, the mentor provides a review of the student's progress; the student is not present for this review. The review is followed by an oral presentation of the experimental work by the student. The student should prepare a presentation that allows ample time for a thorough discussion. At the end of the meeting, the committee discusses the student's progress; the student is not present for this discussion. At the end of every meeting students will also have time alone with their thesis committee for discussion without their advisor present.

At the end of each meeting, after consulting committee members, the Chairperson should prepare a report evaluating the progress of the student as well as making recommendations for future work. In the report, the Chairperson should address the following issues: (i) specific experimental goals and accomplishments since the previous meeting, (ii) evaluation of progress, describing strengths and weaknesses of the student and (iii) future experimental initiatives. The report is signed by the Chairperson as well as the faculty mentor. The report as well as the student's progress summary will be posted on the CMB graduate program chalk site, where they can be accessed by the student and the members of the student's thesis committee.

For regular meetings, at least three members of the committee must be present, including the student's advisor and the Chairperson. If a meeting is to be held in the absence of one or more faculty members, the student should attempt to meet informally with such faculty in order to discuss his/her progress. Regular meetings help to ensure that students are making adequate progress in their dissertation research and to provide the student with a broader base of expertise on which to draw for help and advice. They also strengthen the student's acquaintance with faculty other than the thesis advisor; this provides a stronger basis for training, and also identifies individuals in addition to the advisor who can subsequently provide informed evaluations of the student in the form of letters of reference.

Students may register any disagreement they have with a report on their thesis committee meeting. To do so, they should prepare a written statement of their disagreement and submit this to the chair of their thesis committee. Students having problems with their research project, their advisor, or the responses of their thesis committee to their work should approach the chair of their thesis committee to discuss how to handle such problems. Alternatively, students may contact the Curriculum Committee about difficulties they may be having; letters to the Curriculum Committee in this regard are always confidential.

Postponement of Thesis Committee Meetings

After each meeting of a student's thesis committee, the committee chair submits a report that indicates when the student's next meeting should take place. Students are expected to schedule their next meeting to meet the deadline set by their committee. Holding committee meetings in a timely manner is a requirement that must be met if the student is to remain in good standing with the graduate program, and also allows students to take advantage of the committee's input in the most productive way.

If a postponement of the meeting is needed, the student must obtain approval for an extension from his/her advisor and committee chair; the student must communicate approval of the

postponement to the CMB Program Chair and Graduate Program Administrator by email, and include an explanation of the reason for the requested extension; the student should copy his/her advisor and committee chair to indicate their concurrence.

Except in rare cases, the meeting should take place within three months of the original date. Additional extensions are strongly discouraged, and require the student to formally petition the Curriculum Committee for approval.

Change in Research Focus

If the focus of a student's research changes during his/her graduate career such that it no longer falls within the CMB program's area of expertise, it will be necessary for the student to change his/her program affiliation in order to pursue the new research direction.

Fifth Year Thesis Completion Timeline

All graduate students in the Biological Sciences Division are strongly encouraged to conclude their doctoral research within six years, if not earlier. To assist them to realize this goal, CMB students are required to meet with their advisors at the beginning of the student's fifth year in the graduate program, to develop a timeline for completing the dissertation. If the student has no publications at this point, the timeline should indicate the plans for a publication. Students should include figures they currently have that will be used in the publication, and a list of figures that are still needed. The timeline should also include a plan for the future, subsequent to the thesis defense.

The timeline should be submitted to the student's thesis committee prior to the thesis committee meeting, as an addition to the progress summary and c.v. that are usually provided. If it is not submitted at that time, it must be submitted separately as soon as possible after the meeting.

Penultimate Meeting with the Thesis Committee

After completing a significant body of experimental work, the student should seek permission from the thesis committee to write and defend his/her dissertation. One week prior to this meeting, the student should submit to the committee members an outline of their proposed dissertation, including a listing of ongoing experiments to be completed before the defense. **All committee members must be present for this meeting, without exception.** If this condition cannot be met, the student must consult the Curriculum Committee to determine alternative procedures. At the meeting, the mentor should review the student's overall progress in the program; the student is not present for this review. This is followed by a presentation from the student which reviews finished or published work and details ongoing experiments to be completed for the dissertation. After a discussion with the committee members, the Chairperson of the thesis committee should prepare a written recommendation providing approval to the candidate to write and defend the dissertation. The recommendation may include specific guidelines and requirements for unfinished experiments as well as for the structure and content of the dissertation**. This report must be signed by all committee members as well as the faculty mentor.** Approval to write and defend the dissertation does not constitute its acceptance.

Presentation of the Dissertation

Finally, each graduating student writes a dissertation describing his or her research, presents the work in a public seminar, and defends it in front of a faculty examining committee.

The University has strict rules concerning the preparation of the dissertation. Detailed information can be obtained from the Dissertation Office in the Regenstein Library, Room 100B. It is also accessible online at http://www.lib.uchicago.edu/e/phd.

The Ph.D. dissertation should describe the research performed. It must contain:

1) an **Introduction** covering the scientific background of the project(s)

2) a description of **Materials and Methods**

3) chapters on the student's **Results**

4) a **Discussion** of the student's results and their significance in the field, and

5) a **Summary** of the work (which appears at the beginning of the thesis manuscript).

These should be separate sections of the thesis and written independently by the student. Published manuscripts may be included as chapters in the thesis, but a separate Introduction, Discussion and Summary covering the entire thesis are still required. In cases where collaborative experiments are included in the thesis, the student must clearly indicate the specific contributions made by the individuals involved.

The defense is scheduled with the assistance of the Graduate Program Administrator: it should be scheduled as far in advance as possible, preferably **at least** a month before the defense date. Students should consult with their thesis committee members to determine a date convenient for all, and then inform the Graduate Program Administrator. The dissertation must be provided to the examining committee two weeks before the defense. At the defense, the student presents a public seminar followed by an examination of the dissertation by the faculty committee. **The final exam committee consists of at least four faculty members, three of whom must be members of the student's thesis committee. The student's advisor and chairperson must be present.**

A dissertation is not acceptable if more than one member of the examining committee abstains or votes against acceptance. In such a case, the examining committee will advise the student and the program of any additional work that must be completed. The final dissertation must be submitted to the Dissertation Office no later than three weeks before the date of the convocation. Once the dissertation has been submitted, the Chair of the graduate program must approve the thesis and the departmental approval form must be submitted to the Dissertation Office.

REGISTRATION

General Information

About one week before the dates designated for registration, the Graduate Program Administrator will inform all students of the days and times to register online. Special registration procedures have been established for the first year students in the Fall quarter. During Orientation Week, members of the Curriculum Committee and the Graduate Program Administrator will discuss program procedures with entering first year students. The students will then meet with members of the Curriculum Committee to map out a program of study for the first year. If necessary, second year students will also meet with members of the Curriculum Committee to review their progress in the preceding year and to discuss further degree requirements.

Registration

All students will be registered in a single doctoral registration status referred to simply by the year of study (e.g., PhD1, PhD2, PhD3).

Leave of Absence

A student may, if necessary, apply for a Leave of Absence from the Ph.D. program to be approved by the Curriculum Committee and the Departmental Chair. Only students who are in good academic standing will be granted a Leave of Absence.

PRO-FORMA REGISTRATION

Students whose dissertation research requires residence away from Chicago may register pro forma. Pro-forma status establishes a good faith relationship between the student and the University. The following regulations apply:

1. Pro-forma registration is approved for only one academic year at a time, and the maximum pro-forma enrollment allowed is eight quarters.

2. Applications for pro-forma registration must be approved in writing by the Chair of the Committee, whose signature means that the student's work away from Chicago is recognized as essential to the dissertation, and by the Office of Graduate and Postdoctoral Affairs. Normally, students applying for pro-forma status will have been admitted to candidacy and have had dissertation topics approved.

3. An applicant for renewal of pro-forma status must show the Committee Chair that good use has been made of the time already spent "on location" and that additional time is essential to completing the original task. Renewals of pro-forma status must be approved by the Office of Graduate and Postdoctoral Affairs.

4. A student on pro-forma status may not be gainfully employed for more than 19 hours a week.

5. Pro-forma students may not use the facilities of the University or the time of its faculty, except for progress reports that may be required by the students' program.

6. The Registrar will certify that a pro-forma student is duly registered at the University to any agency requiring such certification.

7. The fact that a registration is pro-forma will be noted on the student's academic record.

8. Pro-forma registrations do not count toward satisfying a student's residence requirements toward a degree.

Visiting Non-Degree Students

Students who have moved to the University with their advisor but who are still registered at their home institution are given the status of Visiting Non-Degree Students. This gives them access to the libraries and to athletic facilities while they are completing their degrees.

FINANCIAL SUPPORT

The Department of Molecular Genetics and Cell Biology attempts to ensure that all CMB students are provided with adequate financial aid. Financial aid is guaranteed to all incoming students for their first five years, subject to satisfactory academic performance. Support for subsequent years of study is subject to the student's satisfactory research progress, as determined by the faculty sponsor, the program, and the Division of Biological Sciences.

Through their sixth year in the program, students will automatically receive any divisionally approved increase in stipend amount. Students in their seventh year and beyond will not receive these stipend increases.

SOURCES OF SUPPORT

Students receive tuition plus a stipend. The various sources of support are:

- divisional funding
- training grants
- external fellowships
- research assistantships

Payment of Stipend Checks

Divisional funding and NIH checks are paid in equal quarterly installments at the beginning of each quarter and cover the calendar year. Research Assistant Type B (RA-B) students are paid on a monthly basis on the last working day of each month. Taxes will be deducted from this amount. RA-B students are responsible for paying their health insurance and fees from their salary each quarter. If the student prefers, an automatic quarterly deduction can be arranged through the Dean of Students Office to cover health insurance and the health fee for three quarters; the deduction is not available in Summer Quarter. Tuition is paid by the advisor, department, or division.

Taxes

Graduate student stipends are taxable by Illinois and the Federal government. Students on fellowships and NIH training grant support must calculate and pay estimated taxes several times a year. The following IRS forms provide information on determining what portion of your stipend is taxable and how and when to pay taxes you owe:
Tax Benefits for Education, PUB 970
US Tax Guide for Aliens, PUB 519
US Tax Treaties, PUB 901
These forms are available from the IRS. Regenstein Library also carries tax forms, particularly after January 1st. For more information, please refer to the Internal Revenue website: Taxable income for students (http://www.irs.gov/Individuals/Students).

Loans

For information on the various types of loans that are available to graduate students, you should consult the Student Loan Administration Office (Bookstore Building, 970 E. 58th St., Suite 411, 702-6061). This office can provide short-term loans during temporary financial crises (for example, if a stipend check is delayed or if you are transferring from a fellowship to an assistantship). The office also has up-to-date information on federally-sponsored student loan plans.

Supplies and Research Expenses

In general, costs of research supplies and equipment are covered by grants or contracts held by the faculty member in whose laboratory you are working. Limited supply funds are available on training grants, and are disbursed on an annual pro-rated basis, directly to the laboratories in which trainees are working. Students supported on training grants have small annual allowances for supplies. Students must usually be in their second year of support to receive an allowance. Requests for supplies are handled by the training grant administrator.

Travel to Scientific Meetings

Attendance at scientific meetings is an important part of the educational process. Limited travel funds are available on training grants, and are distributed by the training grant administrator to students who request them, with preference given to students who have passed the Preliminary Exam. Funds are only given to students scheduled to present a paper or a poster at the meeting.

Should you wish to apply for such support, you should submit a formal request (with your advisor's approval) in writing to the grant administrator, supplying the following information: purpose of meeting and relevance to the research; title, place and time of the meeting; (if applicable) title and authors of paper being presented; amount requested for travel, registration fees, food, and lodging.

MISCELLANEOUS INFORMATION

Curriculum Committee

This faculty committee is responsible for advising all students during the first year of graduate study or until a research advisor has been chosen. Each student will be assigned a member of the Committee to serve as temporary advisor during this time and to aid in selecting courses and arranging lab rotations. This Committee conducts a quarterly review of each student's course performance and administers the Preliminary Examination. Members of the Curriculum Committee meet with first-year students each quarter to discuss any issues concerning the first-year curriculum or other topics of concern.

Graduate Program Administrator

The CMB Graduate Program Administrator provides assistance to students on a variety of questions and problems as they arise. The office is located in CLSC 1105B, and the phone number is 702-8037.

CMB Student Representatives

Students who have finished their first year of study are eligible to serve as student representatives. They help to organize a variety of student activities under program auspices, such as student recruitment events and the annual Retreat. Representatives typically serve for two years.

Scientific Ethics Course

A course on scientific ethics is offered in Spring Quarter. All first year students are required to register for and attend the course.

Senior Ethics Course

All students in their fourth year and beyond are required to register for and attend a course on scientific ethics for senior students. The course is offered in Spring Quarter.

Seminars

In addition to formal courses and seminars, there are many regularly scheduled research seminars that will help to keep students up-to-date on new developments in molecular genetics, cell biology, and related disciplines.

One seminar in particular deserves special note: on Fridays at 4:00 p.m. in CLSC 101, students and postdocs gather for an informal seminar, Graduate Student Seminar (GSS). Beer, soda, and food are provided. The format is for a student to give a one hour presentation on his or her research.

Seminars sponsored by the Molecular Biosciences cluster are usually held on Tuesdays at 5:00 p.m., except for Human Genetics, which holds its seminars on Wednesdays. The schedule is as follows:

GGSB, 1st Tuesday, CLSC 101
BMB, 2nd Tuesday, GCIS 301
DRSB, 3rd Tuesday, CLSC 101
CMB, 4th Tuesday, CLSC 101
Human Genetics, one or two Wednesdays each month, KCBD 1103

Other seminar series of interest include:

Cancer Biology
Various Fridays, 12:00 noon, KCBD 1103

Ecology and Evolution
Mondays, 3:30 p.m., KCBD 1103
http://pondside.uchicago.edu/ee

Darwin's Weekly
Tuesdays, 12:00 noon, Lillie Room, Z 212
http://pondside.uchicago.edu/ee

Immunology
Mondays, 4:00 p.m., BSLC 115

Committee on Neurobiology and Committee on Computational Neuroscience Seminar Series:
Thursday 12:00 noon, BSLC 205
http://neuroscience.uchicago.edu/events/

Chemistry
Mondays, 4:00 p.m., Kent 120

Institute for Genomics and Systems Biology
Second Thursdays, 4:00 p.m., KCBD 1103

Evolutionary Morphology
Thursdays, 7:30 p.m., Hinds 176
http://evbio.uchicago.edu
Contact: Libby Eakin, eakin@uchicago.edu

Microbiology
Wednesdays, 12:00 noon, CLSC 119

The Biological Sciences Learning Center and Jules F. Knapp Medical Research Building

This complex is located at the northern end of the Science Quadrangle. The Learning Center provides classrooms, laboratories, and research facilities for undergraduate, graduate, and medical programs. The Knapp Building houses faculty members in the areas of molecular cardiology, immunology, oncology, and neurobiology. In addition, the Office of Graduate and Postdoctoral Affairs for the Division of Biological Sciences is located in the Learning Center.

The Gordon Center for Integrative Science

The Center, a $200 million, state-of-the-art interdisciplinary research facility uniting scientists in the Biological Sciences Division and the Physical Sciences Division, is located at the northwestern end of the Science Quadrangle. This is the largest research facility on the campus, housing 700 investigators and students under one roof.

Knapp Center for Biomedical Discovery

Located adjacent to the Learning Center, the KCBD houses laboratories and office space for principal investigators, postdoctoral students, and graduate students in the departments of medicine and pediatrics, as well as the Cancer Research Center.

Libraries

The John Crerar Library (5730 South Ellis Avenue) combines the University collections in biological sciences, medicine, and the physical sciences. Users with valid University of Chicago ID's or Library cards have access to all floors and stack areas during all library hours. The library is adjacent to the Cummings Life Science Center and is connected by tunnel to Cummings, the Kovler Viral Oncology building, the Gordon Center for Integrative Science, and the Medical Center.

The first floor of Crerar contains the major service units. The Circulation Desk (702-7409) is located to the left of the entrance atrium. Reserve materials for all science courses except math, computer science, and statistics are held at the Circulation Desk, as well as a permanent reserve collection of current medical textbooks and very heavily used science periodicals. The Science Reference Department is located to the right of the entrance atrium, together with the science microforms.

The website for the University of Chicago Libraries is www.lib.uchicago.edu.

Bursar's Office

The Bursar's Office, located on the third floor of the Bookstore at 970 E. 58th St., is open from 9:00 a.m. to 4:00 p.m., Monday through Friday. Students may contact the following Bursar's Office numbers for information:

Tuition Inquiries 702-7086
Bursar Restrictions 702-7086
Other Information 702-8000

For the website, go to: http://bursar.uchicago.edu/students.

Student Health Services

Student Health Services provides health care to all registered students in the University. It is funded by a mandatory quarterly student health fee. Payment of this fee allows the student access to the University's student health services. Some specialized and emergency care is not covered, nor does the fee include the cost of outside referrals, laboratory tests, and hospitalizations.

In addition to participation in Student Health Services, all students are REQUIRED to carry a health insurance plan (either university student health insurance or comparable insurance) to cover the costs of hospitalization, outpatient diagnostic and surgical procedures, laboratory tests and catastrophic illness. Charges for university insurance are assessed for each of three quarters (Fall, Spring, Winter); there is no charge for coverage for the Summer Quarter. More information about the university insurance can be found on the web, http://studenthealth.uchicago.edu/page/student-health-insurance-0.

Students with comparable group insurance coverage through a parent's, spouse's, or their own policy may request that participation in the university program be waived. However, they must cover the cost of alternative health insurance out of their own pocket.

The Student Health Service is located at 860 E. 59th St., Suite R100. Hours are 8:00 a.m. to 6:00 p.m., Monday-Thursday, 8:00 a.m. to 5:00 p.m. on Friday, and 9:00-1:00 p.m. on Saturday. Saturday, SHS is in DCAM, Suite 3B, 8:00 a.m. to 11:00 a.m. Please note that there are no walk-ins, so you must make an appointment: call 702-4156. If you need emergency medical advice after SHS business hours, or if you need emergency medical advice during business hours or want to review an acute medical problem, contact the Nurse Advice Line at 702-1915. The nurse can provide time-saving advice and assistance and help you to determine if you need immediate medical treatment. For other services and phone numbers, please visit the SHS website at http://healthcare.uchicago.edu.

The Student Counseling Service is located at 5555 S. Woodlawn Avenue, and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. It specializes in diagnostic evaluation, psychotherapy and emergency services for all students, as well as services for students who are experiencing difficulties in studying and learning and difficulty in managing time commitments. For an evaluation, outside referral, or assignment to a therapist call 702-9800 to schedule an appointment. Emergencies are taken immediately during regular hours. During evenings and weekends, a therapist is available by calling 702-3625. For all services and phone numbers, please go to the SCS at http://counseling.uchicago.edu.

Computing Facilities

Information Technology Services (IT Services) runs computing facilities in Regenstein (first floor). The facilities provide access to a variety of up-to-date computing equipment. Students may get additional information and apply for personal computing accounts online at https://itservices.uchicago.edu/welcome/students.

Email accounts

All students must establish uchicago email accounts and check their accounts regularly. Email accounts can be set up online at https://itservices.uchicago.edu/email.

Keys

The MGCB Department Office (CLSC 1106) issues keys needed by those working in the Cummings building. Graduate students may obtain laboratory keys from the receptionist.

Mail

The Cummings Mailroom is located in CLSC 108. Beginning students share mailbox number 60 and may also receive mail at their rotation lab; advanced students receive mail in their appropriate lab boxes.

Copying, Printing and Scanning

Copy, print, and scan stations are located in the Crerar and Regenstein libraries. The cost varies and a UChicago Card or campus card is required; no machine takes cash. For more information, see https://printing.uchicago.edu.

MGCB has a photocopying/scanning machine in CLSC 1106. You must set up an access account through the Departmental Office.

Lost and Found

Most University buildings have their own lost and found location. For the libraries, go to http://www.lib.uchicago.edu/e/using/lost-found.html. For the Reynolds Club at 57th and University, call 2-8787. For the Medical Center at 58th and Maryland, call 2-6262; for Admissions at 58th and University call 2-8650.

Parking

You may obtain an assigned parking space on campus by paying a monthly fee. Information about current fees and how to apply for a parking assignment is available at http://safety-security.uchicago.edu/services/campus_parking.

For space in the multi-level parking garage at 5840 S. Maryland Ave., you must apply to the Hospital Parking Office located in the garage, 702-4381.

Transportation

Campus Bus

The Chicago Transit Authority (CTA) provides bus service for Hyde Park and Kenwood. The routes are as follows:

#171 U. of Chicago/Hyde Park: Services Lake Shore Drive/54th Street and the 55th-56th-57th Street Metra station. This route travels to campus on 55th Street and Ellis Avenue and then circles campus. This route operates weekdays from 7:02 a.m. to 6:32 p.m.; weekends from 8:00 a.m. to 6:37 p.m. After Summer Convocation, a reduced service schedule goes into effect.

#172 U. of Chicago/Kenwood: Services Lake Shore Drive/50th Street and the Hyde Park-53rd Street Metra station. This route travels to campus on Hyde Park Boulevard and Ellis Avenue and then circles around campus. This route operates weekdays from 7 a.m. to 6:37 p.m.; weekends from 8 a.m. to 6:37 p.m. After Summer Convocation, a reduced service schedule goes into effect.

#192 U. of Chicago Hospitals Express: Provides express service to/from downtown to Harper Court, campus, and the medical center. Southbound service is from 6:30 a.m. to 9 a.m., northbound service is from 3:45 p.m. to 7 p.m.

For more information, see http://safety-security.uchicago.edu/transportation/

Students ride the # 171 and 172 free with a UCID; regular CTA fares apply for the #192 (full fare, $2.25).

The University also operates a free evening bus service, Nightride, consisting of four routes that cover the Hyde Park-Kenwood neighborhood. The buses operate on approximately 20-minute schedules between 5 p.m. until about 4 a.m. Sunday through Wednesday, and until 6 a.m. Thursday through Saturday. They depart from in front of the Regenstein Library, the Ellis Parking Garage, or on University Avenue across the street from the Reynolds Club. During University breaks and Summer Quarter, the service runs until 1 a.m.

Umbrella Service

Umbrella Service is not a transportation service - it is an escort service offered by University Security. An individual or group may call Security at 702-8l81, and request a patrol car to accompany them from their place of departure to their destination anywhere within Hyde Park. This service is extremely useful late at night and/or if buses have stopped running. You may contact Security on emergency phones throughout the campus and Hyde Park. However, Security prefers that people only use these phones when absolutely necessary. Students consider this to be an excellent service. It's really a good idea to utilize it so that it continues to be offered.

RECREATION ON AND NEAR CAMPUS

There are two main student centers. The Reynolds Club, at 57th and University, includes Hutchinson Commons, home of the largest cafeteria on campus; Einstein's Bagels; the North Lounge; automatic teller machines (in the basement area); and a variety of recreation rooms. For more information, visit https://studentactivities.uchicago.edu.

The Gerald Ratner Athletic Center is a 15,000-square-foot, state-of-the-art athletic and recreational facility. With its fitness center, gymnasiums, dance room, classrooms, 50-meter swimming pool, ball courts and more, it is designed to support the university's various sports teams as well as the fitness needs of other users. Graduate students receive membership for free. During the academic year, the center is open from 6 a.m. to midnight on Monday to Thursday, 6 a.m. to 9 p.m. on Friday, and 8 a.m. to 9 p.m. on Saturday and Sunday. For additional information about this facility, visit their website: http://athletics.uchicago.edu/facilities/facilities/ratner/index.

Ida Noyes Hall, on 59th Street between Woodlawn and Kimbark, was modeled after an English manor house. It houses the Max Palevsky Cinema, a 500-seat theater, home of Doc Films. For more information, visit http://docfilms.uchicago.edu. Ida Noyes also contains The Pub, the office of Career Advancement, and the *Maroon* office.

Chicago At Large

Chicago is a fantastic city for music, theatre, and dining out. The Chicago Symphony, the Lyric Opera, Music of the Baroque, jazz, and blues clubs, The Goodman Theatre, and off-loop theatres are all excellent. Both inexpensive ethnic restaurants and expensive special-occasion restaurants abound.

Information on events in Chicago is plentiful. Check out the Explore Chicago pages on the University of Chicago website (visit.uchicago.edu/page/explore-chicago), or http://chicago.citysearch.com. One of the best print sources is the monthly Chicago Magazine, available at most newsstands. Chicago Magazine rates restaurants, compiles a complete calendar for the coming month, and generally includes a feature or two on getting the most out of the city. The Friday and Sunday Sun-Times and Tribune have good sections on the week's events. In addition, The Reader has the best information on music, movies, dance and shows. It is available free in the Reynolds Club, delivered Thursday night or Friday morning.

Festivals and Exhibits

The following is a brief list of "don't miss" outdoor concerts, cultural festivals and art exhibits all over town. Most events will be listed on the City of Chicago's events website at: www.explorechicago.org

Ravinia Music Festival - all summer long, a wide variety of music - Chicago Symphony Orchestra, jazz, country, and more in a beautiful outdoor park, www.ravinia.org, 847/266-5000.

57th Street Art Fair - First weekend in June. 57th Street and Kimbark Avenue, www.57thstreetartfair.org, 773/234-3247.

Old Town Art Fair - Mid June. 1800 block of Orleans Street and Lincoln Park West and adjacent Menomonee, North Park and Wisconsin Streets. www.oldtowntriangle.com, 312/337-1938.

Chicago Blues Festival - Held the 2nd weekend in June in Grant Park - Petrillo Music Shell. World famous blues sounds of "Sweet Home Chicago" as well as showcasing talent from coast to coast. For more information, go to www. cityofchicago.org

Chicago Gospel Festival - At Grant Park in the Petrillo Shell in June. World's largest free outdoor gospel festival. For more information, go to www. cityofchicago.org

Printer's Row Lit Fest - On South Dearborn between Polk Avenue and Congress Parkway, in June. Old, new, rare, antique and special books are for sale by booksellers in historic Printer's Row. Sponsored by the Chicago Tribune, printersrowlitfest.org, 312/222-3348.

Grant Park Music Festival - In June, July and August: America's largest free Symphonic Music Festival featuring international soloists and conductors with the Grant Park Symphony Orchestra and Chorus. Visit www.grantparkmusicfestival.com.

Taste of Chicago - Held in July in Grant Park, the Taste is a premier outdoor food festival showcasing Chicago's dining diversity; there are nightly concerts at Petrillo Music Shell and live broadcasts from major radio stations. Find more information at www. cityofchicago.org

Air and Water Show - Spectacular entertainment in the air and on the water at the North Avenue Beach in July or August. Features military and civilian air and water craft. Find more information at www. cityofchicago.org.

Buckingham Fountain - Located on Congress and Lake Shore Drive. The fountain is turned on April 1st and runs daily from 8:00 a.m. to 11:00 p.m until mid-October, depending on weather. Water display every hour on the hour for 20 min; color and music show between dusk and 10:20 p.m.

Chicago Jazz Festival - Labor Day weekend in Grant Park. This event highlights Chicago's rich jazz tradition. Find more information at www. cityofchicago.org

Chicago International Film Festival – In October at various Chicago theaters. This event features films from 40 countries. Go to www.chicagofilmfestival.com.

The following websites may also be useful:

The Chicago Convention and Tourism Bureau:
www.choosechicago.com

Special Events Management:
www.chicagoevents.com

The Chicago Park District
http://www.chicagoparkdistrict.com

Metromix:
http://chicago.metromix.com

The Chicago Tribune:
www.chicagotribune.com/entertainment

The Chicago Sun Times:
http://www.suntimes.com/entertainment

The Chicago Reader:
http://www.chicagoreader.com

Chicago Magazine:
http://www.chicagomag.com

The Chicago Symphony Orchestra
http://www.cso.org

The Chicago Music Guide
http://www.chicagomusicguide.com

The Museum of Science and Industry
http://www.msichicago.org

The Field Museum
http://www.fieldmuseum.org

The Alder Planetarium
http://www.adlerplanetarium.org

John G. Shedd Aquarium
http://www.sheddaquarium.org

The Art Institute
http://www.artic.edu

Kohl's Children Museum
http://www.kohlchildrensmuseum.org

Lincoln Park Zoo
http://www.lpzoo.com

Brookfield Zoo
http://www.brookfieldzoo.org

Navy Pier
http://www.navypier.com

Center Stage
http://centerstagechicago.com/events

Broadway in Chicago
http://www.broadwayinchicago.com

The League of Chicago Theatres
http://www.chicagoplays.com

The Goodman Theatre
http://www.goodmantheater.org

Steppenwolf Theatre
Http://www.steppenwolf.org

DIVISION OF BIOLOGICAL SCIENCES (BSD)
CELL AND MOLECULAR BIOLOGY (CMB)
ADDRESS LIST

Name	Location	Phone
BSD		
Polonsky, Kenneth S., Dean	AMB S106	2-9000
Humphrey, Holly J., Dean of Students for the Pritzker School of Medicine	BSLC 104	2-1939
Prince, Victoria, Associate Dean of Students for the Graduate School	BSLC 104	5-9890
CMB		
Kovar, David – Chair, CMB Graduate Program	CLSC 212	4-2810
Administrative Staff	CLSC 1106	2-1620
Graduate Program Administrator/ Graduate Student Information	CLSC 1105B	2-8037
Bishop, Douglas	CLSC 821B	2-9211
Carillo, Robert (Arriving January)		
Chiang, Kwen-Sheng	CLSC 1039C	2-1075
Epstein, Wolfgang	CLSC 159	2-1331
Esposito, Rochelle	CLSC 161D	
Fehon, Richard – Chair, MGCB	CLSC 925B	2-5694
Ferguson, Edwin	CLSC 921A	2-8943
Gardel, Margaret	GCIS E233	4-5871
Glick, Benjamin	CLSC 207A	2-5315
Glotzer, Michael	CLSC 925A	4-7394
Greenberg, Jean	GCIS W524	4-1908
Haselkorn, Robert	CLSC 1039A	2-1069
Heckscher, Ellie	CLSC 915E	4-1376
Horne-Badovinac, Sally	CLSC 921B	4-1471
Josephs, Robert	CLSC 145	2-1077
Kron, Steve	JFK R320	4-0250
Lamppa, Gayle	CLSC 827A	2-9837
Lee, Hengchi	CLSC 853	2-4684
Malamy, Jocelyn	GCIS W524A	2-4651
Martin, Terence	CLSC 218A	2-8043
Mets, Laurens	CLSC 215A	2-8917
Munro, Ed	CLSC 218B	2-6221
Rebay, Ilaria	GCIS W340	2-5753
Reinitz, John	E134	2-6573
Roizman, Bernard	MKL 107	2-1898
Rothman-Denes, Lucia	CLSC 829A	2-1083
Rust, Michael	KCBD 10124	4-1463
Ruthenburg, Alexander	CLSC 855	2-1067

Staley, Jonathan	CLSC 821A	4-5886
Steck, Theodore	GCIS W142	2-1329
Storb, Ursula	CLSC 145A1	2-4440
Strauss, Bernard	CLSC 159	2-1628
Taylor, Edwin	CLSC 159	2-1660
Turkewitz, Aaron	CLSC 219	2-4374

OTHER UNIVERSITY OFFICES

Main Number - University	702-1234
Main Number - Hospitals	702-1000
Campus Police	702-8181 (Call **123** from any University phone)