

# Department of Biological Chemistry

## Graduate Student Handbook



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2024 - 2025

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## Introduction

The graduate program in the Department of Biological Chemistry (<https://medschool.uci.edu/research/basic-science-departments/biological-chemistry>) leads to the Ph.D. degree in Biomedical Sciences. The students are either admitted through the Cellular and Molecular Biosciences (CMB) Gateway program and transfer to the BC Department, or go through the PhD program in Mathematical, Computational and Systems Biology (MCSB), or Pharmaceutical Sciences. We also accept students by direct admission. The purpose of this handbook is to help you make a smooth transition into our department.

The Department of Biological Chemistry is committed to advancing biomedical research by fostering collaboration between cutting-edge computational and wet-lab approaches. To drive innovation in these fields, the department is organized into two synergistic divisions: the Division of Molecular Biomedicine and the Division of Computational Biomedicine. We are a passionate community of researchers who actively pursue a wide range of research interests, including cancer, epigenetics and metabolism, molecular biomedicine and computational biomedicine, stem cell research, infectious disease and more. They play a crucial role in in the campus-wide research enterprise.

Faculty from our department lead several UC Irvine research focus areas as directors of the Center for Epigenetics and Metabolism, the Genomics High-Throughput Facility, and the Chao Comprehensive Cancer Center.

We foster innovation at the lab bench and beyond. Our goal is to nurture a spirit of curiosity and discovery by stimulating interactions among faculty, graduate and undergraduate students, medical students, postdoctoral fellows and trainees.

We invite you to explore our website (<https://medschool.uci.edu/research/basic-science-departments/biological-chemistry>) and learn more about our innovative research programs and biomedical teaching mission.

Dr. Peter Kaiser  
**Professor and Chair**

Dr. Robert E. Steele  
**Professor and Vice Chair**

Dr. Kyoko Yokomori  
**Professor and Graduate Student Advisor**

## General Information

Upon your arrival, please come to the Department Office (Medical Science I, D240) and introduce yourself. The office is open in-person between 9:00 a.m. to 5:00 p.m., Monday through Thursday.

**Keys** will be checked out to you for the outside door and for the lab in which you are working. Contact Wen Ding at [wding3@uci.edu](mailto:wding3@uci.edu) to make an appointment to obtain a key.

**Mail** will be distributed to you through your lab's **mailbox** in the mailbox room.

**Copier/scanner**, located in the breakroom of Med Sci I, D240.

Please respect the equipment and belongings of each lab and the office. Do not use other labs' computers without asking permission from faculty members. Do not borrow anything without permission.

Please clean up and lock up after yourself. If there is a problem, such as a flood, it should be reported immediately to Facilities Management (949-824-5444) between the hours of 7am to 4:30pm. After hours, call the Central Plant directly at (949-824-5520).

The Police Emergency number (911) can also be dialed for assistance. This number dialed from campus will first put you into contact with the campus police. The Police Department also provides a Safety Escort Service (949-824-7233) around campus for late hours. After 1:00AM, the phone transfers to the police station and the police will provide escort service. ***The escort service should be used if you are leaving your lab late at night.***

### Equipment

The Department houses the campus Genomics High-Throughput Facility (GHTF). The Department also has a number of shared standard and not-so-standard equipment items. You will receive instruction and complete training in the use of equipment. These equipment items include: a BIORAD realtime PCR machine, a BIORAD phosphorimager, Zeiss fluorescence microscope with Applied Imaging software, an atomic force microscopy (AFM), scanning and transmission electron microscopy (STEM), spectrophotometer, Kodak digital camera and transilluminator, and darkroom facilities.

### Computer support

Computer support for the School of Medicine is available through **UCI Health Information Technology** at 949-824-3434. <https://it.health.uci.edu/service-desk/>

## Departmental Directory

Faculty and administrative personnel relevant to students:

The **Department Graduate Advisor** is **Dr. Kyoko Yokomori** (kyokomor@uci.edu). Please contact her with any issues or questions about the graduate program requirements (elective course selection, advancement exam, and annual committee meeting, etc.).









Our **Department CAO** is **Krista Barajas**. She is responsible for the overall management of the graduate program. She will often be the definitive source of information on various practical matters relating to your graduate education. She is also responsible for seeing that you remain a member in good standing with the Personnel Department of the University. Good standing allows you to receive your stipend check in a timely manner.









**Barbara Shainberg**, the **Graduate Student Coordinator**, is responsible for keeping you up to date regarding matters such as registration, course scheduling, and grade submission.









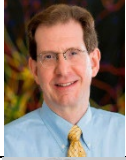


## Staff Directory










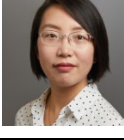
PERSONNEL	TITLE	OFFICE EXT.	EMAIL
Krista Barajas	CAO	4-6052	<a href="mailto:k.barajas@hs.uci.edu">k.barajas@hs.uci.edu</a>
Wen Ding	Fiscal Officer	4-4577	<a href="mailto:wding3@hs.uci.edu">wding3@hs.uci.edu</a>
Matthew Kim	Academic Personnel	---	<a href="mailto:matthyk4@uci.edu">matthyk4@uci.edu</a>
Marla Ogelvie	Academic Personnel	---	<a href="mailto:mpurcell@uci.edu">mpurcell@uci.edu</a>
Barbara Shainberg	Graduate Student Coordinator	4-6051	<a href="mailto:bshainbe@hs.uci.edu">bshainbe@hs.uci.edu</a>
Christine Shortt	Sr. Academic Personnel Analyst	---	<a href="mailto:cshortt@uci.edu">cshortt@uci.edu</a>
Amy Zhou	Purchasing Manager	4-4669	<a href="mailto:shufanz@hs.uci.edu">shufanz@hs.uci.edu</a>

**FACULTY/JOINT FACULTY LIST**  
**Department of Biological Chemistry 2024-25**





Faculty	Office	Lab
	<b>Rémi Buisson</b> <a href="mailto:rbuisson@uci.edu">rbuisson@uci.edu</a> Sprague 316 4-4835	Sprague 350  4-0720
	<b>Xing Dai</b> <a href="mailto:xdai@uci.edu">xdai@uci.edu</a> Med Sci I D250 4-3101	Med Sci I D288  4-7409
	<b>Peter Donovan</b> <i>Dev &amp; Cell Biology (Split Appt)</i> <a href="mailto:pdonovan@uci.edu">pdonovan@uci.edu</a> Gross Hall 3100/SCRC 4-3691	2054 Hewitt  4-6639
	<b>Cholsoo Jang</b> <a href="mailto:choljang@uci.edu">choljang@uci.edu</a> Sprague 122	Sprague 150  4-7464
	<b>Peter Kaiser</b> <a href="mailto:pkaiser@uci.edu">pkaiser@uci.edu</a> Plumwood 127 4-9442 4-9367 (Chair's office)	Plumwood 136  4-9441
	<b>Kai Kessenbrock</b> <a href="mailto:kkessenb@uci.edu">kkessenb@uci.edu</a> Sprague 112 4-2718	Sprague 140  4-3424 (shared line)
	<b>Wei Li</b> <a href="mailto:wei.li@uci.edu">wei.li@uci.edu</a> Med Ed Building 4137	-----
	<b>Haoping Liu</b> <a href="mailto:h4liu@uci.edu">h4liu@uci.edu</a> Med Sci I D234 4-1137	Med Sci I D212  4-2297

Faculty	Office	Lab
	<b>Ivan Marazzi</b> <a href="mailto:imarazzi@uci.edu">imarazzi@uci.edu</a> Sprague 324	Sprague 340
	<b>Selma Masri</b> <a href="mailto:smasri@uci.edu">smasri@uci.edu</a> Sprague 328 4-3855	Sprague 340  4-5543
	<b>Stanley Ng</b> <a href="mailto:stanlewn@uci.edu">stanlewn@uci.edu</a> Med Ed Building 4142	-----
	<b>Feng Qiao</b> <a href="mailto:qiao@uci.edu">qiao@uci.edu</a> Plumwood 108 4-0159	Plumwood 121  4-1013
	<b>Suzanne Sandmeyer</b> <a href="mailto:sbsandme@hs.uci.edu">sbsandme@hs.uci.edu</a> Med Sci I D240 4-2042	-----
	<b>Marcus Seldin</b> <a href="mailto:mseldin@uci.edu">mseldin@uci.edu</a> Sprague 314 4-6765	Sprague 350
	<b>Rob Steele</b> <a href="mailto:resteele@uci.edu">resteele@uci.edu</a> Med Sci I C233 4-7341	Med Sci I C228  4-4343
	<b>Kyoko Yokomori</b> <a href="mailto:kyokomor@uci.edu">kyokomor@uci.edu</a> Plumwood 128 4-8215	Plumwood 131  4-2158

Joint Faculty	Department	Lab
	<b>Bogi Andersen</b> Dept. of Medicine <a href="mailto:bogi@uci.edu">bogi@uci.edu</a> Sprague 206 4-9093	4-9372
	<b>Peter Chang</b> Dept. of Radiological Sciences <a href="mailto:changp6@uci.edu">changp6@uci.edu</a> Med Ed Building 4021 4-4449	----
	<b>Pierre Baldi</b> Dept. of Computer Science <a href="mailto:pfbaldi@uci.edu">pfbaldi@uci.edu</a> 4038 Bren Hall 4-5809	4-5809
	<b>Angela Fleischman</b> Dept. of Medicine <a href="mailto:agf@uci.edu">agf@uci.edu</a> Sprague 126 4-2559	4-4144
	<b>Anand Ganesan</b> Dept. of Dermatology <a href="mailto:aganesan@uci.edu">aganesan@uci.edu</a> Sprague 324 4-2926	4-0547
	<b>Sergei Grando</b> Dept. of Dermatology <a href="mailto:sgrando@uci.edu">sgrando@uci.edu</a> Sprague 134 4-2713	4-2713
	<b>Lan Huang</b> Dept. of Physiology and Biophysics <a href="mailto:lanhuang@uci.edu">lanhuang@uci.edu</a> Med Sci I D233 4-8548	4-6172
	<b>Mehboob Hussain</b> Dept. of Medicine <a href="mailto:mehboobh@hs.uci.edu">mehboobh@hs.uci.edu</a> (714) 456-8471	----
	<b>Albert La Spada</b> Dept. of Pathology <a href="mailto:alaspada@hs.uci.edu">alaspada@hs.uci.edu</a> ISEB 2044	----
	<b>Han Li</b> Dept. of Chemical & Biomolecular Engineering <a href="mailto:han.li@uci.edu">han.li@uci.edu</a> 4-0943	----
	<b>Thomas Martinez</b> Dept. of Pharmaceutical Sciences <a href="mailto:t.martinez@uci.edu">t.martinez@uci.edu</a> Sprague 226 4-0943	Sprague 150

Joint Faculty	Department	Lab
	<b>Ali Mortazavi</b> Dept. of Developmental & Cell Biology <a href="mailto:ali.mortazavi@uci.edu">ali.mortazavi@uci.edu</a> Bio Sci III 2218 4-6762	4-6762
	<b>Nicholas R. Pannunzio</b> Dept. of Medicine <a href="mailto:nrpann@uci.edu">nrpann@uci.edu</a> Sprague 124 4-5638	4-8789
	<b>Daniele Piomelli</b> Dept. of Anatomy & Neurobiology <a href="mailto:piomelli@uci.edu">piomelli@uci.edu</a> Gillespie 3101 4-6180	4-7080
	<b>J. Benita Sjogren</b> Dept. of Pharmaceutical Sciences <a href="mailto:jsjogren@uci.edu">jsjogren@uci.edu</a> 101 Theory, Suite 100 4-7480	----
	<b>Bryan Sun</b> Dept. of Dermatology <a href="mailto:sunb8@uci.edu">sunb8@uci.edu</a> Plumwood House	----
	<b>Brian Sworder</b> Dept. of Medicine <a href="mailto:sworderb@uci.edu">sworderb@uci.edu</a>	----
	<b>Leslie Thompson</b> Dept. of Psychiatry & Human Behavior <a href="mailto:lmthomps@uci.edu">lmthomps@uci.edu</a> Bio Sci III 3214 4-6756	4-1910
	<b>Richard Van Etten</b> Dept. of Medicine <a href="mailto:Vanetten@uci.edu">Vanetten@uci.edu</a> Sprague 124 4-2655	----
	<b>Michael Zaragoza</b> Dept. of Pediatrics <a href="mailto:mzaragoz@uci.edu">mzaragoz@uci.edu</a> Hewitt Hall 2501 4-8813	----
	<b>Jing Zhang</b> Dept. of Computer Science <a href="mailto:zhang.jing@uci.edu">zhang.jing@uci.edu</a> Bren Hall 4084	----



Emeritus Faculty	Department	Lab
	<b>Phang-Lang Chen</b> <i>Emeritus</i> <a href="mailto:plchen@uci.edu">plchen@uci.edu</a>	-----
	<b>Eva YHP Lee</b> <i>Emeritus</i> <a href="mailto:elee@uci.edu">elee@uci.edu</a>	-----
	<b>Wen-Hwa Lee</b> <i>Emeritus</i> <a href="mailto:whlee@uci.edu">whlee@uci.edu</a>	-----
	<b>Robert Moyzis</b> <i>Emeritus</i> <a href="mailto:rmoyzis@uci.edu">rmoyzis@uci.edu</a>	-----

### SOM BC Graduate Student Directory, 2024-2025

Graduate Student Name	Lab	Year
Yasmine Alam	Cholsoon Jang	5
Sultan Alsuhaibani	Angela Fleischman	2
Anna Andronicos	Peter Kaiser	6
Sungjun Beck	Kyoko Yokomori	5
Camille Brzechffa	Angela Fleischman	2
Nicholas Bradbury	Xing Dai & Scott Atwood	2
Chaorong Chen	Wei Li	4
Lucas Dantas de Paula	Peter Kaiser	4
Gabriela De Robles	Marcus Seldin & Dequina Nicholas	1
Melissa Folkerts	Nicholas Pannunzio	5
Kiarash Forouzes	Bogi Andersen	2
Rachel Garleb	Haoping Liu	5
Kalei Guillermo	Angela Fleischman	3
Jonathan Hakimian	Nicholas Pannunzio	2
Cameron Hom	Nicholas Pannunzio	2
Alexander Hsu	Kai Kessenbrock	4
Ning-Hsiang Hsu	Feng Qiao	4
Satya Karri	Bogi Andersen	5
Miranda Kelly	Cholsoon Jang & Thomas Martinez	3
Fiona Law	Peter Kaiser	4
Johnny Le	Cholsoon Jang	6
Cavina Lee	Stanley Ng	2
Amber Lewis	Selma Masri	2
Jason Li	Wei Li	5
Miranda Lopez	Cholsoon Jang & Dequina Nicholas	3
Alisa Mahieu	Selma Masri & Nicholas Pannunzio	4
Lavanya Manjunath	Rémi Buisson	4
Angie Nguyen	Selma Masri & Nicholas Pannunzio	2
Christy Nguyen	Marcus Seldin	2
Shannon Pfeiffer	Selma Masri	3
Valeria Rangel	Nicholas Pannunzio	5
Noel Salvador	Anand Ganesan	3
Ambrocio Sanchez Pineda	Rémi Buisson	4
Gisselle Santiago	Rémi Buisson	2
Victoria Shen	Nicholas Pannunzio	3
Amy Song	Selma Masri	2
Eli Soyfer	Angela Fleischman	4
Jeanette Sullivan	Angela Fleischman	4
Ian Tamburini	Cholsoon Jang & Marcus Seldin	3
Kiku Yoneda	Peter Kaiser	2
Lucas Wadley	Angela Fleischman	3
Noah Wechter	Kai Kessenbrock	3
Joey Wong	Leslie Thompson & Vivek Swarup	3
Mingqi Zhou	Marcus Seldin	2

## Graduate Program

Department of Biological Chemistry participates in the Cellular and Molecular Biosciences Gateway Program (CMB) and the Mathematical and Computational and Systems Biology Gateway Program (MCSB). Biological Chemistry Faculty participate in various aspects of these interdisciplinary Graduate Programs. Department Chair, **Peter Kaiser**, is the Department representative to the Advisory Committee of the Combined Graduate Program. **Kyoko Yokomori** is the Department Graduate Advisor. The faculty also participate as members of student preliminary exam, advancement, and thesis committees.

## Graduate Courses and Enrollment

Graduate Students must register each quarter, through the Registrar's website, until all requirements for an advanced degree have been satisfied, except when a Leave of Absence has been granted or Filing Fee has been paid.

Failure to enroll in a **minimum of 12 units** and pay fees by the deadline will result in a late fee. If a late charge is assessed, you will be responsible for this payment.

Students who are petitioning for residence classification must have the paperwork submitted to the Registrar's Office by the deadline as well. All students need to take the appropriate actions to ensure that they are residents of the State of California by the second year. Nonresident students who need to become California residents for tuition/fee purposes must have their status changed at the Registrar's Office PRIOR to the fee payment deadline for the fall quarter. Documentation of residence will be required. Tuition/fee for foreign students who have advanced to candidacy pay 25% of the nonresident fee for a total of three years. If you have further questions, please email **Krista Barajas** in the Department office at ([k.barajas@hs.uci.edu](mailto:k.barajas@hs.uci.edu)).

Students past the maximum time-to-degree will not be allowed to enroll without an exception from the SOM Dean of Graduate Studies. In addition, those students can only be funded by exception (even if the funding is provided from a research grant). The maximum time-to-degree for all the graduate programs in the School of Medicine is 6 years.

When your address or phone number changes, please notify both the Registrar's Office (at extension 4-6124) and **Krista Barajas** in the Department office.

## Course Requirements

First year students who are in the CMB or MCSB Graduate Program rotate through at least two different laboratories to acquire experience and to help them make a decision concerning the choice of the laboratory in which they will perform their thesis research. For CMB, the students are required to meet their designated First-Year Advisor for advice at least once a quarter. Drs. Haoping Liu, Selma Masri, and Nicholas Pannunzio are the current CMB First-Year Faculty Advisors. Students in the MCSB program follow its course requirements. If students plan to use radioactive materials during their rotation, they should check with the faculty investigator in the laboratory of their first rotation concerning radiation safety certification. Students who are admitted directly into the Department will also follow the course requirement for the first year CMB students. Course requirements are explained in their BC admission letters. For details, please consult the Department Graduate Advisor, Kyoko Yokomori ([kyokomor@uci.edu](mailto:kyokomor@uci.edu)).

All CMB students must take the preliminary exam at the end of the year (June). BC also administers preliminary exams for direct admit students using the same format used in the CMB program. Students are expected to pass the exam to stay in the program.

By late Spring of the first year, students are expected to have decided upon a Thesis Advisor and have chosen a Department. For the CMB Program, faculty members are affiliated with different training areas reflecting their research

interests. These include: 1) Structural Biology, Biochemistry and Biophysics 2) Immunology and Host-Pathogen Interactions 3) Developmental and Stem Cell Biology 4) Genetics, Epigenetics and Genomics and 5) Cancer and Cell Biology (<https://cmb.uci.edu/cmb-curriculum/>). There are required and recommended courses associated with each interest area.

The following information applies to students who have chosen a laboratory in the Department of Biological Chemistry and have passed their preliminary exam. For the MCSB program, the students need to follow the course requirement for the program.

## Courses

ALL students are required to enroll EACH QUARTER in:

**BC200 A, B, C (2-12 units):** Credit for laboratory research

**BC202 A, B, C (1 unit):** Credit for lab-based readings, discussions, and presentations (e.g. lab meetings)

**BC291 (2 unit):** Course Organizers: Dr. Selma Masri ([smasri@uci.edu](mailto:smasri@uci.edu)) and Dr. Rémi Buisson ([rbuisson@uci.edu](mailto:rbuisson@uci.edu))  
Current topics in gene regulation. Seminars are held weekly on Wednesdays from 11:00AM-12:00PM in the Plumwood House/Showa Denko Auditorium (Fall, Winter, and Spring). Speakers include those invited from outside of UCI, UCI faculty members, and graduate students and postdoctoral fellows within the department. Attendance is **MANDATORY** and will affect grading. Students need to host seminar speakers at least once per year and meet with speakers for lunch 2-3 times per year. Student host responsibilities: Introduce the speakers; if the speaker is from out of UCI the student will also escort the speaker to their meetings with faculty and join the speaker/graduate student lunch.

## Other Seminars

In addition, the **MSTP (MD/Ph.D.) Program** invites prominent speakers several times during the year. Furthermore, many laboratories in the Department belong to special interest groups or centers, which have seminar series on a pre-arranged schedule. These include Immunology, Stem Cell, Developmental Biology, Epigenetics and Metabolism, Virology, Genetics, Yeast, *Drosophila*, Muscle Biology and Disease Center, and Institute for Genomics and Bioinformatics seminar groups. Seminar notices are posted around the department.

## Electives

The second-, third-, and fourth-year students are required to take **two graduate-level elective courses**. Journal clubs and undergraduate courses are not considered to be electives.

Please consult the "Schedule of Classes" online for available electives and confirm with the Department Graduate Advisor, **Dr. Kyoko Yokomori** ([kyokomor@uci.edu](mailto:kyokomor@uci.edu)), for their appropriateness PRIOR to enrolling.

Although one elective per year in the second and third year is recommended, the distribution of the two electives within the three-year period can be flexible with prior notification to the Department Graduate Advisor. Contacting the course organizer in advance to ensure that the class will actually be offered is strongly recommended.

**You must have a minimum of 12 units per quarter.**

## Department Activities

### Student Meetings

Graduate Students have a meeting with the Chair, Graduate Advisor, and the Departmental Seminar organizer at the beginning of each quarter and the end of the year. Seminar sign-ups and important information on graduate student guidelines and policies are discussed. This also provides an opportunity for students to invite guest speakers or talk about any issues or suggestions regarding the graduate program activities.

### Student Representatives

Two Representatives are elected during the end of the year Graduate Student Meeting for the following academic year. Their responsibilities will be to develop the graduate student experience through organizing various events such as the quarterly Graduate Student and Postdoc Collaborations (aka "Happy Hours"). Representatives will be entitled to a gift card paid for by the department.

### Student Research Presentations

Graduate students present their research throughout the academic year as part of the **WEDNESDAY 11AM Seminar Series**. All students who have advanced to candidacy are required to present their research progress annually. Students who are in their third year and up but have not yet advanced are strongly recommended to present their research to the department. Senior students who plan to graduate within a year may not need to present (need to inform Seminar Series organizers **Dr. Selma Masri** or **Dr. Rémi Buisson** at the beginning of the academic year to decide whether or not the student will need to present) but will be required to participate in all other assignments including chairing and asking questions at graduate student seminars as well as hosting and attending lunch with outside speakers.

## Teaching Assistantship

SOM students are *not required to TA, but are required to take the TAPDP*, one-time TA Professional Development Program, in September. *The TA opportunity may be available through the School of Biological Sciences (Bio Sci)*. Doing TA requires the PI's approval. Students make commitments on a **quarterly basis**. All TAs must complete the TAPDP to be eligible. The student must sign the SOM TA agreement form, which is a binding commitment. By signing, the student must accept a TA position. Because the TA positions are offered based on availability, there is no guarantee of TA assignment nor is there guarantee of placement in a particular course. *Those who receive a placement will hear directly from Bio Sci. When notified, the student must immediately accept the assignment and let **Barbara Shainberg and Krista Barajas** know ASAP as this affects fees, stipend, enrollment etc. for the student.*

## Individual Development Plan (IDP)

All students are required to fill out the IDP form in October each year. The mentor signature is required. This will help you and your PI to map out a specific plan for your career development, submission of your manuscript, attendance to a meeting, and completion of thesis in a timely fashion.

## Faculty/Student Research Units Work Expectation Form

Faculty and graduate students must hold individual meetings during **the first instructional week of each quarter** to discuss research work expectations. **A signed outline of the work expectations** must be submitted to Barbara Shainberg by the end of the first instructional week.

## Second-Year Symposium (Research in Progress)

The second-year students are required to give a short oral presentation at a symposium in June where all the BC faculty members evaluate their progress. The research advisor will provide the assessment of the student and what he or she has accomplished by filling out the evaluation form prior to the meeting. The purpose of this meeting is to critically evaluate students' progress, and to identify students with potential performance limitations early on.

## Advancement To Candidacy

### Pre-Advancement Committee Meeting

Students now have this as an **option** during their third year, two to six months before the actual advancement (during the winter quarter or at the beginning of the spring quarter of their third year). The pre-advancement committee members should be the same as the advancement committee members (see below). If the pre-advancement proposal is prepared exactly as required for the Advancement AND the committee members agree, there is an option to convert the pre-advancement meeting to the actual advancement exam.

### Advancement Exam

Passing this exam is a prerequisite for the Ph.D. degree. The purpose of the Advancement Exam is to ensure that the student has selected an appropriate research project for the dissertation with sufficient understanding of the background and rationale, that the experimental work that has been completed or is being contemplated is scientifically rigorous, and that the thesis work is likely to be completed successfully within the normal period of graduate study. All graduate students in the Department are strongly encouraged to take the Advancement to Candidacy Exam ***by the middle of the Spring quarter in the third year.*** If it needs to be delayed, the mentor and student must contact the Graduate Advisor (Kyoko Yokomori) to explain the reason for the delay and provide an explicit plan for the exam scheduling. Failure to do so will require the student's research advisor to meet with the Graduate Advisor and the Chair to discuss the delay. ***It should be noted that students are in general expected to graduate in 5 years and within three years after passing the Advancement Exam.*** Foreign students will get the tuition reduction for a three-year period after passing the Advancement Exam.

### Advancement Examination Committee

The Advancement Exam committee should consist of five faculty members. At least **three of them are members of the Department of Biological Chemistry**. Those include the student's research advisor and **at least two must be the BC core faculty members**. The committee must also include **at least one outside member** who must be from another department or school (joint faculty are excluded as the outside member). For students whose committee chair or advisor may have a financial interest in their work, an Oversight member is also required. All members of the committee must be members of the Academic Senate. The list of committee members must be approved by the Departmental Graduate Advisor, **Dr. Kyoko Yokomori** at least one month prior to the exam. Furthermore, at the time of advancement, **consent should be obtained from those faculty members who will serve as a thesis committee member.**

Thesis committee members should be chosen from among the advancement committee members. At least **two members should be the BC core faculty members**. We highly recommend that the student keeps all five advancement exam members in his or her thesis committee.

Once the Advancement Committee is formed, the student will prepare a written proposition of the thesis research. The format for the proposition should follow guidelines similar to those for a NIH research grant proposal as described below:

### **Written Proposal Format**

**Abstract (0.5 page):** Include the project's broad, long-term objectives and specific aims as well as a description of the research design and methods for achieving the stated goals in plain language.

**Narrative (2-3 sentences):** Explain the relevance of the proposed research project to public health in plain language.

**Specific Aims (1 page):** State concisely and realistically what the research described in the proposal is intended to accomplish and/or what hypothesis is to be tested.

#### **Research Strategy (total 6 pages)**

##### **(a) Significance (~1 page)**

Briefly sketch the background to the proposal; critically evaluate existing knowledge and specifically identify the gaps in knowledge which the project is intended to fill. State concisely the importance of the research described in the proposal by relating the specific aims to longer term objectives.

##### **(b) Innovation (~0.5 page)**

Concisely describe conceptual and technical innovation (if any).

##### **(c) Research Methods/preliminary results (~4.5 page)**

**Preliminary studies:** Briefly describe preliminary studies pertinent to the proposed research which will help establish the feasibility of the project and your competence to pursue the proposed research. Append relevant figures and tables and any of your publications or abstracts which are relevant to the proposal.

**Experimental Plan:** Discuss in detail the experimental design and procedures to be used to accomplish the specific aims of the project. Discuss potential difficulties and alternative approaches to achieve specific aims of the proposal.

##### **(d) Timeline and training plan statement (<0.5 page)**

#### **References**

**The committee has a right to reject any proposal that fails to conform to the format guidelines.**

***Note: The total length of the research strategy section is not to exceed 6 pages, single-spaced, exclusive of figures, tables and references.*** If the proposal exceeds this length, it may be returned to the student, unread, in much the same way that funding agencies now return proposals that do not meet their guidelines or length limits.

**The proposal cannot be written in a font smaller than Arial 11pt or Times New Roman 12pt.**

**The student and his or her mentor are encouraged to apply for a predoctoral fellowship using the advancement proposal. The student will be rewarded \$250 for submitting the proposal by the SOM Associate Dean of Graduate Studies.**

### **Proposal Evaluation**

The graduate committee recommends that the student and his or her Advisor agree on a version of the proposal **before** it is distributed to other members of the committee. Those members must receive the proposal **no later than one week prior to the examination**. It is the responsibility of the student to be certain that the faculty members will be available to evaluate the proposal at that time. We recommend the use of Doodle ([www.doodle.com](http://www.doodle.com)) for easy scheduling. For the examination, the student should prepare an oral presentation of the proposal not to exceed 45 minutes in length. Giving a practice talk to the members of the laboratory and/or the advisor is strongly encouraged. **All five members of the advancement committee must be present during the oral examination.**

Since the committee members need to see the student's file, which must be kept in the Department office, students should **take their advancement exams in the BC conference room**, located inside the Department Office.

Before the oral presentation, the student must first step out of the room and the student's Advisor/Chair will briefly summarize the student's research and coursework progress. The committee members may also review the student's file at this point. After brief discussion, the student will be called back in and begin the oral presentation. During the oral presentation and afterwards, the committee will discuss the proposal at length with the student. After this discussion, the committee will excuse the student from the room and evaluate the student's performance. The committee will then immediately inform the student of its decision. If the student fails the exam, the committee will determine whether the student will be allowed to retake the exam and when the retake should take place.

### **Necessary paperwork**

The form to submit for Advancement to PhD Candidacy is titled "PhD Form I – Advancement to Candidacy." The form is submitted to the UCI Graduate Division, after the Advancement to Candidacy Exam, by the Graduate Coordinator through the Graduate Division DocuSign system.

The student should ask and confirm at the time of advancement if the advancement committee members are willing to serve on the doctoral thesis committee. **At least three, up to five, members (more than 50% should be the BC faculty members and at least 2 of them should be BC core faculty members) selected to serve on the thesis committee** need to be named on the PhD Form I. The student needs to provide the Graduate Coordinator with the names of the doctoral thesis committee. Also, the PI and student must identify any potential conflict of interest before the advancement exam, and sign the "Conflict of Interest" form that is included with the PhD Form I. If there is a conflict of interest, then the Oversight member must present at the Advancement exam. Any questions should be directed to the Departmental Graduate Advisor, **Dr. Kyoko Yokomori**.

The approved PhD Form I reports that the student has passed the Advancement Exam and is now officially Advanced to Candidacy and may proceed with the doctoral dissertation. Any changes in the doctoral committee must be notified to the Graduate Advisor and must be approved by the Dean of Research and Graduate Studies at least one month prior to the final thesis defense. Prior to submission the student will need to pay the advancement to candidacy fee in the amount of \$90 to the Central Cashier's Office per the following link:

[https://secure.touchnet.net/C21570\\_ustores/web/store\\_main.jsp?STOREID=319&SINGLESTORE=true](https://secure.touchnet.net/C21570_ustores/web/store_main.jsp?STOREID=319&SINGLESTORE=true). The student will upload the receipt to the PhD Form I when the student receives the PhD Form I through Graduate Division DocuSign. Submission of this fee is the responsibility of the student and is generally reimbursed by the student's PI.

### **Dissertation Committee**

An important aspect of successful progress toward the doctoral degree is the selection of and timely consultation with your Dissertation Committee (3 - 5 members). The purpose of this committee is not only to review the finished thesis, but also to serve as a source of feedback from outside the student's own lab on how he or she is progressing on the thesis project. The Dissertation Committee must be chaired by the student's Dissertation Advisor, and **a majority of members must be from the student's department. At least two members should be the core BC faculty members.** Members of the committee should be chosen in consultation between the student and his or her Dissertation Advisor and should be approved by the Graduate Advisor Dr. Kyoko Yokomori. As mentioned in the previous section, the members must be designated on the Advancement to Candidacy Form (it is highly recommended to keep all five members). The Dissertation Committee does not need to have an outside member, but most students and their Advisor will elect to have all members from the Advancement Committee.

*If there is scheduling difficulty and/or the research project has changed, it is possible to change or reduce the committee members. At least two of them must be the BC core faculty members. To make changes in the member composition of the thesis committee, Graduate Advisor (Kyoko Yokomori) needs to be notified at least two months prior to the defense*



date to initiate the proper approval process. The PI must include the old and new committee member lists and brief explanation for the change in the e-mail. This change needs to be pre-approved by Departmental Graduate Advisor Kyoko Yokomori who must then request a formal approval by the SOM Associate Dean as well as the UCI Graduate Division. This should also be notified to the BC Office.

## Annual Research Progress

Following Advancement to Candidacy, the student must meet with his or her dissertation committee on an annual basis. A good time to schedule a thesis committee meeting is within a week or two after a student presents his/her research at the Wednesday Seminar Series. It is the student's responsibility to invite the committee members to attend this seminar presentation to keep the Thesis Committee informed of the student's progress and to provide the student with a means for periodically evaluating how the thesis research is proceeding. An **Annual Committee Meeting form** must be signed by the committee and submitted to **Barbara Shainberg** to keep in the student's file.

## Completing The Dissertation

When it is determined by the Advisor and Dissertation Committee that the student has completed a body of original research sufficient to constitute the dissertation, the student must prepare the thesis for submission to the Department and the School of Medicine. **All students are expected to have at least one first-author research paper accepted and one or more co-author paper(s) in order to graduate.** The Graduate Division has specific requirements for the preparation of the thesis. A summary of these requirements is available at <https://grad.uci.edu/current-students/thesisdissertationelectronicsubmission/>. Once the student has prepared the final draft of the thesis, it is submitted to all members of the dissertation committee. After reading the thesis, members of the committee may recommend changes in content and style. Completion of the dissertation will include an **Oral Defense** which is a formal seminar presentation of the research to the entire Department. The thesis draft must be delivered to the thesis committee members at least **two weeks before the defense date**. It is the student's responsibility to arrange for the completion of the Ph.D. form including all required committee signatures. Arrangements for a room reservation for the thesis defense and audio-visual equipment should also be scheduled through **Barbara Shainberg**. An electronic copy of the final version of the dissertation should be provided to **Barbara Shainberg**.

## Exit Interview

All students who leave the department will have exit interviews with the BC Graduate Advisor, Dr. Kyoko Yokomori.

## Summer Degrees

It is possible to graduate during the summer by paying a filing fee. For details, contact the Departmental Graduate Coordinator, Barbara Shainberg.

## Housing Policy

In place of the normative time to degree guarantee (five years for SOM students), the guarantee has been reduced to four years with a possibility of lease renewal based on availability. This is primarily because of housing demand.

## Fellowships and Scholarships

Graduate students are highly encouraged to apply for predoctoral fellowships in consultation with their mentors. Fellowships and scholarships for graduate students are available from a variety of sources. Some of these require nomination by your Faculty Advisor (e.g., positions on training grants at UCI). Other fellowships and scholarships are available from such agencies as NSF, the Leukemia Society of America, American Heart Association, Howard Hughes Medical Institute, etc. In addition, the UCI Graduate Division offers periodic workshops to support the NSF fellowship application. Internal minority/diversity and dissertation fellowships are also available. Additional information can be obtained from faculty members in the Department. Outside fellowships and scholarships are generally highly competitive, but qualified students are strongly encouraged to apply. They are prestigious and receiving one will strengthen your curriculum vitae when applying for postdoctoral positions. SOM Office of Graduate Studies established the **Individual Fellowship Application Incentive** and the **Individual Fellowship Bonus**, as part of an incentive plan designed to encourage more students to apply for extramural funds. Students can receive a \$250 reward for submitting an individual fellowship application and \$1,000 per year, on top of other stipends, for securing an individual fellowship. For more information on these incentive plans please visit the website at <https://medschool.uci.edu/education/graduate-studies/graduate-studies-financial-support>

## SOM Graduate Studies Travel Support

With the support of the Dean of the School of Medicine and the UCI Graduate Division, the Office of Graduate Studies offers travel support to doctoral students in the School of Medicine at a level of \$500 (the amount is based on the location of a meeting) per academic year. The required conditions and application can be found at <https://medschool.uci.edu/education/graduate-studies/graduate-studies-financial-support>

## Student Health

As a full-time graduate student, you will receive health insurance, which also covers trips to the Student Health Center (949-824-5301). However, during the summer the actual cost of your visit is charged to the Department. The Department's financial office staff member will be happy to help with your individual questions and provide further information and brochures regarding student health.

In addition, various options are available for students' mental care support:

- Campus Assault Resources & Education (CARE): (949-824-7273)
- Campus Social Worker: (949-824-1418)
- Counseling Center: (949-824-6457)
- Graduate Division Academic Counseling: Phong B. Luong, [pbluong@uci.edu](mailto:pbluong@uci.edu), (949) 824-0246

For more information and options, please contact the Departmental Graduate Advisor, **Dr. Kyoko Yokomori**.

## Links and Forms

Biological Chemistry Website <https://medschool.uci.edu/research/basic-science-departments/biological-chemistry>

Academic Calendar & Fee Deadlines <https://www.reg.uci.edu/calendars/quarterly/2024-2025/quarterly24-25.html>

Registrar <http://www.reg.uci.edu>

Schedule of Classes <http://websoc.reg.uci.edu/perl/WebSoc>

Graduate Division <http://www.grad.uci.edu>

Graduate Division Filing Deadlines <https://grad.uci.edu/current-students/filing-deadlines/>

Graduate Division Forms <https://www.grad.uci.edu/forms/>

Student Health Center <https://shc.uci.edu/>