UCLA Molecular Biology Interdepartmental Doctoral Program (MBIDP)

GRADUATE STUDENT HANDBOOK

Updated June 2023

Table of Contents (Please click on each title to go directly to that section)

Molecular Biology IDP Contact Information	4
Interim Program Director	4
Home Area Directors	4
Student Affairs Officers	4
Program Requirements First-year students	5
Medical Scientist Training Program (MSTP) (MD/PH.D.) Requirements	9
Specialty Training and Advanced Research (STAR) Student Requirements	9
Lab Rotations	
Teaching Assistantships	
Written Qualifying Exam	
Guidelines for WQE Proposal Topic	
Format	
Paper Size and Page Margins	12
Second-year students	13
Nominating Your Doctoral Committee	
Third-year students	15
Oral Qualifying Exam	15
PI involvement with the oral qualifying exam	15
Oral qualifying exam procedures	
Remote participation guidelines	
Guidelines for OQE Proposal Topic	
Format	
Summary and Specific Aims page	18
Research Strategy	
Font	
Paper Size and Page Margins	
Grading of the Oral Exam by the Faculty	19
Final Assessment by Your Committee	
Advancement to Candidacy (ATC)	
Fourth-year students:	
Annual Committee Meeting	24
Fifth-year students	26
Annual Committee Meetings	

Dissertation Defense	
Defense	
Process	
Post-Defense	
Guidelines to writing your thesis dissertation	
Dissertation Filing	
Paying Registration Fees vs. Paying a Filing Fee	
All Students	
Enrollment	
myIDP	
Financial Support	
Fees	
Program Awards	
1) MBIDP Dissertation Year Award (\$2500)	
2) Paul D. Boyer Outstanding Teaching Award (\$1000)	
Conference Travel Funding	
Graduate Division Funding	
General Criteria Considered for Funding Priorities	
Guidelines to Apply for TravelFunding	
Health Insurance Requirements/Payments	
Internship Policy	
Masters Program in Molecular Biology	
Standards & Procedures	
Academic Disqualification and Appeal of Disqualification	
Student Appeal Process	
GSR Termination	
GSR Appeal Procedure	
Leave of Absence	
Academic Integrity	46

Molecular Biology IDP Contact Information

Program Director:

Dr. Hilary Coller
 E: hcoller@ucla.edu P: (310) 825-3483

Home Area Directors:

- Biochemistry, Biophysics and Structural Biology (BBSB)
 Dr. Feng Guo
 E: <u>fguo@mbi.ucla.edu</u> P: (310) 206-4576
- Cell and Developmental Biology (CDB) Dr. Alvaro Sagasti
 E: sagasti@mcdb.ucla.edu P: (310) 206-6147
- Gene Regulation, Epigenomics, and Transcriptomics (GREAT) Dr. Tom Vallim
 E: tvallim@mednet.ucla.edu P: (310) 206-7859
- Immunity, Microbes and Molecular Pathogenesis (IMMP)
 Dr. Elissa Hallem
 E: ehallem@ucla.edu P: (310) 825-1778

Your home area director serves as a faculty graduate advisor, overseeing academic affairs regarding doctoral committees, programs of study, advancement to candidacy, petitions, leaves of absence, probation, etc.

Student Affairs Officers:

Ashley Straight
 E: <u>ashley@lifesci.ucla.edu</u> P: (310) 267-5209

Ashley manages processes related to funding, courses, TAships, nominating and reconstituting committees, student seminar series, Dissertation Year Fellowship awards, oral qualifying exams, and defenses.



Program Requirements

First-year students:

1. Core Course Requirements

Courses are required in the first year of the program only. Any courses after the first year must be discussed with your mentor and/or be a necessity to fulfill the requirements of a training grant.

Ashley will enroll you in the required 12 units for your first year. You will be responsible for signing up for 12 units in your second year and beyond (enrolling in Mol Bio 596 if you have not yet advanced to candidacy, and Mol Bio 599 once you have advanced: Please make sure you are enrolling in your PI's section).

The coursework consists of four consecutive five-week courses covering biochemistry/structural biology, cell biology, genetics, and select topics. These courses involve active student participation in small group, discussion-based courses focused on primary research articles. The guiding principle is that students are transitioning from fact-based learning in undergraduate courses to problem-oriented learning that stresses approaches and data interpretation.

The goal is to provide you with skills needed to confront diverse problems in biology by reading and critically evaluating the primary literature so that you are prepared to learn new areas. Additionally, students are required to an elective course which is usually in the spring quarter. An ethics course (MIMG C234) is also required in the spring quarter.

Example of BBSB first year enrollment:			
Fall Quarter	Winter Quarter	Spring Quarter	
MOL BIO 254A (3 units)	MOL BIO 254C (3 units) or CHEM M230B (4 units)	MIMG C234 (2 units) or CHEM 230B (2 units)	
MOL BIO 254B (3 units)	MOL BIO 254D (3 units) or CHEM M230D (2 units)	Elective Course (4 units)	
MOL BIO 596 (6 units)	MOL BIO 255 (3 units)	MOL BIO 596 (6 units)	
	MOL BIO 596 (3 units)		

Example of BBSB first year enrollment:

*If you would like to take CHEM M230B instead of MOL BIO 254C or D or CHEM 203B instead of MIMGC234, you will need approval from your home area director first.



Example of CDB first year enrollment:

Fall Quarter	Winter Quarter	Spring Quarter
MOL BIO 254A (3 units)	MOL BIO 254C (3 units)	MIMG C234 (2 units)
MOL BIO 254B (3 units)	MOL BIO 254D (3 units)	Elective Course (4 units)
BIOL CH 266A (2 units)	MOL BIO 255 (3 units)	BIOL CH 266C (2 units)
MOL BIO 596 (4 units)	BIOL CH 266B (2 units)	MOL BIO 596 (4 units)
	MOL BIO 596 (4 units)	

Example of GREAT first year enrollment:

Fall Quarter	Winter Quarter	Spring Quarter
MOL BIO 254A (3 units)	MOL BIO 254C (3 units)	MIMG C234 (2 units)
MOL BIO 254B (3 units)	MOL BIO 254D (3 units)	BIOINFO 275A & 25B
MOL BIO 596 (6 units)	MOL BIO 596 (6 units)	MOL BIO 596 (3 units)
	BIOL CH 251B (2 units) *Winter or spring, discuss with home area director	BIOL CH 251C (2 units) *Winter or spring, discuss with home area director
		MOL BIO 252 (1 unit)

Example of IMMP first year enrollment:

Fall Quarter	Winter Quarter	Spring Quarter	
MOL BIO 254A (3 units)	MOL BIO 254C (3 units)	MIMG C234 (2 units)	
MOL BIO 254B (3 units)	MOL BIO 254D (3 units)	MIMG C285 (5 units)	
MOL BIO 596 (6 units)	MOL BIO 255 (3 units)	MOL BIO 596 (6 units)	
	MOL BIO 596 (3 units)		

Course Descriptions:

MOL BIO 252: Writing for Science (1 unit) Seminar. Corequisite: Biological Chemistry 251A or 251B or 251C. Limited to first-year Molecular Biology Ph.D. students in the Gene Regulation, Epigenomics and Transcriptomics Home Area. Development of specific skills in scientific writing within context of one advanced course on mechanics of gene transcription. Letter grading.

MOL BIO 254A-254D: Concepts in Molecular Biosciences. (3 units each) Lecture and discussion. Five weeks each. Letter grading.

- **254A:** Limited to human genetics and molecular biology graduate students. Covers four basic experimental approaches of biochemistry and molecular biology in context of various specific topics, including:
 - 1. Structural biology, with protein and nucleic acid structure and molecular recognition
 - 2. Use of cell-free and purified in vitro systems to dissect reaction mechanisms
 - 3. Biochemical approaches to dissecting complex reactions/pathways in cells
 - 4. Enzymology and protein chemistry.
- **254B:** Molecular mechanisms underlying complex problems in cell biology. Experimental approaches used to define mechanisms involved in protein targeting, cell structure and subcellular organization, cell communication, and intracellular signaling. Analysis of pathways that connect these cellular processes.
- **254C:** Important biological problems that have been genetically analyzed in different organisms or small number of related problems. Major genetic approaches used in relevant organisms, including both forward and reverse genetic approaches, genetic interactions between genes (genetic enhancers and suppressors), transgenic technology, and systematic genomic strategies.
- **254D:** Application of biochemical, molecular biological, genetic, and cell biological approaches to understand specialized topics in life and biomedical sciences, including developmental disease, stem cell biology, synaptic transmission in nervous system, cancer, and heart disease.

MOL BIO 255: Scientific Writing (3 units) Lecture, two hours; discussion, one hour. Limited to first-year Molecular Biology Ph.D. students. Improvement of academic literacy through development of specific skills in scientific writing. Review of principles of effective writing using practical examples and exercises. Topics include principles of good writing, tricks for writing



faster and with less anxiety, format of scientific manuscripts, art of editing, and issues in publication and peer review. Letter grading.

MOL BIO 596: Directed Individual Studies (2 to 12 units) Tutorial, to be arranged. Directed individual research or study. May be repeated for maximum of 12 units. S/U grading. You must be enrolled in this course each quarter prior to advancing to candidacy.

MOL BIO 599: Ph.D. Dissertation Research and Writing (2 to 12 units) Tutorial, to be arranged. Directed individual studies for students who have advanced to candidacy. May be repeated for maximum of 12 units. S/U grading. You must be enrolled in this course each quarter.

MIMG C234: Ethics and Accountability in Biomedical Research. (2 units) Seminar. Designed for graduate students and undergraduates who have credit for life sciences or biomedical individual studies 199 course. Responsibilities and ethical conduct of investigators in research, data management, mentorship, grant applications, and publications.

Responsibilities to peers, sponsoring institutions, and society. Conflicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investigational goals and certain societal values may conflict. Concurrently scheduled with course C134. S/U grading.

CHEM C250: Research Integrity in Cellular Biology, Molecular Biology, and Biochemistry Research. (2 units) Data analysis and management, statistical methods, use of antibody and kit reagents, figure preparation, authorship, mentoring, human subjects protection, animal subject protection, and conflict of interest. Letter grading.

CHEM 203B: Ethics in Chemical Research (2 units) Discussion of ethics in graduate education, teaching, and chemical research, including issues such as conflicts of interest, plagiarism, intellectual property, sexual harassment, and other topics related to ethical conduct of research. Letter grading.

CHEM M230B: Structural Molecular Biology (4 units) Selected topics from principles of biological structure, structures of globular proteins and RNAs; structures of fibrous proteins, nucleic acids, and polysaccharides; harmonic analysis and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. Letter grading.

CHEM M230D: Structural Molecular Biology Laboratory (2 units) Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. Letter grading.

BIOL CH 266A: Seminar: Cell, stem Cell, and Developmental Biology (2 units) (CDB Journal Club) Advanced course in cell, stem cell, and developmental biology intended for graduate students working or rotating in laboratories of new cell and developmental biology home area. S/U grading. **CDB students are required to enroll in this course every single quarter.** **BIOL CH 251A-251D: Seminar: Transcriptional Regulation (2 units) (**GREAT Journal Club) Advanced course on mechanics of gene transcription in both eukaryotes and prokaryotes intended for students actively working or highly interested in transcription. S/U grading.

CHEM CM259: Mechanisms of Gene Regulation (4 units) Mechanisms that control transcription in bacteria. Repression and activation at promoters. Sigma factors and polymerase binding proteins. Signal transduction pathways in transcription. Control of termination. Eukaryotic general transcriptional apparatus; sequence-specific promoter recognition; mechanisms of transcriptional activation and repression, including role of chromatin structure; transcription factors as targets of signal transduction pathways; transcription factors of embryogenesis. Letter grading. Taken as Gene Regulation, Epigenomics and Transcriptomics Student Elective

Medical Scientist Training Program (MSTP) (MD/PH.D.) Requirements:

- Two of the MOL BIO 254 courses (A, B, or C) for a total of 6 units. Taken in Fall/Winter Quarter. Each course is 5 weeks in length.
- MOL BIO 254D quantitative biology or an approved statistics or computational biology course
- MOL BIO 255 scientific writing course, which includes the WQE.
- Ethics course MIMG C234. If another ethics course has been taken, it is possible for this to be waived
- Complete Oral Qualifying Exam in year 2
- Present during Wednesday student seminar series in 2nd year
- Defend in year 4

Specialty Training and Advanced Research (STAR) Student Requirements:

- Two of the MOL BIO 254 courses (A, B, C, or D) for a total of 6 units. Taken in Fall/Winter Quarter. Each course is 5 weeks in length. If clinical duties conflict with these classes, accommodations can be made including taking MOL BIO 254 in year 2 of the program
- MOL BIO 255 scientific writing course, which includes the WQE.

- Ethics course MIMG C234. If another ethics course has been taken, it is possible for this to be waived
- Complete Oral Qualifying Exam in year 2
- Present during Wednesday student seminar series in 2nd year
- Defend in year 4

If a STAR student requires flexibility with these academic requirements, they are encouraged to discuss their situation with their Home Area Director.

Lab Rotations:

The lab rotations consist of 10-week rotations in the fall, winter, and spring quarters. At least one of the three rotations must be carried out in the laboratory of a faculty member within your home area. All rotations in other home areas must be approved by your home area director. These rotations are intended to serve as a tool for finding a suitable thesis lab.

Before each lab rotation, you will need to submit a lab agreement form. It is required to meet with your home area director prior to arranging your lab rotation.

Teaching Assistantships:

Students are expected to complete two Teaching Assistantships during their Ph.D. These TA opportunities are usually completed in the students' second and third years. When possible, students will TA classes that are in their area of expertise. Also when possible, students will TA classes taught by their faculty mentor.

If a student is selected for a training grant in their second and/or third year, and the training grant precludes serving as a TA, the student will be excused from the TA requirements for that year. The expectation is that they would TA once after completing the Training Grant unless the appointment is more than two years, in which case they are exempt. Additional TAships would be optional. Other circumstances should be discussed with the faculty mentor and Home Area Director.

Written Qualifying Exam:

The goal of the written qualifying exam is to help students develop the analytical and writing skills required to write a compelling grant proposal in the field of molecular biology.

The written qualifying examination should be submitted to the Home Area Director by the end of the second week of the spring quarter. In order to be eligible to take the written qualifying examination, you need to have achieved at least two passing lab rotation evaluations, as well as at least a B average in all coursework.

You are required to prepare a written research proposal in the format of a National Institute of Health (NIH) R21 grant proposal. You should submit one page with a Project Summary and Specific Aims. You should also submit up to six pages with the Significance and Approach. These six pages include figures, but additional pages are allowed for references.

The topic and hypotheses for the proposal are to be selected by you. The topic requires advance approval by the home area director and may not be a rotation project or an anticipated dissertation

research topic. You are free to consult with other individuals in formulating the experimental approach. This proposal is submitted to the Student Affairs Office (<u>ashley@lifesci.ucla.edu</u>) and the home area director via email.

Proposals are evaluated by the home area director and university faculty. Students can receive a pass or a retake. It is not uncommon for the evaluator to ask for revisions to the WQE. If a student is assigned a retake, the student will have one opportunity to resubmit the WQE, which can take place which can take place no later than the end of the following quarter (Fall).

Before the Written Qualifying Exam, the student must have their topic approved by the home area director.

Guidelines for WQE Proposal Topic: The written proposal must be unrelated to the interests of any rotation lab, and cannot focus on the student's proposed dissertation research or rotation project. The topic cannot be a reformulation of a proposal written by any member of any laboratory.

Format:

- Cover page (cover page is its own page) with relevant information (name, UCLA ID, date, what this is, title, etc.)
- Summary and Specific Aims (1 page)
- Significance and Approach/Experimental Design and Figures (6 pages)
- References (No page limit)

Paper Size and Page Margins: Use standard size $(8 \frac{1}{2}" x 11")$ sheets of paper. Use at least one-half inch margins (top, bottom, left, and right) for all pages, including continuation pages. No information should appear in the margins, except for page numbers

Second-year students:

Nominating Your Doctoral Committee:

When constituting (or reconstituting) your doctoral committee, be sure to refer to the most current <u>MBIDP Faculty Advisor</u> page.

Please be sure to meet with your PI to discuss your committee members. They will be able to give you advice on choosing a committee chair and members that fit your research areas.

Once you have identified who will serve on your doctoral committee, list the names of your selected faculty in an email to the MBIDP Student Affairs Office. The Student Affairs Officer will complete the official nomination form and submit it to Graduate Division for approval.

The committee must meet the criteria indicated below.

- Your committee chair must be an <u>MB-IDP Faculty Advisor</u> and cannot be your PI*.
- At least four faculty members from UCLA.
- Two of those members (including your chair) must be from the following academic appointments:
 - Professor
 - Associate Professor
 - Professor-in-residence
 - o Associate Professor-in-residence
- Three of those members must hold an UCLA Academic Senate faculty appointment limited to:
 - Professor (any rank)
 - o Professor or Associate Professor Emeritus
 - Professor in Residence (any rank)
 - Acting Professor
- Only one committee member may hold an Academic Senate faculty appointment or its academic equivalent at another accredited university or college.

*Your PI cannot be one of the committee members at this time. When your committee is

reconstituted after the exam, your PI will be added as your committee chair. Your initial committee chair will still remain on your committee, increasing the number of your committee members by one.

Third-year students:

Oral Qualifying Exam:

The aim of the oral qualifying exam is to determine whether the candidate is qualified for advancement to candidacy for a doctoral degree. This examination is open only to the doctoral committee members and the student.

The exam consists of a written proposal and a formal presentation of the proposal to the doctoral committee. The oral qualifying examination should be taken between fall and spring quarter of the third year (second year if you are an MSTP student). Exceptions will be considered. For instance, appointment to a fellowship that requires advancement to candidacy.

PI involvement with the oral qualifying exam:

During the entire second year, the expectation is that the PI and the student will interact significantly, define a series of questions and goals which should be further refined through generation of data by the student.

Towards the end of the second year, the student should have conceptualized a series of aims (in full agreement with his/her PI) that will serve as the basis for the written proposal. Preliminary results supporting the proposed research are beneficial, but not required, for the Oral Exam.

The student must write the entire proposal by themselves. The mentor can offer comments to help the student think about his/her experiments (adequate controls, quantification) and to ensure that the student understands what it is to propose an experiment that is complete (and definitive). The mentor **should not edit** the document, but should be involved to teach/enhance scientific rigor, and provide feedback for improvements. **Comments such as: "this is unclear", "re-phrase", "reconsider your thoughts", "where are the controls", "inclusion of statistics and quantification", etc., should be the extent of the comments provided by the mentor on the written document. The document should be given to the committee one week prior to the exam date.**

In several situations, students present their "Oral Exam" to their labs. This is beneficial to their preparation and it is encouraged. This practice presentation should allow the student to gain conviction of the chosen experimental design, be able to defend it, identify pitfalls and shortcomings, and really understand the basic molecular / protein / developmental underpinnings behind their project. For example: If their experimental design requires them to generate a construct, they need to understand whether a signal peptide sequence will be required to ensure that the protein goes to the ER. If they are making a truncated protein that is supposed to go the nucleus, they should understand what nuclear localization signals are, and how the import of proteins into the nucleus occurs.

The process of preparing for their Oral Exam should be one that is associated with significant growth and acquisition of scientific maturity. The students should have a strong grasp of the



literature associated with their proposals and a strong understanding of experimental design, alternative approaches and all possible outcomes of an experiment that is yet to be done.

Oral qualifying exam procedures:

- 1. All members of the Doctoral Committee MUST attend the oral qualifying exam.
 - Remote participation via Skype (or other electronic means) is allowed only as a matter of necessity, not convenience.
 - If there is a matter of necessity, the faculty member, student, or chair must contact the Student Affairs Office in order to submit the required paperwork to the Graduate Division within 14 days of the exam.
 - The committee chair is not allowed to remotely participate.
 - Only one member of your committee is allowed to participate remotely
- 2. The student must schedule a date and time (approximately 2 hours) that is agreeable to all committee members. Plan for approximately a 45-minute presentation but realize there will be questions before, after, and throughout.
- 3. The student will reserve a room for 2.5 hours. The student may contact the MBIDP Student Affairs Officer for assistance in finding and booking a room.
 - Please email <u>mbiasst@lifesci.ucla</u> and cc: <u>ashley@lifesci.ucla.edu</u> to book Boyer 130, 159 or 168 (inside the MBIDP office).
- 4. At least 14 working days prior to the scheduled exam, the student must notify the MBIDP Student Affairs office of the date, time and room number.
- 5. At least one week prior to the oral exam, please email one copy of the oral exam proposal to each of the committee members and cc: <u>ashley@lifesci.ucla.edu</u>

NOTE: You are not allowed to provide refreshments of any kind at your OQE or annual committee meetings.

Remote participation guidelines:

Only **one** committee member (never the Chair or Co-Chair) may participate remotely in an oral qualifying examination or final oral examination (defense of the dissertation). Remote participation must be a matter of necessity rather than convenience.

The student must petition the committee chair in advance of the examination to allow one member to participate remotely; the committee Chair must provide written approval to the student ahead of the examination.

The technology required for remote participation must allow for the participant to see/be seen by and hear/be heard by all committee members and have access to visual materials simultaneously.

Although no exception petition will be required for one committee member participating remotely, the department/program must notify the Graduate Division of the remote participation within 14 business days of the examination.

Under rare circumstances, the department or inter-departmental program Chair may petition the Graduate Division for an exception to allow a second member (not the Chair or Co-Chairs) to participate remotely in a doctoral oral qualifying examination or a final oral examination (defense of the dissertation).

Guidelines for OQE Proposal Topic:

The OQE is on-topic, meaning, the subject of the proposal must be the thesis project that the student plans to undertake under the guidance of their mentor and it should include preliminary data gathered during the previous quarters in the laboratory.

The student's proposal and presentation are expected to demonstrate:

- 1. A scholarly understanding of the background of the research proposal;
- 2. Well-designed and testable aims;
- 3. A critical understanding of the techniques employed in the proposed research; and
- 4. An understanding of potential experimental outcomes and their interpretation.

Except for their doctoral committee members, students are free to consult with their thesis advisor, or other individuals in formulating the proposed research.

Preparation of the Proposal: The proposal has to be the intellectual product of the student

The student is expected to read in detail in the research area of his/her proposal, suggest a welldefined experimental approach to one or more questions and provide an interpretation of possible results. Include sufficient but concise information to facilitate understanding, but avoid redundancies. Readers often consider brevity and clarity to be indicative of a focused approach to a research objective and the ability to undertake a research project. Make sure you emphasize the significance of your research proposal.

Format:

The format of the proposal should follow the outline of a typical F31 NIH grant application. The proposal should be a <u>maximum</u> of 7 single spaced pages, including figures and illustrations but excluding references.

Include the following information on your **title** page:

- Proposal title
- The words "Oral Qualifying Examination" should be included in the title page
- Your name
- Your mentor's name
- Names of committee members



- Quarter submitted (e.g., Fall 2018)
- Room number, building and time where the OQE will take place

Summary and Specific Aims page:

Limit one page, describing the problem being addressed, its relevance and how you will address it in the proposal. Make sure to also include an overarching hypothesis and list the specific aims to address this hypothesis.

Research Strategy:

Limit 6 pages. Must contain:

1. Significance:

- Explain the importance of the problem or critical barrier to progress that the proposed project addresses.
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

2. Approach:

- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high-risk aspects of the proposed work.
- 3. Research data (text and figures)
- **4. References** Please make sure that references are cited in full and formatted consistently.

Font:

Arial, Helvetica, Palatino Linotype or Georgia typeface, a black font color, and a font size of 11 points or larger. A symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.

Paper Size and Page Margins:

Use standard size $(8 \frac{1}{2}" x 11")$ sheets of paper. Use at least one-half inch margins (top, bottom, left, and right) for all pages, including continuation pages. No information should appear in the margins, including the page numbers.

At least one week prior to the oral exam, please email one copy of the oral exam proposal to each of the committee members and cc <u>ashley@lifesci.ucla.edu</u>

Oral Qualifying Exam:

The Oral Examination generally requires about 2 hours to complete. This includes the presentation (approximately 45 min) with questions before, after and during from the committee.

The exam will cover your specific proposal as well as general scientific background. It is important that you make it clear to the committee what data you generated versus any supporting data from other members of your lab.

You may want to get feedback prior to your oral exam by practicing your presentation with a group of fellow students, your mentor and other trainees. Note that this is not a requirement, only a suggestion.

Grading of the Oral Exam by the Faculty:

The faculty will be asked to assess the following:

1. Originality of the hypothesis and its strength, i.e., your ability to argue your point convincingly:

A good hypothesis and experimental design generates yes or no answers. As such, if the experiment did not work as expected, you must be prepared to interpret that result and design backup approaches. Although there is little room to cover backups in the written proposal, be prepared to present these in your exam. Additionally, do not propose open-ended experiments without a clear hypothesis, i.e., "I'll take this gene, knock it out, and see what happens".

- 2. Your answers to fact-based questions:
 - <u>Background</u>. You must know the background literature as assessed by an expert in that area. Be prepared to **cite** studies.
 - <u>Methodology</u>. Know the details behind the methodology used to address your hypothesis. You need not delve into a detailed description of the methodology in the written proposal, but be prepared to discuss it if questioned by the committee, e.g. if you use RNAi to reduced gene expression, you must know how to deliver the RNAi and how RNAi inactivates genes, as well as alternative strategies to achieve the same goal.
 - <u>General knowledge</u>. Typically, you will not be quizzed on your command of broad subjects. However, you may be asked questions as mundane as the structure of a peptide or nucleotide bond if your proposal utilizes proteases or nucleases. Be prepared to address such questions.

Presentation: You must prepare a well-organized and articulate presentation. The best presentations are practiced in front of your peers. To prepare you, they should raise questions not only about the background and methods, but also about the experimental

approach and interpretation of possible results.

Final Assessment by Your Committee:

The expectation during the oral qualifying exam is that a student delivers a strong, novel proposal that is written in a scholarly and clear manner. The proposal needs to be experimentally compelling and integrated with the current literature. In addition, the student must be able to defend the proposal orally, answer questions related to any aspect of the presented work and discuss the literature.

After assessment of the written and oral presentation, there are three types of decisions that a committee may make: Pass, Conditional Pass or Not Pass.

Pass - The student provided a strong written proposal and was able to present and defend the proposal adequately.

Conditional Pass – *The written proposal was not of sufficient caliber but the oral presentation was strong, more substantive and in-depth.*

A student who receives "Conditional Pass" will be required to modify or re-write their research proposal to bring it up to required standards. The revised proposal should be submitted to the doctoral committee for their review <u>within 1 month of the original orals date</u>.

The student can seek the advice of their committee in preparing their revisions. The doctoral committee chair will notify the student in writing of the final decision, within 30 days of resubmission.

Not Pass – The written proposal was adequate, but the presentation and defense of the application was poor or both the written and oral aspects were below standard.

A student may not be advanced to candidacy for the Ph.D., if more than one member votes "not pass" regardless of the size of the committee. Upon vote of the doctoral committee, a student who does not pass the initial exam may re-take it <u>within six months of the original orals date</u>. If the student does not pass the exam a second time, they must leave the program.

Advancement to Candidacy (ATC):

Due: By third year of Graduate School

Students are eligible for advancement to doctoral candidacy after passing the Oral Qualifying Examination with no more than one negative vote, completing four terms of academic residence and any additional departmental requirements, and maintaining a 3.0 grade-point average in graduate standing.

They are officially advanced to candidacy on the date the completed application for candidacy form is received in Graduate Admissions/Student and Academic Affairs, provided the information on the form is correct and complete and the examination was conducted in accordance with Graduate Council regulations.

Important: The \$90.00 advancement to candidacy fee appears on the next UCLA Billing Statement. Your PIs are responsible for paying the ATC fee. Students are expected to advance to candidacy no later than Winter Quarter of the third year of graduate school.

Non-resident students qualify for a 100% reduction in the cost of NRT the quarter after they advance to doctoral candidacy for a maximum of nine academic quarters (Summers are not counted).

MBIDP PROGRAM

Responsibilities for the Doctoral Committee Chair

Thank you for accepting the role of doctoral committee chair. Please read the list of responsibilities associated with this post and feel free to contact either the student's home area director or the director of the program, if you have any additional questions or concerns.

Prior to theMeeting

- Contact the student's mentor for a conversation about the student's research progress and any additional information that would be beneficial for the committee to know. This information should be conveyed to the other members of the committee during the meeting.
- The SAO will send the oral qualifying exam evaluations to you and the committee members prior to the exam date. Additionally, you will receive a separate email with the Report on the Oral Qualifying Exam and Reconstitution of the Doctoral Committee Graduate Division forms.

Committee Composition

• The committee will be composed of four faculty with expertise in the area of research proposed. The student's mentor is not part of the doctoral oral exam committee until after the student passes their exam.

After the Meeting

- Please do make sure to see the filled forms are returned to the SAO (<u>ashley@lifesci.ucla.edu</u>) as soon as possible following the orals, so that they do not end up misplaced. All committee members must reply to the email containing the Report on the Oral Qualifying Exam and Reconstitution of the Doctoral Committee Graduate Division forms stating whether the student passed the exam, and if so, approve of the reconstitution to add thestudent's mentor as the committee chair.
- Contact the student mentor to discuss the outcome of the exam and any other additional information that might be of importance for the mentor to know that would benefit the student's progress/growth.

Final Assessment by the Committee

• The expectation during the oral qualifying exam is that a student delivers a strong, novel proposal that is written in a scholarly and clear manner. The proposal needs to be experimentally compelling and integrated with the current literature. In addition, the student must be able to defend the proposal orally, answer questions related to any aspect of the presented work and discuss the literature.

After assessment of the written and oral presentation, there are three types of decisions that a committee may make: **Pass, Conditional Pass or Not Pass.**

- **Pass**-The student provided a strong written proposal and was able to present and defend the proposal adequately.
- **Conditional Pass** The written proposalwas notof sufficientcaliber butthe oral presentation was strong, more substantive and in-depth.
 - A student who receives "Conditional Pass" will be required to modify or re-write their research proposal to bring itup to required standards. The revised proposal should be submitted to the doctoral committee for their review within 1 month of the original orals date. Thestudentcan seek the advice of their committee in preparing the revisions. Thedoctoral committee chair will notify the student in writing of the final decision, within 30 days of re- submission.
- **Not Pass** The written proposal was adequate, but the presentation and defense of the application was poor or both the written and oral aspects were below standard.
 - A student may not be advanced to candidacy for the Ph.D., if more than one member votes "Not Pass" regardless of the size of the committee. Upon vote of the doctoral committee, a student who does not pass the initial exam may re-take it within six months of the original orals date. If the student does not pass the exam a second time, they must leave the program.

In determining whether a student has passed the OQE, please keep in mind that our Ph.D. program is not a good fit for everyone. If a student is not a good fit, it is in the student's interests to make that determination early in the program so the student can find a better fit.

After the discussion of science is complete, before the committee discusses the outcome, the chair of the OQE committee should ask the student about their mentoring environment. The student should be given a chance to share any concerns about their mentor or any other aspect of the environment in their lab, the Department or the MBIDP.

Fourth-year students:

Annual Committee Meeting:

The first annual committee meeting is due approximately one year after your oral qualifying exam.

In the 3rd, 4th & 5th years, to remain in good academic standing, you must convene an annual meeting with your doctoral committee until completion of the Ph.D. degree.

Please email <u>ashley@lifesci.ucla.edu</u> once you have a midstream meeting date so she can prepare the evaluation forms for you and provide your binder to your committee chair.

To reserve Boyer 130, 159 or 168, please contact mbiassist@lifesci.ucla.edu

The midstream meeting is not an examination. It is simply an opportunity for the committee to review your progress and make any recommendations that would facilitate timely advancement to the degree.

For the convenience of your committee members, we suggest you print PowerPoint handouts of your presentation with lines for note taking, so that your committee can jot down important points.

For your midstream meeting, it is understood that there may only be preliminary results at this stage, but it provides an opportunity for the committee to evaluate progress, help define specific goals, and offer advice. The seminar should include a summary of the background, objectives, present accomplishments, and future plans for the dissertation research. The student may present the history and significance of the area and discuss the merits and pitfalls of the particular experimental approach being taken.

The midstream talk should be about 30 minutes with the remainder of the time for discussion (1 to 1-1/2 hrs total). A brief one-page form is given to each committee member to complete and sign with the following areas of evaluation (sample given below):

1. Scientific content

- a. Understanding of the problem:
- b. Acquisition and analysis of data:
- c. Overall impression of scientific work:
- d. Evaluation of Progress to date:



- e. Specific Goals Work still to be done:
- f. Format expected of dissertation (including publication expectations)
- g. Estimated/Recommended Target date for Final exam:

2. Presentation

- a. Audibility, pace of talk, board work, visual aids:
- b. Response to questions:
- c. Overall effectiveness as a communicator

Fifth-year students:

Annual Committee Meetings:

Each year following your oral qualifying exam, you are required to have an annual committee meeting.

Please email <u>ashley@lifesci.ucla.edu</u> once you have a date for your committee meeting so the evaluation forms can be prepared and your binder can be provided to your committee chair.

The annual meetings are not examinations. They are simply an opportunity for the committee to review the student's progress and make any recommendations that would facilitate timely advancement to the degree.

At each meeting, you should plan on doing a 20-30 minute (approximately) presentation of your research project and discuss the anticipated date of degree conferral with your committee. For the convenience of your committee members, we suggest you print PowerPoint handouts of your presentation with lines for note taking, so that your committee can jot down important points.

A brief one-page form is given to each committee member to complete and sign with the following areas of evaluation (sample given below):

1. Scientific content

- a. Understanding of the problem:
- b. Acquisition and analysis of data:
- c. Overall impression of scientific work:
- d. Evaluation of Progress to date:
- e. Specific Goals Work still to be done:
- f. Format expected of dissertation (including publication expectations)
- g. Estimated/Recommended Target date for Final exam:

2. Presentation

- a. Audibility, pace of talk, board work, visual aids:
- b. Response to questions:
- c. Overall effectiveness as a communicator

Dissertation Defense:

Defense: Oral presentation of your research **Filing your dissertation:** Submitting your thesis online (last step)

Every doctoral program requires the completion of an approved dissertation that demonstrates the student's ability to perform original, independent research and constitutes a distinct contribution to knowledge in the principal field of study. The choice of subject must be approved by the doctoral committee, which usually reviews and approves the dissertation prospectus at the time of the oral qualifying examination. Subsequently, the doctoral committee guides progress toward completion of the dissertation.

For guidance in the final presentation of the manuscript, a student consults the thesis and dissertation adviser, Office of the University Archivist, 330 Powell Library, and <u>UCLA Thesis</u> and <u>Dissertation Filing Requirements</u>, available on the Graduate Division website. When planning to submit the dissertation during the current academic year, students are encouraged to attend one of the <u>orientation meetings on manuscript preparation and filing</u> <u>procedures</u> which are conducted by the thesis and dissertation adviser and the Graduate Division at the beginning of each quarter.

Defense:

In general, the format for the defense is as follows: The candidate should be prepared to make a twenty to thirty-minute oral presentation to the committee. The presentation is followed by a question-and-answer period. Once the questioning period is complete, the candidate and non-committee members leave and the examination committee discusses the merits of both the dissertation and the defense.

The candidate may be asked to make major or minor revisions before receiving final approval by the examination committee. There is, of course, a possibility that the dissertation is not accepted, in which case the candidate and dissertation committee meet together to decide how to proceed. Because revisions may well be required, the candidate should leave enough time between the defense date and the final date for submitting the completed draft to the Graduate School. (*Procedure may vary, according to each committee's preference.*)

Process:

- 1. Notify your SAO that you are intending to defend at least a quarter ahead of time, if possible
- 2. Review the thesis and dissertation filing requirements:
 - a. <u>Video tutorial</u>
 - b. Filing requirements
 - c. Filing deadlines and workshop dates
 - d. <u>FAQs</u>
- 3. Email your SAO at least **21 days** before your defense, providing the following:
 - i. Date
 - ii. Time
 - iii. Location
 - iv. Title of defense

*Please make sure to reserve a room (you can email <u>mbiasst@lifesci.ucla.edu</u> to see if Boyer 130/159 are available)

* A flyer will be prepared and posted throughout Boyer Hall. Additionally, it will be sent to MBI faculty and MBIDP students.

- 4. At least **10 days** before your defense, send your dissertation to your committee so they can review it, and cc: <u>ashley@lifesci.ucla.edu</u>. Your committee can email you comments or wait until your defense to give you suggestions
- 5. Complete the exit survey and update your annual progress report with any additional publications, conferences, seminars, etc.

Post-Defense:

Guidelines to writing your thesis dissertation

Your thesis is the compilation of your efforts to test and prove a hypothesis. The work should be cohesive and the chapters should relate to dissecting the question and proving the main hypothesis. You can write it either in the singular (I) or plural (royal "we") but select one format and stick with it throughout. Spend some time having a discussion with your advisor and committee as to how to organize this document. The font to be used is flexible but size should be 12 and the spacing 2. Make sure you also include page numbers (either center or right corner). There are examples of several thesis in the office that you are welcome to consult. Make sure to provide the MBIDP office with an electronic copy of your thesis in addition to sending it to your committee.

Your thesis should be sent to your committee members **10 DAYS** prior to the thesis defense. This will allow time for them to read, annotate any suggestions, make corrections and provide you with meaningful feedback.

After your thesis defense you must make corrections on your thesis and circulate them once again to your committee for final approval prior to filing your thesis with Graduate Division. You cannot graduate until your thesis has been filed.

If you intend to attend the hooding ceremony for the University (usually Thursday second week of June) make sure that you file during the month of May.

General Format:

Title Page – Following University of California Guidelines, must include the title of your thesis the name of the program and the name of your advisor.

Committee page – Include the names of your thesis committee and make sure to clarify who is your mentor.

Abstract – provide a detailed summary of the work. Thesis abstracts are generally $1\frac{1}{2}$ to 2 pages long (unlike the abstract of a paper)

Acknowledgements – it ranges from a single page to 5 pages, depending on the student. Make sure to include funding sources. Some students also include a dedication right after the title page, up to you.

Table of Contents – Provide a list of all contents and their respective page numbers.

List of Illustrations/ Figures and Tables (numbered according to the chapter (first number and sequential organization – second number). Example: Figure 1.1; 1.2, 1.3 –

VITA (your CV)

Chapters – usually 1 to 5 (each including their own bibliography, figures and figure legends)

Conclusions – Here you discuss how your research has impacted / changed our current knowledge and the field of research in general.

Organization and Content of Chapters:

Chapter 1 - This chapter should be used as a platform to discuss your question, relevance, and status of the field. Your approach to address the question, your central hypothesis and at this end of this chapter you should provide readers with a summary of what is coming:

- Chapter 2 provides a detail evaluation of the current knowledge in the field The work has been published in the form of a Review in Journal of...... The laboratory of Dr. XX
- Chapter 3 highlights
- Chapter 4 focuses on.....
- In Chapter 5 we extend our study

Chapters 2-X (usually 3) – These chapters constitute the body of your thesis. Usually students include their publications in each of these chapters. In some cases a review chapter is placed either as the first chapter (1) the second Chapter or the Conclusions

Conclusions – As stated above this should be a 5-15 page chapter that brings your thesis to a closure providing comments about how the work impacted the field.

Dissertation Filing:

Following your defense, revise your dissertation based on the feedback you receive from your committee. When you have made all necessary changes, and you are sure all of your committee members approve, submit it to the University.

After submitting, your committee will receive email instructions regarding how to officially approve your dissertation (online).

*The process of submitting your dissertation is not complete until **all** committee members have officially approved it

If you are filing in a quarter in which you are NOT registered (summer), then a <u>filing fee form</u> is required. You must be on filing fee prior to **defending**.

- Make sure to check the <u>important dates</u> pertaining to the filing fee process
- There are instances in which a mentor will prefer a student not register for a quarter if the student is filing close to the beginning of the quarter (see "Paying Registration Fees vs. Paying a Filing Fee" below)
- Once you submit your filing fee application, email your SAO to let them know

Paying Registration Fees vs. Paying a Filing Fee

- For students filing in fall, winter or spring, there is the option to not register, and therefore the PI does not pay registration fees (about \$5,000/quarter) Instead, they can pay the \$188 filing fee.
- In order to qualify for this, you must have completed all degree requirements, while registered, with the exception of your defense and dissertation filing.
- You must also have been registered the previous quarter. Examples below:
 - $\circ~$ If the last quarter you registered is spring, you have the option of the filing fee for fall (or summer)
 - \circ If the last quarter you registered is fall, you have the option of the filing fee for winter.
 - If the last quarter you registered is winter, you have the option of the filing fee for spring (but not summer)

If you are employed (GSR/TA), you must speak with your payroll representative to end your appointment prior to filing your dissertation or submitting your filing fee application.

Please indicate your Non-Attendance on MyUCLA for the quarter following your defense. This will prevent fee assessment and billing for that quarter. If you are on filing fee, declare non-attendance for the quarter in which you are on filing fee.

Important Insurance Information: If you are graduating at the end of the quarter, please note that your health insurance will end at quarter's end. There are options available for dependents and eligible UC SHIP students not returning to school (filing fee status or graduated) to be able to purchase a Non-Registered Student Voluntary UC SHIP Policy. Please contact Wells Fargo Insurance Services at (800) 853-5899 for the enrollment application, fee payments, and benefits details. For those students no longer eligible for UC SHIP, please refer to the <u>Alternate Insurance</u> Resources handout available on the Student Health website <u>www.studenthealth.ucla.edu</u>,

Note: If you are registered in Spring quarter, you are covered through the summer months, until the beginning of Fall quarter.

The <u>ETD Submission Instructions</u> are available online at <u>Thesis and Dissertation Formatting</u> and <u>Filing Guide</u>.

If conducting research for the purpose of fulfilling the requirements for a doctoral degree, students should be aware that if the research will entail the use of human subjects (medical procedures, questionnaires, interviews, etc.), in addition to receiving the approval of the doctoral committee, students must also seek the approval of the appropriate Human Subject Protection Committee (HSPC) at UCLA, prior to the initiation of the research project. Additional information regarding application procedures may be obtained from the HSPC - School of Medicine, (310) 825-5344; HSPC - General Campus, (310) 825-7122.

IMPORTANT LINKS:

- <u>Graduate Division Dissertation Meetings Schedule</u> (Information on University regulations governing Manuscript preparation and completion of degree requirements)
- Graduate Division Policies and Procedures for Thesis and Dissertation Preparation and Filing
- UCLA electronic thesis & dissertation (ETD) filing formatting guidelines presentation
 Doctoral Hooding Ceremony Commencement

All Students:

Graduate Student Timeline:

	Fall Quarter	Winter Quarter	Spring Quarter	Summer Quarter
1st year	-Courses -Rotations -Seminars	-Courses -Rotations -Seminars -Complete MyIDP training	-Courses -Rotations -Seminars -Written Qualifying Exam -MBI Retreat -Choose dissertation lab -Annual Progress Report	-Begindissertation research in lab
2nd year	-Dissertation research in lab -Seminars	-Dissertation research in lab -Seminars	-Dissertation research in lab -Seminars -MBI Retreat -Choose Committee (must be done before Oct. of 3 rd year) -Update MyIDP Goals and include with Annual Progress Report	-Dissertation research in lab -Plan/Complete Oral Qualifying Exam
3rd year	-Dissertation research in lab -Seminars (present in Student Seminar Series this year) -Oral Qualifying Exam must be completed by December	-Dissertation research in lab -Seminars (Present in Student Seminar Series this year) -Reconstitute committee	-Dissertation research in lab -Seminars (Present in Student Seminar Series this year) -MBI Retreat -Update MyIDP Goals and include with Annual Progress Report	-Dissertation research in lab
4th year	-Dissertation research in lab -Seminars -Annual committee meeting	-Dissertation research in lab -Seminars	-Dissertation research in lab -Seminars -MBI Retreat -Update MyIDP Goals and include with Annual Progress Report	-Dissertation research in lab
5th year	-Dissertation research in lab -Seminars (present in Student Seminar Series this year) -Annual committee meeting	-Dissertation research in lab -Seminars (present in Student Seminar Series this year)	-Dissertation research in lab -Seminars (present in Student Seminar Series this year) -Complete Dissertation -Final Dissertation Defense -Update MyIDP Goals and include with Annual Progress Report	-Complete Alumni datasheet -Keep in touch



Enrollment

MBIDP graduate students must enroll in a minimum of 12 units per quarter (excluding summer when no enrollment is required). In addition to any lecture, seminar or TA courses you might be taking:

• you must enroll every quarter in either Directed Individual Research (596) prior to your advancement to candidacy

OR

• Research-Dissertation (599) after your advancement to candidacy

Graded *on an S/U basis*, unless your mentor or the mentor's home department specifies otherwise.

Most of the 596/599's have variable units between 2 and 12. *Please make sure you end up with a minimum total of 12 units combined (lecture courses/seminars and 596/599 research class)*

To get to MOL BIO 596 or 599:

- \Box Under the Classes mega menu, select Find a Class and Enroll.
- □ Select Quarter/Year from the list and then search for MOLECULAR BIOLOGY

 \Box On the next screen, choose either 596 (for those who have not advanced to candidacy) or 599 (for those who have advanced to candidacy).

 \Box When you click on the number, it will drop down the list of currently available sections.

 \Box From there, you can select and make sure that you choose from the drop down the amount of units that you need to enroll in for your schedule to be at 12 total. (Please see picture below as a guide)

If you need a 596 or 599 number that isn't there, please let the MBIDP SAO know and they will set it up. In an IDP, it is always possible that a few faculty have not yet been set up for these numbers.

***PLEASE MAKE SURE TO CHECK YOUR PI'S NUMBER AGAINST THE LIST <u>BEFORE</u> YOU ENROLL. HOW THESE NUMBERS ARE ASSIGNED AND THE ORDER IN WHICH THEY APPEAR EACH QUARTER IS A RELATIVELY ARCANE PROCESS, SO SOME FACULTY MEMBER'S NUMBERS MAY NOT BE THE SAME, EVEN AS LAST QUARTER (and it can be an incredible amount of hassle and paperwork to correct it, if you should end up enrolled in the wrong faculty member's number, which is not okay)

Be sure to check for the correct 596 or 599 ID# EVERY QUARTER! Do NOT assume the number will always be the same!

Before you can TA, you will need to complete a 495 Preparation for Teaching

Course. Please consult with the Student Affairs Officer in the TA department for the appropriate course ID number, or contact the Graduate Student Affairs office for assistance.



When you have been assigned to TA a specific class, in order to get credit on your transcript, you must enroll in the appropriate 375 Teaching Apprentice Practicum course. The TA assigning department should provide you with instructions for enrollment. If you have any questions, ask the Student Affairs Officer in the TA department for the appropriate course ID number, or contact the Graduate Student Affairs office for assistance.

myIDP

Beginning with a mandatory training workshop in the first year of graduate study, students are required to generate an Individual Development Plan vie myIDP website: http://myidp.sciencecareers.org/ in order to map out their academic and professional development goals throughout graduate school. The myIDP must be updated annually with specific new goals that will be accomplished within that academic year and the printed goals summary discussed with and signed by the student's home area director (in year 1) or the dissertation research adviser (in years 2-5). The signed summary will be included with the annual progress report due June 1 of each year.

To print out the myIDP goals summary page, login to your myIDP account and click on myIDP Summary under Implement Plan on the left-hand side of the screen. Unclick all checkboxes except the last three (career advancement goals, project completion goals, and goals summary). Please refer to picture below. Click show report and print the resulting summary.

Financial Support

Molecular Biology IDP students making timely progress to degree receive full financial support in the form of a competitive stipend, tuition, health insurance, and non-resident supplemental tuition (NRST) as applicable. It is a general policy of the MBIDP that doctoral students be supported for five years.

In a public university setting, the MBIDP is obligated to coordinate effective distribution of a variety of sources of financial support for students pursing the Ph.D. under the guidance of member faculty. This support is derived from a number of individual or combined sources: stipend from Departmental, University, or Extramural fellowships, or from institutional or individual training grants; salary from academic apprentice employment, such as academically required Teaching Assistantships and Graduate Student Researcher (GSR) appointments. Because foreign students are not eligible for support from Federal training grants, resources available to support foreign students are limited. For Information on university fellowships for continuing students, consult Graduate Student Support for Continuing Students.

All prospective graduate students are urged to apply for any extramural predoctoral fellowships for which they may be eligible. In addition to those that are administered by the University, these include the National Science Foundation Graduate Research Fellowship Program (NSF GRFP) and Howard Hughes Medical Institute, among others. The Graduate Program Coordinator receives notifications of funding opportunities from the graduate Division on a daily basis. These notices are posted online and may be viewed on the Graduate Division <u>GRAPES</u>_database. Most funding organizations require that you contact them directly for detailed information and an application. When "1252 Murphy Hall" appears in a listing, applications for it are available for pickup in the Graduate Fellowships and Financial Services office. For more information on funding opportunities, and to view archived announcements, visit the <u>Graduate Division</u><u>Financial Support</u> webpage.

Fees

Tuition and Fees

- Tuition (at 12 units) is fully covered by the MBIDP through assistantships, traineeships, fellowships, or grants. Tuition and fees are paid directly to the University. These payments will show up on BruinBill on the fee payment deadline.
- The estimated breakdown of <u>UCLA Graduate Student Tuition</u> is available upon the Graduate Division webpage. It is subject to change without notice.
- A \$100 document fee is required for all incoming students. This is paid for by the Graduate Programs in Bioscience.

Program Awards

MBIDP presents outstanding teaching and dissertation research awards to eligible students. Nominations for the awards are solicited and the recipients are announced at the annual MBI Retreat in the spring quarter.

General Eligibility for Program Awards: Students must be current in their time-todegree progress and be compliant with the program's participation requirements.

1) MBIDP Dissertation Year Award (\$2500)

(Awardee must present a 15-minute talk at the MBI Annual retreat.)

Eligibility: Current graduate students in the Molecular Biology IDP who are approximately one year or less away from presenting their Final Defense and filing their dissertation. We are looking for candidates whose research achievements are notable, who have had an impact on their field, and who have the potential for continued significant scientific contributions.

Nominations: May be nominated by the student's research mentor. Submit the following material:

- Student's CV, including list of publications, manuscripts, presentations (copies of reprints would be appreciated)
- Letter of nomination from the research mentor outlining the student's research achievements and future scientific potential
- One additional letter of support from someone familiar with the student's research
- Any other supporting materials

2) Roy & Dorothy John, Fred Eiserling & Judith Lengyel Awards for Teaching Excellence (\$1000)

Eligibility: Current Molecular Biology IDP students in the fourth year or later of graduate study. Applicants must have completed their Teaching Assistant requirements between the Fall and Spring Quarters of the prior year.

Nominations: Must be nominated by the instructor of the course for whom you were the Teaching Assistant. Research mentors can only nominate if they were the instructor of the course for which you were the Teaching Assistant.

Submit the following material:

- Student's complete CV
- Brief half-page statement regarding how the experience of being a Teaching Assistant enriched your graduate education and career
- Copy of Teaching Assistant evaluations, including EIP statistical summary sheet and summary of written comments
- Any additional letters of support from instructors, students

NOMINATION MATERIALS (including letters of support) MUST BE SUBMITTED BY THE DEADLINE TO THE MBI WEBSITE AT <u>mbi.ucla.edu/student-awards.</u>

CONFERENCE TRAVEL FUNDING

GRADUATE DIVISION FUNDING

New and continuing UCLA doctoral students will be eligible to request up to \$1,000 to reimburse travel expenses for attending professional conferences, engaging in off-campus fieldwork or collaborative research, or taking advantage of off-campus professional development opportunities. The reimbursement can be used, in whole or in part, at any time through the seventh year of enrollment in the doctoral program as long as the activity meets the eligibility requirements.

Deadlines:

- Airfare and conference registration: Reimbursement can be provided 2-3 weeks in advance of the departure date or within 45 days after the travel has been completed
- All other expenses: Reimbursement must be requested after travel and within a reasonable amount of time, not to exceed 45 days after travel has been completed

Allowable Expenses: Students must meet UCLA travel policies (<u>www.travel.ucla.edu</u>). Expenses may include:

- Airfare
 - Transportation
 - Lodging (at a commercial venue; no stays at someone's home)
 - Conference/Workshop registration and fees
 - Meals & Incidental Expenses, up to current rate/day.
 - Poster printing

Ineligible Expenses that will not be included for any reimbursement:

- Computer or other electronics or equipment
- Alcoholic beverages
- Transcription/printing services
- Dissertation editing
- Tuition and/or fees for credit-bearing courses
- Recreation/social events (even those held by the conference)
- Supplies, materials and other costs associated with the research or professional development activity (e.g., software, printing, reproduction, flash drives, etc.)
- Payment to research study subjects

Information and Forms

- Information regarding the <u>UCLA Doctoral Student Travel Grants for Conferences</u>, Professional Development and Off-Campus Research (DTG)
- Division of Graduate Education General Conditions for Student Travel
- Doctoral Student Travel Grants Form



MBIDP TRAVEL FUNDING

Travel funding is provided through MBIDP based on a specific budget for each fiscal year. Funding will support students' participation to national and international conferences, and **MAY** also be available for students who wish to take specialized courses and workshops.

For students who don't have fellowship funding, MBIDP can support up to 50% of <u>eligible expenses</u> of **one conference per year.** We encourage students to access the Travel Grant from the Graduate Division (DGE) first, or as part of the same trip. Cost sharing is essential for meetings related to the mentor's research and is viewed as "commitment" on the part of the mentor. **Reimbursement for any expenses you pay out-of-pocket cannot be made until AFTER the meeting/conference has been completed**. All travel reimbursements must be submitted within 30 days of completion of travel. Submission of materials after 30 days will not be processed.

NATIONAL AND INTERNATIONAL CONFERENCES

Supporting travel to national and international conferences is a major philosophical component of the MBIDP training program. Travel exposes students to the international community and a broader view of their own work. Presentation of your research at conferences provides students with opportunities to network, establish collaborations, and seek potential postdoctoral connections. To be eligible for conference travel funds, you must provide documentation of invitation to present a talk and/or poster at the conference and cost sharing sources.

COURSES AND WORKSHOPS

Travel funding **MAY** be available for students who wish to take specialized courses and take part in workshops outside of UCLA, such as Cold Spring Harbor courses and EMBO workshops. If funding is available, the MBIDP will fund travel, registration, and lodging costs, providing an opportunity for students to supplement their education with outside learning.

GENERAL CRITERIA CONSIDERED FOR FUNDING PRIORITIES

- Student's compliance with time-to-degree and participation requirements. Students who are not both advanced to candidacy and up-to-date on program participation requirements will be ineligible for conference travel funding.
- Submission of conference travel request materials submitted within the given time frame for each quarter and within 30 days after the travel has taken place.
- Offer of cost-sharing from the student's mentor or other funding source (e.g. training grant, individual fellowship, conference organizers) for conference attendance or course/workshop enrollment related to mentor's research. We encourage you to request the support of the meeting organizers.

GUIDELINES TO APPLY FOR TRAVEL FUNDING

CONFERENCE/TRAINING TRAVEL REQUEST

Complete a <u>Student Travel Request Form</u>. Provide estimated or actual costs of your conference or training course attendance. Attendees should complete their conference registration *before* requesting flights or hotel bookings. *Travel awards will be made pending acceptance of poster/talk, if request has been submitted within conference travel request time frames.*

Required Documentation for Conference Travel Requests:

- 1. Conference Registration Receipt
- 2. Acceptance of your talk and/or poster
- 3. Copy of your talk or poster abstract as soon as it is accepted by the conference
- 4. Copy of Travel Grant Application to DGE, if applicable

AIRFARE: If you would like us to purchase your flight, let us know ASAP so we can get the best pricing for you from UC Travel. If possible, flights should be requested at least 3 months prior to conference start date.

LODGING: Direct billing arrangement with participating domestic hotels for the payment of charges on behalf of travelers can be processed for room and tax charges only. Conference hotel group rates cannot be booked through UC Travel.

CONFERENCE FEES: Conference fees for some UC-approved vendors may also be charged directly to the University if the proper controls are in place. This may be done via Purchase Order. The traveler needs to contact the conference host to confirm that POs are an accepted form of payment. Otherwise, student will pay for the fees and request for reimbursement upon return from travel.

CONFERENCE TRAVEL REIMBURSEMENT

We need to receive the <u>Student Reimbursement Request form</u>* via the MBI portal within 30 days of returning from the conference to ensure we can meet the UCLA deadline for reimbursement. Please retain for your own records, copies of any documents, receipts, and proof of payment that you turn in for your conference travel reimbursement.

*Student Reimbursement Request form can be used for non-travel reimbursement requests.

Required Documentation for Conference Travel Reimbursement:

- 1. Documentation of acceptance of your talk and/or poster
- 2. Documentation of itemized receipts for expenses you claim
- 3. Documentation of proof that you paid these expenses (credit card or bank statement must bear your name and the name of the credit card company/bank)

General Conditions for Student Travel below are subject to change to align with <u>UC Policy G-28</u>. All expenditures for a trip should be reported on **one travel expense claim**.

AIRFARE: All airfare, hotel, and car rental receipts must be itemized. Do NOT book travel packages that include hotel + airfare + rental car for one price (e.g., Expedia, Travelocity). Travel "packages" offered by Internet vendors typically do not include itemized expenses. Therefore, no business-related travel should be booked through such vendors unless the traveler has confirmed that each aspect of the package will be separately itemized (e.g., itemized hotel charges, airfare, car rental, etc.) to assure appropriate documentation for reimbursement, <u>as required by the IRS</u>.

Only <u>coach</u> airfares on commercial airlines are reimbursable. Be sure to save your ticket/itinerary receipt.

LODGING: Only hotel room rate, room tax and parking are reimbursable. Extraneous expenses such as gym fee, movies, videos, newspapers, magazines, etc., are NOT reimbursable. Also lodging expenses

39 **BACK TO THE TOP** are not reimbursable prior to the trip, nor are reimbursable for travel within a 40-mile radius of student's residence or UCLA, whichever is the point of departure. An original itemized receipt for lodging is required. Printouts of hotel reservations made online are not considered acceptable documentation – you must have the hotel provide an original, itemized receipt.

REGISTRATION FEES: Conference registration fees may be reimbursed as soon as receipts, proof of payment, and documentation of talk/abstract are turned in. Non-business-related expenses, such as social functions, golf, cruises, will NOT be reimbursed.

TRANSPORTATION: <u>Do not take additional collision, accidental death or medical insurance</u>, as the UCLA rate includes this coverage free of charge. Only economy and compact car rental is reimbursable. Extraneous expenses, such as rental upgrades, GPS systems, child car seats, etc. are not allowed. For rental cars, gas is reimbursable.

Ground transportation, such as bus, taxi, subway, shuttle, are reimbursable with receipt. Receipts from a taxi or shuttle service must be clearly legible and include the name of the service, the date, and the total fare.

You may use your private automobile for business purposes if it is less expensive than renting a car, taking a taxi, or using alternative transportation, or if it saves time. You confirm that you carry insurance necessary to satisfy state law financial responsibility. When using a privately-owned automobile, travelers are reimbursed according to mileage, at the <u>current rate</u>, and therefore, gas purchases are NOT reimbursable.

MEALS & INCIDENTAL EXPENSES: Reimbursement for meals and incidental expenses (poster printing, etc.) is not available.

OUT-OF-POCKET USE OF FUNDS: In the case of multiple employees or students attending the same event, you may share a room or transportation with others, but you must be able to provide an **individual bill and receipt**, as well as **proof of payment** for your bill. <u>Expenses must be paid and reimbursed per individual only.</u>

Health Insurance Requirements/Payments

Health Insurance is mandatory for all UCLA registered students and is a condition of enrollment. The UC Student Health Insurance Plan (UC SHIP) is a comprehensive medical insurance program offered to UCLA students. All students are automatically enrolled in UC SHIP, but if you have a comparable insurance and you do not want to keep UC SHIP as dual coverage, you must submit a request to waive enrollment by the specified deadlines.

The cost of your student health insurance (UC SHIP) premium is part of fees/tuition, and will therefore be paid for you. For more information, please contact student health insurance: (310) 825-4073, option 4.

Internship Policy

Students who have advanced-to-candidacy can request to participate in research internships or other work experience opportunities to explore future career options. Internships over the summer months may be full time (40 hours week) and should be closely related to the student's thesis research. Internships taken during the academic year should be part-time (10 hours/week or less) to avoid delaying time-to-degree, unless the work is part of a formal collaboration between the student's lab and an external partner.

Any time away from the lab should be approved by the student's mentor, the Home Area Director and the MBIDP Chair. Both the student and mentor should submit a written request to the Home Area director with details of the proposed work experience and the time commitment. Mentors may also submit confidential comments to the program, describing the student's progress towards time-to-degree. Requests should be submitted to the program at least 3 weeks before the beginning of the internship to allow time for review.

Masters Program in Molecular Biology

Admission

The Molecular Biology Interdepartmental program (MBIDP) only rarely and under special circumstances accepts students into the Master of Science program.

Areas of Study

Consult the program.

Course Requirements

All graduate students must take the first-year MBIDP curriculum. See course requirements in the Doctoral Degree. In addition to the core course requirements, elective courses must be taken to complete the total of nine courses (36 units) required for the degree.

No more than two courses (eight units) in the 500 series may be applied toward the total course requirement, and only one (four units) of the two courses may be applied toward the minimum graduate course requirement (20 units) for the degree.

With the consent of the chair or a Home Area director, Molecular Biology 596, 597, and 598 may be taken if they are appropriate to the program. Course 596 may be graded S/U or letter grade; 597 and 598 are graded S/U only.

Comprehensive Examination Plan

In general, if a student enters the master's program, the comprehensive examination plan is preferred. Only in exceptional situations is a student approved for the thesis plan. In either plan the student must pass a departmental written examination. Only course requirements and the written examination are needed to complete the comprehensive examination plan.

The comprehensive exam consists of a paper, 5-10 pages in length (single spaced), describing the student's research project or a rotation project. The paper should be formatted as a research paper, consisting of five sections: 1) An abstract summarizing the project; 2) an introduction section presenting the background that forms the foundation for the project; 3) a results section which presents the results obtained in the project; 4) a discussion section in which the meaning and significance of the results are considered as well as potential problems or criticisms of the experiments and suggestions for future experiments; 5) a reference section listing relevant literature. A materials and methods section describing the detailed methodology is optional. The comprehensive exam is graded pass/fail.

For MBIDP students who are originally on the track for Ph.D. degree but plan to exit the program with a Master's degree, the Written Qualifying Exam taken at the end of their first year may be taken as equivalent of the comprehensive exam.

Thesis Plan

In addition to coursework, a written thesis is required. A thesis committee helps the student plan the thesis research, determines the acceptability of the thesis, administers a final examination (if deemed appropriate), and recommends appropriate action on the granting of the degree. In the event of an unacceptable thesis or performance on the final examination (if one is given), the thesis committee determines if it is appropriate for additional time to be granted to rewrite the thesis or to be reexamined.

Visit the UCLA online catalog <u>http://www.registrar.ucla.edu/Academics/Course-Descriptions/Course-Details?SA=MOL+BIO&funsel=3</u>, for more information on MBIDP courses.

Standards & Procedures

Academic Disqualification and Appeal of Disqualification

A graduate student may be disqualified from continuing in the graduate program for a variety of reasons. The most common is failure to maintain the minimum cumulative grade point average (3.0) required by the Academic Senate to remain in good standing (note that some programs require a higher grade point average). Other examples include failure of examinations, lack of progress toward the degree, poor performance in core courses, etc. Probationary students (those with cumulative grade point averages below 3.0) are subject to immediate dismissal upon the recommendation of their department.

Regulation 904 of the Academic Senate states that "Disqualification of graduate students is at the discretion of the Dean of the Graduate Division concerned." This means that the Graduate Dean has final authority over this decision and that an appeal can go no higher. If a student wishes to appeal (i.e., ask for reconsideration of) the decision, the Academic Senate has established criteria (Senate Appendix VI, Part III) for the appeal:

- The record for any student who is subject to disqualification for reasons other than failure to maintain a grade-point average greater than 3.0 will be reviewed by the Graduate Division, in consultation with the student's graduate adviser. Unless there are indications of procedural error or other substantive mitigating factors to explain the student's record, the student will then be disqualified from further registration in graduate status at UCLA, and will be notified in writing of this action.
- A student who is subject to disqualification or who has been disqualified may submit a written appeal for reconsideration for cause to the Dean of the Graduate Division within 30 calendar days after the date of the notice of disqualification. Such appeals will be considered only if based upon appropriate cause such as:
 - Procedural error
 - o Judgments based upon non-academic criteria
 - 0 Personal bias
 - Specific mitigating circumstances contributing to performance

• Discrimination on the basis of race, sex, or handicap not pertaining to required academic performance

Disagreements over evaluation of academic quality will not be considered as an appropriate basis for such appeals. In cases of appropriate cause, the Dean of the Graduate Division will refer the appeal to the Graduate Council Committee on Degree Programs. In all cases of student appeals, so referred, the student must submit a written statement of the basis for the appeal and is entitled to a personal appearance before the Committee on Degree Programs.

- This committee, after consultation with the department, will make a recommendation to the Dean as to the disposition of the case, and the Dean of the Graduate Division will make a final decision. Every reasonable effort will be made to transmit a final decision to the student by the end of the regularly scheduled term following the one in which the original appeal for reconsideration has been submitted. In reporting the final decision of the Dean to the student, the basis for the decision, its effective date, and the nature of the recommendations of the Committee on Degree Programs will be included.
- If the student is seeking the J.D., S.J.D., L.L.M., M.D., or D.D.S. degrees, the disqualification and appeals process will be according to the written procedures adopted by the Schools of Law, Medicine, and Dentistry respectively.

Student Appeal Process

- Within 30 days after the date of the notice of disqualification from the Graduate Division, the formal written appeal should be submitted to the chair of the department or program, with a corresponding copy to the Graduate Division.
- The appeal should state specific reasons the student believes the decision should be overturned.
- Note the definition of cause stated above. For example, if the student believes there was procedural error, the student must specifically outline this, e.g., the department did not follow its own published regulations for the number of times an examination could be taken. It is always preferable to be specific and succinct in all statements.
- The chair of the department or program is responsible for providing the student with a written response to the appeal within 30 days of receiving it, with a copy to the Graduate Division.
- If the student is not satisfied with the response, the student may request in writing that the Graduate Division review the decision.
- The Graduate Division will refer the appeal to the Committee on Degree Programs for a recommendation only in instances where it is determined that appropriate cause exists. The Graduate Dean retains final authority on the decision.

GSR Termination

A. For academic reasons: Academic apprentice appointees shall be terminated from their positions at the discretion of the Dean of the Graduate Division at any time the student withdraws from student status, does not register, is placed on academic probation, or otherwise fails to maintain satisfactory academic progress.

B. For another good cause: Academic apprentice appointees may be terminated for such cause as incompetence or incapacitation, misconduct resulting in disciplinary action, and budgetary or programmatic considerations. Authority to terminate rests with the dean of the school or college. Termination may take place only after the appointee has been given written notice of the intention to terminate, with reasons and appropriate documentation, and after the appointee has been given an opportunity to appear before the school or divisional dean with a representative.

Termination may not take effect until at least 30 days after written notice. When the dean determines that there is reasonable cause to believe that an appointee's continued assignment would endanger people or property, or would impair the integrity of the academic program, the student may be placed on full or partial interim suspension with pay until termination.

GSR Appeal Procedure

Copies of the grievance procedures for non-Senate academic appointees, including those in apprentice titles, can be obtained from the Office of Campus Counsel (https://www.apo.ucla.edu/forms/complaint/non-senate-complaint-form).

Leave of Absence

For graduate students on official leave of absence, a percentage of registration fees paid are refunded to the source from which they were paid, according to the calendar date on which the official Request for Leave of Absence is submitted to the Graduate Division.

Graduate students are allowed three quarters of leave of absence depending on the circumstances that warrant the leave. For example, students are allowed to take leave of absence for the following reasons: outside employment, medical leave, parental obligations, other family obligations, military, emergency, and financial hardship. When students are approved for a leave of absence they are not permitted to work on any pending degree requirements such as coursework, research, or manuscript writing. Leave of absence requests must be approved by the student's department, doctoral Committee Chair (if applicable), Dashew Center (if applicable), Fellowships and Financial Services, and are then submitted to Academic Services in the Graduate Division for final approval. You can also find more information regarding the leave of absence policy for graduate students by reviewing *Standards and Procedures for Graduate Study at UCLA*, specifically pages 33-35.

Academic Integrity

From the Student Guide to Academic Integrity http://www.deanofstudents.ucla.edu/integrity.html

To All UCLA Students: As a student and member of the University community, you are here to get an education and are, therefore, expected to demonstrate integrity in all of your academic endeavors. You are evaluated on your own merits, so be proud of your accomplishments, and protect academic integrity at UCLA.

Forms of Academic dishonesty

As specified by University policy, violations or attempted violations of academic dishonesty include, but are not limited to: cheating, fabrication, plagiarism, multiple submissions, or facilitating academic dishonesty (See University of California Policies Applying to Campus Activities, Organizations, and Students, 102.01).

Cheating

Cheating is the failure to observe the expressed procedures of an academic exercise, including but not limited to:

! Unauthorized acquisition of knowledge of an examination or part of an examination

! Allowing another person to take a quiz, exam, or similar evaluation for you

! Using unauthorized materials, information, or study aids in any academic exercise or

examination - textbook, notes, formula list, calculator, etc.

! Unauthorized collaboration in providing or requesting assistance, such as sharing information

on an academic exercise

! Unauthorized use of another person's data in completing a computer exercise

! Altering a graded exam or assignment and requesting that it be re-graded

Fabrication

Fabrication is falsification or invention of any information in an academic exercise, including but not limited to: ! Altering data to support research

! Presenting results from research that was not performed

! Crediting source material that was not used for research

<u>Plagiarism</u>

Plagiarism is the presentation of another's words or ideas as if they were one's own, including but not limited to:

! Submitting, as your own, through purchase or otherwise, part of or an entire work produced verbatim by someone else

! Paraphrasing ideas, data, or writing without properly acknowledging the source! Unauthorized

transfer and use of another person's computer file as your own

! Unauthorized use of another person's data in completing a computer exercise

Multiple Submissions

Multiple Submissions involve the resubmission of a work that has already received credit with identical or similar content in another course without consent of the present instructor or submission of work with identical or similar content in concurrent courses without consent of instructors

Facilitating Academic Dishonesty

Facilitating Academic Dishonesty is participating in any action that compromises the integrity of the academic standards of the University; assisting another to commit an act of academic dishonesty, including but not limited to:

! Taking a quiz, exam, or similar evaluation in place of another person

! Allowing another student to copy from you

! Providing material or other information to another student with knowledge that such

assistance could be used in any of the violations stated above (e.g., giving test information to students in other discussion sections of the same course)

Procedures When Academic Dishonesty is Suspected

When a student is suspected to be involved in academic dishonesty, the Academic Senate requires that the instructor report the allegation to the Dean of Students' Office. The instructor will file a report and provide supporting evidence such as a copy of the exam or paper in question.

If it is alleged that you engaged in academic dishonesty, don't panic! Read the allegations carefully. You may consider talking with your professor to clarify the situation and/or pursue clarification during your interview(s) with the Dean.



If you admit culpability, and if the Dean concludes that there is sufficient evidence to sustain a finding of culpability, the Dean may impose, or impose and suspend, one or more of the sanctions listed in the UCLA Student Conduct Code. Sanctions for violation of University policies regarding academic dishonesty include suspension or dismissal. If the matter cannot be resolved between the Dean and the student, the Dean may refer the case to the Student Conduct Committee for a hearing.

Promoting Academic Integrity: Proactive Strategies

! Take the time to produce quality work that you can be proud of, and be thoroughly prepared

for examinations.

! During an exam, don't sit next to someone with whom you studied, in case your exams end up looking "too similar."

! Discourage academic misconduct among other students.

! During examinations, focus on your work, and do not look in the direction of other students.

Take the initiative to shield your work to prevent other students from copying.

! Do not allow others to use your computer, user ID, or password

! Resist the temptation to share rough drafts and participate in peer editing without the consent

of your instructor

! When using class notes for an assignment, ask yourself: Did this information come from

me? Always document where and from whom you got your information (e.g., other students, professor, class text, web site).

! What can you do if you are unsure whether it is unauthorized collaboration or whether it

is okay to work together? When in doubt, ASK! Check your course syllabus or speak with your instructor.

If you would like more information regarding academic integrity/dishonesty issues or concerns, please visit the Dean of Students' Office in 1206 Murphy Hall, (310) 825-3871, www.deanofstudents.ucla.edu/