Physiology and Biophysics Graduate Student Handbook

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Foreword

This brief handbook is designed for graduate students in the Cellular and Molecular Biology who are performing their Ph.D. thesis research in the Department of Physiology and Biophysics. We hope it will provide you with practical information that will make your research and academic endeavors both productive and enjoyable.

General Information

Please check out the Department website: http://www.physiology.uci.edu/. You will find lots of useful information about the Department, including research descriptions of the faculty, a list of seminars, a summary of training opportunities and research facilities, a running update of news and events, a useful guide to administrative issues, a directory, and a photo album.

Michael D Cahalan
Professor and Chair

Todd Holmes
Professor and Vice Chair

When you join the department

Please come into the office with someone from your lab and introduce yourself. You will need to sign out for keys to the outside door and to the lab in which you are working. A $25 refundable key deposit is required. A mailbox with your name on it will be assigned to you.

You should also contact Todd Holmes, the Graduate Advisor (D340 Med Sci I tholmes@uci.edu, x40006) to make sure he knows you have joined the Department.

The office staff are:

Cathy Ledray  Chief Administrative Officer ledray@uci.edu x45865
Debbie White Sr. Grant Analyst debwhite@uci.edu x43484
Cindy Kober  Grant Analyst ckober@uci.edu x46833
Rhonda Reeves  Graduate Coordinator rhr@uci.edu x45863
Melanie Sanders Personnel/Payroll sandersm@uci.edu x45862
Sue Stach-Spann Purchasing glstach@uci.edu x45864
Jeff Ingeman  Computer Support ingeman@uci.edu x43024
Useful Numbers for Problems and Emergencies
If there is a facilities problem such as a flood, it should be reported to the trouble service (ext. 45444). The police emergency number (911) can also be dialed for assistance. Parking and Transportation Services provides an escort service from 6:00 a.m. to 1:00 a.m. from one place to another on campus. After 1:00 a.m., the phone transfers to the police station and the police will then provide the escort service. The number is 824-7233. The escort service should be used if you are leaving your lab late at night.

Graduate Courses and Enrollment
Each quarter you will receive a schedule of classes. As you know, you can register through Web Reg. Enrolling in enough classes/units before the deadline is a MUST each quarter. You must sign up for Physiology 290, Topics in Physiology every quarter. This course includes attendance at Department seminars, the Journal Club and RIP (Research in Progress) Seminars.

If you do not register in time you:
• will have to pay late fees,
• will not meet the IRS FICA exemption and be subject to having the 7.5% DCP and 1.45% Medicare deducted from your paycheck,
• must use the Add card procedure for late registration and fill out a late registration form justifying why you are registering late.

All students need to take the appropriate actions to ensure they are residents of the state of California by the second year. Nonresident students who need to become California residents for tuition/fee purposes must have their status changed at the Registrar's Office PRIOR to the fee payment deadline for the fall quarter. Documentation of residence will be required. Please call the Registrar's Office at extension x46124 for details. If you have further questions please see Cathy Ledray.
When your address or phone number changes, please notify both the Registrar's Office and Cathy Ledray in the Physiology and Biophysics Office.

Stipends and Health Insurance
You will continue to receive a monthly stipend and your fees will be paid. You should already be aware of your health benefits, but if you have any questions, please see Rhonda (x45076) in the main office. Emergency loans are available through Financial Aid. The phone number for Financial Aid is x46261. The maximum amount for a short period of time without interest is $100.00.

Seminars and Graduate Student Duties
The Department of Physiology and Biophysics has no formal teaching requirements, but students wishing to gain teaching experience by TAing in particular courses can make arrangements to do so through the graduate advisor. Attendance at department seminars is mandatory and failure to attend will lead to an unsatisfactory grade in Physiology 290. After regular departmental seminars, students will have lunch with the speaker in the Department conference room D337.

Advancement to Candidacy
Following successful completion of the written and oral Qualifying Exams at the end of your first year of graduate study, the next step in progression toward the doctoral degree is Advancement to Candidacy. The purpose of this process is to ensure that the student has selected an appropriate topic for the dissertation and that the experimental work that has been completed or is contemplated is scientifically rigorous and likely to be completed successfully and within the normal period of graduate study (approximately 5 years).

The advancement to candidacy exam must be taken by the end of the Spring Quarter of the third year of graduate study. The exam committee will consist of five members. One member will be your advisor who will serve as Chair of the committee. At least one member must be faculty outside the Department. Adjunct faculty are not considered to be outside the department. It is important to emphasize that the majority of members must be MMG faculty. Prior to the exam, the student must obtain a Ph.D. Form I.
The forms are available on the Web at http://www.rgs.uci.edu, click on Current Students, under "Administrative", click on "Forms". Then click on "Current Students" and go down to "Ph.D. Form I".

If you have any questions filling out the forms, Todd Holmes (x40006, tholmes@uci.edu) will be happy to help you.

A written research proposal modeled after an NIH grant application must be submitted to the committee members at least two weeks before the oral presentation. It should include the following sections: a short Abstract or Introduction, Specific Aims, Background and Significance, Preliminary Studies, Research Design and Methods, and Literature Cited. The proposal must be less than 25 pages (double-spaced, 12 point type), excluding references and figures. Following the oral presentation, the committee will discuss the proposal at length with the student. After this discussion, the committee will excuse the student from the room and evaluate the student's performance. The committee will inform the student of its decision after that meeting.

The Doctoral Committee is composed of at least three members from the Advancement Committee with the exception of the member from outside the School of Biological Sciences. The chair and a majority of members should be from the department. The student may opt to retain more than three members for the Doctoral Committee. The committee shall meet with the student no less than once a year to evaluate the student's progress and plans for future work. To document that the student has convened a yearly committee meeting, a form (obtained from Rhonda Reeves) must be signed by all committee members. This form is included in the student's file so that the Graduate Advisor can make sure that the student is being properly advised. Beginning in the third year, students are expected to present their research in the Thursday morning research seminar series. A convenient time to have their committee meeting is at the time of this yearly seminar. Additional meetings may be called, as necessary, by request of the student or advisor.

**Dissertation Presentation**

The written and oral presentation of a student's Dissertation are the criteria for receiving the Ph.D. degree. The student must meet with the Doctoral Committee and present a reasonably complete draft of the thesis and receive the approval of the Committee before scheduling the oral thesis defense. A handbook, "Write your thesis/dissertation" is available on the Internet through www.rgs.uci.edu. Go to "Current Students", "Satisfying Degree Requirements" then "Write your thesis/dissertation".

When a date is arranged for the defense of the Dissertation, go to the same web site as the Advance to Candidacy (http://www.rgs.uci.edu) but click on "Ph.D. Form II". These forms, together with the signature page from the dissertation, will be signed by the Doctoral Committee at the time of the oral defense and will be submitted with the final draft of the Dissertation to the Library Archives. Students who will complete their graduate requirements within the following academic year are allowed to participate in the UC Irvine graduation ceremonies. Caps and gowns may be rented in advance from the UCI Alumni Association. Be sure to go over to the Archives at the Main Library and pick up a dissertation packet. It will have all the requirements for your thesis preparation.

**Classes**

Every student should enroll every quarter in:
- 200 Research in Physiology and Biophysics A, B, C - credit for laboratory research [Graded, based on performance]
- 290 Topics in Physiology A, B, C – Seminar program, Journal Club and RIP seminars [S/U]

You must have a minimum of 12 units per quarter.

In your final quarter you should enroll in
- 299 Dissertation in Physiology and Biophysics Preparation and completion of the dissertation required for the Ph.D. or Master of Science degree

At the end of the first year you will have completed at least two core electives and all of the course requirements of the CMB program. From your second through fifth year, you should take one elective course per year. You should confer with your thesis advisor to choose courses best suited to your scientific
objectives. Note that the Department leaves the choice of course entirely up to you and your advisor, but you do need to take one elective course per year.

**Graduate Students**

**Graduate students by laboratory:**

Michael D. Cahalan, Ion channels, calcium signaling, and cell interaction dynamics in the immune system

Anna Amcheslavsky
Milton Greenberg

K. George Chandy, Potassium channels in T-lymphocytes; design of immunosuppressive agents

Victor Chi

James E. Hall, Aquaporins in the lens; amyloid oligomers in Alzheimer's disease

Daniel Clemens

Todd C. Holmes, Ion channels, cellular physiology, neural circuits and behavior; circadian and visual circuits

Brian Horne, Nicole Dahm

Lan Huang, Proteomics / mass spectrometry; protein modifications and interaction: proteasomes

Robin Kaake
Athit Kao

Janos K. Lanyi, Structure and function of bacterial rhodopsins

Venky Krishnamani

Albert Zlotnik, Chemokines, cancer metastasis, gene array analysis of human diseases and bioinformatics in immunology

Amanda Marie Burkhardt

Francesco Tombola

Iris Kim

Bruce Tromberg

Ryan Lim

Jogesh Mukherjee

Adriana Garcia

**Afterword**

This is your Handbook, and I hope you will help improve it and make it more useful and informative for you and your fellow graduate students.

If you find any mistakes, please let me know about them immediately. (tholmes@uci.edu, 824-0006)

If you have any suggestions, proposed additions, or ideas for improvement, please contact me.
Todd Holmes
Graduate Advisor