

TABLE OF CONTENTS

I. WELCOME 3
 Memo from Neuroscience Graduate Forum (NGF)..... 4

II. PROGRAM LIFE..... 6
 New Student Orientation Checklist..... 7
 a. Information for All Students..... 7
 b. Additional Requirements for International Students..... 10
 Registration Process 12
 Student Health and Insurance 14
 Dental Care 14

Program Life 16
 1. Program Seminars and Journal Clubs..... 16
 2. The Neurobiology Office..... 17
 3. Mail..... 18
 4. Security at Hedco and USC 18
 5. Neuroscience Teas 18
 6. Library Facilities 19
 7. Information on Computing 19
 8. Procedure for Student Computer Account Creation..... 20

General Information About Financial Support..... 21
 1. Teaching Assistantships 21
 2. Research Assistantships 22
 3. USC Fellowships..... 22
 4. Individual Fellowships and Grants 22
 5. Summer Support..... 23
 6. First-year fellowship..... 23
 7. Paying taxes on Fellowships..... 23

III. PROGRAM HANDBOOK..... 24
 Academic Procedures 24
 1. Program of study for the Ph.D. 24
 2. Academic Requirements..... 24
 3. Beyond course work..... 26
 4. Oral Presentation..... 27
 5. Lab Rotations 27
 6. Advising..... 28
 7. Student Evaluations 28
 8. Academic Warning and Dismissal of Graduate Students 29

9. Qualifying Exam Procedure.....29

10. Annual Meeting with Dissertation Guidance Committee.....32

11. Some Advice on Writing the Dissertation.....32

Some Ethical Concerns.....34

1. SCampus.34

2. On Being a Scientist34

IV. TIMELINE TO DEGREE35

1. Appointment of Committee.....37

2. Request To Take the Ph.D. Qualifying Examination (written qual)37

V. DIRECTORIES39

BNRO Faculty (research active, tenure track).....39

New BNRO Graduate Students - Fall, 201143

Current BNro Graduate students.....43

VI. LA LIFE.....44

Housing44

Transportation and Parking45

Culture and Recreation.....46

Banking and Shopping48

Other Important Locations49

VII. FORMS.....50

BNRO Laboratory Rotation Contract50

BNRO Graduate Program Rotation Summary.....51

BNRO Guidance Committee Member Form (Part 1).....52

BNRO Guidance Committee Member Form (Part 2).....53

Academic Advisment Form54

Plagirism Prevention Form55

I. WELCOME

On behalf of the Section of Neurobiology, Dept. of Biological Sciences at USC, I would like to warmly welcome all of you to the Neurobiology Ph.D. Program! The Neurobiology Ph.D. Program, or Ph.D. Program in Biological Sciences with Concentration in Neurobiology (BNRO), was established more than 20 years ago. The BNRO program trained many outstanding students who are now faculty at leading institutions or leaders in the industry.

With the expansion of neuroscience faculty in various departments throughout USC in the mid-1990s, BNRO decided to become the university-wide Neuroscience Graduate Program (NGP) and admit students with more diverse backgrounds and interests, including cognitive and computation neuroscience. In the 2009-2010 academic year, the Neurobiology Section faculty re-instated BNRO so that we would be able to admit students who have clear interests in the biological basis of the nervous system with a focus on cell, molecular, developmental, or systems neurobiology.

All faculty with primary and joint appointments in the Section of Neurobiology, Dept. of Biological Sciences, can participate in the BNRO program as Ph.D. mentors. Please visit the BNRO website, <http://neurobiology.usc.edu/>, to view a list of BNRO faculty and their research programs.

In addition to faculty and students in the Neurobiology Section, you will have ample opportunities to interact with faculty and students in various neuroscience-related departments and programs at USC. All will also be able to join a university-wide Neuroscience Graduate Forum (NGF), a student body for all USC neuroscience graduate students: <http://www.usc.edu/programs/neuroscience/graduate/forum.html>

Please feel free to contact me if you have any questions or any faculty member of the Neurobiology Section for advice. We are delighted that you are here to carry the torch of the new BNRO and would like to wish you many exciting and fruitful years to come.

David McKemy, Ph.D.
Director, Graduate Studies in Neurobiology
mckemy@usc.edu

Memo from the NGF Student Representative Jennifer McGrady Achiro

Congratulations on your entrance to the Neurobiology Graduate Program at USC! My name is Jennifer McGrady Achiro (most people call me McGrady or Jenny), and I am the elected student representative, or “Czarina,” of the Neuroscience Graduate Forum (NGF), of which you are automatically a member. The purpose of NGF is to foster a supportive community among the students of the Neuroscience Graduate Program (NGP) as well as the Neurobiology graduate program (BNRO), and any students in other programs conducting neuroscience research (Engineering, Psychology, etc.). Our bi-semester meetings aim to explore the many aspects of a career in neuroscience, provide interactions between senior and junior students, arrange social events, and to address any general concerns of the graduate students.

As your Czarina, I act as the primary liaison between the graduate students and faculty. I attend all faculty meetings to represent the students and their interests and to voice our collective concerns. Therefore, if you have a concern, be sure to let me know so that it can be brought to the faculty’s attention. We also have several other officers in NGF (listed below) who specialize in different aspects of NGF, so feel free to contact them directly, or just let me know and I will talk to them. As officers of NGF, our collective goal is to make sure everyone gets on track, find a lab, and can begin (and maintain) a successful graduate career. We want to make everyone aware of the opportunities in grad school and beyond, and hopefully we’ll have some fun while doing it. Let me take this time to introduce the other officers:

Helder Filipe (haraujo@usc.edu) is this year’s Vice-Czar. In this position Helder will work to promote interaction between our program and the community beyond USC. He will host the student-invited seminar speaker, and also organize a “Careers in Neuroscience” seminar series with other science-related graduate programs, providing students an opportunity to meet scientists currently working in a range of academic and non-academic settings.

The Graduate and Professional Student Senate (GPSS) Representative is John Shen (shenjohn@usc.edu). John will attend monthly GPSS meetings and keep us posted on campus-wide events and parties. If you have any general concerns about graduate life at USC, he can bring them up at these monthly GPSS meetings.

Our Programming Officers are Madeline Andrews (mgandrew@usc.edu) & Natalie Kintz (kintz@usc.edu). You can think of Madeline and Natalie as the party planners - or social chairs - of NGF. They’ll arrange several social events throughout the year to give you a chance to mingle with other grad students in the program and take a well-deserved break from all your hard work. If you have any ideas for a fun adventure, don’t hesitate to let them know!

Our Webmaster, Shane Roach (shaneroa@usc.edu), maintains our fabulous NGF website <http://www-scf.usc.edu/~ngf/>. If you haven’t already been added to the NGF mailing list, please send him an email with your USC email address so that you stay updated on events and important developments in the program. Shane will also ask you for a picture for the website, so find your most collegiate one and have it ready!

Hanke Heun-Johnson (heunjohn@usc.edu) will serve as our Health Science Campus (HSC) liaison. She will keep us all updated on interesting events or seminars at HSC. If you ever need to visit the HSC campus, Hanke will gladly help you find your way around.

Beyond this core group many other graduate students are very involved in making NGF a wonderful organization. From organizing and participating in our Annual Student Symposium to acting as student reps on several faculty committees to facilitating collaborations both within and beyond USC, the level of involvement of our students is truly what makes our program unique. I hope you will carry on the tradition and choose to be an active member of NGF.

Our first NGF meeting will take place soon after classes begin, so keep an eye out for an email announcement. If you have any questions about NGF, or about the program or USC/LA in general, please feel free to contact me or even drop by my lab. I wish you a successful first year, and even if things get challenging at times, just remember that we've all been through it and we're all here to lend a hand!

Best of luck in the coming year and welcome!

Jennifer Achiro
Czarina, Neuroscience Graduate Forum
HNB 218
(213) 740-9185 (lab)
(760) 805-2025 (cell)
mcgrady@usc.edu

II. PROGRAM LIFE

The Neurobiology Ph.D. Program in the Dept. of Biological Sciences (BNRO) is centered in the HEDCO Neuroscience Building (HNB) in the University Park Campus of the University of Southern California. The Ph.D. Program is administered through the Neurobiology Section of the Department of Biological Sciences. Most BNRO related information, including the roster of training faculty, events, news and seminars can be found at the Neurobiology Section Website: <http://neurobiology.usc.edu/>

The key staff individuals relevant to BNRO are:

Dept. of Biological Sciences	Title	Duties re: Ph.D. Program
Dr. David McKemy (213) 821-5724 mckemy@usc.edu HNB 228	Director of Graduate Studies	Program Oversight
Linda Bazilian (213) 821-1088 bazilian@usc.edu AHF 107-D	Graduate Programs Manager	Graduate Advisor
Beatriz Gil (213) 740-9176 bgil@college.usc.edu HNB 120-E	Section Coordinator	BNRO student support
Vanessa Clark Neuroscience Graduate Program (213) 740-2245 saydacla@college.usc.edu HNB 120-E	Student Services Advisor	NGP Student Support
Gloria Wan Hedco and Neuroscience- Research Administration (213) 740-6091 yuhungw@usc.edu HNB 120-G	Administrative Coordinator	Neuroscience Events/Building Coordinator

New Student Orientation Checklist

* Requirement for registration.

** Registration required.

a. Information for All Students

Immunization Requirements*

- Measles (*domestic & international*)
- Tuberculosis (*international*)

Immunization requirements must be satisfied prior to registering for classes. For more information on required documentation or on immunization clinics available on campus, go to www.usc.edu/uphc or visit the Student Health Center (SHC, Phone 213/740-0551, Fax 213/740-9229)

Degree Verification

Required if USC has not received final transcripts (undergraduate or graduate) from last institution attended. Take an official copy of your final transcript(s) to Degree Progress located in JHH 010, the basement level of the Student Administrative Services Building. Requirement must be fulfilled by end of your 1st year.

Academic Advisement and D-Clearance*

Dr. Alan Watts, the chair of the Advisement Committee, will advise all new students on the courses they need to take before each semester of their first year and sign-off on their Academic Advisement form.

- For D-Clearance fill out the request form at <http://bioweb2.usc.edu/misc/dclear.php> . You must include your student ID number and five-digit course number.

Conditional Admission

If you received a welcome letter from the Graduate School indicating that you have “conditions on your admission” they must be cleared by the end of the first semester. If you have an ALI hold, you must go to the Registration Building (REG 101, x08500) and register in person.

Registration

On-line registration: Go to http://www.usc.edu/student_life/academics/ and click on “web registration.”

You will be asked to enter the following information:

Students ID: 10-digit ID #

PIN: 6-digit Birth date (mmdyy)

If you do not know your student ID#, contact Beatriz Gil (213-740-9176, bgil@usc.edu)

USC Student ID card (USCard):

You must complete the following before you are able to obtain your USCard.

- Passport Verification with OIS (*International students only*)
- Registration for classes (*Domestic students only*)

Go to USCard Customer Service office located in (PSX) at the University Park campus or in the Seaver's Lobby at the Health Science campus.

USC Computer Account Creation and Email**

Once you obtain your USCard and register for classes, you need to activate your USC computer account. For instructions, call 213.740.5555 or visit www.usc.edu/firstlogin.

- Make sure that you update your email account on OASIS, www.usc.edu/oasis and if you have direct deposit on the e-trac system, www.usc.edu/etrac, as well. Also, please notify Beatriz Gil of your new email address at bgil@college.usc.edu

Update OASIS with local address and USC email information

Go to www.usc.edu/oasis. Your email address and both your local and permanent mailing addresses must be current at ALL times to ensure that you receive important documents such as health benefits card and paychecks. Your first check will be mailed to your "local" address.

Required Documents:

International Fellowship Holders: Before going to the College Business Office for the first time, you must complete the "Glacier" process. You should have already received a preliminary email notice from Glacier. Please see the attached sheet entitled "Glacier Details for Internationals," (pg. 11). You must claim or qualify for your country's tax treaty. This will enable Glacier to print the correct tax forms. In Glacier, enter "applying for ITN." You will also receive a letter from OIS.

International Teaching and Research Assistants:

Before going to the College Business office for the first time, you must complete the "Glacier" process. You should have already received a preliminary email notice from the Glacier system. Please see the attached sheet entitled "Glacier Details for Internationals," (found behind Glacier Information sheet, pg. 13). You must claim or qualify for your Country's tax treaty. This will enable Glacier to print the correct tax forms. In Glacier, enter "applying for ITN" or "applying for SSN" have ready your Visa Documents, Passport, I-94, Award Letter, "Document Processing Receipt" and a

“Social Security Letter Receipt” from OIS or an original social security card, and documents printed from the Glacier system.

Domestic Teaching and Research Assistants:

Domestic Students (Teaching Assistants and Research Assistants): Award letter **AND** driver’s license and original social security card or birth certificate with same name - **OR** - Active or expired U.S. Passport with adult photograph.

Domestic fellowships:

Domestic fellowship holders need to be certain that your local addresses are correct in the Student Information System. Please make sure you fill out a direct deposit form (include a blank voided check) in order for you to receive your stipend payments on time. For further information regarding this, please see Beatriz Gil.

Direct Deposit (*International Fellowship Students are not eligible*)

If interested, please fill out the form (in the forms section) or complete the form available online: http://ais-ss.usc.edu/empldoc/forms/directdeposit_form.pdf

Payment of Fees

Fees to be paid by all students: Topping Student Center Fee, Orientation Fee (first semester only), Graduate Programs Fee and any “access” or “laboratory” fees appearing on fee bill. Do not pay tuition, health insurance, Health Center Fee or tuition insurance fee. If any of these fees appear on your fee bill contact Linda Bazilian to remove (AHF 107D, 213.821.1088, bazilian@usc.edu). Fees can be paid online through OASIS (www.usc.edu) or you can go to the Cashier’s Office (LRC, x 07471).

Laboratory Safety Training

The basic Laboratory Safety Training course is required for all students prior to working in a lab. If you plan to work in a lab with animals or radioactive materials, you will need to take additional safety training courses during the semester. The Lab Safety Training course is usually held the Friday before the start of fall classes. If you missed the training for some reason, you may also register for the course through Professional Development.

TA Requirements

- College TA Training: Required for all students who will be a teaching assistant for any College courses. The College TA Training course is held the Wednesday and Thursday the week before the start of fall classes.

- ITA Institute Oral Exam: All International TA's (Exception: Students who received bachelor's degree from an English speaking institution) must take the ITA Institute oral exam given at the end of a weeklong program. Contact the ITA institute for date and time (ita@usc.edu).
ITA Institute website: http://cet.usc.edu/resources/ta_resources/ita_institute/index.html

b. Additional Requirements for International Students

☐ ISE Exam (*International Students ONLY*)*

If #6 on your SEVIS I-20 states, "The student does not have the required English proficiency" you are required to take the International Student English Exam. You can register for the ISE Exam at the American Language Institute (HSS building, Phone 213.740.0079, Fax 213.740.8549, website: <http://www.usc.edu/dept/LAS/ALI/ISE.html>)

☐ Passport Verification (*International Students ONLY*)*

All new international students are required to complete Passport Verification (PPV). Contact the Office of International Services (OIS) to set-up a PPV appointment. The office is located in the Student Union Building (STU300, Phone 213.740.2666, Fax 213.740.5194, email: ois@usc.edu)

- OIS recommends that you photocopy and safeguard your important immigration documents because it is much easier to replace lost or stolen items if there is a record.

☐ Social Security Receipt for Stipend Processing (*International Students ONLY*)**

In order to process your stipend checks, you need to obtain a social security card receipt. To get this receipt, you must first complete a "Social Security Number Letter Request Form" available at OIS (STU300, Phone 213.740.2666, Fax 213.740.5194, email: ois@usc.edu). After submitting the form, you will return to OIS two days later to pick up your official letter which you will take to the Social Security Office on 1115 W. Adams. You should receive a "social security card receipt" on the spot. You will need to provide this receipt when you go to the College Business Office to complete your payroll paperwork.

☐ Glacier Details for Non-Resident Alien Students (*International Students ONLY*)**

All new internationals will receive an email directly from "support@online-tax.net" with a subject stating "Payments from University of Southern California." The contact person in the email will either be the initiating Home Department Coordinator or the Student Affairs Officer at the School or Department level. In the USC Dornsife College of Letters, Arts, & Sciences the email contact in the body of the email will be Hadia El-Bardisy, elbardis@dornsife.usc.edu (<https://my.usc.edu/wp/faculty/ViewDetail.do?uscpsid=schs5gx2>).

The email will contain an initial username and password for international students to log into Glacier. You will have only have 5 days to access Glacier using the initial password. You must log into Glacier to set up a new password. Once this is done international students have longer than 5 days to complete and submit their Glacier forms to the Dornsife College Human Resources and Payroll Office located on the second floor of the United University Church (UUC) room 217.

1. The international students should check off that they qualify and claim their tax Treaty if their country has an existing tax treaty with the USA.
2. If the Fellowship holder does not already have a social security number, they should check the box that says "applying for ITIN number."
3. Wage-earning international students must apply for a social security card. In Glacier they may state "applying for ITIN or SSN."
4. Depending on what type of fellowship you will be receiving, all students will be guided through Glacier by a step by step process.

Throughout the year, you will receive notices from Glacier "support@online-tax.net" to maintain your tax forms each year while you are at USC.

Glacier is not the mechanism for international students to complete annual IRS tax return forms.

Cintax is a tax filing service administered by the Office of International Services and is entirely separate from Glacier.

International students are NOT required to meet with University Payroll Services office specifically regarding their Glacier paperwork.

If applied to tuition only, do not add to Glacier. Completing Glacier, is only needed if you will be working or will be receiving a fellowship/scholarship stipend.

Registration Process

Action	See
1) First year students: go to advisement appointment	Dr. Alan Watts 213-740-1497 watts@usc.edu
2) Complete an Academic Advisement Form (see forms section) and obtain the signed approval of the appropriate advisor for your proposed course schedule.	For all first year students, approval should be obtained from the head of the advisement committee. For all students in their second year or beyond with dissertation advisors, see that advisor for approval.
3) For D-Clearance, fill out the request form at http://bioweb2.usc.edu/misc/dclear.php . You must include your student ID number and five-digit course number. Your d-clearance will be entered into the system within 2 days.	Linda Bazilian, AHF 107D, 213.821.1088
You may then register for classes via web registration on OASIS, https://camel2.usc.edu/OASIS/Login.aspx .	See USC's Department of Academic Records and Registrar website for detailed instructions of how to register. http://www.usc.edu/dept/ARR/ Click on "Registration" under the Services heading.
<u>Note:</u> Students with ALI and academic holds will need to register in person at REG 101 between 8:30 AM – 5 PM Monday through Friday.	

DIRECTORY

<p>KEY UPC TELEPHONE NUMBERS Area Code (213)</p>

Academic Review	740-7741
American Language Institute	740-0079
Cashier/Financial Services	740-7471
Class Scheduling/Course Master Changes	740-4608
Credit Union	821-7100
Enrollment Processing (REG Bldg.)	740-8500
Expository Writing	740-1980
Financial Aid	740-1111
Housing	740-2546
Student Affairs	740-2421
Office of College Advisement	740-2534
Office of International Services	740-2666
Payment of fees	740-7471
Registration	740-8500
Student Financial Services	740-4077
Transportation	740-3575
University Collections	740-9087
USCard	740-8709

<p>FINANCIAL SERVICES</p>

University Collections	LRC
Student Financial Services	LRC
Payment of Fees/Cashier's Office	LRC
Credit Union	KOH

Student Health and Insurance

All BNRO students will have the student health center fee, student health insurance and dental insurance paid by the University as long as they are enrolled in classes and considered a full time student (6 units or more).

You are automatically enrolled in the USC Health Insurance Plan if you are:

- Taking 6 or more units
- Enrolled on the Health Sciences campus
- An international student

The Student Health Insurance Office will mail your insurance card and information packet about a month after the start of classes to the “local” address listed on the Online Academic Student Information System (OASIS), www.usc.edu/oasis.

If you already have a health insurance plan (or you are on your parents' plan) you may be eligible to waive enrollment in the USC Health Insurance Plan by providing proof of comparable coverage. Documented proof must be presented to the Student Health Services Office at the Student Health Center on your campus.

The **Student Health Center**, http://www.usc.edu/student-affairs/Health_Center/index.shtml, provides the following services: primary care, basic emergency care, an urgent care clinic, Saturday clinics, specialist clinics, and a pharmacy. You are eligible to use the Health Center as long as you are enrolled in classes and a Health Center fee is listed on your fee bill.

If you are eligible, most care is free. There are nominal charges for some lab tests, prescription, orthopedic appliances, and copies of medical records. Hospitalization is NOT covered but must be purchased separately. Should you have questions, contact SHC.

Dental Care

Your Health Center fee also covers dental care. Please see http://www.usc.edu/student-affairs/Health_Center/ins.plan.description.shtml for a detailed brochure and enrollment form.

AETNA

1) You will be prompted to pay the health insurance fee when you do a positive enrollment. Please do not pay. The fee is already paid, and they know, so just skip that step.

NOTE: The health and dental insurance and health center fees are paid by the department that pays your stipend.

Instructions for downloading your Delta Dental card:

1. Go to www.deltadentalins.com. On the right you will see a box to log in. Click on "Register Today" (unless you have done this already and have a username and password).
2. Follow the steps to Registration. You want to select "Enrollee" as your user type.
3. Enter your name and birthdate along with your enrollee ID.

****Your Enrollee ID is your USC student ID number****

4. You should be ready to make up your username and password (and maybe put in some other info like address, email) and then you will be instructed to log on from the homepage at www.deltadentalins.com.
5. Once you are logged in, look under the heading "Manage Your Account" and you will see a link to "View Eligibility and Benefits (and print ID cards)".

This website of course has lots of other useful information about your benefits including coverage and deductibles, date of enrollment and so forth.

PROGRAM LIFE

1. Program Seminars and Journal Clubs

Neurobiology Seminars: The Neurobiology seminars are held on Tuesdays during the academic year at 12:30 PM in the Hedco Neurosciences Auditorium (HNB 100). In the first two years, attendance in NB sponsored seminars is **mandatory**. Following that, it is highly recommended that you attend seminars, when it does not jeopardize your laboratory work. You will receive a schedule for each semester and announcements will be posted prominently. In addition notices are posted on the website <http://www.usc.edu/programs/neuroscience/index.html> or <http://college.usc.edu/bisc/home/>.

Neuroscience Seminars: Also held on Tuesdays at 12:30 in HNB, these seminars are hosted by faculty in the Neuroscience graduate program. These seminars cover a broad range of topics. It is highly recommended that you attend these seminars, if they are within your general area of interest. If you are not sure about which seminars to attend, don't be shy about asking your advisor. Below is information on other seminars that you might be interested in attending:

Computational Biology Seminars: Held on Thursdays at 2pm in Ray R. Irani Hall (RRI)

Molecular Biology Seminars: These are held on Fridays at 12 noon, also at RRI.

Other seminars: the following websites can be consulted for a list of seminars

USC Events Calendar (<http://www.usc.edu/calendar/>)

Biology West Calendar (<http://www.usc.edu/biowest/>)

Zilkha Neurogenetic Institute Calendar

(<http://www.usc.edu/schools/medicine/research/institutes/zni/seminars/>)

Viterbi School of Engineering Calendar (<http://viterbi.usc.edu/news/events/>)

PIBBS Seminars (<http://www.usc.edu/programs/pibbs/site/seminars.html>)

There are many benefits to attending seminars. You will learn a great deal, especially in areas outside your expertise. You will have the chance to meet many distinguished scientists. These contacts may help you in your research and could lead to future letters of reference or postdoctoral opportunities.

Lunch with speakers:

Seminars hosted by NB and NS will be followed by a lunch with the speaker to which all NGP and BNRO students are invited. This is a great opportunity to find a post doc mentor, or simply to find out more about a field. Use this opportunity to ask questions of the speaker such as, why did they choose to work in this field? Where do they think the field is moving? Etc.

If you are interested in lunch with a particular speaker, contact Beatriz Gil 213.740.9176 or reply to the student host.

Student host: a student host will be assigned for each seminar speaker, who is usually in the same lab as the faculty host. The student should contact all members of BNRO and NGP to invite them to lunch. Students outside BNRO and NGP can also be invited, if their interests closely align with those of the speaker, but reservation priority is given to BNRO and NGP students.

Journal clubs and similar gatherings should also be an important part of your academic and research life. Journal clubs are regular, informal meetings of students, postdocs, and faculty that share interest in a particular field. The usual format is to discuss a recent research paper. One participant is usually asked to present the paper and lead the discussion. Occasionally, the discussion will focus on the research results of one of the participants. This is an extremely efficient way to learn about the latest developments in your field, how to critically evaluate the work of others, and how to communicate effectively with your peers. These extremely important skills are essential in your transformation from graduate student to professional researcher.

At the moment, there are five active journal clubs. The contacts are:

Kathie Eagleson, (keagleso@usc.edu) for the Developmental and Behavioral Neurobiology Journal club (website www.usc.edu/zni)

Nadav Ivzan (ivzan@usc.edu) for the Vision Journal Club (VJC website: http://vpl.usc.edu/vision_journal/2009/)

Chiara Mazzasette (mazzaset@usc.edu) for the Neuromuscular Junction Journal Club

Mona Sobhani (mssobhani@gmail.com) for the Cognitive Neuroscience Journal Club and

Meghen Miles (meghen@usc.edu) for the Neuroscience of the Arts Journal Club.

If these journal clubs don't represent your scientific interests, you are encouraged to gather a group of your student colleagues and contact appropriate BNRO faculty members about starting a new Journal Club.

2. The Neurobiology Office

There are at least two offices from which you can obtain administrative support. The Neurobiology Office staff is located in HNB 120. The central Biology Department staff is located in AHF 107.

Unfortunately, we do not have the resources to provide you with secretarial services, so you will have to do your own word processing, copying, faxing and library work. It is particularly important that you use the central Biology Department's resources (AHF 107) for mass copying of classroom materials, and to receive your own code to use the copier.

For matters relating to your Teaching Assistantships, seek help and support from Linda Bazilian, who is located at AHF 107 and can be reached by e-mail at bazilian@usc.edu.

3. Mail

All new students can receive incoming mail in their assigned box in the Hedco building mailroom, which is next to the elevator in the main lobby. Use the following as a mailing address:

University of Southern California
Neurobiology Section
3641 Watt Way
Los Angeles, CA 90089-2520

The 9-digit zip code is important, and the digits 2520 also serve as the mail code for campus mail to reach the Hedco building. You can also place outgoing campus mail and stamped U.S. mail in the corresponding bins in the mailroom for pickup by Mailing Services. The Program can only cover the cost of postage for official business only. See Beatriz Gil in the Neurobiology office for procedures.

Important: For those of you who will eventually have a TAship and teach, you should tell your students to place all documents in a sealed envelope before placing them in your mailbox.

Keys for Hedco Building rooms can be obtained from Gloria Wan in the Neuroscience Office (HNB 120G). A \$10 cash deposit is needed for each key. When you begin working in laboratories, you will need more keys. For access to the Hedco building, and its elevators after hours, and animal rooms at any time, you'll need a code number that can be punched into strategically placed keypads. Everyone who is entitled will have his or her own number so **you must never give your number to anyone else**. See Gloria (HNB 120 G, 213.740.6091) for these numbers.

4. Security at Hedco and USC

All inhabitants of Hedco and other buildings take matters of security very seriously. Please do your part to maintain the safety of the people, property, and animals upon which we depend. Flagrant breaches of security, such as propping open locked doors or giving out your key code to anyone will be dealt with severely.

5. Neuroscience Teas

Every weekday except Friday, from 3:00 to 4:00 P.M., Neuroscience Tea is held in the large conference room in the Hedco Building. Coffee, tea, cookies, and other treats are provided. Neuroscience Tea is meant to foster collegiality and interdisciplinary communication among Neuroscience members such as yourselves. The atmosphere is very informal, with people free to come and go as they wish. When you do come, stay for a while, try to meet someone you don't already know, and bring an open mind about alternative approaches to studying the nervous system.

6. Library Facilities

The Seaver Science Library (SSL), located in the Seaver Science Center, is the principal science library at UPC. A good collection of current journals, arranged in alphabetical order, will be found on open shelves on the first floor. Older journals are bound and shelved together with books on the upper floors. Periodicals cannot be checked out, but photocopiers are available on the second floor. There are computer terminals and printers available on the first floor to search the library holdings, the campus directory, and the MEDLINE database. As you may know, most of the important journals in our field are indexed in this database.

Other libraries at UPC that might be of use to you are the Thomas and Dorothy Leavey Library (LVL), and the Doheny Memorial Library (DML). The main undergraduate library with many general interest books, periodicals, and reference materials. Both Leavey and Doheny have comfortable and quiet reading rooms that are good places to study. At the Doheny Library reference desk, students can request a free search of databases of pre and postdoctoral fellowships. These can be very valuable for those without RA support or those arranging postdoctoral positions. The Hoose Philosophy library is one of the genuine highlights of the USC Campus. Lastly, a number of journals are located in the small conference room, HNB 120.

To obtain a USC library card, simply present your USCard at any campus library circulation desk. Once you have a valid library card, you can check books out from any library. Materials checked out with student cards are normally due to be returned at the end of the semester, but are subject to recall at any time. Note: You can obtain a USCard at the USCard customer service office located in PSX (Parking Structure C) and Seaver Residence Hall at HSC (Health and Science Campus).

There are several excellent libraries off campus. Within the USC system there is the Norris Medical Library at HSC. Journal articles can be copied for you and sent via campus mail, but this takes at least 2 weeks. Inquire at the reference desk in the Seaver Science Library if you're interested in this service. By far, the best library in the area (probably the best in the Southwest US) is UCLA's Biomedical Library. Just about any journal or book, no matter how obscure or old, can be found there. There are numerous copying machines available, which use debit cards that can be purchased from vending machines. USC students with valid identification can obtain a UCLA library card. Inquire at the Biomed Library circulation desk or at UCLA or call (310) 825-6375.

7. Information on Computing

USC maintains an extensive computer network that can be accessed from several public user rooms around campus, by modem from a home computer, and, most importantly, from any computer connected to local networks such as the Ethernet in the Hedco Building. Most Hedco laboratories have at least one Ethernet terminal. An extensive array of software is available on the campus network, and services such as electronic mail, database searching, and bulletin board access is provided free of charge to graduate students. Of the several databases that you can access, the most useful is MEDLINE. The convenience of doing free literature searches from your laboratory or home (via modem) is great. The Computing Center offers advice and training sessions on using the

system and its software. The reference librarian at Seaver Science Library can help you learn to use MEDLINE (it's actually very easy). The key to this wonderful world of information is to have a computing account and password.

8. Procedure for Student Computer Account Creation

Computer accounts will be created automatically for all students enrolled in degree programs. Simply obtain your USCard at the USCard customer service office located in the Customer Service center, located in the PSX (Parking Structure X) at the University Park campus or in the Seaver's Lobby at the Health Science campus. Once you have your USCard, you need to activate your USC computer account. For instructions, call 213.740.5555 or visit www.usc.edu/firstlogin.

If you do not have access to a personal computer, visit one of ISD's public computing centers and present your USCard at the service desk. You will be directed to one of the center's computers; go to <http://www.usc.edu/firstlogin> and follow the instructions.

You have three options for obtaining free Internet service and access to USC resources from home. Depending on where you live, the kind of Internet service provider you prefer and whether you use a wireless network, you will need to set up your computer with a ResNet, Dialup or VPN connection.

ResNet is available at all campus residential complexes, as well as some areas of the Thomas and Dorothy Leavey Library and the USC Marshall School of Business, and it provides a high-speed computer network that allows you to bypass your modem and enjoy high-speed Internet access. To link up with ResNet, go to www.usc.edu/resnet. For more help or information, call the Housing Maintenance office at 213.740.4646 or the Customer Support Center at 213.740.5555.

Dialup is available for students living off-campus. With a computer, modem and the right point-to-point protocol settings, you can dial into one of USC's more than 1,000 modems and access the Internet and the USC network. For computer settings and dialup numbers, call 213.740.5555 or visit www.usc.edu/dialup.

If you already use another Internet service provider, you may utilize USC's virtual private network (VPN) client to access restricted USC resources. You also will need the VPN software to access USC's wireless network. For more information, call 213.740.5555 or go to www.usc.edu/vpn.

USC students, faculty and staff can now surf the web or check email without cables using USC's high-speed wireless network. Most outdoor common areas, libraries, auditoria and eateries - including the University Village Food Courts - have been configured with the new wireless technology. New locations are being added regularly. For information about how to get on USC's wireless network - and get the most up-to-date wireless locations on both the University Park and Health Sciences campuses - call 213.740.5555 or visit www.usc.edu/wireless.

GENERAL INFORMATION ABOUT FINANCIAL SUPPORT

There are five main sources of support for graduate students:

- ◆ Teaching Assistantships
- ◆ Research Assistantships
- ◆ University/College Fellowships
- ◆ Training Grants
- ◆ Individual Fellowships and Grants

The faculty of the program will make every effort to provide or arrange for the provision of financial support (tuition and stipend) for all of our Ph.D. students. We have been very successful at doing this, with all of our current students receiving support. We cannot guarantee support, since the future financial health of the university cannot be predicted with accuracy. All students should be assured, however, that supporting Ph.D. students is one of the highest priorities for faculty administrators. Please note that Graduate School rules **prohibit full time students from accepting any employment above and beyond their graduate assistantships** (see the Graduate Assistantship Handbook).

An important rule to remember is that you must maintain a GPA of at least 3.0 in order to be eligible for a Teaching or Research Assistantship.

1. Teaching Assistantships

BNRO students are required to serve as a TA for at least one semester. All TAships come from the Biology Department. Requests for TAships each semester must be submitted to the Graduate Programs Manager. TAships, which are generally awarded for a semester, carry a stipend, up to 24 units tuition remission, health/dental insurance, and health center fees. You must maintain at least a 3.0 GPA to be eligible for a TAship. The authority to offer TAships rests exclusively with the Chair of Biological Sciences. The Chair consults extensively with the Instructional Representatives of each of the three graduate programs, and with faculty instructors.

The workload associated with TAships is variable, depending on the course and the familiarity of the TA with the subject matter. You should not spend more than 20 hours per week in fulfilling your TA duties. Remember, you will need to keep up with your thesis research during this time. Consult with your advisor for tips on course selection. Whatever course you are assigned, please take your responsibilities *very seriously*. You are under an ethical, moral and legal obligation to do your best for your students. Undergraduates pay a hefty tuition, so they are entitled to your best efforts. Learn the subject matter diligently, and find creative ways to explain it. Practice your verbal communication skills. Make yourself available and approachable. Conform to high ethical standards and respect the confidentiality of your position. Enforce the rules of academic integrity spelled out in *SCampus*. All of these skills will be directly useful to you in your training; we require all Ph.D. students to serve as TAs for at least 2 semesters. Your performance will be weighted in your bi-

annual evaluation. Please be aware that, as with any other job, your TA position can be terminated for poor performance, either in the classroom or the research laboratory.

2. Research Assistantships

Research Assistants are paid on the same scale and receive identical benefits as TAs. The same GPA minimum of 3.0 applies. Whereas TAships are funded by departments, RAships are funded by research grants. As the name implies, RAs do research, usually directed at the Specific Aims of the grant. Although officially the RAship is considered a 20 hour per week position, this refers to cases where the work is not directly related to the dissertation topic. When doing research that is part of our graduate training, there is no limit to the amount of time that can be devoted.

TAships vs. RAships: Your teaching assistant experience can be very rewarding. You will learn a great deal and have the satisfaction of seeing that knowledge take root in others. You may establish lasting friendships or mentor relationships with some of your students. On the other hand, you are here primarily to do research, not teach. If you are not very efficient in organizing your time, progress on your dissertation research may be slowed by extended service as a TA. Most would agree that 2 semesters of a TAship provide adequate teaching experience. Try to be flexible, though. As grant budgets wax and wane, it may be necessary to take TAships to cover lean periods. Certainly, being a TA is not an excuse for not making satisfactory progress in your dissertation research. We are lucky to have TAships as a major source of support.

3. USC Fellowships

There are several fellowship opportunities available to BNRO students. There are a limited number of Dissertation Fellowships available to students at the end of the academic career. See Linda Bazilian for details.

4. Individual Fellowships and Grants

There are an enormous number of grants, fellowships and other forms of financial aid available to students. Particularly appropriate are individual fellowships from NIH and NSF. Detailed information can be obtained from two sources. First, the Graduate School (GFS 315, 740-9033) has a partial listing of available grants http://www.usc.edu/schools/GraduateSchool/current_fellowships_ext.html. They also have a reference book that you can see and photocopy. Second, there is a computerized database in Doheny Library (DML reference section, x06050). This database contains literally hundreds of grants to choose from. Fill out an application at the reference desk. A customized printout will be returned to you. There is no charge for students. You may be notified throughout the semester of other support opportunities. Again, BNRO strongly encourages applications to such fellowships and thus, rewards students who get these funds.

5. Summer Support

Your decision to be a Ph.D. student is a year-round commitment. You should view the summer as an opportunity to engage intensively in research, free from the distractions of course work, TA assignments, and the like. We expect you to be in laboratories, engaged in full-time research, every summer. **Please be aware that it is your responsibility to take the initiative in securing summer support, except in the first year.** In later years, talk to your Ph.D. advisor early in the spring semester to see if support will be available for the summer. The best plan would be to secure an RAship or training grant slot. There are currently no summer TA-ships available. Although we expect that there may be a small number of summer TA-ships available in the near future, these positions provide only partial support and you must apply early with Linda Bazilian.

6. First-year fellowship

All first-year students will receive the same fellowship support. The overall amount will be divided in installments from August through June. The fellowship is described as "50% time appointments," but you are not allowed to receive additional salary support. The reason is that by university rules, the remaining 50% of time is for your studies.

7. Paying taxes on Fellowships

Although students often do not do so, they are required by law to pay taxes on fellowships. This form of income can be added to the total on Line 7 of Form 1040. Importantly, you will see a difference in taxes in your first year as compared to later years. In the first year, students will get fellowships, but you will be supported on an RAship in your first summer. State and federal taxes will be drawn directly from an RA or TA but not from a fellowship paycheck. Thus, the amount is less than expected in later-year checks as opposed to those from first-year ones. Further information on fellowship taxes can be found at: <http://www.irs.gov/individuals/students/>.

III. PROGRAM HANDBOOK

ACADEMIC PROCEDURES

1. Program of study for the Ph.D.

See: http://www.usc.edu/dept/publications/cat2010/private/pdf/2010_2011/06_Graduate_and_Professional_Education.pdf

Doctor of Philosophy in Biology

Students pursuing this degree choose between two broad areas of specialization, a marine environmental biology option or a neurobiology option. Each option specifies particular course work and other requirements. A minimum total of 60 units is required, consisting of formal courses, seminars and research credit. At least 24 of the minimum 60 total units required are to be formal graduate course work (lecture or seminar courses). Candidates must fulfill a research tool requirement (computer skills, biostatistics, quantitative chemistry), and meet the residency and other requirements of the Graduate School. Because teaching experience is considered to be an important part of graduate training, each student is required to serve at least two semesters as a teaching assistant within the department.

The neurobiology option provides each student with a broad, fundamental background in neurobiology and with detailed knowledge and expertise in the chosen area of concentration. Each student's curriculum is tailored to the particular interests of that individual. The formal course work includes 12 units of specified courses and 12 units of advanced electives chosen from a long list of courses in biological sciences, psychology, computer science, and other relevant departments. Students are expected to attend and participate in departmental research seminars.

2. Academic Requirements

Grades

The rules of both the Graduate School and BNRO require that all students maintain a grade point average (GPA) of 3.0. In addition, a minimum grade of "C" (2.0) is required for a course to count for graduate credit. Here is a listing of letter grades and the corresponding grade points:

A	(4.0)	B-	(2.7)	D+	(1.3)
A-	(3.7)	C+	(2.3)	D	(1.0)
B+	(3.3)	C	(2.0)	D-	(0.7)
B	(3.0)	C-	(1.7)	F	(0.0)

If your GPA falls below 3.0 you will not qualify for a Teaching or Research Assistantship or a fellowship, and you will be in danger of being dropped from BNRO. It might be possible to grant you a one-semester exception, to give you a chance to bring your grades up. This cannot be guaranteed, however. It is your responsibility to petition the Graduate School and the head of the Program for this exception.

These rules have important consequences for interpreting your grades in graduate courses. The custom in Neuroscience graduate courses is to use the range from “A” to “B-”. As usual, an “A” denotes excellent performance. A “B-”, since it is an unsatisfactory grade for a graduate student, can be thought of as equivalent to something in the “C”-“D” range for an undergraduate. In a similar way, a “B” can be thought of as signaling performance that is barely adequate. Avoid grades of “B” or “B-”.

Course Requirements

1. General Neurosciences (BISC 421 or NEUR 524), (4 units)
Students are expected to have taken a general neuroscience class as undergraduates. Those students who have not completed such a course, or would like a refresher are advised to take BISC 421.
2. Two of the three classes:
 - BISC 426 Principles of Neural Development (4 units)
 - NEUR 525, Advanced Neurosciences II (4 units)
 - NEUR 531, Molecular and Cellular Neurobiology (4 units)
 - NEUR 532, Systems and Behavioral Neurobiology (3 units)
3. Four semesters of NEUR 539, Neurolunch (for a total of 4 units)
4. NEUR 538, Neuroscience Ethics and Professionalization or equivalent, such as INTD 500, Responsible Conduct of Research (1 unit)
5. Statistics is highly suggested (e.g., PM 510, PSYC 501, or equivalent)

Elective Courses

The content of elective courses changes from semester to semester according to the interests of students and faculty. These courses are worth 2, 3 or 4 units, and are offered in Biological Sciences, Psychology, Molecular Biology, Computer Science, Gerontology, Cell and Neurobiology, Physiology, and other relevant departments.

Registration Policies

Your advisor must approve all courses, including the ones offered by other departments, each and every semester. We strongly discourage students enrolling in BNRO and another graduate program concurrently. We understand that, in exceptional situations, students may wish to enroll in more than one graduate program. Before enrolling in another graduate program, you must file a petition to the director of BNRO for approval. Failure to follow these procedures is considered a basis for dismissal from BNRO.

In Your First Year

Before enrolling in classes at the start of fall and spring semesters, you must meet with the chair of the Advisement Committee to determine what courses you will take in your first year. All first year students must consult with the chair of the Advisement Committee, whether or not they have committed to work in a particular laboratory. In general, during fall semester all first year students should register for one of the elective courses (NEUR 531 or 532), or a general neuroscience course (BISC 421 or NEUR 524) if deemed appropriate. In addition, they will register for Neurolunch

(NEUR 539), and a specified number of units of BISC 790 for lab rotations. During the spring semester all students should register for one at least one lecture course, Neurolunch (NEUR 539), and 2 units of BISC 790 for lab rotations.

Prerequisites: Students will be expected to review the syllabus and reading list for BISC 421 to identify their deficiencies prior to Orientation, then receive advice at Orientation on whether to take BISC 421 or read recommended material to remedy any remaining deficiencies.

A Few Words About Signing Up For Courses

With a full TA or RAship, you are entitled to 12 units of tuition remission each semester, although you need only enroll for 6 units to be considered a full time graduate student. Over the course of your stay with us, you will have no trouble accumulating the 60 units required for the Ph.D. It is important that you discuss with the faculty member in whose lab you wish to work how many 790 units you should sign up for.

A related subject is the summer courses, especially 790 units. If you are paid in payroll for the summer as a “Research Assistant” you must enroll in 1 unit of 790. However, if you are a “Fellowship Holder” you should not enroll for any 790 units over the summer UNLESS you are formally offered a “Research Assistantship” for the summer. This is very important. The College has to pay real money to the university for any units you sign up for, money that will not be available to support other aspects of our program.

The following statement may seem patently self-evident, but occasional transgressions convince us of its necessity. **Your tuition remission is intended only for courses directly relevant to the BNRO Ph.D. Program.** Don't waste this money or your time on other courses. On the other hand, do note that neuroscience is strongly inter-disciplinary, so that what is irrelevant to one student may be highly relevant to another. Faculty can advise you on what may be most relevant to your intellectual development at USC.

3. Beyond course work...

By the end of your second semester, you will have completed your first year of course work and should have chosen a lab (see Section 5 below). Your specific program of course work and research will now be determined by you in consultation with your advisor. It should be emphasized that the responsibility for your graduate career rests with you. First of all, you should make sure that you know the rules and regulations for earning a Ph.D. Many of them are spelled out briefly in this guide. The university-wide rules for getting a doctoral degree are published in the University Catalogue, an updated edition of which is published every year. The Graduate Student Handbook, published by the Graduate School, is also very useful. It is your responsibility to meet each requirement on time – for example, you must finish the entire procedure for the Qualifying Exams no later than the end of your fifth semester (see below). Secondly, you should realize that your time is as valuable as you make it. Starting in your second year, there is no formal structured routine for you to follow. Only you can decide how to organize your time at this point, and your decisions and commitments will have a lasting impact on your career. Be organized and work hard.

4. Oral Presentation

One regulation of which you should be aware is that you must give an oral presentation or poster on your research every year after you complete your qualifying exams. This requirement is usually met by giving a presentation in “Neurolunch”, where you can talk about your own research. The public dissertation seminar satisfies this requirement the last year.

5. Lab Rotations

The purpose of the Ph.D. program is to prepare you to be an independent researcher, and an important step in this process is to choose a lab in which you will pursue your dissertation research. You will rotate through at least 2 labs in your first year as you seek the one that is right for you. Rotations should be flexible with respect to the exact nature of the lab work, and you should approach a faculty member whose research interests align with your own; he or she can suggest small projects that you might work on as part of your rotation.

The policy is summarized as follows:

During their first 2 semesters, new students are to rotate through two labs, with rotations lasting, on average, 8 weeks. The rotations must include at least two different labs.

You do not need to decide on rotations before you come to USC, although you may want to read the websites of faculty in the department to familiarize yourself with through research. During orientation, there will be an opportunity to hear from faculty members and to visit their labs. Having heard the presentations, you should meet with faculty to discuss the possibility of rotating in their lab. Some faculty may have already committed to too many students, but may offer you the option of doing the second rotation in their lab. Do not be discouraged! The second rotation is in fact often more productive, as you have had time to settle into LA.

The exact period and location of each rotation must be documented by “contracts” completed and signed by the lab advisor and student at the beginning of the rotation. Contract forms are obtained from Beatriz Gil. She will also contact you towards the end of a rotation to check that you have begun to organize the next one. **You must inform Beatriz each time you are beginning a new rotation.**

The laboratory rotation schedule for 2011-2012 is as follows:

Lab Rotation #1: September 12 – November 7.

Lab Rotation #2: November 21- January 30 (Winter Recess Dec 27- Jan 1)

This is a general guideline; rotations can be extended for a few more weeks, if this is necessary to complete a project.

Remember that some labs will fill up with rotation students, and arranging rotations ahead of time will help make the experience a productive one for all concerned. In general, rotations should be arranged at least one week before they are to start.

IT IS THE STUDENT'S RESPONSIBILITY TO FIND A DISSERTATION ADVISOR BEFORE THE END OF FIRST SCHOOL YEAR (MAY 2012).

This is important not only for a solid start to your dissertation project, but also with regard to how you will be supported over the summer semester. For the most part, students will decide on a lab based on one of their rotations. However, in the event that you have not found a lab after two (or three) rotations, you need to discuss your options with the chair of the advisement committee.

It is, of course, perfectly acceptable to sign up for research credit hours for the time you spend doing your lab rotations.

Remember that it is your right to choose and change advisors freely. The Director of BNRO and the faculty as a whole will support your wishes in this matter. If you perceive any problems, please see one of us for advice.

6. Advising

All students must receive academic advisement before they can enroll in classes each semester. See "Registration Process" for a description of the procedure. In addition to helping you decide which courses to take, the Advisement Committee Chair (Dr. Alan Watts) as well as all BNRO faculty, are interested in helping you with other matters as well. If you would like our help with any professional or personal problem, please come see one of us. We will be happy to lend a sympathetic ear, offer advice, give you referrals, and inform you of your rights in disputes with faculty or peers. If you wish, we will intercede on your behalf or act as a mediator. Be assured that your discussions with any of us will be kept completely confidential.

7. Student Evaluations

The Advisement Committee meets twice a year to review the performance of each student in the program. We consider grades, participation in classes, research progress, TA performance, progress in satisfying degree requirements, the extent to which the student followed previous recommendations, and other matters relevant to professional advancement. The result of this evaluation will be a letter from the chair of the Advisement Committee to each student and a copy sent to the student's advisor. The letter will contain one of four ratings: (1) Acceptable performance, (2) Acceptable performance, assuming you take certain actions, (3) Unacceptable performance, (4) No evaluation. In each case, the reasons for giving the rating will be briefly outlined and any remedial action will be specified. Students should meet with their advisors for a full explanation of the review letter. First year students and others without advisors should meet with the head of the Advisement Committee. Students receiving a (4) should have their advisor contact the Director AS SOON AS POSSIBLE to avoid a hold on your registration. Two successive category (3)'s are grounds for dismissal from the program.

8. Academic Warning and Dismissal of Graduate Students

Faculty advisors and departments take factors other than satisfactory grades and adequate GPAs into consideration in determining a student's qualifications for an advanced degree. A student's overall academic performance, specific skills and aptitudes and faculty evaluations will be considered in program decisions regarding a student's continuation in a doctoral degree program.

Satisfactory progress toward an advanced degree as determined by the faculty is required at all times. Students who fail to make satisfactory progress will be informed by their department or committee chair or school dean. The faculty has the right to recommend at any time after written warning that a student be dismissed from a graduate program for academic reasons or that a student be denied readmission. Procedures on disputed academic evaluations are described in *SCampus*.

9. Qualifying Exam Procedure

Successful completion of the Qualifying Exams admits a student to official candidacy for the Ph.D. degree. To begin the Qualifying Exam process, the first thing you must do is contact Linda Bazilian. In the section marked "Timeline to Degree", you will find details of the procedure. A description of the Qual procedure follows:

a. Choosing a committee:

By the end of the third semester, students should choose a committee consisting of four "inside" BNRO faculty and one "outside" faculty. This committee will conduct the qualifying exam and provide guidance during dissertation research. The chair of the committee will serve as the principal advisor. Students should consult extensively with each committee member regarding subjects to be covered in the exam.

Choosing a committee is an important matter. Ideally, you will develop a close relationship with these faculty that will be of mutual benefit not only during your student days but throughout your career. You will need many letters of reference between now and the day you retire. Consult with your prospective advisor and especially with post-qual students in the program regarding choice of committee members. It's extremely important that you have extensive, interactive discussions with your committee before (and after) the exam. Some faculty will give you very explicit hints as to what they'll ask, if not the actual question. Others won't, and most are somewhere in-between. While it may be nice to know the question ahead of time, bear in mind that this foreknowledge may mean that higher standards will be applied in grading.

b. Part A of the written exam:

This must be finished **before** the end of the 4th semester. The advisor will obtain one question from each of the four inside faculty. The outside member does not have to submit a question but may if he or she chooses. The advisor should approve the questions and then e-mail to Linda Bazilian. All questions will be given to the student by Linda Bazilian. Answers will be due back to

Linda within 4 weeks (5 weeks if the outside member submits a question). The purpose of this long period is to allow time for students' other activities, which they are strongly advised not to suspend. Any reference or source material can be used. Students can ask for clarification from the faculty member who submitted the question, but may not discuss it with anyone else. Each answer should be about 5 single spaced pages in length.

Remember two things: a) the vast majority of you will pass and b) you are here to do research, not take exams.

Finally, in order to prevent plagiarism, you are required to read the "Guide to Avoiding Plagiarism" found on this webpage: http://www.usc.edu/student-affairs/student-conduct/ug_plag.htm. When you turn in your completed exam to Linda Bazilian, you must also provide a signed statement that you have read and understand this guide and that you will not engage in plagiarism. This statement is included in the "Forms" section of this manual. Besides this statement, you can learn about plagiarism and other ethical matters in science in the Course "Neuroscience Ethics and Professionalization (NEUR 538)."

c. Guidelines for questions for Part A of the written exam:

Faculty should prepare questions with the student's research interests in mind, and in the light of previous discussions with the student. Three suggested formats are: a) write a brief review of a specific topic; b) summarize, critically evaluate, and synthesize a large body of knowledge; c) compose an annotated course outline that conveys the essence of a specific topic in a limited number of lectures.

In the course of preparatory discussions with your committee members, find out what the format of the questions will be. Also, try to get a sense of each member's idea of a good answer.

d. Grading Part A of the written exam:

Each faculty member will grade his/her question on a scale of 1.0 – 5.0 using 0.5 steps if necessary (1.0 as poor and 5.0 as exceptional). A mean score of 3.3 or above is passing; below 3.0 is failing. Cases where the mean is between 3.0 and 3.3 or where two or more questions are graded below 3.0 must be considered by the full committee. More than one negative vote of the committee will result in failure.

e. Part B of the written exam:

You should complete part B of the written exam in conjunction with the oral exam before the end of your 5th semester. The second half of the written exam is a research proposal preferably in the format of a common federal funding source, e.g., an NIH NRSA pre/post doctoral fellowship, NIH RO1 regular research grant, or NSF grant. The choice will be made by the advisor. The subject will be the student's actual dissertation project. The final draft must be given to the committee no later than 2 weeks before the oral exam. This proposal must include research

results obtained by the student. These pilot data should accomplish at least one of the following goals: demonstrate some familiarity with techniques to be used, establish the validity of underlying hypotheses, or justify the experimental design. Note that it may not be necessary to obtain positive results to meet these goals.

The purpose of part B is to get you started on the literature and laboratory research of your dissertation project in a serious way. Also, we want you to experience the “joys” of grant writing, since you’ll be doing the real thing in a few short years. Be realistic about your writing ability and schedule this appropriately. Students who anticipate some difficulty in writing should start early. The ideas and research results in the proposal should be yours alone, but it would be a good idea to have other students and postdocs in the lab review drafts of the proposal before submission.

f. Oral examination:

This must be completed **before** the end of the 5th semester. The exam will consist of a critical defense of the written proposal, so students should expect questions that relate to anything in the proposal. The oral exam may also be used to tell whether weaknesses that were identified in the written exam have been corrected.

The most important single thing you can do to prepare for this is to arrange a mock oral exam a week or so before the real thing. The mock exam should be given by post-quals students or postdocs in your lab or in labs with related interests. Second, don’t worry about saying something stupid or not remembering something that you really know. Nobody answers every question perfectly. Once you pass, and most of you will, forget about how you did.

It may be useful to list a few of the common types of questions asked about proposals during oral exams. A partial list would be: specific details of experimental design, the scientific or technical basis of methods used, the global significance or health-relatedness of the project, relation of the project to other work in the field, your knowledge of the literature, and your ability to synthesize and summarize ideas. In preparing for the exam, bear in mind that this is a unique chance to get five faculty members together to give you constructive feedback, and you should think through how to optimize what you can learn from this experience.

g. Scheduling the qualifying exams:

The times given above are deadlines, i.e., the latest times by which the requirements must be satisfied. It may be preferable to move the entire process up by one semester. Faculty should identify students that would benefit from an accelerated exam schedule. One important detail to remember: whenever you decide to take the oral examination, **you must file with the Graduate School the Request To Take The Qualifying Examination in the semester before the scheduled exam** (see also *Qualifying Examination Procedures* on page 27).

10. Annual Meeting with Dissertation Guidance Committee

All post-quals students must meet with their dissertation committee at least once a year. Many faculty prefer that such meetings be scheduled (by the student) for a time immediately after an annual oral presentation. That way, your committee members will be up to date on latest findings and problems, and be best prepared to offer advice. Be sure to pick an oral presentation time and a meeting time that all your committee members can attend. Ideally, all of your committee members should attend. If that is not possible, schedule your presentation anyway and meet afterwards with the absent committee member at the earliest possible time.

All students must have the committee members sign a form annually, confirming the meeting (please fill out and print the form (found in the forms section, pg. 51) and submit the form to Beatriz Gil).

11. Some Advice on Writing the Dissertation

The following is a general discussion of the approach one should take when writing the dissertation. There are two main messages. First, each of your dissertation chapters should be written in the format of a scientific paper suitable for publication in a prestigious journal. (The course “Neuroscience Ethics and Professionalization” – NEUR 538 – covers scientific writing.). If you have already published some of the work, which we hope will be the case, you can modify the text and figures according to established guidelines for the dissertation. Second, be sure that every important step is approved by your advisor and committee in advance.

a. Before you start writing

Decide on your name. It is best to use exactly the same name throughout your career. How should your name appear? If you are married, or plan to be, will you change or hyphenate your publishing name?

Practice your writing and start early. Get practice writing progress reports and the like. Find peers who are willing to read and comment on early drafts. Do the same for them. Mutual editing of this sort may be among your most valuable professional relationships.

Discuss everything with your advisor. Come to agreement on the nature and scope of your dissertation. How many chapters will there be? Which data will be included? If certain data are not to be included, understand your rights to co-authorship of the eventual publications. Learn your rights regarding intellectual property (see Section K, below).

Discuss everything with your guidance committee. Committee members, along with your advisor, will have to approve the dissertation eventually. You may as well get them involved and committed early on. This could save you a lot of trouble. Their support may be valuable in cases of conflict with your advisor.

b. While you are writing

For unpublished data, write your chapters as journal articles. Be prepared to re-format the text to conform to the University's dissertation formatting guidelines. Feed drafts of the papers to your advisor and committee members. Since they are separate papers, each chapter should be fairly self-contained. However, there may be detailed experimental results, or simulation data, that would unduly lengthen the paper. Consider including them in Appendices to your dissertation. Moreover, the journal may accept them for electronic-only publication as Supplemental Materials. Submit the articles individually to your committee members for their preliminary approval. As a courtesy, give them plenty of time to read and respond. This may save you much aggravation later.

Don't offend anyone. Think about your dedication and acknowledgements well in advance. Don't leave out anyone important. Be tactful. A vitriolic attack on the published work of others is seldom a good idea.

Your dissertation should be coherent. To give the dissertation a coherence plan on writing an introductory chapter format. This may be a literature review, a presentation of background work done by others, etc. A concluding chapter summarizing and discussing the significance of your work is also expected..

c. After you finish writing

Pass out (signed) copies of your dissertation. As a courtesy, make copies of your dissertation for your advisor and one or more key members of your committee. Consider copies for spouse, parents, significant others, etc.

Keep copies of manuscripts submitted for publication. If reprints don't arrive in time, you will need them for applications for fellowships, grants and jobs. (Though, these days, a PDF may be more acceptable than a paper reprint.)

Decide what to do with your data. Since s/he paid the bills and is most likely to continue your work, your advisor will usually want to keep your original data and research materials. You should take copies of everything that can be copied to protect your rights, to continue your work, and for convenience in revising papers for publication. These arrangements are often negotiable, however, so discuss the matter with your advisor.

Decide how to revise papers. Only rarely do journals accept papers for publication without requiring some revision. What will be the procedure for revising papers once you leave the lab? Who will be responsible for the first draft of any changes? How can it be insured that all authors will get to approve the final version?

Who will follow up on your work? This is a very important and sometimes difficult issue. If your research is to be continued, who will have the right to do it? Will it be you, your advisor, or some

other worker in the advisor's lab? It is very important that you clarify this issue *before* you leave the lab. When you set out on your own, the last thing you want to do is be on bad terms or in competition with your former advisor's lab.

SOME ETHICAL CONCERNS

The close relationship between graduate student and advisor is governed by many well-defined rights, responsibilities, and expectations. Ideally, this code of ethics helps insure that your time in graduate school will be productive, satisfying, and rewarding. In less than ideal situations, it may be necessary to invoke these standards to insure that your rights as a student are not violated. IT IS EXTREMELY IMPORTANT THAT EACH STUDENT BE AWARE OF HIS/HER RIGHTS, RESPONSIBILITIES, AND WHAT IS EXPECTED OF THEM. The course "Neuroscience Ethics and Professionalization" - NEUR 538 - covers these rights, responsibilities and expectations. In addition, the matters are discussed in two excellent booklets. These are:

1. SCampus.

This USC publication is a good source of information about women's issues, basic rights and responsibilities of students, academic integrity, review and appeals procedures, procedures for disputing grades, sexual harassment, and other issues. You can view this guidebook online, <http://www.usc.edu/dept/publications/SCAMPUS/> or pick up a bound copy of SCampus from Topping Student Center (TSC building) located on UPC.

2. On Being a Scientist

This outstanding brochure from the National Academy of Sciences covers three major topics: the nature of scientific research, social mechanisms in science, and the role of scientists in society. Of particular interest in the present context is the second topic, which deals with the peer review process, replication of observations, the nature of scientific progress, human error, fraud, plagiarism, allocation of credit for research results, and special problems associated with collaborative research. There is also a brief but excellent annotated bibliography. You can read it on-line for free or order copies at the following URL: <http://www.nap.edu/catalog/4917.html>

IV. TIMELINE TO DEGREE

	Fall Semester	Spring Semester
1 st Year	<p>(1st Semester)</p> <p>Required</p> <ul style="list-style-type: none"> ▪ Neur 524 (Neuroscience survey) ▪ NEUR 539 - 1 Unit (Neurolunch) ▪ BISC 790 - 2-8 Units (lab rotations) <p>Suggested (choose 1-2)</p> <ul style="list-style-type: none"> ▪ BISC 421 (Neurobiology) ▪ BIC 462 (Seminar in Neurobiology) ▪ Neur 532 (Systems and Behavioral Neurobiology) ▪ INTD 531 (Cell Biology; KSOM)PM 510L (Principles in Biostatistics) @HSC ▪ PSYC 501 Statistics in Psychological Research 	<p>(2nd Semester)</p> <p>Required</p> <ul style="list-style-type: none"> ▪ NEUR 525- 4 units (Advanced Neurosciences) ▪ NEUR 539 - 1 Unit (Neurolunch) ▪ BISC 790 - 2-8 Units (lab rotations) ▪ <p>Suggested (choose 1-2)</p> <ul style="list-style-type: none"> ▪ BISC 424 Brain Architecture (Not offered every year) ▪ BISC 426 Developmental Neurobiology (offered alternate years, next class 2012) ▪ BISC 462 Seminar in Neurobiology. (Offered periodically in the Spring). ▪ BISC 502B (Molecular Genetics and Biochemistry) ▪ BISC 521 Hearing and Communication in Neuroscience ▪ BISC 544 Advanced Reading in Molecular Biology ▪ NEUR 541 (Neurobiology of Disease) @HSC ▪ PM 510L Principles in Biostatistics @HSC ▪ PSYC 501 Statistics in Psychological Research
2 nd Year	<p>(3rd Semester)</p> <ul style="list-style-type: none"> ▪ Continue elective coursework (1 class) ▪ NEUR 539 - 1 Unit ▪ BISC 790 - 4-8 Units ▪ Establish Qualifying Exam Committee 	<p>(4th Semester)</p> <ul style="list-style-type: none"> ▪ Continue elective coursework (1 class) ▪ NEUR 539 - 1 Unit ▪ BISC 790 - 4-8 Units ▪ Complete Part A of Written Qual Exam

<p>3rd Year</p>	<p>(5th Semester)</p> <ul style="list-style-type: none"> ▪ BISC 790 - 4-8 units ▪ Complete Part B of Qual Exam 	<p>(6th Semester)</p> <ul style="list-style-type: none"> ▪ BISC 790 - 4-8 units
<p>4th Year & Beyond</p>	<ul style="list-style-type: none"> ▪ BISC 790 (6 Units) or BISC 794 (2 Units) ▪ Complete 24 units of coursework and a total of 60 units ▪ Complete dissertation ▪ Oral defense 	
<p>When you are ready for graduation, you must provide Beatriz Gil with your Dissertation Defense info for postings, recordings and announcements.</p> <p>You must also ensure that your thesis is uploaded by the deadline and make an appointment with Linda Bazilian for finalization of paperwork submission and information after dissertation defense.</p>		

Qualifying Examination Procedures

All official information and forms can be found at:

http://www.usc.edu/schools/GraduateSchool/current_guidelines_forms_03.html

1. Appointment of Committee

Ph.D. Guidance Committee: The Guidance Committee should be established within the Department at least two semesters prior to taking the Qualifying Examination. List each member of the proposed committee and include original signatures. A minimum of five tenured or tenure track USC faculty, three of whom must be from the home department, at least one of whom must be tenured, and an Outside Member* from a different Ph.D. granting department at USC, is required.

Choose your committee in consultation with your advisor. For BNRO, the home department is biological Sciences. The outside member can be from KSOM, Chemistry, Sabab, House etc. Download the form from the Graduate School website and return to Linda Bazilian. Submit the form at least 1 semester prior to your written exam to obtain approval of your committee.

“By the end of the third semester, students should choose a committee consisting of four “inside” BNRO faculty and one “outside” faculty.” See page 27

2. Request To Take the Ph.D. Qualifying Examination (written qual)

The form "Request to Take Qualifying Examination" should be completed at least 30 days before start of the examination. Requirements for the Qualifying Examination are: a minimum of 24 units in residence, a GPA of at least 3.0, and a Guidance Committee approved and on record. Request that questions for your written examination be forwarded to the chair of your committee (your advisor). The 4 INSIDE committee members typically provide questions although outside member may contribute a question. Your advisor will review the questions and forward them to Linda Bazilian for administration of the exam. You will pick up questions from Linda Bazilian and return to Linda in the allotted time.

a. In the semester BEFORE you plan to take the ORAL portion of the qualifying examination, complete the “Request to Take Qualifying Examination Form.” You may not change your committee between the written and oral examination.

b. One week BEFORE you plan to take your oral portion of the examination, check with Beatriz Gil to see that the “Report on Ph.D. Qualifying Examination” form is in your student file (in HNB 120). If it is NOT there, contact Linda Bazilian immediately.

c. Have your advisor pick up your student file on the day of your oral examination. At the end of your examination, have the chair of your committee indicate that you passed (I’m making an assumption here), have ALL committee members sign the form, have your advisor return your file with the signed form to Beatriz Gil. You **cannot** have access to that form until it is completed.

d. Sometime shortly after you have completed the qualifying examination, you will be able to review your degree progress on OASIS. When you review your report, check to see if there are any deficiencies or problems. Contact Linda Bazilian if there are any problems or if you have questions.

e. If you decide to postpone your DEGREE DATE, you MUST complete a “Change of Information Card” (from Degree Progress). You should do this as soon as you know you are not going to graduate in the semester originally planned.

IMPORTANT NOTE: You MUST complete a “Change of Committee Form” each time you change members on your committee. Forms are available on the Graduate School website.

V. DIRECTORIES

BNRO Faculty (research active, tenure track)

All BNRO faculty appear on <http://college.usc.edu/bisc/neurobiology/faculty/>, or <http://neurobiology.usc.edu/research/> with contact information and material on research interests.

Michael Arbib, Ph.D.

University Professor, Fletcher Jones Professor of Computer Science, and Professor of Biological Sciences, Biomedical Engineering, Electrical Engineering, Neuroscience and Psychology.

Research interests: Computational and cognitive neuroscience, Mirror neurons and action recognition, Brain mechanisms of language and their evolution, Epistemology, Neural networks, Simulation, Schema theory, Neuroinformatics

Research groups: Computational. Behavioral & Systems. Human Brain Project.

arbib@usc.edu

HNB 3 MC: 2520

213-740-9220

Donald Arnold, Ph.D.

Associate Professor (Biological Sciences, Molecular Biology section)

Research interests: Ion channel, Localization, Neuron, Confocal microscopy

Research groups: Cell & Molecular

darnold@usc.edu

RRI 204B MC: 2910

213-821-1266

Michel Baudry, Ph.D.

Professor (Biological Sciences, Neurobiology & Biomedical Engineering)

Research interests: Plasticity, Neurodegeneration, Glutamate receptors, Oxygen free radicals, Neuron/silicon interface, Estrogen

Research groups: Cell & Molecular. Human Brain Project

baudry@usc.edu

HNB 534 MC: 2520

213-740-9188

Sarah Bottjer, Ph.D.

Professor (Neurobiology, Biological Sciences)

Research interests: The role of experience in activity-dependent neural & behavioral plasticity during sensitive periods of development, developmental changes in synaptic plasticity and neural circuit communication as a basis for learning and memory applications: pathologies of human speech perception & production; diseases of neural development including autism and fragile X; neurodegeneration

Research groups: Behavioral & Systems, Cell & Molecular, Cognitive

bottjer@usc.edu

HNB 218 MC: 2520

213-740-9183

Samantha Butler, Ph.D.

Assistant Professor (Neurobiology, Biological Sciences)

Research interests: Characterization of the signaling pathway(s) that mediates the diverse activities of the BMPs, Integration of sequential guidance cues by growth cones, Use of embryonic stem cells to re-establish dorsal neurons in the spinal cord

Research groups: Cell & Molecular

butlersj@usc.edu

HNB 201 MC: 2520

213-821-1161

Tansu Celikel, Ph.D.

Assistant Professor (Neurobiology, Biological Sciences)

Research Interests: Shaping sensory representations by learning, Synaptic mechanisms of learning induced changes in sensory homunculus, Neural circuits responsible for cortical map plasticity.

Research groups: Cell & Molecular

celikel@usc.edu

HNB 503 MC:2520

213-740-3461

Dion Dickman, Ph.D. (Starting in 2012)

Assistant Professor (Neurobiology, Biological Sciences)

Research Interests: homeostatic control of synaptic function, and in particular the molecular mechanisms that monitor, signal, and execute changes in excitability and function. Such mechanisms can work on a general level, across many synapses, or take place with synapse-specific changes. I am using a combination of genetics, electrophysiology, and imaging approaches to study these processes.

dickman@usc.edu

Caleb Finch, Ph.D.

William F. Kieschnick Professor in the Neurobiology of Aging, Leonard Davis School of Gerontology, Professor of Molecular & Computational Biology, Neurobiology, and Neurological Sciences, Director, USC Alzheimer Disease Research Center

Research interests: Brain, Aging, Inflammation, Demography, Evolution, Estrogen, Alzheimer

Research groups: Aging, Cell & Molecular

cefinch@usc.edu

GER 336 MC: 0191

213-740-1758

Judith Hirsch, Ph.D.

Associate Professor (Biological Sciences)

Research interests: Visual system

Research groups: Behavioral & Systems

jhirsch@usc.edu

HNB 328 MC: 2520

213-821-2210

Chien-Ping Ko, Ph.D.

Professor, Department of Biological Sciences

Research interests: Cellular and molecular mechanisms of synapse-glia interactions, particularly the role of Schwann cells in synapse function, formation and maintenance of the neuromuscular junction. Cellular and molecular mechanisms of the pathogenesis of amyotrophic lateral sclerosis (ALS) and spinal muscular atrophy (SMA). cko@college.usc.edu

HNB 209 MC: 2520

213-740-9182

Emily Liman, Ph.D.

Associate Professor (Biological Sciences, Neurobiology section & Molecular Biology Section)

Research interests: Taste transduction; we use molecular and electrophysiological approaches to understand how taste stimuli are detected and transduced by primary sensory neurons in the tongue. Pheromone detection; studies of pheromone detection include evolutionary analysis of components of pheromone detection and cloning and functional analysis of proteins involved in pheromone detection. TRPion channel regulation: we study second messenger regulation of diverse members of this newly identified family of ion channels to understand their contribution to sensory physiology.

Research groups: Cell & Molecular

liman@usc.edu

HNB 301 MC: 2520

213-821-1454

David McKemy, Ph.D.

Associate Professor Neurobiology, Biological Sciences)

Research interests: The molecular basis for the sensations of touch and pain. Cellular mechanisms mediating sensitization after injury, or during disease. Genetic basis of sensory signaling.

Research groups: Cell & Molecular

mckemy@usc.edu

HNB 228 A MC: 2520

213-821-5724

Richard Simerly, Ph.D.

Professor, Pediatrics, Keck School of Medicine (Neurobiology, Biological Sciences)

Research interests: Axon targeting in limbic and hypothalamic neural pathways. Leptin receptor signaling in developing hypothalamic circuitry. Development of sexually dimorphic forebrain regions

rsimerly@chla.usc.edu

CHLA Mail Stop #135

323-644-8608

Larry Swanson, Ph.D.

Milo Don and Lucille Appleman Professor of Biological Sciences

Research interests: Hunger and thirst, limbic system, motivation, structural neuroscience

Research groups: Behavioral & Systems. USC Brain Project

lswanon@usc.edu

HNB 428 MC: 2520,

213-740-5892

Alan Watts, D.Phil.

Professor (Biological Sciences, Neurobiology) Adjunct Professor of Physiology & Biophysics. Director of Neuroscience Research Institute.

Research interests: Systems neuroscience. Neural control of metabolism. Ingestive behaviors

Research groups: Behavioral & Systems. Cell & Molecular

watts@usc.edu

HNB 416 MC: 2520

213-740-1497

NEW BNRO GRADUATE STUDENTS - FALL, 2011

<i>Ramsay Brown</i>	ramsaybr@usc.edu
<i>Ulas Ciftcioglu</i>	ciftciog@usc.edu
<i>Janna Mahoney</i>	jlmahone@usc.edu
<i>Wanlin Guo</i>	wanlingu@usc.edu
<i>Yu-Hsiang Tu</i>	yuhsiant@usc.edu

CURRENT BNRO GRADUATE STUDENTS-

2nd year students-Fall 2010

<i>Madeline Andrews</i>	mgandrew@usc.edu
<i>Vesna Gamez-Djokic</i>	gamezdjo@usc.edu
<i>Leigh Komperda</i>	komperda@usc.edu
<i>Erika Lippoldt</i>	lippoldt@usc.edu
<i>Supraja Varadajaran</i>	svaradar@usc.edu

3rd year students-Fall 2009

<i>Jennifer Park</i>	parkji@usc.edu
<i>Vandana Suresh</i>	vandanas@usc.edu
<i>Wenlei Ye</i>	wenleiy@usc.edu

VI. LA LIFE

HOUSING

On Campus:

The USC Student Housing Office (213-740-2546) is in Parking Structure X.

Off-Campus:

Talk to fellow graduate students for the best advice on this topic. You might also find someone you would want to room with in this way.

The major Los Angeles newspaper, *Los Angeles Times*, as well as smaller community newspapers (i.e., *Wilshire Press* in the Wilshire District, *Santa Monica Evening Outlook* in the Santa Monica-Venice area, *Daily Breeze* in the Redondo-Hermosa-Manhattan Beach area, or the *Star News* in the Pasadena area) *Northeast Newspaper*, in the Eaglerock, El Sereno, East Los Angeles area, have listings of apartments and houses for rent. You can check listings in the student newspaper at USC, the *Daily Trojan*. Some students have also had success with the “Apartments for Rent” listings published weekly and available in stacks outside USC-Commons.

Non-University housing near the USC campus is limited and therefore fills up early. The area north of campus is known as “North University Park,” and is generally considered to be a good place to live. Because the area is small, availability is limited and landlords are able to charge more, so it can be difficult to find a bargain. However, there are a number of older places with “character” that are not too expensive and entirely livable. These must be sought out early, but try anyway. You might be lucky. One advantage of living in this area is that you can easily walk or bike to campus, which also saves on parking.

Farther from campus there are several areas where graduate students have been able to find good housing in nice neighborhoods. Of these areas, the one closest to USC is the Wilshire District. Located about 2 ½ miles north of USC, the Wilshire District has many nice apartments at reasonable rates. The Wilshire District, roughly defined, is bounded by Wilshire Blvd to the South, Melrose Avenue to the North, Vermont Avenue to the East, and Western Avenue to the West. The commute between the Wilshire District and USC can be made by MTA subway-Red Line (7th Street/Figueroa-downtown Los Angeles-Dash Shuttle Line F by USC will take you directly to the MTA subway on 7th Street, (15 minutes), bus (15-20 minutes), bicycle (15-20 minutes) or car (10 minutes).

If you'd like to live near the beach your best bet is probably the Venice-Santa Monica-Culver City area. Many graduate students have been able to find nice, reasonably priced apartments in this area. Generally speaking, rents in this area decrease as the distance from the beach increases. The rents in Culver City, for example, tend to be lower than they are in Venice. It might be a good idea to seek the advice of someone who is familiar with the area so you don't unwittingly move into a rough neighborhood. A large number of students from both USC and UCLA live in the Venice-Santa Monica-Culver City area, and, as a result, the social atmosphere is quite congenial. The

commute to USC from this area is about 20-40 minutes by car. Since so many USC students live in this area, car pools can be established.

Some graduate students live in the Eagle Rock-Pasadena area. Eagle Rock has low rents, but it is not the greatest neighborhood, and therefore is not recommended for people living alone (the same comment applies to the local area just off campus). In Pasadena the best place to look for an apartment is at the southern end of town and in the city of South Pasadena. This is a good neighborhood in which many students live. The area near Cal Tech is especially nice, but expensive. Another good place to look is in Monterey Park, an area south of Pasadena and east of campus. A fair number of USC medical and grad students live here. The commute by car from Eagle Rock, Pasadena or Monterey Park to USC is approximately 30 minutes, depending on traffic conditions. Another area that is clean and close to USC is Alhambra; it is near the South Pasadena area; rents are reasonable to expensive, and approximately 10-12 miles from the campus.

The areas discussed herein have been included only because present graduate students have found them to be good places to live while attending USC. Obviously there are many other parts of Los Angeles that have not been discussed where you may be able to find excellent housing.

TRANSPORTATION AND PARKING

The transportation system in Los Angeles is called the Metropolitan Transportation Authority (MTA). The phone number for MTA information is 1.800.COMMUTE (266.6883). There is excellent express bus service from several cities into the downtown area. Some routes include stops right at USC. You can usually get between any two places in the L.A. area by bus, but one or two transfers may be required. For information about bus schedules and current fares, you can go to <http://www.metro.net/>

A new rail transit system has been installed in Los Angeles. The *Blue Line* runs between Long Beach and L.A.; the *Red Line* runs from the Union Station in downtown L.A. to a portion of what is known as the "Wilshire Corridor" to as far as the Hollywood and Vine area, as well as Universal Studios; and the *Gold Line* runs from Pasadena to Union Station. Most recently the new rail transit system has been extended to Transportation Services as well.

In addition, LADOT has a Dash Line that will take you from USC-downtown Los Angeles and back. They run from 6:30 A.M. to 6:30 P.M., every 15 minutes. Dash stops are all around the campus: Jefferson/Figueroa, Figueroa/Exposition, Exposition/Trousdale Pkwy., Exposition/Watt Way, Exposition/Vermont, Vermont/37th, Vermont/36th, Vermont/35th, Jefferson/McClintock, Jefferson/Hoover, Jefferson/Figueroa to downtown Los Angeles. For information about the LADOT and Dash Lines, you can go to <http://www.ladottransit.com/> or call 1-800-COMMUTE.

If you live close to campus you may want to commute on your bicycle. Keep in mind, however, that the traffic in stolen bikes near USC is very brisk, so take precautions. Don't park your bike outside for any length of time. Keep it in your apartment and, while you are at school, keep it in your office if it's an expensive bike. Whenever you park it outside, lock it securely. Bicycles must be

licensed –see procedures in the current issue of *SCampus*. Invest in a strong lock and helmet, and watch out for cars!

USC operates both a Tram Service and an Escort Service. The tram service (<http://transnet.usc.edu/transit/routes.aspx>) provides transportation to the housing areas off campus and to campus parking lots Monday through Friday. It also provides convenient and frequent connection between the main USC campuses, UPC and USC, as well as Union Station. You can also call the Campus Cruiser Escort Service (<http://web-app.usc.edu/scampus/campus-cruiser/>) to transport you to locations within approximately one mile of the center of campus (including the off campus housing area). If you are working late at night in the lab, it is a good idea to call the campus cruiser escort service (213.740.4911) rather than walk to the parking structure alone. See *SCampus* for information and schedules.

If you commute by car you would be wise to invest in a USC Parking permit, which will entitle you to park in certain designated areas on campus. For current costs, you can go to http://transnet.usc.edu/guest_services/rates.aspx or call 213.740.3575 (x03575 when on campus). (The permit for residents allows access to more of the campus.) Permits are sold at the USC Trojan Transportation center, located at 620 West 35th Street PSX on the University Park Campus. Or, the Parking office may set up a booth in the center of campus during the first week of classes. There is some off-campus parking but it is scarce and not very safe. Regardless of where you park, on or off campus, you should always lock your car and make certain that you leave nothing of value (tape deck, books, clothes, tennis racquet, etc.) in a place where it can be seen from the outside of the car.

Central Los Angeles is generally known as an expensive area for car insurance. Many don't realize that there is quite a bit of variability in the cost of equivalent coverage from different companies. Do a fair amount of comparison-shopping.

Los Angeles County sponsors a service called "Commuter Computer" which is designed to help commuters form car pools. If you would like to car pool and are having trouble finding partners you can submit your name and commuting schedule to the "Commuter Computer", (213) 380-RIDE, and it will attempt to match you up with other people who have similar commuting needs. We also have an office on campus to help with carpooling needs located at 620 West 35th Street (PSX). Carpooling information can be found at http://transnet.usc.edu/public_transit/carpool.aspx (213.740.3575).

CULTURE AND RECREATION

Los Angeles has no shortage of cultural and recreational activities. There is something for everyone, from amusement parks (Disneyland, Magic Mountain, Knott's Berry Farm) to art museums (L.A. County, J. Paul Getty, Norton Simon, Museum of Contemporary Art (MOCA), and Huntington Library and Art Gallery); from classical music (Hollywood Bowl, the Music Center) to country and western (Palomino Club); from zoos (Los Angeles, San Diego) to aquariums (Sea World); and horse racing (Hollywood Park, Santa Anita) to pro baseball (Dodgers,

Angels), football and so on. The L.A. County Museum of Natural History, the L.A. County Museum of Science and Industry, and the California Afro-American Museum are just south of campus in Exposition Park. For a unique experience, visit the Page Museum and the La Brea Tar Pits next to the Los Angeles County Museum of Art on Wilshire, and the Museum of Tolerance, located in West Los Angeles, and do not forget to visit L.A.'s most recent and most spectacular museum, the Getty Center, overlooking Northwestern L.A. In many instances students are entitled to discounts, and student rush tickets to concerts, etc. can be a really great deal. You must have a student I/D/ with a current registration sticker. Here are a few ways to learn about what's going on: the *L.A. Reader* and the *L.A. Weekly* are free, and are usually available each Thursday afternoon in the lobby of Grace Ford Salvatori Hall, GFS (C-5, UPC map); also check the "Calendar" section of the Sunday *Los Angeles Times* and *Los Angeles Magazine*.

Recreational facilities in the Los Angeles area are outstanding. There are beaches, parks, golf courses and tennis courts. The mountains are an hour away where hiking is excellent and skiing sometimes good (although the season is usually short). Winter skiing is always good in the Sierra Nevada, about six hours away.

There's also plenty going on at USC, including plays, concerts, first-run movies, film retrospectives, and art shows. Most popular, however, are the athletic events, especially the football games. It may seem intellectually inappropriate to go nuts over football, but USC football games (particularly the UCLA and Notre Dame games) are exciting spectacles that you really should experience at least once. If you enjoy watching college athletics you ought to invest in a "Student Activity Book." These are available during registration week. The Student Activity Book is essentially a season ticket to opportunity to purchase a Rose Bowl ticket if USC is selected to play. The best ways to learn about the cultural and recreational goings-on at USC are the student newspaper, the *Daily Trojan*, available at kiosks around campus, and a booklet entitled *SCampus*.

Excellent athletic facilities for students can be found at the **Lyon Center** (next to the McDonald's Olympic Swim Stadium, B-4, Map #1). Entrance and basic facilities are free to students with current I.D. There are several tennis courts, handball and racquetball courts, weight room, and a track generally available for student use. Two new swimming pools, located on the NW corner of the campus, were built for diving and swimming events in the 1984 Olympic Games. Students can form teams to enter University intramural leagues in a number of sports (e.g., basketball, softball, coed water polo, coed volleyball). If you're interested in participating, watch for notices on bulletin boards in Hedco, Hancock, or Gerontology.

Catalina

USC maintains a research lab on Santa Catalina Island at Big Fisherman Cove near Two Harbors. You should see this lab at least once to explore research possibilities and experience the somewhat exotic locale. Catalina Express, a commercial carrier, operates regular boat service from San Pedro to Two Harbors most of the year. Please visit their website for more information: <http://www.catalinaexpress.com/>

BANKING AND SHOPPING

Banking (near USC)

At University Village there is one bank. Bank of America offers bankcards as well as checking and savings accounts. Automatic teller machines are available. NEVER GO ALONE TO AN AUTOMATIC TELLER MACHINE AFTER DARK. If you open a savings account with them, they will cash your personal checks. A particularly good way to meet your banking needs is the USC Federal Credit Union, which is on campus and offers good deals on checking and savings accounts (e.g., checking is free with an obligatory \$5 application fee and a \$25 minimum in a savings account). The Credit Union currently has three automatic tellers on campus. There are also automatic teller machines that accept a variety of cards in King Hall and the Commons, as well as a Bank of America ATM machine next to the entrance of the USC-Bookstore.

If you bank off campus, you wish to cash your personal checks, you can do so at the cashier's window on the second floor of King Hall for a ¢.25 charge [Limit: \$25.00 - students; \$100.00 - USC T.A. or R.A. (must have a stamp on a student card)]. Checks can be cashed at the bookstore with a purchase.

Books

The University has an excellent bookstore, and graduate students with TAs or RAs are entitled to a 10% discount with their I.D. card. Another good store for books and supplies is "The Paper Clip", next to campus in the University Village (see below). They also give a 10% discount.

Supermarkets

The Superior Market, located in University Village, is the only supermarket near USC. The food, meat, and produce are usually acceptable. The market will cash personal checks if you have a California Driver's License. You can also send telegrams and mail packages at the market, as well as purchase money orders.

A new Ralph's Super market has just opened on Vermont Avenue, near Adams Blvd., at 2600 S. Vermont Ave. The market provides most check cashing services, money orders, etc. with proper identification.

Janitorial supplies, food in large quantities discount rate and other selected items can be found at the new Smart and Final located at 3607 South Vermont Avenue.

Elsewhere in Los Angeles you're better off with one of the large chain supermarkets. In most neighborhoods, there are many to choose from, including Alpha Beta, Lucky's, Ralphs, Vivas, Vons, Food4-Less.

Department Stores

Contact other graduate students for ideas where to shop. Downtown Los Angeles "Dash" shuttle bus (Line F) is available to take you to and from USC to the downtown area to shop as well. Stops are along Vermont Ave. and Exposition, Vermont and 36th St., Vermont near Jefferson, Jefferson

and McClintock, Jefferson and Hoover, as well as return stops to USC along Figueroa and around the USC campus. Cost is ¢.25 a ride, and transfers are free, if you ask for one.

University Village

University Village is the only shopping center near USC. In addition to the 32nd Street Market and the banks listed above, it also has a variety of shops that cater to the needs and desires of students - fast food, books, stationary, clothes, sporting goods, photocopy, records, etc. There is also a movie theater.

USC-Carlson Wagonlit International Travel Agency

USC provides a Travel Agency for all your needs. Student fares are available year-round, as well as fares for your family's needs. For student travel contact: (213) 743-4325; fax number is (213) 743-4342. Hours are 8:00 A.M. - 5:30 P.M., Monday through Friday. En route and after hour emergency phone: (800) 570-8699 (ID Code: U637).

OTHER IMPORTANT LOCATIONS

Post Office

3585 S. Vermont Ave (213.731.8295) - just across the street from campus. There is also a mail stop in Parking Structure X (PSX) that provides a limited number of postal services.

California Department of Motor Vehicles (DMV)

3615 S. Hope St. (213.744.2000) - near the 110 freeway, 2 blocks east of campus. There are numerous other offices scattered across the city. Just look in the phone book for the one nearest to you.

VII. FORMS

BNRO LABORATORY ROTATION CONTRACT

Instructions: Complete everything except summary of research/faculty comments at the beginning of your rotation and return the form with your signature (and the faculty member's signature) to Beatriz Gil. Upon completion of the rotation, you will receive this form to complete the summary and for the faculty member to add his/her comments.

Name: _____ ID#: _____

Lab Rotation # _____ Dates: _____ through _____

Lab Phone # (where student can be reached) _____

Research Project: _____

Student Signature: _____ Date: _____

Faculty Name: _____

Faculty Signature: _____ Date: _____

IMPORTANT QUESTION to FACULTY: If you accept this student into your lab, how will the student be supported during her/his PhD studies?

BNRO GRADUATE PROGRAM ROTATION SUMMARY

To be completed after rotation.

Name: _____ ID#: _____

Lab Rotation # _____ Dates: _____ through _____

Research Project: _____

Summary of Research Project:
(Attach additional pages if needed)

Student Signature: _____ Date: _____

Faculty Assessment/Comments:

Faculty Name: _____

Faculty Signature: _____ Date: _____

BNRO GUIDANCE COMMITTEE MEMBER FORM (Part 1)

Student Name: _____

ID#: _____

Date: _____

Guidance Committee:

(Chair)

(Outside Member)

BNRO GUIDANCE COMMITTEE MEMBER FORM (Part 2)

Student Name: _____

ID#: _____

Date: _____

This form certifies that the above named student has held their annual meeting with their following Guidance committee.

Guidance Committee:

(Chair)

(Outside Member)

PLAGIARISM PREVENTION AGREEMENT

I have thoroughly read and understand the “Guide to Avoiding Plagiarism” (http://www.usc.edu/student-affairs/student-conduct/ug_plag.htm). I certify that I have not plagiarized any portion of my written qualifying exam, nor will I engage in plagiarism at any point in my graduate studies at USC.

Name_____

Signature_____