STANFORD
MOLECULAR &
CELLULAR
PHYSIOLOGY

Graduate Student Handbook

2022-23

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Student Services Officer (stipend, tuition, health insurance payments, course work, grades, Ph.D. program policy, general student-related questions, postdoc administration, all postdoc-related questions, seminar series/retreat coordinator)

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    - Axel Brunger

MCP Faculty

The Department comprises 15 primary and jointly appointed faculty and 4 courtesy faculty

- Axel Brunger
- Steve Chu
- Liang Feng
- Chris Garcia
- Miriam Goodman
- Brian Kobilka
- Richard Lewis
- Daniel Madison
- Merritt Maduke
- Lucy O'Brien
- Georgios Skiniotis
- Thomas Südhof
- William Weis

2023 incoming new faculty

- Tino Pleiner
- Ruth Hüttenhain

Courtesy Appointments

- Ron Dror
- John Huguenard
- Richard Reimer
- Anthony Ricci

Link to current faculty and interests: http://med.stanford.edu/mcp/research.html

Program Overview

The Department of Molecular & Cellular Physiology offers a course of study leading to the Doctor of Philosophy (Ph.D.) degree. The program does not offer undergraduate (e.g., bachelor) degrees and does not offer a course of study intended to lead to a master's degree. The program of study is designed to prepare students for careers in research and allied fields. The major emphasis is training in research. Students work closely with a dissertation adviser and members of a research group on novel and important biological problems at the cellular and molecular level.

The Department maintains a series of events and policies to promote interaction among students, postdoctoral fellows, and faculty members, including a seminar series, an annual retreat, 'Science Fridays' (a biweekly scientific and social gathering), and access to all labs and facilities. In addition to offering students access to all faculty members, these arrangements encourage collaboration between groups and have fostered the development of many new technologies. Predoctoral training begins in the Autumn of each year and extends through all four (4) quarters of the academic year.

The faculty teaches physiology, cell biology, neuroscience, biophysics, and molecular biology, and advanced courses in specialized areas are also offered. The program of study for individual students is created in consultation with the adviser to best fulfill each student's educational goals. Some opportunities for students to gain direct teaching experience may be available within the Department's offered courses or the courses of other Departments.

Routine matters such as approval of particular courses in a student's program, the makeup of a qualifying examination committee, etc., can be approved by the DGS alone. For matters involving setting and implementing policy for the graduate program, **the Department has established a Graduate Program Committee, currently made up of Daniel Madison, Liang Feng, Richard Lewis, and Merritt Maduke, and including two senior student representatives enrolled as Ph.D. candidates in the MCP doctoral program (Sam Gumbin and Lucero Rogel).** The student representatives may attend the committee meetings except when, in the interests of privacy and confidentiality, the committee may be required to discuss an individual student. This committee, and ultimately the Department Chair, will be the Departmental authority on matters of Ph.D. program requirements, policy, curriculum, student performance, and other non-routine matters related to the program.

This guidebook may be taken as a guide but may not always be perfectly updated to reflect current policy since committee decisions may occur, and an update of the handbook may lag those decisions. The DGS will always make a good-faith effort to advise the student population when important updates occur and when the handbook is updated, but students with policy questions should always consult the DGS when questions of current policy arise. However, students should note that it is program policy that students are subject to the requirements as published in this handbook when they first register in the program (Autumn Quarter in year 1 of study). As requirements are updated, students may choose to follow the new requirements or remain with their original requirements.

Graduate Advising

Before a dissertation advisor is chosen, the Director of Graduate Studies (DGS: Rich Lewis) will be a student's program advisor and remains available for counseling and advice throughout the studentship. Upon joining a laboratory for dissertation research at the end of the first year of study, the head of that laboratory will become the student's primary faculty advisor and the student's first resource for advising. Students at the end of their first year and beyond should also use their qualifying or dissertation committee for advice on science matters. Students are encouraged to use any MCP faculty member as an advising resource on any issue at any stage of their studentship.
All students will have a minimum of two formal advisory meetings annually: one with their advisor to set plans and expectations for their scientific research and to review progress, and a meeting with the DGS to review academic progress. Students must also meet with their qualifying or dissertation committee at least annually pre-TGR and at least semi-annually when TGR.

The role of primary/dissertation faculty advisors includes:

- Serve as intellectual and professional mentors to their graduate students
- Provide knowledgeable support concerning academic and non-academic policies that pertain to graduate students
- Help to prepare students to be competitive in their chosen careers
- Maintain a high level of professionalism in the relationship
- Establish and collaboratively maintain expectations of the work and of the advisor/advisee relationship

Each faculty member may have their own approach to mentoring and developing their graduate students and post-doctoral trainees. However, faculty members are expected to meet routinely with and monitor their students' progress and actively facilitate their scientific growth.

Graduate students are also active partners in their education. Graduate students are expected to:

- Foster their own scientific and academic growth in collaboration with their primary advisor.
- Take primary responsibility for informing themselves about policies, requirements, and practices governing their financial support, degree and course requirements, research activities, and conflict resolution.
    - Monitor their progress relative to the milestones in this handbook and document this in the Graduate Student Tracking (GST) system.
    - Seek help when issues arise in meeting any of the milestones.
    - Be aware of and take advantage of Stanford resources to meet their own goals.
- Exercise high professional standards in all aspects of their work, including academic and social spheres.
- Seek advice from the DGS, the Chair, or others if they need further help or wish to change advisors.

Individual Development Plans (IDP) and Annual Meetings

The student's Individual Development Plan (IDP) and annual planning meeting with their advisor are intended to help the student:

- Take ownership of their training and professional development.
- Pause and reflect! Amidst daily research activities, it is easy to lose sight of longer-term goals.
- Think intentionally about the short-, mid-and long-term training and development goals.
- Identify and use resources to help the student achieve their goals.

- Have an open and direct dialogue with their mentor(s).
- Establish clear expectations/steps.

As of March 31, 2014, the Committee on Graduate Admissions and Policy (CGAP) has adopted a new policy requiring all Biosciences Ph.D. candidates and their mentors in the Schools of Medicine and H&S to create and discuss their Individual Development Plans (IDPs) on an annual basis. This annual IDP meeting is in addition to any required Committee Meetings (as noted above). Students and their advisors share responsibility for completing the IDP. The table below will assist you with key timelines for maintaining satisfactory compliance with these requirements.

Key Deadlines

Actions	First Year Students	All Other Students
Schedule an IDP meeting with your advisor	Within 30 days of joining your thesis lab	Before June 1
Download and complete the appropriate IDP form	Before your meeting	Before your meeting
Hold your annual IDP meeting with your advisor	Within 30 days of joining your thesis lab	August 1
Verify with Graduate Student Tracking (GST) that you and advisor met to discuss your IDP	Within 30 days of joining your thesis lab	August 1

Academic Requirements

Course Requirements

The graduate program in the department is highly oriented toward hands-on research, working within the group of the dissertation advisor, so the required coursework is modest. The course requirements for the program are as follows:

- **MCP 207: MCP Bootcamp (Aut)**
- **BIOS 200: Foundations in Experimental Biology (Aut)**
- **BIOS 217: Foundations of Statistics and Reproducible Research (Aut)**
- **MCP 208: Journal Club and Professional Development (first three years, (Win/Spr quarters)**
- **MCP 256: How Cells Work: Energetics, Compartments, and Coupling in Cell Biology (Spr)**
- **MCP 221: Advanced Cell Biology (Win)**
- **MED 255: The Responsible Conduct of Research**

- **Basic competency in molecular biology**
  This requirement can be met based on undergrad curriculum/research. If not met, then the Stanford undergrad course BIO 83 can be taken to meet the requirement.

- **Selected courses**
  Take the equivalent of two (2) courses from the following list, where mini-courses count as ½ course
  - BIOC 241 (Biological Macromolecules)
  - MCP 222 (Imaging: Biological Light Microscopy) or BIOPHYS 232 (Advanced Imaging Lab in Biophysics)
  - Minicourse BIOS 294 (Chemistry for Biologists and Others)
  - Minicourse BIOS 202 (Understanding Kinetics for Biologists and Biology)
  - Minicourse NEPR 204 (Neuroscience Molecular Core; requires instructor approval)
  - Minicourse NEPR 201 (Neuro-Cellular Core; requires instructor approval)

- **Advanced graduate courses or minicourses for a minimum of 6 units total.** These courses do not need to be MCP courses but must be in a relevant scientific topic and approved by the Director of Graduate Studies.

- **Attend MCP Seminar Series**
- **Attend MCP Annual Retreat**
- **Any additional courses required by your training grant or Qualifying Committee**
- **Service Requirement (see below)**

Students should plan to complete their required courses within the first two years of study. Exceptions will be made for cases where it was impossible to schedule courses because they were not offered within a student's first two years. Students may petition the DGS for variances in the specific courses required, and such petitions may be granted in special circumstances in cases where a student's progress is otherwise exemplary. The DGS may consult with the MCP Graduate Program Committee on these variances.

Students may, of course, choose to take more than the required number of courses as long as they remain within the maximum number of ten (10) allowed units/quarter and so long as the number of courses taken does not become excessive to the point where it interferes with satisfactory progress in

other aspects of the degree program. Students may no longer take classroom coursework for credit after attaining TGR status (after 135 units of coursework, usually in the spring of the 4th year of study), except as may be allowed by university policy.

MCP Service Opportunities

Description of Basic MCP Service expectations for MCP Graduate Students

Every scientist is expected to provide service to the profession. As a result, we expect all graduate students in the MCP program to participate in a service activity. Before graduation, you are expected to have performed a minimum of 40 hours, and you will be asked to document this before your 5th year in the program. Service ideas include:

- Outreach programs to the community regarding any STEM-related topic or program
  - SPLASH
  - FAST pairing with a high school student
  - Science is Elementary
  - Stanford Office of STEM research

- Internal School of Medicine (SOM) Service
  - Service with MCP seminarians or other Department groups
  - Biobuds
  - NSF GRFP grant writing mentoring; first-year mentoring (through SBSA)

Other service opportunities within the MCP Department are listed below. Service roles that require a significant annual investment of time are compensated.

MCP Service Roles	Purpose	Time of year	Duration	Role and Estimated Time Commitments	Intended Groups	Annual Compensation (Proposed)
Seminarians						
Seminarian Chair	To provide leadership with coordinating speakers for the seminar series	Year-round	1- to 2-year term	Leads 2-3 planning meetings and ensures coordination (2-3 hr/qtr)	Postdocs/grad students from each MCP lab, including courtesy labs	($500/yr)
Seminarian Lab Rep	To propose speakers for MCP seminar series	Year-round	1-year term	Participates in meetings (2-3/yr); Coordinates hosting of lab speaker	Postdocs/graduate students	$25 gift card or swag
Science Friday Chair	To provide leadership with coordinating lab speakers for Science Friday	Year-round (Selected in the summer)	1-year term	2 hr/mo (20 hr/yr)	Postdocs/graduate students	($500/yr)
Admissions						
Admissions Committee Member/student	Assist with the evaluation of applicants		1-2 years		2nd -3rd year MCP graduate students	($500/yr)

Rep Grad Committee	and interview targeted pool for MCP graduate admissions					
Student Admissions Leaders	Partners with SSO to host graduate applicants during admissions season	Feb/Mar			1st- 3rd year students	$1000 total
Diversity, Equity and Inclusion						
DEI Cabinet Member (9 members in 2021)	To provide leadership to foster inclusion and equitable practices and policies across the department	Year-round	2 year term, staggered	Monthly meetings with rotating leadership and coordination (2-4 hr/mo)	All groups in MCP as noted in the Mission statement	FY21: $300/yr for GS and PDs; spot bonus for staff
DEI Project Leader(s)	To develop, lead and communicate specific DEI program efforts designated by DEI Cabinet	As needed	1 year	Time driven by project. # leaders per project varies by project complexity and defined roles	Members of DEI Cabinet	FY21: $200/yr
Other:						
TA-ships	To gain teaching experience		Quarter to quarter		Graduate students	varies
Grad Student Outreach	MCP graduate students to participate in an already established outreach effort.		As needed		MCP Graduate Students; postdocs if interested	
MCP 1st-yr mentor	To mentor 1st year MCP students	1 yr	1 yr	Flexible	2+ year MCP graduate students	

Academic Progress Milestones

Following is a list of milestones that Ph.D. students are expected to complete and their corresponding deadlines. All forms and papers must be turned in to Schantae Wright, Student Services Officer, in Beckman B100A. The benchmarks completed in the times indicated in this table illustrate what constitutes success and sufficient progress in the MCP Ph.D. Program. Required courses must be taken for a letter grade, and the minimum passing grade for a required course is a B. In addition, University policy requires that graduate students maintain a minimum of a 3.0 grade-point average in all classes. If a student cannot meet one or more of these milestones, the student should schedule a meeting with the DGS to discuss potential routes of remediation.

First Year

Boot camp and orientation	September (week before classes start)
Department Scientific Meeting (Retreat)	September
First Year Advising with Director of Grad Studies	Before each rotation
Foundations Course (BIOS 200)	Autumn Quarter
Foundations of Statistics and Reproducible… (BIOS 217)	Autumn Quarter
Journal Club and Professional Development (MCP 208)	Winter/Spring Quarters
Lab rotation evaluation form	End of each rotation
Fellowship application (NSF GRFP, NDSEG)	NSF mid-October, NDSEG early December
Lab rotations/Thesis lab	**Finish rotations, join lab by end of Spring qtr**
Form a Qualifying Exam Committee	End of Summer Quarter
Meet with qualifying committee to discuss thesis project	End of Summer Quarter

First or Second Year Coursework

MCP 221 (Advanced Cell Biology)	Winter Quarter
MCP 256 (How Cells Work)	Alt years; next offered Spring Quarter (2024)
MCP 255 (Molecular Physiology of Membranes, minicourse)	Planned Spring Quarter (2025)

Select the equivalent of two full courses from the following, where mini-courses count as ½ course:

Full Courses

BIOC 241 (Biological Macromolecules)	Autumn Quarter (2023)
MCP 222 (Imaging: Biological Light Microscopy)	Winter Quarter (2024)
BIOPHYS 232 (Advanced Imaging Lab in Biophysics)	Spring Quarter (2023)

Minicourses

BIOS 294 (Chemistry for Biologists and Others)	Alt years: next offered 2023-2024
BIOS 202 (Understanding Kinetics for Biologists and Biology)	Autumn Quarter
NEPR 204: Neuroscience Molecular Core (with instructor approval)	Autumn Quarter
NEPR 201: Neuro-Cellular Core (with instructor approval)	Winter Quarter
Additional advanced graduate courses or minicourses (6 units)	see Bulletin for dates/times

Second Year

Department Scientific Meeting (Retreat)	Autumn Quarter
Dissertation Proposal Paper/Qual Exam	End of Autumn Quarter
Application for Candidacy form	End of Autumn Quarter
Journal Club and Professional Development (MCP 208)	Winter/Spring Quarters
Formation of Dissertation Committee	End of Winter Quarter
Meet with Dissertation Committee	End of Spring Quarter
The Responsible Conduct of Research (MED 255)	Spring Quarter
Grant Writers Academy (GWA)	Spring Quarter
Complete Required Coursework (except MCP 208)	End of Spring Quarter
Submit grant application (NRSA F31, NSF GRFP)**	Click links for dates
Dissertation Research	All 4 quarters
** NSF only if didn't apply in 1st year	1st-year application is encouraged

Third Year

Department Scientific Meeting (Retreat)	Autumn Quarter
Journal Club and Professional Development (MCP 208)	Winter/Spring Quarters
Annual Dissertation Committee Meeting	End of Autumn Quarter
Dissertation Research	All 4 quarters

Fourth Year

Department Scientific Meeting (Retreat)	Autumn Quarter

Request for TGR status form (135 units and all requirements met)	Spring Quarter
Reading committee form	With TGR form (Spring Quarter)
Annual Dissertation Committee Meeting	End of Autumn Quarter
Fifth Year	
Department Scientific Meeting (Retreat)	Autumn Quarter
Annual Dissertation Committee Meeting #1	End of Autumn Quarter
Annual Dissertation Committee Meeting #2	End of Spring Quarter
Dissertation Research	All 4 quarters, up to defense
Thesis Defense	End of Spring Quarter, year 6 or earlier
Draft of Dissertation (submit to Committee)	At least two weeks before the defense
University Orals Exam Form	At least two weeks before the defense

Special note about Medical Scientist Training Program (MSTP) students: MSTP students who wish to earn their Ph.D. in the MCP program must, upon entering the program, schedule a meeting with the DGS to discuss course requirements. It will be the general policy that MSTP students must fulfill the same requirements as all MCP Ph.D. students, but in recognition that MSTP students usually have taken extensive prior coursework in Medical School, the DGS may waive some specific MCP course requirements where there is significant overlap with prior Medical School course work. Such a waiver will be committed to a written form signed by the DGS. MSTP students in MCP are not required to do laboratory rotations but may elect to do so with consent of their MSTP advisor.

Courses offered in MCP:

Click here for current instructors, dates and times

MCP 207: MCP Bootcamp
Hands-on, week-long immersion in methods and concepts related to the physiology of cell signaling. Required of all first-year MCP students; other Ph.D. students may enroll with the consent of the instructor.

MCP 208: MCP Journal Club and Professional Development Series
This class will entail discussion of current research in Molecular and Cellular Physiology (Journal Club) and sessions devoted to career development. Enrolled learners will gain experience in designing and delivering professional oral presentations and writing accessible lay summaries of primary research. They will also receive guidance in how to give and receive critiques following a rubric. Learners will choose research papers following a theme to be determined collaboratively. Career and professional development class sessions will provide information on a variety of topics related to career development and strategies for navigating research environment in productive and healthy ways (see below). The class will meet 8 times per quarter, with 4 Journal Club and 4 Professional Development sessions per quarter. Journal Club sessions will consist of one member of the class giving an oral presentation on the topic of a current relevant research paper, followed by critique and discussion. Learners will prepare written critiques of these talks. The Professional Development session will consist of a series of lectures, discussions, or workshops designed to foster a better understanding of the practices and processes that are critical for navigating paths toward a research career, but which are not generally covered in a classroom setting. These sessions might include such topics as mentor/mentee relationships, authorship, navigating peer review, issues of diversity and respectful workplace, wellness, experiences Stanford alumni in their own career paths, and other topics, including those suggested by class participants. The class will be graded on participation and on the writing assignments, including critiques and lay summaries. The course will be required for MCP graduate students in their first 3 years of study, and open to all predoctoral graduate students. The broader membership of the MCP scientific

community will be encouraged to participate including postdocs (with permission of the course director).

MCP 221: Advanced Cell Biology (BIO 214, BIOC 224)
For Ph.D. students. Taught from the current literature on cell structure, function, and dynamics. Topics include complex cell phenomena such as cell division, apoptosis, signaling, compartmentalization, transport and trafficking, motility and adhesion, and differentiation. Weekly reading of current papers from the primary literature. Advanced undergraduates may participate with the permission of the Course Director.

MCP 222: Imaging: Biological Light Microscopy (BIO 152)
This intensive laboratory and discussion course will provide participants with the theoretical and practical knowledge to utilize emerging imaging technologies based on light microscopy. Topics include microscope optics, resolution limits, Köhler illumination, confocal fluorescence, two-photon, TIRF, FRET, photobleaching, super-resolution (SIM, STED, STORM/PALM), tissue clearing/CLARITY/light-sheet microscopy, and live-cell imaging. Applications include using fluorescent probes to analyze subcellular localization and live cell-translocation dynamics. We will be using a flipped classroom for the course in that students will watch iBiology lectures before class, and class time will be used for engaging in extensive discussion. Lab portion involves extensive in-class use of microscopes in the CSIF and NMS core microscopy facilities.

MCP 256: How Cells Work: Energetics, Compartments, and Coupling in Cell Biology (MCP 156)
Open to graduate and medical students, and advanced undergraduates. Dynamic aspects of cell behavior and function, including cellular energetics, homeostasis, heterogeneity of membranes, structure and function of organelles, solute and water transport, signaling and motility. Emphasis is on the principles of how coupling of molecular processes gives rise to essential functions at the cellular level. Mathematical models of cell function. Student presentations.

MCP 299: Directed Reading in Molecular and Cellular Physiology
Prerequisite: consent of instructor.

MCP 370: Medical Scholars Research
Provides an opportunity for student and faculty interaction, as well as academic credit and financial support, to medical students who undertake original research. Enrollment is limited to students with approved projects.

MCP 399: Graduate Research
Students undertake investigations sponsored by individual faculty members. Research fields include endocrinology, neuroendocrinology, and topics in molecular and cellular physiology. Prerequisite: consent of instructor.

MCP 801: TGR Project

MCP 802: TGR Dissertation

Laboratory Rotations

In addition to the course requirements detailed above, a student is expected to complete laboratory rotations during the first year. While students typically explore three rotations, a student may opt to do a greater number of shorter rotations, as long as the rotation process is completed by the end of Spring Quarter of the first academic year of study. The first rotation must be in a laboratory within the

Department, while subsequent rotations may be in any laboratory within the Stanford Biosciences Program. The first rotation should last 8 to 10 weeks, and each subsequent rotation shall last no longer than eight weeks. Shorter rotations are encouraged, as long as the total length of the rotations is between 20 and 26 weeks. MCP requires a lab rotation evaluation to be completed by a faculty member and student at the end of the rotation. Continuation of rotations beyond May 15 requires the approval of the Director of Graduate Studies. Additional rotations and/or time for rotations will be considered in special circumstances. However, in all cases students should plan to join a dissertation lab no later than the beginning of the Autumn Quarter of the second year.

External Fellowships

Students are strongly encouraged to apply for predoctoral fellowships during their graduate years, and the skills for grant application writing are developed in the BIOS 200 Foundations course. Fellowship applications to the National Science Foundation are available in October and are due in November of the first year in residence. You can apply *before* you begin your graduate studies *and* as an early graduate student. Students are also encouraged to apply for other outside fellowships, which can be found at the following link: https://financialaid.stanford.edu/grad/funding/outside.html.

The SOM Research Management Group maintains a list of fellowship opportunities at this link: https://med.stanford.edu/rmg/funding/fellowships.html. In the second year of study, students can apply for an NIH NRSA.

Qualifying Examination

All students in the program must pass a Qualifying Examination to advance to candidacy for the Ph.D. It is expected that students will take the qualifying examination by the end of the Autumn quarter in the second year of study. If a student believes they need additional time to schedule and take their exam, a request must be submitted in writing to the Director of Graduate Studies (DGS) by November 15 of the Autumn quarter. The DGS may opt to grant additional time in compelling circumstances that do not indicate poor progress or may refer the matter to the Graduate Program Committee. Students will be given two chances to unconditionally pass the qualifying examination. In cases where a student cannot reach candidacy, the Graduate Program Committee may consider if there is a feasible path to a terminal master's degree.

Students should form a qualifying examination committee consisting of at least three faculty members (members of the academic council, including the dissertation advisor), at least one of whom must be a member of MCP. This committee should be formed by the end of the Spring Quarter of the first year of study. The composition of this committee should be approved by the Director of Graduate Studies. Students should also check with the Student Services Officer for the Department (Schantae Wright) to file all required paperwork by the end of the Spring Quarter. The University maintains certain deadlines for filing for candidacy, and it is the student's responsibility to be aware of them.

The qualifying examination consists of written and oral components. For the written portion, the student will compose a dissertation research proposal in the format of an NIH NRSA grant application (6 pages not including citations, 11-point Arial font, single spaced, minimum 0.5 in. margins). This proposal should include a thorough treatment of the background in the field of the proposal, a detailed rationale for the topic and experiments chosen for the proposal, and a detailed description of the experiments themselves. Students are not required to present preliminary data as part of the qualifying examination; however, the student should include a section arguing the feasibility of the proposed experiments. Of course, if the student has relevant preliminary data, they should be included, but they are not required, and the examination will not be postponed for lack of such data.

The student will submit the written proposal to their qualifying committee ten days before the scheduled oral examination.

The oral portion of the examination will consist of the student giving an oral presentation of the dissertation proposal to their committee and fielding questions about it from the committee. While these questions will center on the proposal's topic, the student is responsible for general scientific knowledge relevant to the proposal's field. The range of questions is the purview of the examination committee. In no case can the oral portion of the examination last for more than three hours, per University rules.

Before the examination begins, the dissertation advisor, normally a committee member, will have the opportunity to speak to the rest of the committee without the student present. Likewise, the student will have the opportunity to speak to the committee without the advisor present before the oral exam begins. This will not constitute part of the exam but is an opportunity for the student to express any thoughts or concerns to the committee without the advisor present.

At the end of the oral examination, the committee will meet briefly in private (without the student present) to render a decision. There are four possible general outcomes:

1) **An Unconditional Pass** may be granted at the exam, but only if the student has also fulfilled all the course requirements. With an Unconditional Pass, the student advances to candidacy.
2) **A Conditional Pass** is contingent on the completion of additional work assigned by the exam committee and/or the satisfactory completion of the usually required course work. While the scope of that additional work is the committee's purview and typically might be something like additional course work beyond the usual requirements, a special project, a re-written proposal, or other. The student will be given a time frame in which they must complete the additional requirements. This time frame should be reasonable, with the final arbiter of that reasonableness being the DGS. In the case of a conditional pass, the exam does not need to be retaken. Once the additional requirements (and/or the usual required courses are completed satisfactorily), the student will progress to an Unconditional Pass and Candidacy.
3) **Fail with the option to retake**. The oral exam must be retaken. The committee may also require an extensive rewrite of the proposal, up to and including a new proposal. The second taking of the Qualifying exam must occur by the end of the Spring Quarter of the 2nd year of study. At the second exam, the student may progress to a Conditional or Unconditional Pass or an Unconditional Fail.
4) **Unconditional Fail**. If the committee judges that performance on the exam was so poor that passing on a second try within the required time frame is unlikely, then an Unconditional Fail may be given, and the student may not retake the exam. In such cases, the student may petition to the program to be awarded a terminal master's degree. Such a degree will normally be granted only after the student submits an acceptable written master's thesis, which may be based on the written exam proposal. The Graduate Program Committee and the Department Chair must approve the petition and the final master's thesis. MCP does not guarantee awarding a master's degree to students who fail the qualifying examination, and it will only be awarded if the committee and Chair find that it has been earned.

   Students who have passed their qualifying examination and completed their coursework requirements but subsequently resign from the program for any reason before receiving the Ph.D. may also petition the program to be awarded a master's degree. The procedure for approving a master's degree for a Ph.D. candidate will be the same, except that passing the qualifying exam and courses will generally be taken as evidence of having earned the master's degree. However, a petition for a terminal master's degree must be made and granted before the student officially

withdraws from the program. The student must be registered in the quarter it is awarded. If a student leaves the program and/or the university or fails to maintain their registration, no degree can be issued. MCP does not award master's degrees, except for this terminal master's degree in these special circumstances.

Applying to Candidacy

Admission to candidacy acknowledges the successful completion of all departmental and university requirements for the doctoral degree, apart from the doctoral dissertation. Forms can be found on the registrar's website (https://studentservices.stanford.edu/more-resources/forms-processes) and submitted to MCP Student Services Officer.

Dissertation Committee Meetings

Upon successfully completing your qualifying exam, the student will assemble a Dissertation Committee. Like the qualifying exam committee, the Dissertation Committee will include your advisor, at least one faculty member from MCP (may be your advisor), with a total of at least four (4) faculty members in the Stanford Biosciences. Members of the Stanford Faculty who are not members of the Biosciences or Faculty from other accredited Universities may serve on the committee with the approval of the DGS. Many students choose to retain the members of their qualifying committee on their dissertation committee, but they are under no obligation to do so, except for their dissertation advisor.

The purpose of the Dissertation Committee is to offer each student a tailored and independent panel of advisors who can provide constructive feedback on the dissertation project and progress in general toward the completion of the degree. The student must arrange (with the help of Student Services Officer Schantae Wright) to meet with a quorum of your Dissertation Committee at least once a year in the third and fourth year and twice a year in the fifth year and beyond. A quorum is defined as your thesis advisor plus at least two members of the Dissertation Committee. The frequency of committee meetings is mandated by CGAP (Committee on Graduate Admissions and Policy – the official steering committee of the Biosciences) and enforced by the Dean of Graduate Education.

Terminal Graduate Registration (TGR)

Doctoral students are eligible for TGR status when they have been admitted to candidacy, completed all required coursework, completed 135 units, and submitted the Doctoral Dissertation Reading Committee form. Students registered in TGR status must enroll each quarter in a TGR course (#802 for doctoral programs) in their department, with their advisor as the instructor. There are zero units for this course selection, and you will not be eligible to take classes for credit. TGR students also enroll in MCP 399 for three research units with their advisor as the instructor, unless you are in a non-MCP thesis lab. The purpose is to work on the thesis, dissertation, or other remaining requirements that must be evaluated each quarter for academic progress and graded as follows: "N" indicating satisfactory progress, "N-" for unsatisfactory progress, and "P" for a final grade when all requirements have been completed. A hold is placed on the registration of a student who receives an "N-" grade for two consecutive quarters. Further registration is contingent on approval of an agreement for completing degree requirements by the adviser and the department.

Dissertation Research

The MCP program allows any of its graduate students in good standing to join and conduct their dissertation research in the laboratory of any Stanford faculty member having an official affiliation with a Stanford Biosciences Ph.D. program. Even if a student chooses a non-MCP faculty for their dissertation advisor, they remain a student in the MCP program. In extraordinary circumstances, a student may petition to transfer from the MCP program into another Stanford Biosciences Ph.D. program. MCP will

generally allow these transfers if the student is in good standing and otherwise making good progress and when a program agrees to receive them as a transfer. MCP cannot guarantee that the proposed receiving program will agree to accept the transfer, so students wishing to make such a transfer should take care to maintain good progress in the MCP program until the transfer is complete. They become subject to the requirements of the receiving program. It is entirely up to the receiving Program whether to accept credit for work completed while an MCP student.

During the dissertation work, the student will work closely with their advisor, with the support of their dissertation committee. The current Stanford funding model guarantees that students will be funded through a combination of outside fellowships, Department funds, and Dean's campaign funds through their first four years of study. After that, the responsibility for the student's financial support the dissertation advisor is responsible.

Teaching

Opportunities exist for students to gain teaching experience as teaching assistants (TA) in various courses. However, there is no formal teaching requirement that needs to be completed to earn the Ph.D. degree.

Language

There is no language requirement for earning a Ph.D. degree. However, students will be expected to be familiar with the relevant literature in their chosen field, regardless of the publication language.

Conferral of Degrees

The goal of the Ph.D. in Molecular and Cellular Physiology is to train its students in the thought processes, methods, ways, and means to effectively and ethically conduct research with the broader aim of making an original contribution to the student's area of specialization. Such a contribution typically takes the form of peer-reviewed publications; accordingly, MCP has a publication requirement for conferral of the Ph.D. degree. The student must be the first author on at least one paper containing the results of their original scientific research, and this paper must be complete and at least under review at a legitimate peer-reviewed journal (having an ISSN number). Under exceptional circumstances (e.g., factors beyond the student's control), the Graduate Committee may grant an exception to this requirement. Completing the Ph.D. also requires a written dissertation and an oral exam. The dissertation can include manuscripts submitted or accepted for publication, modified to fit dissertation form, and chapters reporting work that has not yet been prepared for publication. In cases where some of the work has been conducted as part of a team, the student should draft a brief paragraph preceding the manuscript detailing their individual contribution to the study. The dissertation should also include an introductory chapter, placing the work in context, and a significant final chapter discussing in detail the research's importance, limitations, and implications.

The University Requirements for the form and content of the written Dissertation may be found here.

The MCP Ph.D. program does not have an exact requirement for the chapter organization of the Dissertation beyond the University requirements. But the following illustrates the scientific content of a typical Dissertation. These points may be used as a general guide, but beyond the University requirements, your dissertation committee will have the authority as to what constitutes a finally acceptable document.

1) An abstract

2) An introductory chapter that contains a substantial review of the relevant literature in the field of your work, and the rationale for the project/experiments you did.

3) 'Science chapters' - in a format very similar to a scientific paper, but with truncated chapter introductions and discussions limited to the results of each chapter and leaving more general issues to the dissertation introduction and summary/discussion. There is no hard rule for the number of such chapters, which will ultimately be determined by the work and the dissertation committee.

4) Materials and Methods for the Science Chapters gathered into one chapter. This is usually a more straightforward form to write and read; however, if it works better to parse the Methods out into each science chapter, that is also acceptable.

5) A general summary and discussion chapter. Unlike the more specific discussions in the science chapters, this chapter should tackle the more significant issues that are addressed by your entire project, your overall conclusions, and the general advance in science represented by the dissertation project as a whole, possible future directions, etc.

Published papers or manuscripts prepared for publication may be used as science chapters. Still, you should adapt them to the dissertation style (i.e., parse out the intro, methods, and discussions in those papers into the general and specific intro and discussions of your dissertation, as appropriate). The results can generally go into the chapter as they are in the paper. We do not support typically just using a paper in its published form as a chapter. In all cases, if an MCP requirement conflicts with a university requirement, the University requirement must be followed.

The Notice of Intention to Complete Advanced Degree Requirements form is submitted to the Graduate Degree Support Section to initiate approval for conferral of all graduate degrees. It should be submitted preferably in the second week but no later than the last day of classes of the degree quarter, as listed in the University Calendar. Requests for conferral are reviewed by the Graduate Degree Support Section and the department to verify the completion of degree requirements. In summer, autumn, and winter quarters, degree certificates are sent to students within two weeks of the conferral date.

The Graduate Degree Support Section should be notified in writing when conferral plans change. Students who withdraw their conferral request or fail to complete degree requirements must file a new Notice of Intention for a subsequent quarter. A new Notice of Intention must be filed for each degree and conferral quarter.

Spring Commencement

Commencement ceremonies are held each June for students who have received degrees in the previous summer, autumn, winter, and spring quarters. Students who wish to receive their diplomas at June commencement must submit a Notice of Intention by February 1 to allow adequate time to prepare the diploma. The Registrar's Office sends information on Commencement activities and distribution of diplomas in early April to addresses provided on the Notice of Intention. Students who wish to participate in commencement activities in advance of conferral of their degree may obtain a Graduate Student Petition to Walk Through Commencement Exercises from the Graduate Program Office from May 1 until the day before commencement. A Walk-Through petition should be requested when the student is reasonably sure of completing the dissertation requirements shortly after commencement and only if there is no possibility of completing degree requirements for June conferral.

Student Services

Registration

Graduate students must register for autumn, winter, spring, and summer quarters at ten (10) units (or TGR & Research at three (3) units) until the degree is received.
Access to Stanford student privileges (funding, housing, financial aid, access to courses and facilities, etc.) is contingent upon timely and accurate completion of the following:

1. File your study list (the list of courses in which you wish to enroll) and maintain that study list throughout the term via Axess.
2. Ensure that your University bill is paid (housing, late fees, etc.).
3. Clear all holds, if any, that may block your ability to enroll in classes.

Deadlines are set for each of these activities and can be found on the Registrar's website, the Stanford Academic Calendar, or Axess. Holds will cause a delay in payment.

Stanford Biosciences Website

- The Stanford Biosciences Website is an up-to-date resource listing faculty mentors, information for incoming and current students, and a calendar of seminars, thesis defenses, and other events on campus.
- Link: http://biosciences.stanford.edu

Stanford Bulletin/Explore Courses

- The Stanford Bulletin (https://bulletin.stanford.edu/) is the official statement of degree programs and courses of instruction for Stanford University. For MCP degree requirements and University regulations and requirements, see https://bulletin.stanford.edu/programs/MCP-PHD.
- The Bulletin's Courses link presents all active courses in a searchable format. The Schedule of Classes link lists all scheduled classes for the current year.

Graduate Student Tracking (GST) System

The Biosciences Graduate Student Tracking System (GST) is a secure online resource for Ph.D. students, faculty, and student services administrators (SSAs); its ultimate goal is to provide support in the related areas of student academic progress, alumni tracking, admissions, and training grant application/renewal. It can be accessed via this link: https://med.stanford.edu/gst/with SUNet ID authentication. Information on the system is provided at https://biosciences.stanford.edu/current/gst/index.html. Students are asked to enter their Lab Rotations, IDP, and Thesis Committee Meetings into this system.

Study List

Preliminary Study Lists are due on the first day of classes. Final Study Lists are due approximately three weeks after the start of the quarter. Students should complete this carefully and submit it by the listed deadlines (otherwise, late fees may be assessed, and the course grades possibly delayed). Students submit their study lists through Axess.

Student Record in Axess System

Axess is a student information system available via the web (https://axess.sahr.stanford.edu/). It is regularly available on weekdays from 8:00 am to 11:59 pm and on weekends from 9:00 a.m. to 11:59 p.m. Using Axess, you will be able to complete the following tasks:

- File your quarterly registration commitments

- File or adjust your study list and elect grading options
- Review your grades
- Request an official transcript
- Print a history of your courses and grades
- Apply to Graduate
- Apply for Housing
- Waive health insurance
- Update personal information

New students may use Axess at any time after receipt of the registration packet from the Registrar's office. You will need a SuNET ID and password to use Axess.

Student ID Number

Your Stanford University ID is a number assigned to our academic record and is required for any inquiries you make. The ID number is printed on your registration commitment letter, Stanford University ID card, and all enrollment/grading-related documents distributed by the registrar's office. Your ID number is unique and considered directory information. Once you have received your number, you need to bring some form of picture ID with you to the ID office at the Student Center at Tressider Union.

University Bill

After submitting a Registration Commitment, students may receive a University bill. Tuition credits are entered on this bill. Also entered are other University charges such as rent, student fees, late fees, loans, etc. Students receiving a fellowship paid through Stanford may elect to have these charges deducted from their stipend checks and automatically applied to their bills. If your bill is incorrect or incomplete, you must ensure that it is corrected or pay the correct amount by the payment deadline.

Vaden Student Health Center

The Vaden Student Health Center provides medical care to regularly enrolled Stanford students, including a range of counseling and mental health services. The center is located at 866 Campus Drive and has a full-time staff of physicians, mental health professionals, and nurses. It provides, for free or for modest fees, a program of medical and psychological services to students holding current student I.D. cards. For hours of operation, see https://vaden.stanford.edu/about/hours. Call 650-498-2336 for information and appointments. Stanford University requires all new students to have completed an Entrance Medical Record. Information on entrance requirements and forms is provided at https://vaden.stanford.edu/about/entrance-health-requirements

Health Insurance

Stanford students must enroll in the Stanford health insurance plan, Cardinal Care, paid along with registration or tuition fees, or provide evidence of adequate coverage with an external carrier. Cardinal Care is the comprehensive student health insurance plan sponsored by Stanford University, featuring access to Stanford Medical Center. Coverage information for the current academic year can be found at https://vaden.stanford.edu/insurance/cardinal-care-overview-and-benefits.

Students automatically enroll in Cardinal Care unless they waive coverage and have other health insurance. Students must waive coverage before the first quarter they are registered each academic year (usually, this is the Autumn quarter). Cardinal Care is waived in Axess by the deadlines listed at https://vaden.stanford.edu/insurance/choosing-your-insurance/important-deadlines. Stanford health

insurance charges appear on quarterly University bills (autumn, winter, and spring quarters). The phone number for the Insurance Desk at Vaden is 723-2135.

Dental benefits are available through the Cardinal Care insurance plan. Delta Dental of California administers benefits. Coverage includes diagnostic and preventive services at 100% with no deductible when an in-network Delta Dental PPO dentist is used. Consult your Cardinal Care insurance plan for more information. Information is available on the Vaden website at https://vaden.stanford.edu/insurance/dental-and-vision-insurance-options.

Campus Service Health Fee

This mandatory fee applies to all undergraduate and graduate students enrolled on the Stanford campus ($241/qtr, 2022-23). It covers many services provided by Vaden Health Center, including primary care medical visits, psychological evaluation and short-term therapy at Counseling and Psychological Services (CAPS), and access to health and wellness programs. Specific details regarding this fee and its implementation may be found at https://vaden.stanford.edu/insurance/health-insurance-overview/insurance-vs-campus-health-service-fee. Information about the services provided by Vaden Health Center may be found at http://vaden.stanford.edu.

Stipends

Entering students are offered research assistantships, fellowships, or traineeships, including stipend payment and tuition. Departmental funds are used to supplement support from all sources to the university's annual required level and to pay for health insurance. **Student fees, late fees, etc., are the responsibility of each student.**

Students may receive stipends quarterly or semi-monthly depending on their funding source.

For those students on fellowships who are paid quarterly, the stipend checks are usually issued the day before classes begin. Checks are sent to the "mailing address" listed in Axess.

Students who are paid semi-monthly (RA salary) will be paid on the 7th and the 22nd of the month (or on the preceding workday if these dates fall on a weekend or holiday). Checks are sent to the department. Semi-monthly paychecks may be directly deposited in bank accounts via Axess.

The Department endeavors to provide tuition and stipend support to its doctoral students as needed through the completion of their degree provided that student maintains satisfactory progress toward the degree. The first four years of that financial support are guaranteed through a combination of outside fellowships, Training Grants, Departmental funds, and Dean's Office Campaign funds. No one student is likely to receive support from all of these mechanisms. Still, successful student applications for outside funding are important because other funding sources are insufficient to fund the entire student body in the composite. Financial support after the 4th year is the responsibility of the dissertation advisor's research funding. The Department/Advisor (as appropriate) cannot guarantee such support beyond the middle of the 5th year of study. Students should thus strive to complete their degree requirements by the middle of the 5th year, and the program is designed to make this an achievable goal.

Outside employment while a registered student in the MCP Ph.D. program is prohibited.

Leaves of Absence

Students in the program are expected to remain continuously enrolled for all quarters, including summer, from their initial matriculation through the completion of their degree. However, in extraordinary circumstances, a student may request a leave of absence from the program and the University. In cases where the reason for the request is medical, the student should visit the Office of Accessible Education (OAE) to obtain an evaluation and recommendation for leave. This is done for the privacy of the student so that they do not need to reveal the nature of their condition to members of the program or Department. Upon presentation of a recommendation for leave from the OAE, the DGS will sign the leave request form for the student. The student will then file that form with the appropriate University Office to grant the leave from the University. If the leave is requested for non-medical reasons, the student may petition the Graduate Committee for a leave of absence.

Students may request a leave of absence for a period ranging from one quarter to one calendar year (4 quarters). If a student requests leave for a period shorter than a year and before the expiration of that leaves wishes to request more, up to a cumulative year, that request will be granted by the Program/Department. Still, a new form must be filed with the University to extend the leave. The second year of leave will be considered in extraordinary circumstances, but granting that 2nd year is not guaranteed. Leaves of absence longer than two years duration are not granted.

During an official leave of absence, a student will not receive a stipend, and student medical coverage is suspended until the student returns from leave. Tuition is not charged during leave. Students should check with the Office of Student Affairs to determine what options exist to maintain medical insurance coverage during a leave of absence. If the maximum period of leave is utilized and the student does not register with the University back to active status and/or chooses not to return to the program at the end of that leave, it will be considered by the program as a resignation from the program.

Tax

Stipends are subject to income tax but not withholding, so the student must pay estimated taxes (Form 1040ES). Please view the information found at https://studentservices.stanford.edu/my-finances/financial-wellness-mind-over-money/taxes should you have a question regarding tax status or payments.

Tuition

Research assistantships or traineeships fully cover tuition at 10 units. Tuition paid by the department, school, or external funding source is paid directly to the University. Students will receive tuition credit on their University bills.

I-9 Requirement

Any individual receiving salaried compensation must have on file a correctly completed I-9 form (Employment Eligibility) before the commencement of work. International students who are not U.S. permanent residents must have a valid passport and visa with either an I-94 card or an I-20 ID card carrying an employment authorization stamp to file an I-9. See the Student Services Officer for completion of this form.

Housing: On and Off Campus

On Campus

Graduate Housing at Stanford accommodates single students and those coming to Stanford with spouses, same-gender or opposite-gender domestic partners, and children. Graduate residences include studios and apartments with up to four bedrooms. All Stanford student housing is smoke-free, and pets

are not allowed. All housing assignments are made through a lottery system. If you are new to Stanford and enrolled in a graduate degree program, you are guaranteed housing for your first year of study if you apply by the Lottery deadline and indicate as the final choice on your application that you are willing to live in any residence for which you are eligible. Housing information can be found at http://studenthousing.stanford.edu.

Off-Campus
Many students live off-campus. Community Housing Services provides helpful information on their website at https://rde.stanford.edu/studenthousing/community-housing/, including listings of rentals available in the local area.

The following websites are also good sources for off-campus housing.
Short-term housing:
Trulia: https://www.trulia.com/for_rent/Palo_Alto,CA/
Sf Bay Area Craigslist: https://sfbay.craigslist.org/

Transportation

Cars: Permits are required for parking on campus. Three types are available: "Resident" permits that allow you to park at your campus dorm or apartment. "A" permits entitle you to park in any lot. "C" permits enable you to park only in "C" lots further away. Both A and C permits are available to commuters (students not living on campus). Carpool and vanpool permits are also available to eligible persons. To obtain a permit, students must register their car's license plate number, which will serve as their permit upon payment of parking fees.

For more information, call the Parking & Transportation office at 723-9637 or visit their website http://transportation.stanford.edu/

- **Additional automobile resources include:**
  1. The Dept. of Motor Vehicles in Redwood City: 300 Brewster, (650) 368-2837
  2. California State Automobile Association: 430 Forest Ave, Palo Alto, (650) 321-0470

Bicycles: The California Vehicle Code requires the registration of bicycles to aid in identification and recovery if stolen. Tressider Recreation center registers bicycles Mon-Thur afternoons. Call 723-4361 for information. Engravers are available at the Police Station to engrave a license number or Stanford student ID number on bicycle frames. Stolen bicycles should be reported to the Police station (723-9633).

- Bicyclists must follow the same road rules as automobile drivers, not pedestrians. Palo Alto and other nearby cities have established a network of bike lanes and paths marked with signs and painted lines to make biking safer.
- Safety classes are encouraged.

Marguerite Shuttle: The Marguerite is the main campus public transport and is free. It operates Mon-Fri all year except on University holidays.

- Maps and time schedules are available at https://transportation.stanford.edu/marguerite/view-maps-and-schedules or by calling (650) 723-9362.

Caltrain: This train has many convenient stops from San Francisco to Gilroy. The Marguerite can shuttle from both Palo Alto stations into Stanford. See the website for the updated schedule: https://www.caltrain.com/site3.aspx?active_tab=route_explorer_tab

Department Events

Departmental Scientific Retreat

The Department holds its annual scientific research conference in September. All laboratory groups present talks or posters on current research; attendance is mandatory.

MCP Seminar Series

Each year the Department of Molecular and Cellular Physiology (MCP) hosts academic seminars presented by speakers renowned in their areas of study and open to all of Stanford and the general research community. These seminars are coordinated by an MCP lab representative, a Faculty mentor, and administrative support.

MCP Science Friday

Bi-weekly presentations of research-in-progress by postdocs and graduate students, followed by discussion, socializing, and refreshments on Friday afternoons in B100 at 4:30.

Departmental Facilities

The Department of Molecular & Cellular Physiology, located on the main floor of the Beckman Center, is part of the Medical Center Complex. The Beckman Center houses a Protein and Nucleic (PAN) core facility equipped to synthesize and characterize macromolecules. The Fluorescence Activated Cell Sorter Facility is located on the ground floor along with Munzer Auditorium, PAN facility, Cell Sciences Imaging Facility, and the Bistro Café.

Computer Resources:

- The Bioinformatics Resource Lab in Beckman Center provides SUN SparServers for analysts of biological data and sequences and Silicon Graphics servers for molecular modeling. The resource also connects to the Internet, WWW, email, file, and printing services.
- Every desk in the Beckman Center is wired for a high-speed Ethernet connection to SUNET. The network allows each computer to access University and medical school card catalogs, Medline, bookstore, and a wide variety of other information.

Mail

- Department mailboxes are arranged in the hall across from room B100 by alpha/faculty, with boxes below for each faculty member's lab.
- Mail moves between departments and offices at Stanford by Interdepartmental (ID) mail. All ID mail should include the four-digit Stanford mail code. There is a complete list of mail codes in the Stanford directory.
- MCP mail code is 5345

Kitchen

It is located in B100. It includes two microwaves, a refrigerator, a toaster oven, instant hot water, a sink, and cabinets.

Card Key Security System

- A card key security system has been installed in the Beckman Center and other external buildings within the Medical Center. The Beckman Center has six ground floor doors plus the

RAF tunnel door keyed. These doors are also equipped with closed circuit cameras. There is a telephone outside the main front doors to accommodate visitors without card keys. No access card is needed between 7 AM- 7 PM, Monday through Friday (not including holidays). See your Lab Manager or Building Manager to obtain a card key and keys to the lab and shared rooms.

Department Conference Rooms

The department has two conference rooms located on the 1st floor of Beckman. Both are equipped with AV equipment.

- B181 is used for study, small group sessions, and lab group meetings. Audiovisual equipment is available for use.
- B100 large conference room is used for group meetings, classes, seminars, and social events. Additionally, it is open daily from 12:00-1:30 pm as a lunchroom.

RESERVATIONS: See any admin or Schantae. Please turn off overhead projectors after use.

Outside of Department Resources

Post Office

- The post office at Stanford is a branch of the Palo Alto U.S. Postal Service located at White Plaza. The hours are 9-5, Monday-Friday. Post Office boxes are available for annual or semi-annual rental in various sizes. The zip code for post office boxes at the Stanford University branch is 94309. The zip code for all other addresses on campus is 94305. The zip code for the MCP Department is 94305-5345

Banking

- The Wells Fargo Bank in Tresidder Memorial Union and the Stanford Federal Credit Union at Tresidder and on Pampas Lane, or across from the Hospital gift shop, are conveniently located on campus. Automatic Teller Machines for Bank of America, Stanford Federal Credit Union, and Wells Fargo Bank are on the second floor of Tresidder and near the Hospital Emergency entrance. An SFCU ATM is located at the branch across from the gift shop and is the closest ATM to the Beckman Center.

Tresidder Memorial Union

- Tresidder Memorial Union is a center of community activity on the Stanford campus. It is located at White Plaza and houses food services; meeting rooms; two pleasant patios; a campus information center; the American Express Travel service; a ticket office for campus and Bay Area events (including BASS); banking services, including automatic tellers for Stanford Federal Credit Union and Bank of America, a Wells Fargo branch office with express stops and walk-up windows, an office for account handling and loan applications; Pulse, the University Copy Center, and a hairstyling shop. Tresidder Express carries groceries, magazines, and sundries. TMU is also the home of the Associated Students of Stanford University and Student Organization Services.

Bechtel International Center

- Staff at the Bechtel International Center provides support not just to international students but also to their spouses and American students. Informal English classes, English conversation practice, and language exchanges are among the many programs and services offered to students and their spouses. Counseling on immigration concerns, intercultural adjustment, and administrative support for visa processing (liaison with departments and other campus offices) are also part of the center's service to international students. The I-Center is also the campus administrative office for awards enabling American students to study and conduct research overseas.

Stanford Bookstore

- The Stanford Bookstore, consisting of three branches, was incorporated as a nonprofit cooperative in 1987. The main branch is located at White Plaza. Courses shelve new and used textbooks under the school or department. Also sold are available books, paperbacks, clothing, souvenirs, stationery, supplies, art prints, gifts, photocopying services, and computers and accessories.

Lane Medical Library

- Lane Medical Library is in the Medical Center and online at https://lane.stanford.edu/index.html. Services include general reference, in-depth consulting in all aspects of literature research, journal article file management, or any other information access/management needs (e.g., database design); training programs in bibliographic database searching (e.g., Medline), microcomputer/telecommunication-based information access support, and training in general library skills. Lane Medical Library's research collections cover clinical medicine and its specialties, basic sciences, public health, nursing, and related fields. The collections rank among the best in the West, with over 3,000 journal titles and approximately 300,000 volumes. Access to bibliographic information was significantly improved with the introduction of Lane's Online Information System (LOIS). Since it is an integrated system, patrons can see if a title is on the shelf if it is checked out, and when it is due back. LOIS can be accessed 24 hours daily from labs, wards, offices, and homes. Access to journal article information is available through online databases of Ovid, MD consult, PubMed, lane catalog, shine, e-journals as well as at Socrates, http://www-sul.stanford.edu/search/socii/, Stanford's online library database. A list of Stanford libraries can be accessed at: http://library.stanford.edu/.

Fleischmann Learning Resource Center

- The Fleischmann Learning Center, located in M202 in the School of Medicine, offers a collection of media and computer-based programs. It houses approximately 1,000 individual programs in various collections, including general audiovisuals in basic and clinical science, preclinical required course lectures on videotape, educational videodiscs, Macintosh educational and general application software, and the DxTER videodisc/computer simulations in Trauma. The FLRC's Macintosh cluster includes Apple Macintosh computers and one LaserWriter.

Other Resource Links:

- Associated Students of Stanford University's (ASSU): http://assu.stanford.edu
- Biomedical Association of the Interest of Minority Students (BioAIMS): https://med.stanford.edu/sbsa/resources/bioaims.html
- Center for Teaching and Learning: http://ctl.stanford.edu
- Computational Services and Bioinformatics Facility (software downloads): https://cmgm-new.stanford.edu/
- Green Library: https://library.stanford.edu/libraries/green/about
- Graduate Student Academic Policy: http://gap.stanford.edu
- University IT help services: https://uit.stanford.edu/service/help
- HRP 214: Scientific Writing Course: http://www.stanford.edu/~kcobb/
- Grant Writing Academy (GWA): https://grantwriting.stanford.edu/
- Biosciences Career Center: https://med.stanford.edu/bioscicareers.html
- Stanford University Student Services Center: https://studentservicescenter.stanford.edu

Health and Safety

Stanford University's health and safety mission is to provide a safe and healthy environment for faculty, students, and staff and to assure compliance with federal, state, and local regulations. The University Environmental Health and Safety (EH&S) office manages health and safety programs for the School of Medicine, such as:

- Health Physics
- Biosafety
- Industrial Hygiene & Fire Safety
- Chemical Safety

Each person working in a lab must be trained in the specific hazards of their job. Laboratory safety is a component of the orientation to a research lab. The Principal Investigator is responsible for providing training for lab equipment, procedures, and chemicals. EH&S provides two mandatory training sessions.

EH&S, through the Health Physics Department, provides mandatory training for the use of radioisotopes as part of Stanford's licensing agreement with the State of California. New students need to contact Health Physics and complete the following before they can work with any radioactive material:

- "Statement of Training and Experience"
- "Authorization to Obtain Radiation Exposure Records"
- "Film badge request"
- Take class and/or test depending on previous training.

In conjunction with the Medical School's Health and Safety Program office, EH&S provides mandatory Lab Safety Training. The office also assists in resolving safety problems and provides each department's Safety Team with safety information and regulatory compliance strategies. EH&S delivers a variety of environmental health and safety services:

- The online Chemical Safety Database
- Emergency Response Team available 24 hours a day
- Hazardous waste pick up
- Safety-related reference material (books and videos)

Student Wellness

Graduate School can be a very rewarding time but can also present challenges to student wellness. While we always hope that our students will feel comfortable approaching our Faculty or Staff, when such challenges arise, we also understand that this can be difficult. The Stanford Biosciences and the University maintain a variety of resources for students facing challenges to their wellness. We encourage our students to use these resources whenever a need arises.

Stanford Biosciences maintains a webpage with Wellness Resources at:
https://biosciences.stanford.edu/health-and-wellness/
And a guide to current general resources for Support, organized by level of confidentiality, may be found at: biosciences support for students