UCLA Chemistry Biology Interface (CBI)
Training Program Application
2026-2027

ATTENTION: UCLA Graduate Students

The Chemistry Biology Interface (CBI) Predoctoral Research Training Program at UCLA is a NIH-funded program designed to provide research training in the area of chemical approaches to the solution of biological problems. Students selected to participate in this program are trained in the language and techniques of biological and chemical sciences and gain experience as members of multidisciplinary teams working on frontier research at the chemistry-biology interface.

Program: CBI is open to trainees working with CBI Training Faculty members and enrolled in graduate programs across physical sciences, life sciences, engineering and medicine at UCLA. The traineeship provides a stipend typically during the second, third, and fourth years of graduate study. The major components of the training program are (1) a one-quarter internship in an area complementary to the student's central research area; (2) a rigor/reproducibility and ethics class; (3) an Introduction to Chemistry of Biology course, and (4) and the Chemistry of Biology Seminar program that includes presentations by students as well as outside speakers. The program also includes attendance at the yearly MBI/CBI Retreat and an annual CBI Day symposium. Additional information on the training program can be obtained on the CBI website at http://cbi.chem.ucla.edu. **The application deadline is August 01, 2026.**

Participating Faculty: There are thirty-four faculty that serve as mentors in the Chemistry-Biology Interface Training Program. Their affiliations and research areas are described briefly on the next page and in more detail in the graduate brochures and websites of the participating departments. Students with a Chemistry focus should find a Biology Training Faculty member to act as Collaborator or Co-mentor, and Biology students should select a Chemistry-Biochemistry Collaborator or Co-mentor. The Collaborator/Co-Mentor must be a member of the graduate student's committee. A letter is NOT required for the co-mentor.

Eligibility: The training program is funded by the National Institute of General Medical Sciences of the National Institutes of Health, which limits eligibility to U.S. citizens or permanent residents. Non-permanent residents can be nominated and selected as Associates, who participate in all CBI activities, but must be supported financially from TA and RA funds. Applicants should be PhD students working with a CBI Training Faculty member and at the end of their first year of graduate study. This year, we will also consider second year graduate students for two years of training. Applications by persons in underrepresented groups are particularly encouraged to apply.

Awards: Awards will be made for two to three years, provided the trainee continues to participate in all CBI activities. A stipend is provided by the NIH, which must be supplemented by the research advisor to the level of a Research Assistantship in the trainee's department. The NIH provides funds for tuition and fees, as well as yearly travel stipends to scientific meetings.

Selection: Selection is based on progress and achievement, prior academic record, recommendations from the student's research advisor and two additional faculty members or science mentors, and a statement of purpose prepared by the prospective trainee. The Executive Committee selects and guides the trainees.

Participating CBI Training Faculty Members

Jeff Abramson	Physiology	Elucidating Membrane Transport
Anne Andrews	Chem. & Biochem., Psychiatry & Biobehavioral Sci.	How the serotonin neurotransmitter system modulates complex behaviors
Soumitra Athvale	Chem. & Biochem	We will develop enzymes with reactivities never seen in nature by combining mechanistic organic chemistry, enzymology, and directed evolution techniques
Keriann Backus	Chem. & Biochem.	Synthesis and application of new chemical probes to manipulate biological systems
Catherine Clarke	Chem. & Biochem.	Biosynthesis and regulation of coenzyme Q
Steven Clarke	Chem. & Biochem.	Biochemistry of aging, metabolic regulation
Robert Clubb	Chem. & Biochem.	Biomolecular recognition
Stuart Conway	Mol. & Med. Pharm.	Use of synthetic organic chemistry to develop molecular tools to enable the study of biological systems
Ajit Divakaruni	Mol. & Med. Pharm.	Mitochondrial metabolism control of cell function and fate.
David Eisenberg	Chem. & Biochem.; Biol. Chem.	Study of proteins by X-ray diffraction and computational methods; bioinformatics
Juli Feigon	Chem. & Biochem.	Conformational studies of nucleic acids using multidimensional NMR techniques
Tomas Ganz	Medicine (Pathology)	Iron homeostasis in health and disease
Neil Garg	Chem. & Biochem.	Synthetic organic chemistry
Thomas Graeber	Mol. & Med. Pharm.	Systems biology of cancer signaling
Feng Guo	Biological Chemistry	Heme and microRNA maturation
Patrick Harran	Chem. & Biochem.	Chemical Synthesis of Biologically Active Small Molecules
Kendall Houk	Chem. & Biochem.	Theoretical organic chemistry and biochemistry; enzyme design
Jing Huang	Mol. & Med. Pharm.	Chemical biology, functional genomics and proteomics
Steven Jacobsen	Mol. Cell & Devel. Biology	DNA and histone methylation
Mireille Kamariza	Bioengineering	Biomolecular engineering to monitor and control infectious microbes
Carla Koehler	Chem. & Biochem.	Mitochondrial biogenesis
Ohyun Kwon	Chem. & Biochem.	Organic synthesis and chemical genetics
Heather Maynard	Chem. & Biochem.	Polymer synthesis applied to biology and medicine
Jennifer Murphy	Mol. & Med. Pharm.	New fluorination methods for synthesis of imaging probes
Margot Quinlan	Chem. & Biochem.	Role of Spir-Capu complexes
Caius Radu	Mol. & Med. Pharm.	Cancer research
Jose Rodriquez	Chem. & Biochem.	Fundamental aspects of protein structure
Danielle Schmitt	Chem. & Biochem	Regulation of cellular metabolism
Ellen Sletten	Chem. & Biochem.	Nanotherapeutics and diagnostic tools
Alex Spokoyny	Chem. & Biochem.	Organomimetic clusters and assemblies

Yi Tang	Chem. & Biomol. Eng.	Natural product discovery, biosynthesis and engineering
Jorge Torres	Chem. & Biochem.	Mitotic Spindle Assembly
Shimon Weiss	Chem. & Biochem.	Single molecule biophysics
Owen Witte	MIMG/BSCRC	Mechanisms of stem cell differentiation and signaling in cancer
Otto Yang	Medicine (Infectious Disease)	Therapies and vaccines for HIV

UCLA Chemistry-Biology Interface Training Program
Application 2026-2027

Please email a PDF of the application to the CBI Program Administrator, Alex Castaneda at: alexcastaneda@ucla.edu

Application Deadline: ***August 01st, 2026***

Applicant's Name: _____ (Last Name, First Name, Middle Initial)

Department: _____

Year: _____

Home Address: _____

Department/Lab Address: _____

Home Phone: _____

Lab Phone:_____

E-mail Address:_____

UCLA Student ID: _____

Citizenship Status (US citizenship or permanent residence status required): _____

California Resident: Yes No

Have you previously received a National Research Service Award: Yes No

*Are you an underrepresented minority (voluntary): Yes No

Are you or have you been physically disadvantaged (voluntary response): Yes No

Are you from an economically disadvantaged background (voluntary response): Yes No

** The NIH has found that following racial and ethnic groups have been shown to be underrepresented in biomedical research: African Americans, Hispanic Americans, Native Americans/Alaska Natives who maintain tribal affiliation or community attachment, Hawaiian Natives and natives of the U.S. Pacific Islands.*

Education (College and University, beginning with most recent)

Institution, Department, and Location	Major	Minor	Dates Attended	Date Received or Expected

List all academic honors, including fellowships and scholarships.

List your publications, including the titles of all research papers published, in press, submitted for publication or in preparation:

Proposed Research Sponsor:

E-mail Address:

Campus Address:

Proposed Research Collaborator/Co-Mentor*:

E-mail Address:

Campus Address:

**This should be a second UCLA CBI faculty member who can provide mentoring and collaboration from the chemical perspective for trainees with primary research in a biology field, or from the biological side for trainees with primary research in chemistry.*

Tentative Thesis Topic:

Please summarize, in 250 words or less:
1) your proposed research activities and their relevance to your training at the chemistry-biology interface
2) your tentative plans for your research internship. These plans should be formulated in consultation with your research sponsor and approved below.

I approve the proposed research activities described above.

Primary Research Sponsor's Signature: _____Date:_____

List the names, titles/departments, institutional addresses, and phone numbers of two professional references (other than your sponsor) from whom you are requesting Applicant Evaluation Forms:

1.

2.

Applicant's Checklist: Please submit the following with your application.

__ Copy of undergraduate college transcripts

__ Graduate school transcript

__ CBI application

REMINDER:

Give one Applicant Evaluation Form to your mentor and an Applicant Evaluation Form to two other professors or professional references. **A letter from your Collaborator/Co-Mentor is not necessary.**

If the predoctoral institutional award for which I am applying is granted, I agree to participate in the formal classes and/or activities sponsored by the program.

Applicant's Signature _____Date_____

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Return to: Alex Castaneda, CBI Program Administrator (*alexcastaneda@ucla.edu*)

Applicant's Name:

The aforementioned applicant has selected you as a reference for a period of study funded by the NIH. Please complete this inquiry and return it to the address printed above.

1. Rate the applicant on the items below by a numerical score of 1 to 5 (1 = highest), basing your ratings of the level of accomplishment you usually expect of individuals at this level:

1 = outstanding 4 = below average
2 = above average 5 = poor
3 = average X = insufficient knowledge to rate

A. Originality
B. Accuracy G. Ability to Organize Scientific Data
C. Research Ability H. Familiarity with Research Literature
D. Scientific Background
E. Ability to Exchange Ideas
F. Perseverance in Pursuing Goals
I. Proficiency in Laboratory Work
J. Ability to Write Journal Articles

2. Describe any qualifications and traits you consider of special significance in judging the applicant's fitness to be a CBI trainee and for a research career. List major academic weaknesses, if any. (Use a separate page if necessary.)

3. How long have you known the applicant?

4. In what capacity have you known the applicant?

Name of Evaluator, Title:
Department: Institution:
Address: Phone:
E-mail:
Evaluator's Signature_____