Fall 2021

# UCLA Graduate Programs in Bioscience

# Equity | Inclusion | Community | Excellence

#### Website: bioscience.ucla.edu

### Graduate Programs in Bioscience

Graduate Programs in Bioscience is a consortium of 11 Home Areas and their affiliated Ph.D. programs, organized to provide the best possible research training and professional development for graduate students pursuing PhDs in the life and biomedical sciences. Students are offered the flexibility to pursue their interests across the wide range of bioscience fields. At the same time, they benefit from individually tailored education in smaller training communities, defined by today's research themes, not traditional departments.

## <u>Home Areas</u>

- <u>Biochemistry, Biophysics &</u> <u>Structural Biology</u>
- **Bioinformatics**
- Cell & Developmental Biology
- <u>Gene Regulation, Epigenomics &</u> <u>Transcriptomics</u>
- <u>Genetics & Genomics</u>
- Immunity, Microbes & Molecular Pathogenesis
- Medical Informatics
- <u>Molecular, Cellular & Integrative</u>
  <u>Physiology</u>
- <u>Medical Pharmacology</u>
- <u>Neuroscience</u>
- Physics & Biology in Medicine
- The GRE is optional for all home areas

#### Eugene Cota-Robles Fellowship Recipients

UCLA Graduate Programs in Bioscience is committed to diversity and inclusion. Our commitment is central to cultivating a community that nurtures creativity and intellectual curiosity. In this edition of our newsletter, we proudly celebrate students who received the prestigious Eugene V. Cota-Robles Fellowship. These students recently completed their first year of training and are shining examples of the diverse talent in the UCLA bioscience community.

## **Nataly Arias**

UCLA Home Area: Medical Pharmacology Undergraduate Institution: CSU Dominguez Hills

Research Programs: NIH MARC

Nataly was a MARC U\*STAR scholar at CSU Dominguez Hills and conducted summer research in the lab of Dr. Shehla Pervin at Charles R. Drew University. She chose to come to UCLA because her interview experiences were positive. Additionally, her Home Area provided support to make her transition easier.



She received additional funding through the Competitive Edge (CE) program to work on a summer research project. CE provided opportunities to socialize with others from similar backgrounds and professional development workshops. One of the highlights from her first year was picking up diverse technical skills during rotations while exploring personal research interests. Nataly looks forward to working in the lab of Dr. Ajit Divakaruni starting in the Fall of 2021.



Graduate Programs in Bioscience: Equity, Inclusion, Community & Excellence Newsletter

#### Page 2 of 6

#### Director for Recruitment & Inclusion



### Dr. Diana Azurdia

Diana (she/her/ella) leads UCLA's effort to enhance diversity in the biomedical graduate student population. She earned her PhD in Molecular Biology & Biochemistry from UCLA and she graduated with a BS in Biochemistry from CSU Los Angeles. Diana is a first-generation Guatemalan-American and the first in her family to attend college. She credits much of her success to the influence of her mentors, who have shaped her focus on the propagation of effective mentoring of underrepresented students in STEM.

Email: dazurdia@mednet.ucla.edu

## Fall 2021 Enrollment Facts

Total enrollment	.76
California residents	.40
Out-of-State students	23
International students	.13
From underrepresented backgrounds	.26

## **Ricardo Frausto**

UCLA Home Area: Molecular, Cellular and Integrative Physiology (MCIP) Undergraduate Institution: Point Loma University Research Programs: PLNU Summer Research Program

UCLA has been Ricardo's professional community since 2011 where he worked in Dr. Anthony Aldave's lab at the Stein Eye Institute



and had the good fortune to make significant and meaningful contributions to cornea biology. "This was made possible, in large part, because of the collaborative research environment that is a hallmark of what makes UCLA a great research and academic institution." Ricardo credits being involved in SACNAS (Society for the Advancement of Chicanos/as, Native Americans in Sciences) for his success, "SACNAS is a community of individuals focused on advancing/promoting/supporting students from minoritized communities within STEM." The MCIP Ph.D. program helped Ricardo establish connections with upperclassmen and faculty. In the Fall, Ricardo will work in the lab of Dr. Elissa Hallem on a project titled, "Molecular and Neural Basis of Carbon Dioxide Sensing in C. elegans".

## **Elaine Huang**

UCLA Home Area: Bioinformatics Undergraduate Institution: Lafayette College Research Programs: Bruins-In-Genomics SURP

Elaine was a member of UCLA's BIG (Bruins in Genomics) Summer research program in 2018 and worked in the lab of Dr. Grace Xiao (her current thesis adviser) on identifying the intracellular sources of extracellular microRNAs. 'BIG Summer' was a pivotal experience for her because it cemented her certainty in her pas-



sion for bioinformatics and allowed her to receive the mentorship necessary to gain computational research skills that she lacked as a Neuroscience/Philosophy undergraduate major. Elaine decided to come to UCLA for graduate school because of the supportive and collaborative research environment. She was also motivated to continue the projects she was introduced to in Dr. Xiao's lab, including studying the dysregulation of RNA editing in Alzheimer's disease. As a first-year graduate student restricted to online classes, she established friendships with members of her cohort virtually and through outdoor activities and hopes to continue to foster community in the upcoming 2021-2022 academic year.



# Juan "Alex" Leal

UCLA Home Area: Physics Biology & Medicine (PBM) Master's Institution: CSU Los Angeles Undergraduate Institution: UC Davis Research Program: McNair's Scholar, MBRS Rise

Alex conducted research at Cal State LA as an MBRS-RISE MS-to-PhD Fellow. Alex credits the MBRS-RISE program with instilling confidence in him to continue his graduate studies. Alex chose to attend UCLA because of the environment fostered by the PBM Program and the Graduate Programs in Bioscience. Alex firmly believes UCLA doesn't just state it cares about inclusion and diversity, but demonstrates commitment through programs like Competitive Edge, and student organizations like SACNAS, AMEBA (Association for Multi-Ethnic Bioscientists' Advancement), and GPB IBLAQ (Graduate Programs in Bioscience Indigenous, Black, Latinx, Asian, and Queer Alliance). In the Fall, Alex will work in the labs of Drs. Michael van Dam and Arion Chatziioannou on a dissertation project titled, "Development of Beta Activated Cell Sorting System for Single-Cell Metabolism Studies."



### **Breona Leonard**

UCLA Home Area: Physics Biology & Medicine (PBM)

Undergraduate Institution: Louisiana State University (LSU) Research Programs: McNair's Scholars

Breona received her B.S. in Physics at LSU and worked in the lab of Dr. Isiah Warner in the Chemistry Department. She chose to come to

UCLA for the academic rigor, variety of research tracks, and research resources. Breona noted that some of the most important resources thus far have been CAPS (UCLA Counseling and Psychological Services), and the rapport she's built with her Home Area Director (Dr. Mike McNitt-Gray). Breona is looking forward to diving into research that she loves during the upcoming year. She is leaning towards a nuclear medicine and molecular imaging focus. Furthermore, Breona aspires to educate students in science and create opportunities for underrepresented students in STEM after graduation.

### **Bioscience PhD Facts**

#### Research Excellence

UCLA is among the nation's top recipients of research funding (over \$1.4 Billion awarded in 2019-2020).

#### Opportunity

Over 400 members of the basic science and clinical faculty are potential mentors to students in the program.

#### Flexibility

Students can rotate with any Bioscience faculty member, provided one rotation is in their Home Area, and they can change Home Areas if evolving research interests dictate.

#### Support

All PhD students receive full financial support during the course of their study, including a living allowance (\$35,000 in 2021-2022), all tuition and fees, and student health insurance.

## **Training Opportunities**

#### Grad School Hacks

Workshops provide students with strategies for effectively integrating into PhD programs and labs, as well as a space for sharing experiences with peers and building community.

#### "Get Connected" Quarterly

A curated list of events that enrich the graduate student experience through career & professional development.

#### Entering Mentoring Program

Mentorship, leadership, and diversity sensitivity training for graduate students and post-doctoral trainees.

#### Scientific Excellence Through Diversity

A student-organized seminar series that brings outside scientists and UCLA diversity associations together to celebrate the value of diversity in scientific enterprises.

#### Page 4 of 6

## Our commitment to dismantling inequity in our PhD programs

Our society has witnessed too many instances of injustices in conjunction with the disproportionate impact of COVID-19 on Black, Latinx, and Native communities. We recognize and acknowledge that these events are rooted in centuries of systemic and structural racism. We want to reaffirm our commitment to examine and advance our own practices targeted at dismantling racial inequalities in our graduate program.

Graduate Programs in Bioscience (GPB) commits to evolving and implementing culturally aware mentor training, unconscious bias training, restorative justice programming and practices, and to examining our own student outcomes data to uncover where inequities continue to exist.

#### **IBLAQ** Alliance

In order to foster community in the virtual space, we have organized a community of Indigenous/ Black/ Latinx/ Asian/ Queer (IBLAQ) graduate students, postdocs, faculty, and allies into a STEM campus-wide Alliance. We organize virtual social gatherings during the academic year as a way to foster a sense of belonging and provide a respite from lab and academic work.

The principal aim of the IBLAQ Alliance is to provide a safe space for underrepresented and marginalized communities in the Biosciences and across STEM at UCLA.

## **Christopher Luthers**

UCLA Home Area: Immunity, Microbes & Molecular Pathogenesis (IMMP) Undergraduate Institution: University of Maryland

Research Programs: NSF REU

As an undergraduate summer researcher, Christopher worked in the lab of Dr. Iswar Hariharan at UC Berkeley. This was Chris' first entrance into molecular genetics, which was helpful in discovering the path he would follow into graduate school. Christopher' chose to come to UCLA because his initial



interactions with faculty and students left an impression that there was a deep emphasis on work-life balance in conjunction with great research. He enjoyed being able to rotate in different labs during his first year as a graduate student, in order to get a sense of the different types of research occurring within his field of interest (immunology). Christopher is looking forward to getting more involved in the student organizations within GPB as well as the greater UCLA graduate community. Finally, Christopher will continue his work in the Kohn lab on a project titled, "Site-Specific Correction of BTK Mutations to Cure XLA."

## Jocelyn Rodriguez

UCLA Home Area: Cell and Developmental Biology (CDB)

Undergraduate Institution: CSU Los Angeles

Master's Institution: UC Riverside

**Research Programs:** NIH MARC, NIH Bridge to the Doctorate

Jocelyn completed her Master's at CSULA under Dr. Nathan Lanning's mentorship, where she studied the regulation of the AMPK signaling pathway. As an undergraduate, Jocelyn was part of the MARC



Program at UC Riverside where she studied copper compounds as a therapeutic for glioblastoma. She was glad to be a part of the Competitive Edge Program during her first year at UCLA because it was a seamless transition into grad school and it allowed her to do in-person research over the summer. Some of the highlights of Jocelyn's first year were receiving the Cota V. Robles fellowship, passing her written qualifying exam, making new friends, and picking a dissertation lab. In the fall, Jocelyn will be working in the lab of Dr. David Shackelford on a project titled "Investigating HSP90 inhibition as a therapeutic target for lung squamous cell carcinomas (LUSC)", and will serve as a 2021-2022 SACNAS at UCLA board member.



# Shantée Ayala Rosario

UCLA Home Area: Molecular, Cellular, & Integrative Physiology (MCIP) Undergraduate Institution: Inter American University of Puerto Rico Research Program: Bridge to the Doctorate, UCLA BRI-SURE

The most impactful research experience for Shantée came from her undergraduate work at the Neuroscience Research

Opportunities to Increase Diversity program at the University of Puerto Rico, Rio Piedras. She worked on a project focused on understanding the neural correlates of approach-avoidance conflict. This experience served as a catalyst for her growth as a scientist and grew her passion for mentorship and outreach. Shantée chose UCLA because of the supportive community, research, resources, and the environment. She first came to UCLA in 2019 for the BRI-SURE summer program, where she met many people whom are now part of her support system. In addition to finding her research home and mentoring an undergrad through the GUM (Graduate-Undergraduate Mentorship) program, Shantée loves experiencing LA and building friendships with her classmates. In the Fall, she looks forward to working in Dr. Gina Poe's lab on a project titled, "Locus coeruleusnorepinephrine role in a rat model of PTSD."

### Fee Waivers

- Waivers of the application fee are available for applicants who a) participate(d) in eligible research programs or b) demonstrate financial need as described here: <u>https://grad.ucla.edu/admissions/research-requirements/</u>
- In the application, on the Plans for Graduate Study page, select one or more of the programs in which you participated and upload a letter from the program director confirming your participation.

# Fellowship Application Support & Incentive Program



## **Rachel Scott**

UCLA Home Area: Molecular, Cellular, & Integrative Physiology (MCIP) Undergraduate Institution: UC Los Angeles Research Programs: IMSD

As an undergrad, Rachel conducted research in the lab of Dr. Elizabeth Tarling. This experienced helped her learn lab techniques and transferable skills that have aided her success in graduate school. UCLA's MCIP program seemed to be the most supporting

and compatible fit for her research interests. She noted, "it truly seemed like they cared about our success as graduate students." Rachel found talking to senior graduate students in her rotation labs and program most helpful during the first year. She is very excited to work in the Correa lab and focus on her research project titled, "Understanding how the Tuberal Nucleus of the Hypothalamus Integrates Metabolic and Reproductive Signals to Modulate Feeding Behavior." Writing workshops, faculty writing coaches, and a library of successful proposals are some of the support services available to bioscience students. About 20% of students hold prestigious individual meritbased fellowships each year from programs such as the NIH National Research Service Award, the NSF Graduate Research Fellowship and the HHMI Gilliam Fellowship. As an incentive to encourage students to seek extramural fellowships, GPB offers an annual \$3000 stipend bonus to Ph.D. students who have successfully competed for these prestigious awards.

# **Student Groups**

# Graduate Programs in Biosciences proudly supports our student organizations:



**AMEBA**: The Association for Multi-Ethnic Bioscientists' Advancement, AMEBA, is a graduate student group sponsored by Graduate Programs in Bioscience at UCLA. The goal of AMEBA is to create an equitable environment to promote the advancement and retention of PhD students

in the GPB. They aim to provide our members with skills and experiences, they seek to build a community, and they work to promote diversity in the sciences via academic development, professional development, and outreach.

**BSB**: Black Scholars in Bioscience is a student-initiated program that aims to foster community, provide professional development, and outreach opportunities amongst postdoctoral scholars, graduate students, and faculty.





**SACNAS at UCLA**: Society for the Advancement of Chicanos & Native Americans in Science, SACNAS, is dedicated to increasing the numbers of underrepresented students in higher education and in science. This group is open to undergraduates, graduate students, transfer students,

community college students, post-docs, faculty and staff who share a common concern about equal access to education, who have interest in outreach, and/or are in need of opportunities in academic leader-ship and participation.



# Undergraduate Summer Research

**Bioscience Scholars Program** provides a rigorous research training experience for undergraduates with interests in a broad range of bioscience disciplines. Exceptional research training, integrated with professional development activities, will prepare students to succeed in leading PhD and MD/PhD programs.

Applications due: Feb. 4, 2022 bioscience.ucla.edu/spur-labs Contact: spurlabs@mednet.ucla.edu

Brain Research Institute Summer Undergraduate Research Experience (BRI-SURE) program is for students currently attending a HBCU or participating in MARC research programs. BRI SURE is an 8 to 10-week, summer research-training program for students interested in pursuing research careers in Neuroscience or Physiology. The program is designed to provide in-depth research experience to prepare participants for Ph.D. and M.D./ Ph.D. graduate programs.

Applications due: starting Dec. 15, 2021 bri.ucla.edu/outreach/bri-sure-summer/ Contact: brisure@ucla.edu

**Bruins-In-Genomics (B.I.G.) Summer Research Program** is an 8-week full-time immersion program for undergraduates interested in learning how to read and analyze genes and genomes. Through this program students will have the opportunity to experience graduate-level coursework, and learn the latest cutting-edge research, tools and methods used by leading scientists to solve real-world problems.

Applications due: March 1, 2022 https://qcb.ucla.edu/big-summer/ Contact: <u>BIGSummer@ucla.edu</u>