



UCSF  
PROJECT



5th Annual

# SYMPOSIUM

June 1<sup>st</sup>, 2026

# A NOTE FROM PROPEL LEADERSHIP



We are thrilled to be capping off our sixth full year of the PROPEL program with this symposium! We are proud of all the success we have had so far. In the past five years, 137 scholars have completed the program and gone on to the next stage of their career. 88% of these scholars were accepted into a graduate (PhD, MD/PhD, MPH) or professional (MD, PharmD) school, including many who accepted offers here at UCSF, and an additional 12% have accepted positions in industry. We feel incredibly honored and privileged to be a part of this program and are looking forward to many more successes to come!

# Symposium Agenda

- 9:15 – 9:20 **WELCOME** Location: Genentech Hall, Byers Auditorium
- 9:20 – 10:05 **PRESENTATION SESSION 1** Location: Genentech Hall, Byers Auditorium  
*Led by Scholars Council*
- Speakers**
- Rhiannon Roarke** (Nystul Lab) - *Fox Transcription Factors Regulate Follicle Stem Cell Differentiation in the Drosophila Ovary*
- Brooke Barry** (Jiam Lab) - *Age-Related Adaptive Musical Sound Quality Responses to Electrode Deactivation - **Scholars Council Selected Presentation***
- Ariel Sauri** (Yokoyama Lab) - *A Network of Interferon-Stimulated Genes is Differentially Expressed Across Cell Types, Brain Regions, and Alzheimer's Disease Status*
- 10:05 – 10:15 **COFFEE BREAK** Location: Genentech Hall Atrium
- 10:15 – 11:00 **PRESENTATION SESSION 2** Location: Genentech Hall, Byers Auditorium  
*Led by Scholars Council*
- Speakers**
- Sonoma Carlos** (Saba Lab) - *A Comprehensive Patient Case Study of Sphingosine-1-Phosphate Lyase Insufficiency Syndrome (SPLIS)*
- Zanib Naeem** (Vu Lab) - *Characterizing the Brain's Response to Awe Subtypes Using fMRI*
- Isabelle Lomeli** (Smith Lab) - *A Novel Patient-Derived Induced Pluripotent Stem Cell Line Recapitulates Acute Myeloid Leukemia with Inversion of Chromosome 3*
- 11:00 – 11:15 **CELEBRATING 5 YEARS OF PROPEL** Location: Genentech Hall, Byers Auditorium
- 11:15 – 12:00 **POSTER SESSION 1** Location: Genentech Hall Atrium
- 12:00 – 12:15 **GROUP PHOTO** Location: Koret Quad, Genentech Amphitheater
- 12:15 – 1:30 **LUNCH** Location: Koret Quad, Genentech Amphitheater
- 1:30 – 2:15 **KEYNOTE SPEAKER** Location: Genentech Hall, Byers Auditorium
- Yazmin Carrasco** - Assistant Dean for Access, Belonging and Student Success; Assistant Professor of Education Research "Beyond the Bench: Lessons from a Career Building Inclusive Research Pathways"
- 2:15 – 3:15 **PRESENTATION SESSION 3** Location: Genentech Hall, Byers Auditorium  
*Led by Scholars Council*
- Speakers**
- Renzo Huarcaya** (Xu Lab) - *Asb4 as a Novel Regulator of Satiety*
- Rosheni Kandaswamy** (Weiner Lab) - *Neutrophil Swarming Initiation to Sites of Protein Plaque Accumulation In Disease*
- Christian Valtierra** (Pasquini Lab) - *Social Decision-Making and Emotional Well-being in Older Adults: Behavioral and Neural Correlates of Exploration and Exploitation - **Scholars Council Selected Presentation***
- Megna Chalamala** (Nora Lab) - *Engineering Heterotypic Pa01 Landing Pads for Stable and Selectable Cassette Exchange in Mammalian Cells*
- 3:15 – 4:00 **POSTER SESSION 2** Location: Genentech Hall Atrium
- 4:00 – 5:00 **SCHOLARS ONLY SESSION** Location: Cafe 24, Genentech Hall

# POSTER PRESENTATIONS

## CANCER BIOLOGY

**Esther Chavez-Iglesias** (Kober Lab) - *Immune, Endocrine, and Neural Signaling Pathways are Associated with the Paclitaxel Excipient Cremophor EL: Implications for Neurotoxic Adverse Side Effects of Chemotherapy*

**William Dougherty** (Chou Lab) - *Investigating the Impact of Co-Occurring FOXA1 in CDK12-Mutant Prostate Cancer on Androgen Receptor Signaling and Sensitivity to Targeted Therapy*

**Etenesh Abebe** (Hernandez Lab) - *Reconstructing Low Coverage Germline Genomes From Clinical Tumor Panels to Investigate the Role of Genetic Ancestry in Cancer Disparities*

**Ava Peyton** (Shannon Lab) - *Belvarafenib and Venetoclax Combination Treatment in Acute Myeloid Leukemia*

**Venkat Ayalavarapu** (Young and Schwer Lab) - *Characterizing DYRK1A Inhibition-Induced Senescence in Glioblastoma via CRISPR-Based Functional Genomics*

**Vishal Lashkari** (Bruno Lab) - *Functional Genetics to Investigate the Role of HLA-B\*27 and ERAP in Axial Spondyloarthritis Pathogenesis*

**Rokhshid Rafiei** (Bruno Lab) - *Defining the Prostate Cancer Immunoepitome to Identify Actionable, Immunogenic Antigens for TCR-T Cell Therapies*

## DEVELOPMENTAL & STEM CELL BIOLOGY

**Yasmeen Ibrahim** (Wittmann Lab) - *Biogenesis of Apicosomes, Apical Storage Organelles That May Drive Lumen Formation in Pluripotent Stem Cells*

**Madeline Wang** (Parent Lab) - *Advancing Preclinical Models for Type 1 Diabetes Using Stem Cell-Based Coculture Platform*

**Cristy Mendoza** (Nystul Lab) - *Somatic Ring Canals Contribute to the Regulation of Proliferation and Differentiation in the Drosophila Ovarian Follicle Stem Cell Lineage*

# POSTER PRESENTATIONS

## IMMUNOLOGY

**Cristina Perez** (Allen Lab) - *Genomic Locus Mapping for Programmable Non-Viral Circuit Knock-In in Primary T Cells*

**Gian Carlo Baldonado** (Liao Lab) - *Immunological Differences in Atopic Dermatitis Across Age Groups: Insights From Single-Cell Multi-Omics*

**Kennedi Pyper** (Molofsky Lab) - *Spatial Remodeling of the Lung Stromal - Immune Niches Shapes the Course of Influenza A Virus Infection*

## NEUROLOGY/NEUROBIOLOGY

**Rochelle-Jan Reyes** (De Leon Lab) - *Investigating Burden of Cardiometabolic Risk Factors on Dementia Diagnoses Across Different Communities*

**Brandon Apresa** (Holmes Lab) - *Proteoglycan Remodeling in Alzheimer's Disease: A Spatial Association with Neuritic Plaques*

**Lauren Tham** (Liu Lab) - *Brain Glutamine Concentration Alters Protein Preference in *Drosophila**

**Pon Varshini Ravi** (Pleasure Lab) - *Decreased Social Aggression in Male EMX1-Cre NR2Afl/fl Mice Quantified by Supervised Machine Learning Predictive Classifiers*

**Javier Hernandez Lopez** (Nelson Lab) - *Overexpression of Alpha-Synuclein in Midbrain Dopaminergic Neurons Causes Cognitive Deficits in a Mouse Model of Parkinson's Disease*

# POSTER PRESENTATIONS

COMPUTATIONAL BIOLOGY, BIOENGINEERING,  
AND VARIOUS TOPICS

**Athalee Rachel Aguilar** (Kinman Lab) - *Capturing Snapshots of Autophagosome Biogenesis Following Diverse Stressors Using Cryo-ET*

**Eric Cito** (Morrison Lab) - *2D U-Net Segmentation of Multi-Target Deep Brain Stimulation Lead Trajectories on Postoperative Imaging*

**Clarise Rivera** (Gordan Lab) - *Leveraging HiBiT-Based Assays to Elucidate DNAJ-PKAc Fusion and PKAc Interactions for Fibrolamellar Carcinoma Drug Development*

**Oge Okpala** (Capra Lab) - *Inferring Genetic Ancestry from Whole Blood DNA Methylation Data*

**Caitlin Haas** (Gibson Lab) - *Menopause Experiences Among Filipino Women: Results from a Pilot Study*

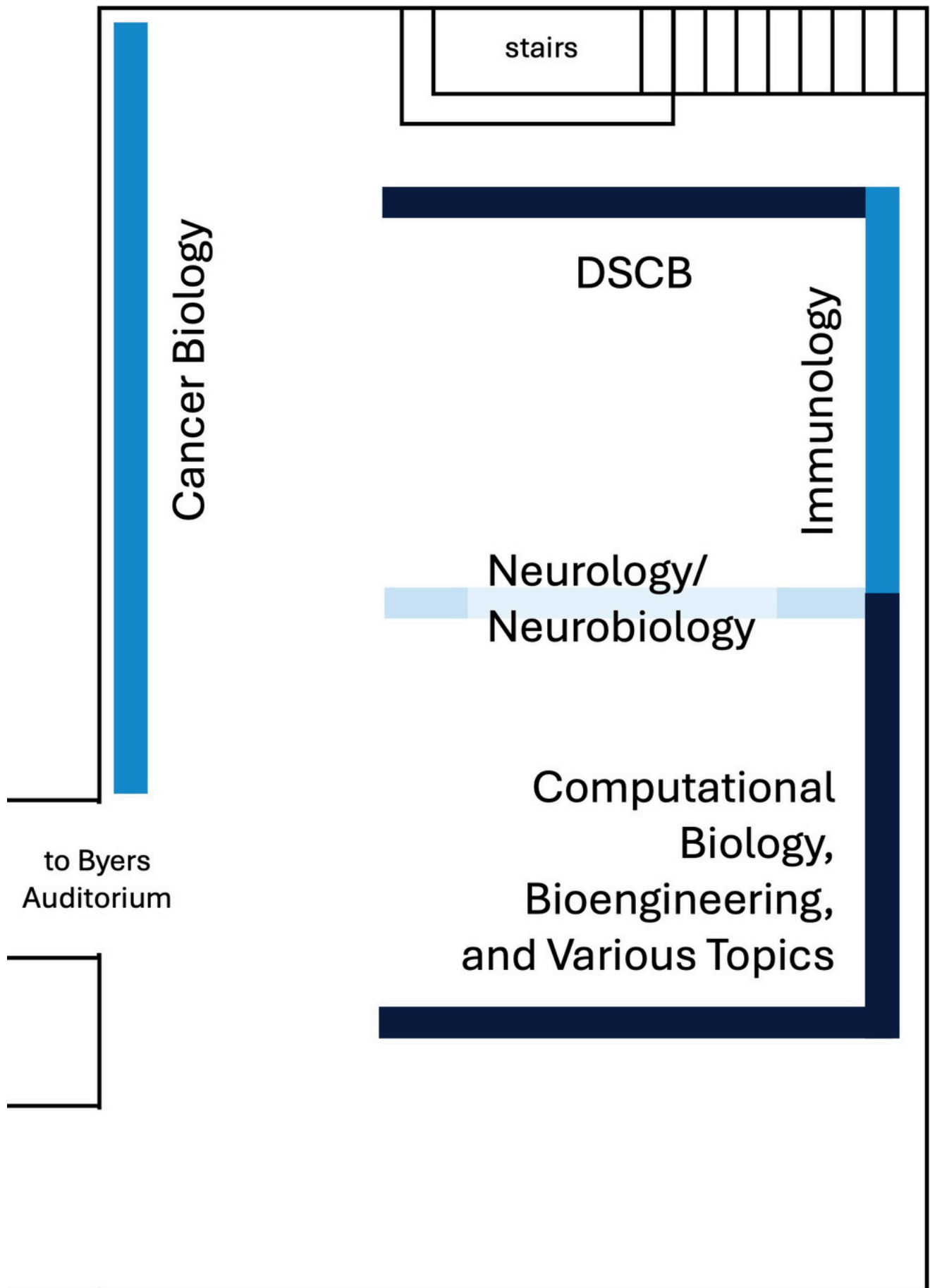
**Kina Atkin-Yamaguchi** (Calderon Lab) - *Massively Parallel Dissection of Activation-Dependent Enhancers and Silencers in T Cells*

**Gabriela Castellanos** (Chen Lab) - *Pimozide and the Reversal of Liver Fibrosis*

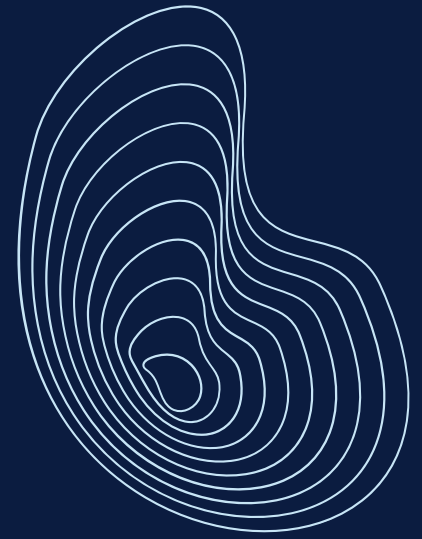


# POSTER SESSION MAP

GENENTECH HALL 1<sup>ST</sup> FLOOR ATRIUM



# 2026/27 CURRICULUM



## FALL

---

- Programming and Statistics
  - *September - October 2026*
- Literature Review Course (1st yr scholars only)
  - *Thursdays, 4pm-5pm October 2026 - July 2027*
- Graduate Applications Workshop Series
  - *Sept & Oct, TBA*

### *PhD-bound:*

- Grad Applications Panel
- Personal Statement Workshop

### *MD/PhD-bound:*

- MSTP Interest Panel (hosted by UCSF MSTP)
  - Demystifying the AMCAS Application Process
  - MSTP Essay Writing Workshop
- Secondary Mentor Meetings (individually scheduled)

## WINTER

---

- Build Your Research Community
  - *January - May 2027*
  - Exiting scholars only
- Literature Review Course - cont'd
- Grad App Workshop Series -cont'd

### *PhD-bound:*

- Mock interviews (indiv. scheduled)

### *MD/PhD-bound:*

- AMCAS Deep Dive
  - AMCAS Essay Workshop
- Secondary Mentor Meetings

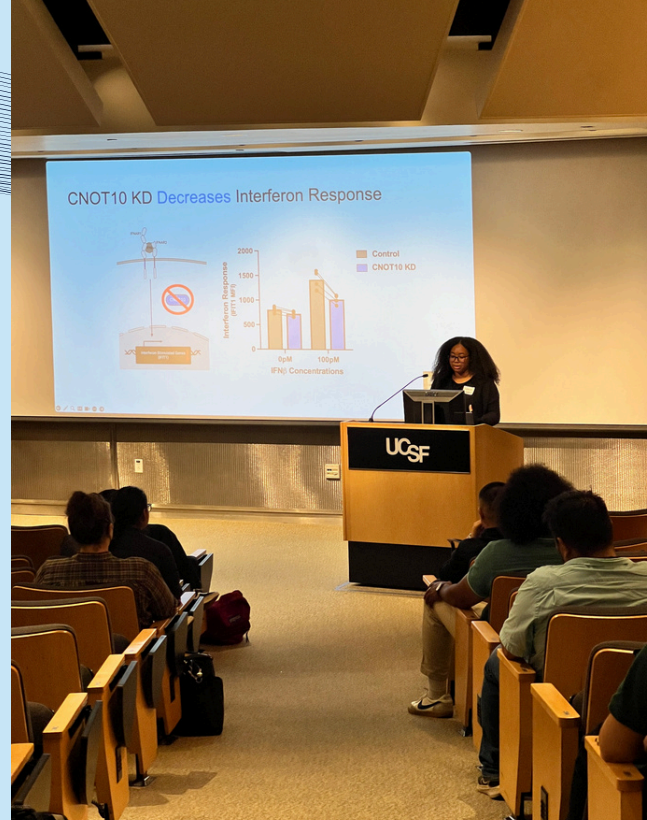
## SPRING

---

- Literature Review Course - cont'd
- Build Your Research Community - cont'd
- Secondary Mentor Meetings

# PROPEL Programs

Interested in exploring more about PROPELS programs? Click on the **bolded** text from each program to learn more or visit <https://propel.ucsf.edu/> and click "programs"



## **Secondary Mentorship**

PROPEL has implemented a secondary mentorship program to provide scholars with another mentor (in addition to primary research mentor). A secondary mentor can be a welcome addition to help with career development, aid in graduate applications, advise in matters of work-life balance, and more.

## **Clinical Mentorship**

All PROPEL scholars are already paired with a primary research mentor, but, if they are pursuing an MD/PhD they have the option of pairing with a clinical faculty mentor as well. Our clinical mentors serve as a vital resource for our scholars and ensure the success of the entire PROPEL program.

## **Peer Groups**

Our Peer Groups program is designed to support scholar-led networking activities, encouraging PROPEL Scholars to take the lead in building connections within their community. This initiative helps scholars connect beyond the lab.

## **Scholars Council**

Interested in joining PROPEL leadership? Represent your peers and shape the program's future. Open positions include:

- Scholars Council
- Social Media Committee
- Undergrad Mentorship Committee
- Welcoming Committee
- MD/PhD Improvement Committee

# CONGRATULATIONS!

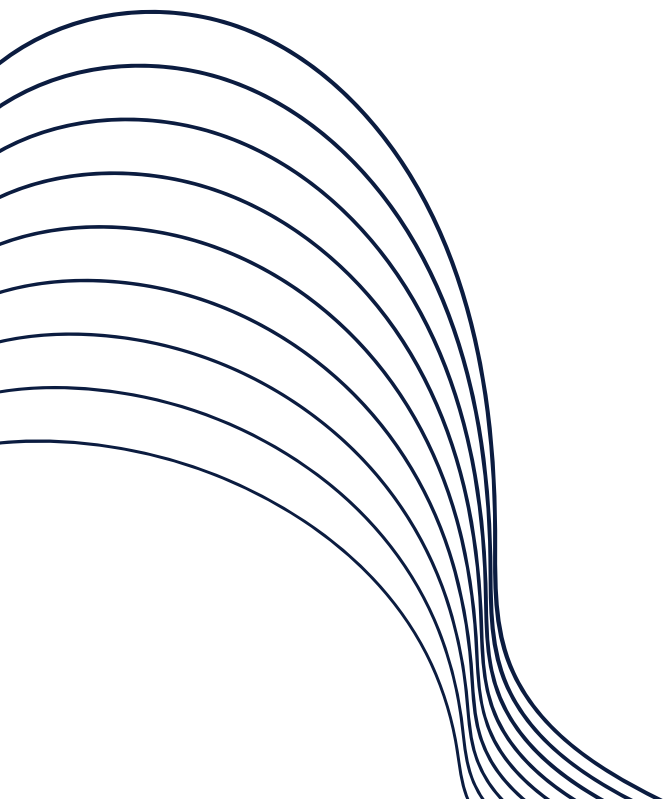
Best of luck to our scholars leaving this year.

Athalee Aguilar	UCSF - Biophysics
Bethany Andoko	UCSF/UC Berkeley - Bioengineering
Kina Atkin-Yamaguchi	UC Irvine - Cellular and Molecular Biosciences
Sonoma Carlos	University of Illinois at Chicago - MSTP
Nicole Flores Hernandez	UCSF - Biomedical Sciences
Caitlin Haas	Rowan University - Clinical Psychology
Bazilco Marveen Jean Simon	Stanford University - PSTP
Isabelle Lomeli	Rockefeller University - Biological Sciences
Alicia Meshulam	UCSF - Biomedical Sciences
Zanib Naeem	Washington University in St. Louis - Neuroscience
Barry Nguyen	Columbia University - Biomedical Sciences
Oge Okpala	UCSF - Biological and Medical Informatics
Sadie Potts	UCSF - Developmental and Stem Cell Biology
Lilian Quijada-Madrid	University of Pittsburgh - Microbiology and Immunology
Lorenzo Ramirez	UC Santa Cruz - Chemical Biology, Biochemistry, and Biophysics
Rhiannon Roarke	University of Washington - Molecular and Cell Biology
Dani Swope	University of Wisconsin, Madison - Cellular and Molecular Biology

# CONGRATULATIONS!

Best of luck to our scholars leaving this year.

Lauren Tham    Columbia University - Neurobiology and Behavior  
Julia Ybarra    Oxford University - Oncology  
Elizabeth Yip    UCLA - Immunity, Microbes, and Microbial Pathogenesis



# SCHOLARS' COUNCIL



**Brandon Apresa (Prez)** is a Junior Specialist in the Holmes Lab, studying Alzheimer's Disease. He is passionate about understanding complex biological systems and making science more accessible to all audiences. When Brandon is not investigating neurodegeneration, he enjoys tacos, finger boarding, and getting lost in a good book. He is excited to build community here and would love to share a meal or conversation.



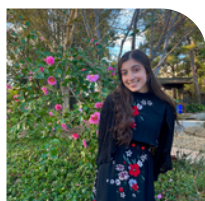
**Ariel Sauri** is a Staff Research Assistant in the Yokoyama lab, where they study the genetics underlying neurodegeneration across diverse populations. Ariel is passionate about research centered around neurogenetics – specifically, the role that genetics plays in neurodiversity. They aim to lead a research team as an academic professor, and are excited to serve the PROPEL community as a member of the council at this stage in their journey.



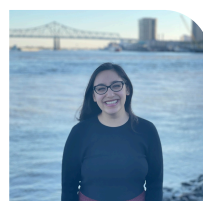
**Justin Amakor** is a Junior Specialist in the Kutys Lab in the Department of Cell and Tissue Biology. He wants to be a Physician-Scientist and explore the intersection of bioengineering and regenerative medicine, among other topics. Outside of the lab Justin loves drawing, reading, and playing soccer and basketball.



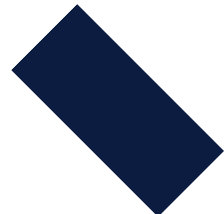
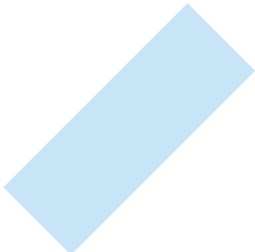
**Rhiannon Roarke** is a Junior Specialist in the Nystul lab, where she studies pH sensing in the *Drosophila* ovary and its role in cell fate specification. Coming to science through a non-traditional path has made her especially passionate about mentorship and about sharing science in ways that are approachable and helpful. Outside the lab, she enjoys playing the violin, square dancing, baking, and reading.



**Shaista Afzal** is a Staff Research Associate in Dr. Sara Suliman's Lab. Shaista hopes to make the path to research less intimidating for others entering the field, and strives to foster a supportive environment for students embarking on their post-baccalaureate journey.



**Caitlin Haas** is a Clinical Research Coordinator at the San Francisco VA Health Care System working under Drs. Carolyn Gibson, Elizabeth Goldstein, and Francesca Nicosia. Her primary research interests are women's mental health and menopause. Outside of work, Caitlin enjoys reading, cooking, and baking.





# PROPEL LEADERSHIP



**Todd Nystul** is a Professor in the Departments of Anatomy and OB/Gyn. He received his B.S. from UC San Diego and his PhD from the University of Washington. His lab uses *Drosophila* and mouse models to investigate the function of epithelial stem cell lineages in vivo. Todd is also Co-director of the UCSF Developmental and Stem Cell Biology PhD program and an active member of the Tetrad and Biomedical Sciences PhD programs.



**Ryan Hernandez** is a Professor in the Department of Bioengineering and Therapeutic Sciences at UCSF. He co-directs both the Biological and Medical Informatics (BMI) graduate program as well as the PROPEL program, co-leads the ARCHES program, and directs the Genentech-UCSF School of Pharmacy Diversity Fellowship Program. His research focuses on population genetics, and using evolutionary modeling to understand complex biological patterns.



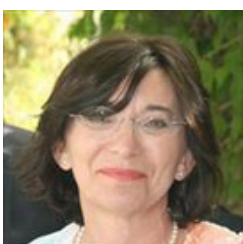
**Paola Betancur** is an Assistant Professor in the Department of Radiation Oncology. She received her B.S. from Stony Brook University, her PhD from Caltech, and performed her postdoctoral work at Stanford. Her lab studies the genomic mechanisms that activate pro-tumorigenic and immune suppressive programs in cancer cells. Paola co-chairs the Radiation Oncology DEI committee and was named John A. Watson Faculty Scholar in 2021.



**K. Mark Ansel** is Professor of Microbiology & Immunology and an Investigator of the Sandler Asthma Basic Research Center. He completed a B.S. at Virginia Tech, a Ph.D. at UCSF, and postdoctoral training at the Immune Disease Institute at Harvard Medical School. His lab studies RNA regulation in the immune system and cell programming involved in allergic inflammation and asthma. Mark is a former director of BMS and the chair of ImmunoX.



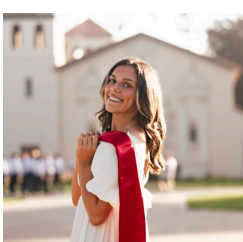
**Sam Pleasure** is Professor of Neurology and Director of the Neuroscience Graduate Program. His lab's research focuses on the role of morphogenic signals in the development of the mammalian hippocampus and cortex and on understanding the pathophysiology of autoantibody associated encephalitis. He is also an active clinical neurologist caring for patients with inflammatory CNS disorders and underserved populations at SF General Hospital.



**Claude Chapman** is a Professor in the Department of Medicine, in the Pulmonary, Critical Care, Allergy and Sleep Medicine Program. She completed her B.S., MEng, M.S., and Ph.D. at Universite de Provence in Marseille, France. She also received the ATS Assembly on Respiratory Cell and Molecular Biology Carol Basbaum Award in recognition of her leadership potential. Her lab applies basic science to the discovery and development of small molecules for fibrotic diseases.

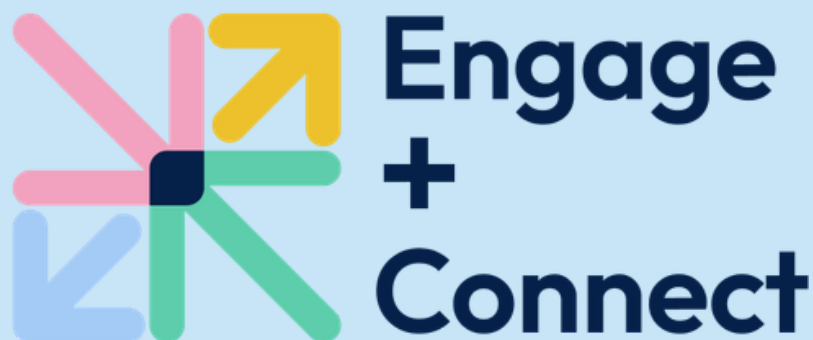


**Jessica Allen** is the Program Administrator of PROPEL, PREP, and CIRM. Before joining PROPEL, she coordinated science enrichment programming for public school students at UCSF Science & Health Education Partnership. She's taught science and engineering at USF, Berkeley City College, and the Universidad de los Andes in Bogotá, Colombia. She completed her Ph.D. at UCSF/UCB Joint Bioengineering Program.



**Izzy Garcia** is the Program Assistant for PROPEL. Before joining PROPEL, she served Santa Clara County's Department of Public Health as a Management Aide on the Administrative Services Support team. She completed her B.S. at Santa Clara University with a degree in Public Health and a concentration in Health and Society.

# Thank you to our current funding partners!



Sara & Frederic Kerrest



# Thank you to our former funders



Diabetes Center at  
UCSF


Kavli Institute  
for Fundamental  
Neuroscience

**UCSF** Department of  
Obstetrics, Gynecology  
and Reproductive Sciences

**UCSF** Weill Institute for  
Neurosciences

 **NCIRE**  
Northern California Institute for Research and Education

**UCSF** Eli and Edythe Broad Center  
of Regeneration Medicine  
and Stem Cell Research

 **Emerson  
Collective**

**UCSF** Department of  
Radiation Oncology

**GLADSTONE  
INSTITUTES**

**UCSF**  
Center for Reproductive  
Sciences

**UCSF** Helen Diller Family  
Comprehensive  
Cancer Center

**Our mission is to help aspiring scientists realize their potential through mentorship, sponsorship, and opportunity. Interested in partnering with us or contributing to our transformative model? Please contact program administrator Jessica Allen ([jessica.allen@ucsf.edu](mailto:jessica.allen@ucsf.edu)) or any of the PROPEL leadership team**

# Thank you for joining us!

Want more information? Visit our website [propel.ucsf.edu](http://propel.ucsf.edu)  
or email our program administrator Jessica Allen  
([jessica.allen@ucsf.edu](mailto:jessica.allen@ucsf.edu))

---

