

The Immunomodulatory Role of Lipid Mediators in Uveitis Pathogenesis

The mentee will help elucidate the role of lipid mediators in uveitis in order to discern how the lipid circuits regulate the immune system and prevent aberrant inflammation. We will use laboratory techniques spanning the fields of chemistry and molecular cellular biology such as liquid chromatography — tandem mass spectrometry and immunohistochemistry. During the program, I would like to support my mentee in the development of independent research skills and foster the mentorship by welcoming a new female member into the science field. My goal is to spark scientific curiosity and enthusiasm for my undergraduate student to pursue a career in research.



Jessica Wei
Ph.D. Candidate, Vision Science

I am a Ph.D. candidate in the Vision Science program, researching ocular inflammation. I received my Bachelor of Science degree in Cellular Molecular and Developmental Biology from the University of Washington. My path to graduate school was a bit circuitous.

After college I worked on muscular dystrophy therapeutics in a gene therapy lab at UW, then joined a biotech company researching cancer immunotherapy. During my time in the industry, I became extremely fascinated with the field of immunology and decided to study it full-time by returning to graduate school.

I hope to strengthen my leadership skills through the SMART program by gaining insights on my management style from my mentee. I also would like to learn ways to motivate my mentee and inspire her to perform to her highest ability.



Maureen Lee
Rising senior
Integrative Biology & Public Health

I became interested in the SMART program because I had only dabbled in the field of research previously, and so I wanted to gain more exposure to the experiments researchers accomplish that help advance scientific knowledge. What intrigued me about the uveitis project in the Vision Science program specifically was the focus on lipid mediators in the eye.

I have learned about the eye and different signaling pathways in class but haven't been able to apply this real-life experience. I've also noticed that most research seems to focus on protein pathways and signaling. The lipid circuits struck me as a fresh approach to research that I haven't seen before.

My goals for this summer are to be able to delve into research and to get as much experience and knowledge as possible. I really hope that my results from the lab will be useful for the future and make an impact.

UC Berkeley's Student Mentoring And Research Team (SMART) is a paid professional development program that engages doctoral students in creating mentored research opportunities conducted with selected undergraduate student mentees during a ten-week period over the summer. Both participants receive compensation and training throughout their participation. SMART broadens the professional development of doctoral students and fosters research skills and paths to advanced studies for undergraduates.

Expenses associated with each team total \$10,000 000 (\$5K graduate stipend/ \$3.5K undergrad stipend/\$1.5K research and conference costs). As a donor-supported program of the Graduate Division, the majority of teams are underwritten through a combination of donor funds paired with matching support courtesy of the Graduate Division.

Learn more at smart.berkeley.edu