



UCDAVIS
Center for Neuroscience

Barbara Chapman Neuroscience Award



Alyssa Sanchez FY 2022-23 Award Recipient

Alyssa Sanchez is a fifth-year graduate student in the Usrey lab at the UC Davis Center for Neuroscience, where she aims to understand thalamocortical interactions of the visual system. By understanding how the thalamus and cortex dynamically interact to develop a visual percept, we can better understand the visual system, including how top-down mechanisms such as attention can modulate communication. Using intracortical electrophysiological techniques along with optogenetic manipulations, Alyssa explores how the cortex communicates to the thalamus to modulate activity and therefore modulate sensory processing. Her long-term career goal is to become a principal investigator exploring how top-down mechanisms such as attention can alter the circuit communication of sensory information in the visual system.

Impact of Philanthropy

The Barbara Chapman Neuroscience Award enabled Alyssa to attend the 2022 Thalamocortical Gordon Research Conference in Barga, Italy, where she met and discussed her science with peers at a pre-conference symposium. She also attended presentations and learned more about sensory modalities —vision, audition, motor, somatosensory—along with thalamus alterations in disease states, thalamus’ role in consciousness, and thalamus’ role in regulating goal-directed behavior.





Barbara Chapman

Neuroscience Award

Special thanks from Alyssa Sanchez

Thank you so much for your kind gift. With the support of your family, I was able to attend the Gordon Re-search Seminar and Conference on Thalamocortical Interactions in Barga, Italy; a conference Barbara would have loved to attend. While I never had the pleasure of meeting Barbara, I have heard great things from my principal investigator Dr. Usrey about her and her impact on our community.

My background is in vision, and I study how the thalamus and cortex dynamically interact to allow for a visual percept. Through attending this conference, I was able to present my work to the small community that also studies thalamocortical interactions while simultaneously learning about a wide spread span of research across various sensory modalities—audition, motor, somatosensory—along with thalamus alterations in disease states, thalamus' role in consciousness, and thalamus' role in regulating goal-directed behavior.

This conference allowed me to expand my understanding of vision but and provided a plethora of information on thalamocortical interactions as a whole that I would never have received by going to just a vision conference. I was able to find similarities in my work in other sensory systems that allowed me to discuss with fellow graduate students and faculty researchers about their work that they presented at the conference. As this is a unique conference that provides meals, it was encouraged to sit and discuss both science and academic careers between trainees and principal investigators. Additionally, the conference facilitated networking and discussing future collaborations. As this is my fifth year, attending this international conference allowed me to navigate potential locations to pursue my post-doctorate both in the United States and abroad.

I have been told by many people who knew Barbara that she was a great mentor. By allowing me to attend this conference I was able to grow as a graduate student and continue to pursue a career in academia. Your generosity allowed me to attend this international conference and gave me a unique opportunity to present to, network with, and listen to top researchers in the field of thalamocortical interactions. I am extremely grateful for your family's contribution to me and my academic career. Thank you for making such a unique and enjoyable conference experience possible!

Sincerely,
Alyssa Sanchez