



UC DAVIS

Center for Neuroscience

Barbara Chapman Neuroscience Award



Olga Vafaeva

FY 2021-22 Award Recipient

Olga Vafaeva is a fourth year PhD student in the lab of Dr. Elva Diaz at the University of California, Davis. Olga was introduced to research while completing a bachelor's in chemistry at Hunter College. She has worked on multiple projects at the Albert Einstein College of Medicine, University of California, San Francisco, and the University of Groningen studying mechanisms of neural development and regeneration. These experiences fostered her love for research and helped to discover her interest in molecular neuroscience which Olga further pursued in her graduate studies. For her thesis, Olga investigates mechanisms controlling generation and integration of new neurons in the aged brain. Olga hopes to pursue a career in academia to develop therapeutic interventions for age-related memory deficits and cognitive decline.

Impact of Philanthropy

The Barbara Chapman Neuroscience Award for Brain Research enabled Olga to attend the CAJAL Advanced Imaging Techniques for Cellular and Systems Neuroscience course at the University of Bordeaux in France, where she expanded her network, developed a better understanding of microscopy as a tool to study cellular development and function, and gained skills in experimental methods that she is applying to her thesis project.





Barbara Chapman

Neuroscience Award

Special thanks from Olga Vafaeva

Thank you for your generous gift that made it possible for me to attend the Cajal advanced imaging techniques course at the University of Bordeaux in France. I began the Neuroscience Ph.D. program at UC Davis in 2018, joining the lab of Dr. Hwai-Jong Cheng, a long-standing collaborator and friend of Dr. Chapman. He always spoke very fondly of Dr. Chapman in our conversations. And it's not only Dr. Cheng, but the entire Center for Neuroscience remembers and honors Dr. Chapman. This is reflected in our annual retreat tradition to wear a fun, unique hat in honor of Dr. Chapman, as she used to wear a top hat at the retreat when she was Graduate Group Chair. Dr. Chapman made huge contributions to our community and touched the lives of so many people, and I am honored to be the recipient of the Neuroscience Award in her name.

Attending the Cajal advanced imaging techniques for cellular and systems neuroscience course was an incredible experience. The course included lectures and seminars combined with supervised, hands-on practical modules and group assignments taught by leaders in the field, who were often the creators of these techniques. For example, I learned how to perform DNA PAINT, a technique that enables single-molecule localization, under the guidance of Dr. Gregory Giannone, who is one of the developers and pioneers of this method.

The structure of the program included significant hands-on training, which allowed me to plan the immediate application of the acquired skills to my own thesis project, while receiving expert advice and guidance. As a result, I will use a super resolution technique that I learned called STochastic Optical Reconstruction Microscopy (STORM), in my experiments this year. These data will be critical for my dissertation project.

The Cajal advanced neuroscience training program was an unparalleled experience and an excellent networking opportunity. I thoroughly enjoyed meeting scientists, trainees, and potential collaborators and learning from researchers from all over the world. The training gave me a more comprehensive and in-depth understanding of microscopy and imaging, which will be valuable in my graduate research. The skills that I developed at this course will be an important stepping stone for the success of my thesis project and my prospective career in academia.

Your generosity made this training and networking opportunity possible, and for that, I am very grateful!

Sincerely,
Olga Vafaeva