

Alexandra Nelson is originally from Berkeley, California; she did her undergraduate work at Stanford University, and then completed MD/PhD training at University of California, San Diego. Her PhD work, under the mentorship of Dr. Sascha du Lac, focused on physiological mechanisms of motor learning in brainstem/cerebellar circuits. She then went on to a Neurology residency at UC San Francisco, where she became interested in basal ganglia physiology and movement disorders. She completed a combined research and clinical fellowship at the Gladstone Institutes (mentored by Dr. Anatol Kreitzer) and UC San Francisco (mentored by Drs. Gail Kang and Bruce Miller). She became the first UCSF Physician-Scientist Scholar in 2014, starting her own laboratory in the Department of Neurology. Her lab is exploring the role of basal ganglia circuits in both normal motor control and movement disorders like Parkinson's Disease and Dystonia, using in vivo and ex vivo electrophysiology, optogenetics, and behavioral techniques in mouse models. In addition to leading basic science research efforts in her laboratory, she co-directs the UCSF Memory and Aging Center Huntington's Disease Center of Excellence, where she cares for patients and families with Huntington's Disease and related neurodegenerative movement disorders. She is a proud member of the Neuroscience graduate program and currently mentors four Neuroscience graduate students in her laboratory.