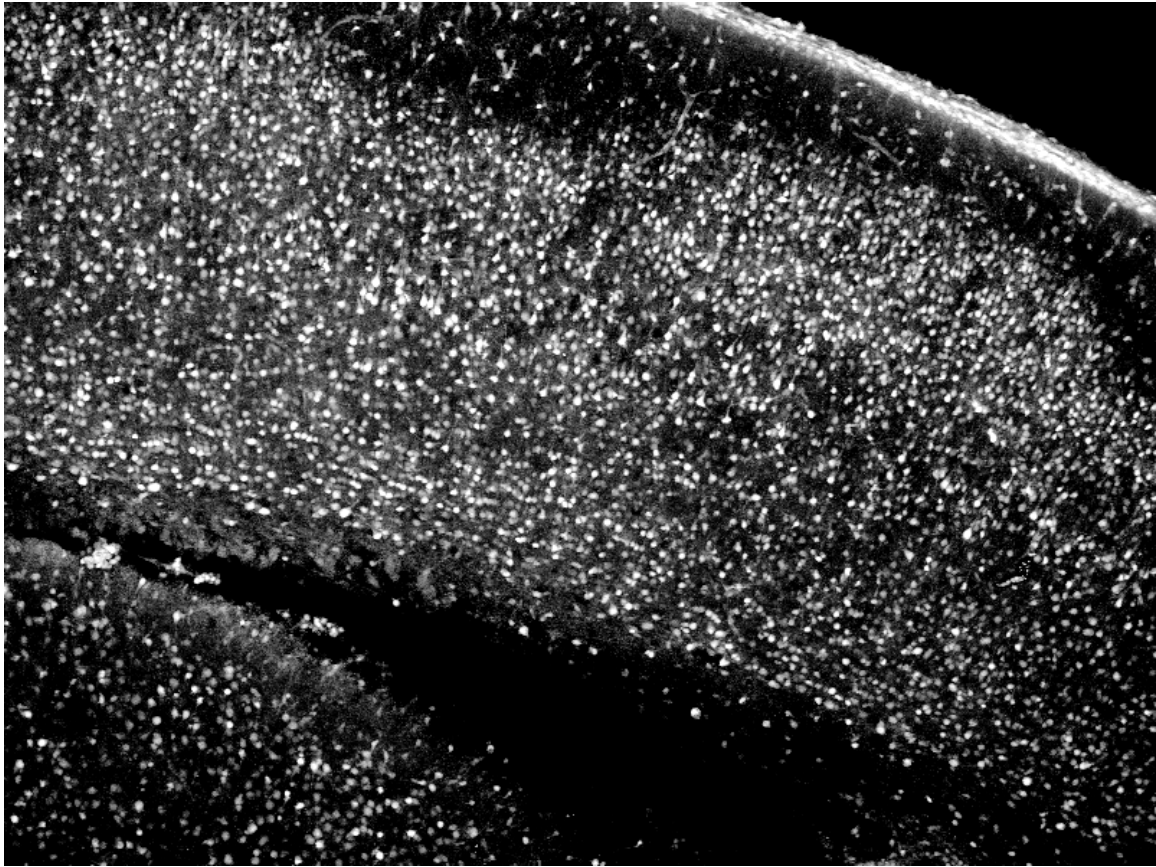


Two-photon Imaging and Manipulation of Epileptic Discharges

Postdoctoral Fellowship Available

Yuste Lab, HHMI, Dept. Biological Sciences, Columbia University



Description:

Seeking highly motivated applicants to undertake in-vitro and in-vivo imaging studies of epileptiform events in mouse neocortex. The goal is to optically manipulate epileptic discharges in order to either trigger or block them using two-photon lasers. Our group is a relatively small team of interdisciplinary researchers that work collaboratively and has pioneered and developed two-photon imaging techniques, ranging from calcium imaging to activation or inactivation of neurons using novel caged compounds. We are moving to new laboratory space within the main campus of Columbia University and this will enable our group to expand in new directions.

Successful applicants will be expected to undertake highly interdisciplinary research including performing surgical preparations and brain slices, acquiring in-

vitro and in-vivo data and performing analysis on the resulting image data sets using Matlab or related software. Training is available for these skills.

Qualifications:

Candidates should have relevant experience and hold a doctoral degree in a related field (Neuroscience, Physics, Biomedical / Electrical Engineering or other Biological or Physical Sciences) or a medical degree. Expertise in electrophysiology, in-vivo imaging, optics and image analysis and previous work in epilepsy would be advantageous but not necessary. Excellent organizational, communication and team skills are important. The appointment will be for a three-year period, with the possibility of extension. Women, international scholars and minorities are encouraged to apply.

How to Apply:

Interested applicants should send a resume and cover letter to Rafael Yuste rmy5@columbia.edu. More information about our lab is available at <http://www.columbia.edu/cu/biology/faculty/yuste/index.html>