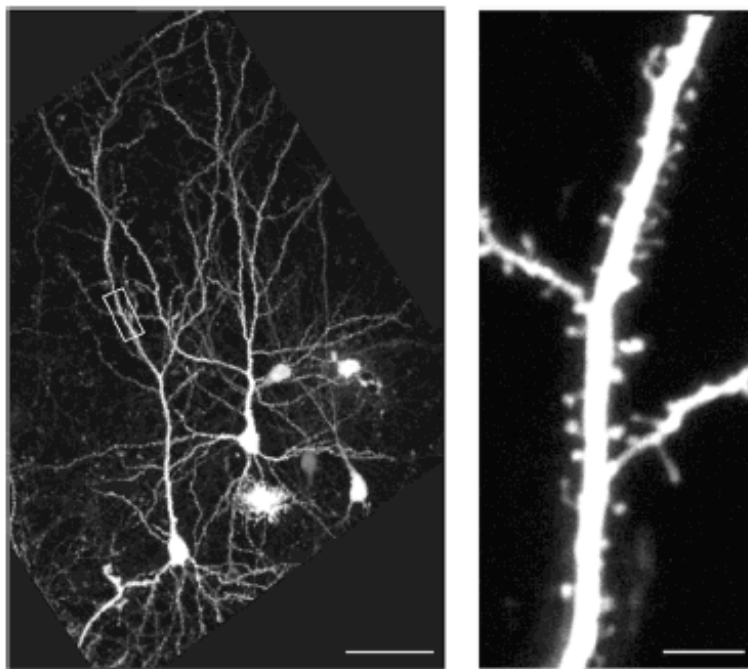


Biophysics of Dendritic Spines

Postdoctoral Fellowships Available

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



Description:

Seeking highly motivated applicants to undertake *in-vitro* and *in-vivo* studies of dendritic spines from mouse neocortex. Our goal is to identify the function of spines in neural circuits and understand its biophysical basis. Our group is a relatively small team of interdisciplinary researchers that work collaboratively and that have pioneered and developed two-photon and second-harmonic imaging techniques of dendritic spines, ranging from calcium and voltage imaging to their optical activation using novel caged compounds and spatial light modulators. We are now moving to new laboratory space, in the Interdisciplinary Science Building (see below) on the main campus of Columbia University, and this will enable our group to expand, with experimental setups for additional researchers.

We are looking for applicants that are passionate about understanding spines and are particularly interested in optical methods. Postdocs will be expected to undertake highly interdisciplinary experimental research including performing surgical preparations and brain slices, acquiring *in-vitro* and *in-vivo*

data and carrying out 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, Chemistry, Biomedical / Electrical Engineering or other Biological or Physical Sciences) or a medical degree. Expertise in electrophysiology, imaging, optics and image analysis and previous work in neuronal biophysics 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. Salary range will be competitive with HHMI postdoctoral salaries in the New York area. Subsidized housing in the Morningside neighbourhood of Columbia University will be provided.

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>

