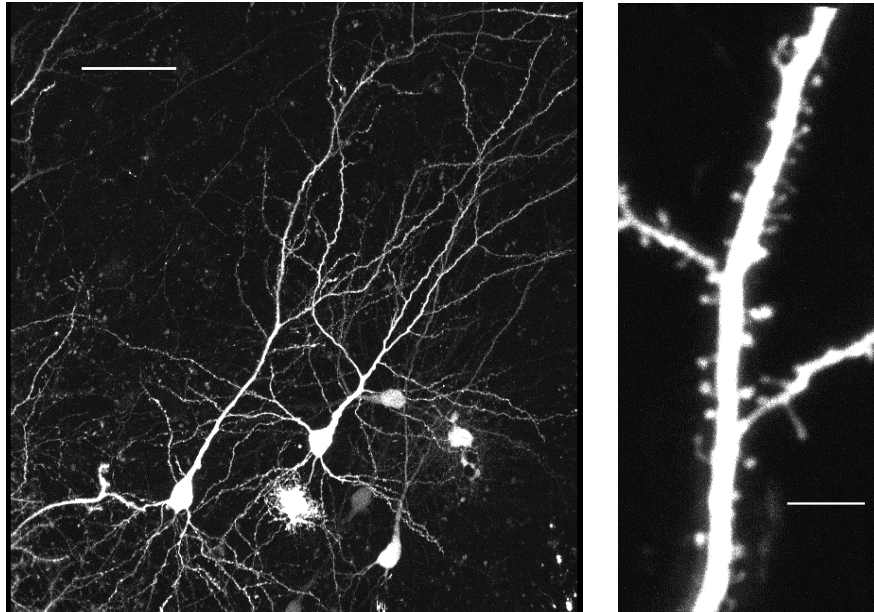


Optical Methods in Neuroscience

Postdoctoral Fellowships Available

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



Description:

Seeking highly motivated applicants to work on the development of novel optical methods for imaging or manipulating neuronal activity, with particular focus on imaging voltage. Our group is a relatively small team of interdisciplinary researchers that work collaboratively and have pioneered and developed two-photon and second-harmonic imaging techniques for dendritic spines and neuronal circuits, including calcium and voltage imaging and optical activation or inactivation using novel caged compounds and spatial light modulators. We are now moving to a larger new laboratory, in the Interdisciplinary Science Building (see below) on the main campus of Columbia University, with space to grow our group with additional researchers and new microscope setups.

Postdocs will be expected to undertake highly interdisciplinary experimental research including advanced non-linear microscopies on biological samples of culture neurons, brain slices, or in vivo preparations, acquiring structural and functional data, and carrying out the analysis on the resulting 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 (Physics, Chemistry, Neuroscience, Biomedical / Electrical Engineering or other Biological or Physical Sciences). Expertise in 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.

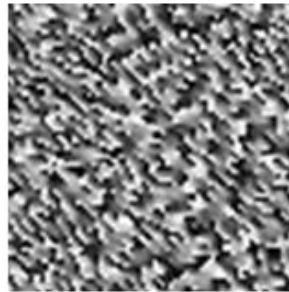
How to Apply:

Interested applicants should send a resume and cover letter to Rafael Yuste rmy5@columbia.edu or Darcy Peterka dp2403@columbia.edu. More information about our group is available at

<http://www.columbia.edu/cu/biology/faculty/yuste/index.html>



Original image



Phase mask

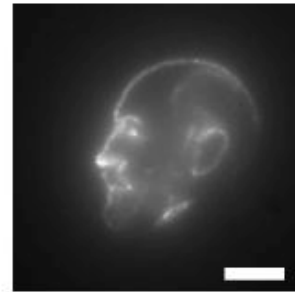


Image plane

