Senior Staff Scientist  
Advanced Neuro-Imaging & Technologies  
VAZIRI LAB  
Laboratory of Neurotechnology and Biophysics  
The Rockefeller University, New York, NY  
http://www.rockefeller.edu/research/faculty/labheads/AlipashaVaziri/#content

The emergence of new optical technologies combined with molecular sensors and advanced computational tools have led to major advances of our understanding of how the circuitry and dynamics of neuronal population give rise to brain functions and behavior. The Vaziri Lab of Neurotechnology and Biophysics (LNB) has a major focus on the development and application of advanced optical imaging technologies with applications for systems neuroscience. Over the last few years the lab has developed a portfolio of optical techniques that allow near-simultaneous stimulation [1, 2] and functional imaging of neuronal activity on the whole-brain level at single-cell level in small model organisms [3, 4] and more recently in the more scattering rodent brain [5-8].

Position
To further push the boundaries of neurotechnology development and brain-imaging, we are seeking to fill the position of (Senior) Staff Scientist / (Senior) Research Associate in the LNB who can develop an independent and highly synergistic research program aligned with the ongoing efforts in the laboratory. The successful candidate will be embedded in LNB benefiting from the existing laboratory infrastructure and scientific environment while leading a team supported by independently as well as jointly acquired external funding. Possible areas of the focus of the research program of the applicants may include but are not limited to:

- **Development of new optical methods for large scale recording of neuroactivity**
- **Imaging through scattering media**
- **Computational imaging technologies, machine learning and advanced statistics**
- **New conceptual applications of quantum optics and ultrafast optics to bioimaging and biology**

Qualifications
- Highly motivated, ambitious and goal-driven
- PhD in **physics, (quantum) optics, optical / electrical engineering or systems neuroscience**
- Prior experimental work on one and more of these areas highly desired: designing and building optical setups or instruments, ultra-fast optics, fiber optics, AMO physics, light/matter interaction, statistical data analysis, computational modeling, systems neuroscience, craniotomy surgery, rodent behavior
- Basic programming skills (e.g. Matlab, Python, LabView)
- Ability to manage multiple tasks and projects and work as a key part of an interdisciplinary team, excellent organizational and communication skills and willingness to work outside their core expertise.

Key Responsibilities
- Support multiple research projects at the senior level and lead own independent projects while training and mentoring other more junior scientists
- Support Head of Laboratory with execution of the laboratory research program and acquisition of external grants that would support the lab and their own projects
- Author, publish, and present research findings
- As needed, serve as a liaison to industry and support the dissemination of developed technologies

Interested candidates should send their CV including a list of publications, a statement of research interests and accomplishments as well as the contact information of at least three references to vaziri@rockefeller.edu For more information please visit our website www.vaziria.com

References

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