



**(Senior) Research Associate
or Research Assistant / Associate Professor
(Multiple Positions, Experience-Dependent)
Advanced Neuro-Imaging & Technologies**

Vaziri Laboratory of Neurotechnology and Biophysics

The Rockefeller University, New York, NY

<http://www.rockefeller.edu/research/faculty/labheads/AlipashaVaziri/#content>

Background

The Vaziri Lab of Neurotechnology and Biophysics (LNB) is focused on the development of optical technologies that allow near-simultaneous stimulation and functional imaging of large-scale and whole-brain single-cell resolution neuronal activity across model systems with an emphasis on tools for imaging in the highly scattering rodent brain.

To further push the boundaries of neurotechnology development and brain-imaging, we are seeking to fill one or more academic/faculty positions in our lab, with the specific title and responsibilities commensurate with the candidate's experience, qualifications, and scientific achievements. Candidates brought on as a Research Associate or Senior Research Associate will be eligible for consideration for promotion to the rank of Research Assistant Professor subject to successful review by a university committee. Candidates at the level of Research Assistant / Associate Professor would assume a leadership role in the LNB and develop an independent and highly synergistic research program aligned with the ongoing efforts at our department. They would lead a team supported by independently as well as jointly acquired external funding while imbedded in the LNB, benefiting from the existing laboratory infrastructure and scientific environment.

Possible areas of all candidates' research area may include, but are not limited to:

- Development of new optical or non-optical methods for interrogating neuroactivity
- Deep tissue imaging and imaging through scattering media
- Computational imaging technologies, machine learning and advanced statistics
- Development of early-stage technologies for bioimaging and biology based on conceptually new approaches from quantum optics/quantum sensing, ultrafast optics, nano-photonics or other areas
- Development of new molecular sensors and use of biochemical or synthetic biological approaches

Key Responsibilities:

- Independently develop, acquire funding, and lead research projects while training and mentoring junior scientists (Research Assistant / Associate level)
- Lead and support one or multiple research projects at senior level
- Support Head of Laboratory with execution of the laboratory research program and joint acquisition of external funding
- Author, publish, and present research findings
- As needed, lead internal and external collaborative projects, serve as a liaison to industry and support the dissemination of developed technologies

Qualifications

- Self-driven, ambitious, and motivated by enabling engineering innovations with lasting impact in biology
- PhD in physics, optics, optical / electrical engineering, or related fields
- Demonstrated track record of innovation, scientific excellence, and substantial contributions in research in candidate's field
- 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
- Prior experimental work experience in academia or industry on one or more of these areas is highly desired: designing and constructing complex optical systems, ultra-fast optics, fiber optics, computational modeling, systems neuroscience
- Track record of acquisition of research funding is required for appointments at Research Assistant / Associate Professor level

Interested candidates should send their application material including CV/resume, list of publications, a statement of research interests as well as the contact information of at least three references to vaziriadmin@rockefeller.edu and CC vaziri@rockefeller.edu and Lzhang@rockefeller.edu. For more information, please visit our website at <https://vaziri.rockefeller.edu/>

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