



Postdoctoral positions

NIH-funded positions in multi-disciplinary research, Hariadi Lab, Arizona State University

BIOmolecular **N**anosystems with ever-Increasing Complexity & **S**ize **LAB**oratory (**BIONICS LAB**), also known as **Hariadi lab** is eager to recruit 2 postdocs who are interested in a multi-disciplinary approach to studying non-equilibrium organization of biomolecular systems.

We are an energetic lab supported by an NIH Director's New Innovator Award of \$1.5M and other grants. Our lab is part of a tightly-integrated research team at the Bidesign Institute and Center for Biological Physics at ASU. *We are recruiting postdoctoral candidates to launch our science to the next level!*

We use multidisciplinary approach to dissect biophysical processes involved in disease pathogenesis, such as (i) actin-myosin interactions, (ii) intracellular parasite invasion (e.g., *Toxoplasma*), and (iii) viral infections. These projects leverage our unique expertise in DNA origami nanotechnology, protein engineering, microscopy, and single-molecule biophysics. The DNA origami scaffolds simultaneously (i) arrange proteins or viral particles at molecular resolution and (ii) induce, tune, and measure the tension across proteins of interest. If successful, these projects will provide more evidence of mechanical forces as a fundamental factor, alongside biochemical interactions and genetic information, in controlling biological functions with implications in science and medicine.

Your tasks

Specific research goals will be discussed with and agreed on by the Principal Investigator.

- Responsibilities of the postdoc position in biophysics include (i) taking a primary role in ongoing optical microscopy development projects and (ii) leading and/or participating in projects on studying protein structures and functions under tension using single-molecule FRET and cryo-EM.
- Responsibilities of the postdoc position in molecular biology or protein biochemistry include (i) leading projects on structural and functional study of mechanosensitive proteins under tension and (ii) leading and/or participating in projects on recombinant proteins expression.

The postdoc will have intellectual freedom to develop new projects and new collaborations according to their research interests.

Your profile

- Have expertise in **at least one of these areas:** (i) DNA nanotechnology, (ii) super-resolution microscopy, (iii) molecular biology (e.g., cytoskeleton), (iv) cryo electron microscopy, and (v) virology.
- Have a Ph.D. or nearing completion of a Ph.D. in Physics, Molecular & Cellular Biology, Biomedical Engineering, Biochemistry, or related topics.

