



Boston University Pulmonary Center



Neurophotonics Center

Building and sustaining a community of developers, early adopters, and users.  
<http://bu.edu/neurophotonics>

## College of Engineering

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### Postdoctoral positions in Nia Lab

[Nia Lab](#) is currently seeking postdoctoral applicants with expertise and interest in pulmonary mechanobiology and mechano-immunity in multiple areas including lung cancer, lung metastasis, pathogen transport and transmission dynamics, and aging. The postdoctoral fellow is expected to utilize novel model systems developed in Nia Lab including Crystal Ribcage and Extracorporeal Cross-circulation models to probe the dynamics of pulmonary disease development, progression, and treatment response in real-time and at the cellular resolution. These transformative models provide an unprecedented opportunity to make visible several key events in pulmonary pathophysiology that has been invisible when using traditional approaches. The projects defined involve both hypothesis-driven and exploratory types.

Nia Lab is currently funded by NIH Director's New Innovator Award (DP2), NIH-NHLBI, NIH-NIBIB, NSF (CAREER), Beckman Foundation, and Johnson & Johnson.

#### Expected tasks:

The position requires a highly motivated and independent researcher to:

- Pursue an independent and collaborative research at the interface of Physical sciences and engineering, biology, and immunology.
- Perform ultra-fast confocal microscopy on a lung in action in Crystal Ribcage.
- Perform microsurgeries that are involved in the use of crystal ribcage and extracorporeal cross-circulation.
- Publish the original results, present research at relevant conferences, and contribute to grant proposals.

#### Required qualifications:

- PhD in Biomedical Engineering, Mechanical Engineering, Biology, Immunology, or relevant areas
- Extensive hands-on experience with fluorescent optical imaging, and preliminary image processing
- Extensive experience with mouse handling and microsurgeries
- Experience with cell culture and molecular biology
- Excellent oral, written, and interpersonal communication skills in a highly multidisciplinary environment
- Excellent organizational skill to maintain lab policy and processes

Nia Lab is placed in the [Department of Biomedical Engineering](#) at Boston University, which is consistently ranked among the top 10 BME departments in the nation by *U.S. News & World Report*. Nia Lab is highly interdisciplinary and collaborative with established collaborations with BUSM, MGH, and MIT.

To begin the application process, please e-mail a cover letter, current CV, and contact information of three references to Prof. Hadi Nia at [htnia@bu.edu](mailto:htnia@bu.edu). The cover letter should include a description of the candidate's relevant research experience, research interest, expectations for the position, short- and long-term goals, and preferred start date.