

## POSTDOC POSITIONS - UNIVERSITY OF NORTH CAROLINA at CHAPEL HILL

A multi-PI team leading research at the matter-to-life nexus, funded by The Alfred P. Sloan Foundation is looking to hire multiple postdocs. Team members include:

**Ronit Freeman, PhD** - Associate Professor, Department of Applied Physical Sciences, UNC-Chapel Hill, Email: [ronifree@email.unc.edu](mailto:ronifree@email.unc.edu), Website (<https://freeman-lab.com/>) ; Twitter (@RFreeman\_Lab)

**Amy Gladfelter, PhD** - Professor, Department of Biology, UNC-Chapel Hill, Email: [amyglad@unc.edu](mailto:amyglad@unc.edu), Website (<https://gladfelterlab.web.unc.edu/>) ; Twitter (@GladfelterLab)

**Klaus Hahn, PhD** - Professor, Department of Pharmacology, UNC-Chapel Hill, Email: [khahn@med.unc.edu](mailto:khahn@med.unc.edu), Website ([hahnlab.com](http://hahnlab.com)), Twitter (@hahnlab)

**Rick Baker, PhD** - Assistant Professor, Department of Biochemistry and Biophysics, UNC-Chapel Hill, Email: [baker@med.unc.edu](mailto:baker@med.unc.edu), Website ([www.rickbakerlab.org](http://www.rickbakerlab.org)); Twitter (@therickybaker)

**Greg Forest, PhD** - Professor, Departments of Mathematics, Applied Physical Sciences, Biomedical Engineering, UNC - Chapel Hill, Website (<https://forest.web.unc.edu/>), Email: [forest@unc.edu](mailto:forest@unc.edu)

**Ehssan Nazockdast, PhD** - Assistant Professor, Department of Applied Physical Sciences, UNC-Chapel Hill, Email: [ehssan@email.unc.edu](mailto:ehssan@email.unc.edu), Website: <https://www.nazockdastlab.com/>

**Daphne Klotsa** - Assistant Professor, Department of Applied Physical Sciences, UNC-Chapel Hill, Email: [dklotsa@email.unc.edu](mailto:dklotsa@email.unc.edu), Website: <https://klotsagroup.wixsite.com/home>

Researchers in the participating labs enjoy access to the world's most advanced facilities and equipment and an environment that supports creativity, discovery, and interdisciplinary collaboration.

The research sits on the interface of biology and engineering and will use the tools of physics, mathematics, material design, and computation to advance biology as well as use biology to broaden development of engineered multiscale systems. Topics include understanding the principles of membrane curvature sensing in cells, cellular biomechanics and fluid dynamics. We will explore how physical forces influence biological and synthetic cellular self-organization, and design biological signal transduction and information processing in synthetic biomaterials, among others.

**We are currently seeking applications for the following positions:**

**Synthetic Biology and Biomaterial design**

The successful candidate must have a Ph.D. in Chemistry, Biology, Physical Sciences or related fields. Experience in DNA nanotechnology, DNA origami, or peptide self-assembly is preferred.

### **Nanoscale Biophysics**

The successful candidate must have a Ph.D. in the biological, physical, or chemical sciences, or related fields. Previous experience with Cellular and extracellular biomechanics and methods to visualize/follow dynamics in living and synthetic cells is preferred.

Experience with protein engineering and/or single molecule imaging, biosensors/chemogenetics/optogenetics would be valuable.

### **Computational Biomechanics**

The successful candidate must have a Ph.D. in Applied Mathematics, Biomedical, Chemical or Mechanical Engineering, Chemistry, Physics, or a closely-related field. We seek candidates with specific previous theoretical and computational experience in soft active materials, biological fluid dynamics and biomechanics. Experience in collaborating with experimentalists is a plus.

### **Cryo-EM of endogenous and synthetic membrane-bound proteins**

The UNC cryo-EM core houses a Talos Arctica equipped with a K3 direct electron detector and a Volta Phase Plate. The core is also part of the broader Molecular Microscopy Consortium (MMC) in partnership with Duke and NIEHS, providing a rich environment for cryo-EM in the Research Triangle.

The successful candidate must have a Ph.D. in the biological, physical, or chemical sciences. Previous experience with cryo-EM is highly preferred.

**Please send your CV and a cover letter outlining your research interests and goals to [ronifree@email.unc.edu](mailto:ronifree@email.unc.edu) or directly to any of the team members listed above.**