



### **Immunoengineering Postdoctoral Research Associate Position**

**Description:** The Shields Lab in the Department of Chemical and Biological Engineering at the University of Colorado Boulder is seeking a postdoctoral researcher to design and create adoptive cell transfer technologies for delivering nanoparticles. Macrophages have emerged as a next-generation tool to deliver cargo such as bioactive drugs and genes to inflamed tissues within the body. However, macrophages can change their function in complex and sometimes unexpected ways that exert negative effects on the body. The goal of this research position is to develop an understanding of how different nanoparticle formulations affect macrophage activation and transport with the body. Knowledge gained from this work will be used to guide the design of new nanoparticle formulations to enhance cellular incorporation, promote or suppress cellular activation states, and improve accumulation in inflamed tissues. This project combines topics in nanoparticle engineering, cellular immunology, and pharmacology. The researcher working on this project will have numerous opportunities to mentor students and collaborate with other researchers at the University of Colorado and afar.

#### **Qualifications:**

- 1) Ph.D. degree in chemical and biological engineering, immunology, pharmaceutical sciences, or a related discipline by the time of appointment.
- 2) Expertise in two or more of the following areas: immunoengineering, nanomedicine, cell-based therapies, cancer research, and biomaterials. Preference will be given to candidates who have a background in, or strong familiarity with, immunoengineering and animal (murine) models.
- 3) Experience in mammalian cell culture, flow cytometry, PCR, ELISA, tumor inoculation, tail vein injection, and blood draws. Familiarity with nanoparticle synthesis and/or epigenetics is considered a strength, but not a requirement.
- 4) Self-motivated and highly organized. Strong oral and written communication skills. An ability to work both independently and collaboratively.
- 5) Track record of publication in high-impact journals.

**How to Apply:** Applicants should send their CV, a cover letter describing their research background and interests (with an expected date of availability), and the name and contact information of 3 references to Dr. Shields at [Charles.Shields@colorado.edu](mailto:Charles.Shields@colorado.edu). For more details, visit the CU Boulder Job Board: <https://jobs.colorado.edu/jobs/JobDetail/?jobId=41736>.