



JEWELL RESEARCH LAB

FISCHELL DEPARTMENT OF BIOENGINEERING
UNIVERSITY OF MARYLAND - COLLEGE PARK

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POSTDOCTORAL POSITION AT THE INTERFACE OF IMMUNOLOGY & BIOMATERIALS

Research Description

The Jewell Research Lab in the Fischell department of Bioengineering at the University of Maryland (UMD) – College Park has an opening for a postdoctoral scientist. The goal of our research is to understand the interactions between biomaterials and immune cells and tissues, and to exploit these interactions to generate vaccines and immunotherapies with specific, tunable characteristics. We use biomaterials ranging from degradable polymers, to lipid carriers, to nanostructured surface coatings to study and combat infectious disease and autoimmune disorders. Our work involves cell and animal models, and incorporates tools from chemistry, engineering, and immunology. We have external funding support on several projects. For more information please visit jewell.umd.edu.

Specialized equipment in the Jewell Lab includes a fully automated fluorescence microscope, a laser diffraction particle characterization system, a robotic deposition system, a high-speed preparative centrifuge, and a stokes ellipsometer. Dedicated ABSL-2 cell culture and animal facilities are utilized for vaccine and immunotherapy studies. The lab is also located adjacent to core department equipment including a BD FACS CantoII flow cytometer with a high throughput carousel. In addition to outstanding campus institutes (e.g., [Institute for Bioscience & Biotechnology Research](#), [Maryland Pathogen Research Institute](#)), UMD is located near top government research and funding agencies (e.g., NIH, DOD, NSF, FDA). This proximity provides unique opportunities for research, funding, and career networking.

Compensation will be at or above NIH postdoctoral guidelines, and will include a competitive benefits and retirement package offered by the UMD. Postdoctoral scientists will receive a renewable, annual contract with the expectation of completing 2-4 years of postdoctoral training.

Qualifications and Application Procedure

We are seeking candidates with an immunology or molecular biology background for multidisciplinary research at the interface of bioengineering/materials science and immunology/autoimmunity. Experience with biomaterials is not required but opportunities to gain training in this area will be offered. Candidates with experience in two or more of the following areas will receive preference: 1) translational research in rodent models, 2) mouse models of autoimmunity (e.g., EAE, type I diabetes), 3) flow cytometry, 4) isolation and culture of primary immune cells, 5) histology and immunofluorescence.

Interested candidates should assemble a i) cover letter, ii) CV, iii) list of references, and iv) two first-author manuscripts that have been published or accepted for publication. The cover letter should describe the candidate's research experience, proposed project interests, and preferred start date. E-mail the application as a single PDF file to cmjewell@umd.edu.

Key dates

Candidate review: Oct-Nov 2013
Interviews: Nov-Dec 2013
Start date: Jan-Feb 2014