JEWELL RESEARCH LAB

FISCHELL DEPARTMENT OF BIOENGINEERING
UNIVERSITY OF MARYLAND - COLLEGE PARK

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POSTDOCTORAL POSITIONS AT THE INTERFACE OF BIOMATERIALS AND IMMUNOTHERAPY

The Jewell Research Lab in the Fischell department of Bioengineering at the University of Maryland (UMD) – College Park has openings for postdoctoral researchers. The lab's current projects are supported by 8 multi-year grants spanning fundamental interactions between biomaterials and immunological tissues, new materials design, and translational targets in cancer and autoimmunity. The current openings are in the latter two areas, with positions available for projects aimed at i) vaccines to durably combat cancer and ii) immunotherapies that promote efficacious and selective tolerance during multiple sclerosis and type I diabetes.

Compensation for these positions will be at or above NIH postdoctoral guidelines, and will include a competitive benefits and retirement package offered by UMD. Postdoctoral researchers will receive a renewable, annual contract with the expectation of completing 2-4 years of training. Flexibility to pursue research in personal areas of interest, to apply for grants and fellowships, and to develop independent research directions will be encouraged.

The goal of the Jewell Lab is to understand the interactions between biomaterials and immune cells, and to exploit these interactions for therapeutic vaccines aimed at cancer and autoimmunity. We use biomaterials ranging from degradable polymers, to lipid, to self-assembled materials. Our work involves materials synthesis, cell and animal models, and samples from human patients. These efforts draw on a vibrant group of 15 postdocs, students, and support staff, integrating tools from chemistry, engineering, and immunology. For more info visit jewell.umd.edu.

Specialized equipment in the lab includes a fully automated fluorescence microscope, a laser diffraction particle analyzer, a high-speed preparative centrifuge, an automated cell counter and plate washer, a spin coater and plasma deposition chamber, and a stokes ellipsometer. Dedicated ABSL-2 cell culture and animal facilities are utilized for vaccine and immunotherapy studies. The lab also maintains the department BD FACS CantoII flow cytometer (8-color) with a high throughput carousel. The UMD has broken ground on A. James Clark Hall (http://www.eng.umd.edu/clarkhall), a state-of-the-art research and training facility that the Fischell Department of Bioengineering will relocate to in Summer 2017. The Jewell lab's research is further supported by the lab's formal connections to the U.S. Dept. Veterans Affairs, Greenebaum Cancer Center, and the University of Maryland Medical School. UMD is also located near top government research and funding agencies including NIH, DoD, NSF, NIST, and the FDA. This proximity provides unique opportunities for research, funding, and career networking.

Qualifications and Application Procedure

The ideal candidate will have experience with both biomaterials and immunology, but opportunities to gain new skills in either area will be offered. Preference will be given to candidates with experience in three or more of the following areas: 1) translational research in rodents, 2) mouse models of autoimmunity/cancer, 3) biomaterials synthesis and characterization, 4) flow cytometry, 5) isolation/culture of primary immune cells, 6) histology/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, career goals/expectations for the position, and preferred start date. E-mail the application as a single PDF file to cmjewell@umd.edu.

Key dates

Interviews:	December 2016 / January 2017
Target start date:	January-March 2017