



MedImmune, Inc.

## Job Description

### **Position #SWB28RIA**

**Job Title:** Postdoctoral Fellow – Science without Borders

**Site:** Gaithersburg, MD

**Department:** Respiratory Inflammation and Autoimmunity (RIA)

**Duration:** 2 years

We are seeking a highly motivated postdoctoral fellow with a background in immunology and cell biology. The candidate will study the roles of the complement system in the regulation of autophagy in diseases such as systemic lupus erythematosus (SLE) and age-related macular degeneration (AMD). The department offers state-of-the-art research facilities for innovative basic and translational research. The candidate will have the opportunity to receive training and exposure to cutting-edge research topics and a broad range of research expertise and skill sets.

### **Major Duties and Responsibilities:**

Candidates will conduct experiments to examine the mechanisms of interaction between complement and autophagy in the pathogenesis of major diseases such as SLE and AMD. The candidate will independently design and execute experiments, summarize data and prepare publications and presentations.

### **Requirements/Qualifications:**

**Nationality:** Brazilian citizenship or permanent residency

**Education:** PhD in Immunology or Cell Biology

**Experience:** Doctoral and/or Post-Doctoral research

### **Special Skills/Abilities:**

The candidate should have strong background in immunology and cellular biology with experience in working with primary mouse and human cell culture for *in vitro* functional assays. Skills should include multi-color flow cytometry, quantitative RT-PCR, western blotting, immunoprecipitation and cell signaling. Experience with confocal microscopy and image stream flow cytometry would be beneficial. The candidate must be motivated and capable of working independently and collaboratively and have strong written and verbal communication skills with publication(s) in the fields of immunology or cell biology. Demonstrated ability to conduct a complex research project and pursue multiple lines of investigation simultaneously is preferred.

### **Project Summary:**

Increased complement activation and dysregulated LC3-dependent autophagy have been implicated in autoimmune disease and inflammation. However, it is unclear whether these two mechanisms interact to accentuate disease. This proposal will focus on two model systems to delineate the roles and mechanisms of how complement components may modulate LC3-dependent autophagy in plasmacytoid dendritic cells (pDC) and retinal pigment epithelial (RPE) cells which are associated with the pathogenesis of systemic lupus

erythematosus and age-related macular degeneration, respectively. The results from the proposed studies will help understand the central mechanisms of pathogenesis of these diseases, as well as providing insights into potentially novel therapeutic approaches.

**Application Instructions:**

Please note that these postdoctoral positions are advertised under an AZ/MedImmune partnership with Brazilian Science without Borders (SWB). If you are interested in any of these positions, please apply through the SWB website specifying the position number, [click here](#).