



The Trapecar Lab at the Johns Hopkins All Children's Hospital and Institute for Fundamental Biomedical Research in St. Petersburg, Florida, is looking to hire two postdoctoral scientists.

The focus of the group is the exploration of the fundamental origins of immunometabolic diseases, such as IBD and autoimmune liver diseases. We are particularly interested in better understanding the role of MR1-restricted T cells, such as MAIT cells, in the progression of autoimmunity. The lab uses exciting, multiorgan human-on-a-chip technologies and systems biology to probe intricate interactions between immune cells, various tissues, and their metabolic environment. To get a sense of the approach, please consult [www.trapecarlab.org](http://www.trapecarlab.org) and see two recent papers: Trapecar et al., *Cell Systems* 2020 and Trapecar et al., *Science Advances*, 2021.

An ideal candidate will have strong conceptual and practical experience in two or more of the following areas: mucosal immunology, molecular biology, stem cell biology, and systems immunology. Types of tissues and organs that the lab is particularly interested in are the intestine and lungs, liver, neuronal and adipose tissue, and a wide range of circulating and tissue-resident immune cells. Standard techniques used in the lab are cell culturing (primary cells, organoids, iPS cells), flow cytometry and cell sorting, generation, and analysis of transcriptomic as well as metabolomics data (ChIPseq, scRNAseq...), confocal microscopy, multiplexed cytokine/chemokine analysis (ELISAs, Luminex) and use of bioengineered tools like human-on-a-chip platforms to study human multiorgan interactions.

Successful candidates must be capable to work in highly multidisciplinary research teams and have a demonstrated track record of success in independent scientific research. Strong applicants will exhibit significant basic science understanding, scientific rigor, motivation, and an ability to originate, carry out, and publish significant original research in collaboration with their JHU mentors. Strong written and verbal English language skills are required.

The rapidly growing new Institute for Fundamental Biomedical Research is part of the Johns Hopkins All Children's Hospital in St. Petersburg, Florida, and the Johns Hopkins University (JHU) School of Medicine ecosystem. It represents a superbly equipped research environment that aims to connect basic and clinical researchers to solve some of the biggest medical challenges. Trainees and postdoctoral scientists also have full access to resources available at the main JHU Baltimore campus and are strongly encouraged to participate in JHU-wide activities and collaborations. The lab and institute are fully committed to the candidate's career development and path to independence.

St. Petersburg offers an excellent quality of life in terms of affordability, pristine nature, close proximity to Tampa bay's international airport, and vibrant cultural life.

If interested in the position, please submit a CV and brief description of scientific interests to [mtrapec1@jhmi.edu](mailto:mtrapec1@jhmi.edu).