

MASSACHUSETTS GENERAL HOSPITAL

Job Title: Research Technician

Job Family: Research

GENERAL SUMMARY/ OVERVIEW STATEMENT:

The Pillai laboratory (<https://www.ragoninstitute.org/portfolio-item/pillai/>) at the Ragon Institute of MGH, MIT and Harvard is seeking to hire a full-time research technician.

The candidate will assist in research to define molecular and immunological mechanisms underlying severe infectious and autoimmune conditions not limited to COVID-19, IgG4-related disease and systemic sclerosis utilizing both animal models as well as primary specimens from patients at the Massachusetts General Hospital. Recent work from the lab has demonstrated impairment of germinal center development in the lymphoid organs in COVID-19 (Kaneko et al. *Cell*, preprint July 2020. The Loss of Bcl-6 Expressing T Follicular Helper Cells and the Absence of Germinal Centers in COVID-19) and the underlying mechanisms will be studied in a mouse animal model of SARS-CoV2 infection. We have also identified pathogenic lymphocyte subsets driving fibrosis in multiple human autoimmune diseases and the molecular mechanisms underlying their development are being explored using a variety of approaches.

This position is ideal for individuals who are interested in pursuing a career in biomedical research, industry or medicine and are looking to gain one-to-two years of meaningful research experience while working in a supportive, highly collaborative research environment with state-of-the-art facilities. The Ragon Institute is an internationally renowned immunology-focused research center located in Kendall Square, Cambridge, Massachusetts.

We are interested in hiring an enthusiastic individual with a sound understanding of cell and molecular biology and a strong interest in human immunology and infectious diseases. The candidate must have the ability to work within a team atmosphere, and be willing to work full-time with occasionally flexible hours. Prior related laboratory experience is preferred.

This position will involve both cellular and molecular laboratory bench work and offers an opportunity to gain experience in a broad range of techniques not limited to:

- Epifluorescence/multispectral microscopy
- Multi-parameter flow cytometry
- Next-generation sequencing (NGS)
- CRISPR/Cas9 gene editing
- Work in both BSL1 and BSL2+ environments

PRINCIPAL DUTIES AND RESPONSIBILITIES:

- Attend and participate in weekly lab meetings and scientific discussions
- Understands and applies basic experimental techniques
- Set up and prepare experiments as directed
- Maintain a laboratory notebook

- Processing and maintenance of patient-derived cells and tissues
- Genotyping of mouse colony and assist in mouse colony management
- Conduct analysis of results and learn to interpret results
- Perform independent literature searches
- Assist with organizing materials for publication or presentation

REQUIREMENTS:

- Self-motivation, strong organizational skills
- Prior experience in an immunology, biochemistry or molecular biology lab
- Familiarity with experimental biology techniques
- Open to working with laboratory mice
- Ability to work independently and as a team member
- Strong written and verbal communication skills
- Computer literacy
- On occasion, night and weekend work may be required, but only if an experiment requires it