

## MASSACHUSETTS GENERAL HOSPITAL

Job Title: Research Technician Job Family: Research

Job Code: 000319 & 001593 Grade: 13 & 14

Department: All Research Departments

### GENERAL SUMMARY/ OVERVIEW STATEMENT:

The Shalek Lab (<http://shaleklab.com>, MIT, Broad Institute, and Ragon Institute), which specializes in leveraging novel single-cell genomic approaches to understand the behaviors of complex biological systems. For this position, there will be a specific focus on investigating Chronic Hepatitis B infection through international, multisite cross-sectional and longitudinal exploratory studies. Research questions will center on understanding the differences in the cellular communities of both the liver and peripheral blood in different clinical stages of disease and how they vary after stopping treatment. The core technique learned and applied will be Seq-Well, an in-house and customizable platform for single cell RNA-sequencing scRNA-seq library generation from thousands of cells in parallel. The project will entail careful consideration of study design, interfacing with clinical teams, fluorescence activated cell sorting (FACS), RNA-seq library preparation, next generation sequencing (NGS), data analysis in R, interpreting and contextualizing findings, and communicating results to the lab and larger community.

The Research Technician's role will be to carry out the science associated with this project and support the Principal Investigators and other collaborators of the study. Project topics will focus on using single-cell RNA-sequencing and other genomic approaches to characterize cellular communities in Chronic Hepatitis B infection. The Research Technician will be responsible for independently coordinating and executing experiments in Boston & Cambridge, MA.

The position offers an opportunity to gain fundamental skills working in an interdisciplinary and technologically driven environment and to gain access to the intellectual resources available across all three institutes.

### PRINCIPAL DUTIES AND RESPONSIBILITIES:

#### Laboratory and related work:

- Prepares basic solutions and performs base-level procedures as assigned (i.e. – pipetting, cell and tissue culture, etc.)
- Maintains laboratory notebook
- Understands and applies basic scientific techniques
- Conducts analysis of results and may begin interpretation of results
- Sets up and prepares routine experiments as directed
- Prepares lab reagents, chemicals, instruments and equipment
- May perform independent literature searches
- Assists with organizing materials for publication or presentation

- Maintains and orders supplies

**SKILLS/ABILITIES/COMPETENCIES REQUIRED:**

- Ability to work independently and as a team member
- Good communication skills
- Computer literacy
- Working knowledge of clinical research protocols
- Ability to perform multiple tasks independently

**EDUCATION:**

Bachelor's degree required.

**EXPERIENCE:**

New graduates with some lab experience (via course work, internships, etc.) or those without any prior research experience will be considered for the Research Technician I position outlined above.

Those with a minimum of 1 year of **directly related** work experience will be considered for a Research Technician II position.

The Research Technician II should also possess:

- Analytical skills and the ability to resolve technical problems
- Calculate, transcribe and analyze data
- Execute protocols of non-routine experiments
- Working knowledge of data management programs
- Demonstrated competence in research techniques and methodologies
- Organize and summarize acquired data, using scientific and statistical techniques.
- Organize and/or draft material for the preparation of research papers, manuscripts and other documents for publication and/or presentation.
- Participate in the design of experiments or field work.

**SUPERVISORY RESPONSIBILITY (if applicable):**

N/A