

MASSACHUSETTS GENERAL HOSPITAL

Job Title: Bioinformatics Analyst

Job Family: Research

Job Code:

Grade:

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. The expectation is to work on a wide variety of projects in the global human health space, from SARS-CoV-2, HIV and other infectious diseases. These projects will entail careful consideration of interfacing with clinical teams and sample handling, from sample receiving through RNA-seq library processing and next generation sequencing and then downstream data analysis and interpreting and contextualizing findings, and communicating results to the lab and larger community. The core technique learned and applied will be Seq-Well, an in-house and customizable platform for single cell RNA-sequencing library generation from thousands of cells in parallel. The Seq-Well technique can be broadly applied to many areas of research so there is an opportunity to lead small projects over time. 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:

- Independently analyze data from high-throughput, sequencing projects
- Assists in the development of bioinformatics workflows to automate frequently used analytical procedures
- Provide summary reports of workflow outputs
- Understands and applies basic scientific techniques
- Conducts analysis of results and may begin interpretation of results
- May perform independent literature searches
- Calculate, transcribe and analyze data
- 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.
- Sets up and prepares routine experiments as directed
- Maintains detailed documentation either through a laboratory notebook or well annotated scripts

SKILLS/ABILITIES/COMPETENCIES REQUIRED:

- Ability to analyze and interpret data sets
- Ability to communicate data in a clear and concise manner
- Working proficiency in Unix, Python or R
- Ability to work independently and as a team member
- Good communication skills
- Good time management skills
- 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 position above.

SUPERVISORY RESPONSIBILITY (if applicable):