Post-Doctoral Bioinformatics Research Scientist / Bioinformatician II

Overview: This highly collaborative postdoc (or similar training) 2+ year position provides a unique opportunity for multi-disciplinary research spanning Systems Immunology and the Human Immunophenotyping (HIP) Core/Long Lab, under the guidance of Dr. Hamid Bolouri and Dr. Alice Long.

The HIP Core and Long Lab are translational immunology labs that study autoimmunity by using cytometry-based assays on samples from clinical trials paired with selected samples to better understand mechanisms of disease.

The Bolouri Lab is focused on developing and applying computational systems immunology methods to better understand immune dysregulation in autoimmunity, cancer, and infection.

We are seeking a bioinformatics scholar with strong interests in high-dimensional flow and mass cytometry, omics technologies, and systems immunology, as well as deep expertise in the development and application of bioinformatics methods and tools to emerging challenges in immunology research. Together, we hope to foster creative thinking that will move the field closer to treatments of immune mediated diseases.

Responsibilities:

- Perform cytometry data annotation, curation, and harmonization as needed.
- Work independently and collaboratively with Long lab and HIP Core researchers to design, implement, and analyze new immunological experiments.
- Evaluate emerging computational methods and tools for cytometry data processing and analysis. Recommend, adapt, and implement best-of-class data processing/analysis pipelines for large-scale application at BRI.
- Develop, adapt, extend, and implement best-of-class methods (i) to integrate cytometry data from multiple batches and projects, (ii) to integrate cytometry data from different platforms, (iii) integrate cytometry data with other data sets such as bulk/single-cell RNA-seq, ATAC-seq, and proteomics.
- Educate HIP Core and Long lab scientists in bioinformatics, biostatistics, and computational best practices.
- Attend and present data at external scientific meetings and conferences as appropriate.
- Facilitate best visualization of data as appropriate and publish papers
- Set and meet deadlines and milestones.
- Be forward thinking by welcoming opportunities for additional training and engagement with the larger scientific community
- Foster a friendly, collaborative learning environment that prioritizes integrity and respect, innovation and agility, and constant inquiry.

Qualifications:

- Ph.D. in bioinformatics, biostatistics, computational biology, systems biology/immunology; or in other STEM disciplines with a strong understanding of the principals of bioinformatics and high-throughput technologies; alternatively an M.S. in the above listed fields and 3 or more years professional experience.
- Demonstrated track record of technical proficiency, scientific creativity, collaboration with others, and independent thought.

- Excellent oral and written communication skills.
- Excellent time management, task organization, and multi-tasking skills.
- Good understanding of molecular biology, genetics, and immunology.
- Deep understanding of 'Big Data' and high-dimensional-data analysis methods (e.g. feature-selection, dimensionality reduction, pattern recognition, machine learning).
- Proficiency operating in a mixed UNIX-Mac-Windows environment.
- Programming skills in Unix shell scripting languages (sh/sed/awk).
- Proficiency in bioinformatics analysis using R/Bioconductor and Python.
- Familiarity with version management, high-performance and cloud computing environments, job scheduling, batch-processing, and workflow management systems.

Visit https://careers-benaroyaresearch.icims.com/jobs/search to apply for this position.

Benaroya Research Institute at Virginia Mason is committed to winning the fight against autoimmune diseases such as type 1 diabetes, rheumatoid arthritis, inflammatory bowel disease and multiple sclerosis, and immune system diseases such as allergies and asthma. BRI is an internationally recognized medical research institute that accelerates discovery by tackling questions from every angle, translating immunology breakthroughs into clinical therapies and healthier patients.

As a non-profit organization within the Virginia Mason Health System, BRI oversees all clinical research at Virginia Mason and BRI, uniquely combining the expertise of a world-renowned medical research institute with the remarkable care of a healthcare quality leader. BRI supports Virginia Mason clinical investigators in studies across a wide variety of diseases and conditions, such as cardiology and cancer, in addition to autoimmune diseases, allergy and asthma.

Visit BenaroyaResearch.org or follow BRI's Autoimmune Life Blog, Facebook, Instagram, LinkedIn or Twitter to learn more.

We strongly support and encourage applicants from diverse backgrounds including race, color, religion, sexual orientation, gender identity, national origin, citizenship, disability or protected veteran status.