Post-doctoral Research Fellow – Sampson Lab
Division of Nephrology, Boston Children’s Hospital & Harvard Medical School

Job Summary
The focus of the Sampson Lab at Boston Children’s Hospital/Harvard Medical School is to discover the molecular basis of nephrotic syndrome through human genomics to inform mechanisms, treatments, and cures for this disease. We integrate genomics data with other molecular and clinical datasets to discover the biological and clinical impact of the disease-associated genomic variants we discover. Our research also focuses on using multiomics datasets and cellular model systems to make definitive genomic diagnoses for individuals patients with nephrotic syndrome.

We now seek an enthusiastic and intellectually curious researcher interested in these broad research areas, particularly in leading investigations into personalized, next-generation approaches to genomic diagnosis.

Specific topic of interest include:
• Co-analysis of germline genome sequencing and kidney/fibroblast-derived omics data in patients with nephrotic syndrome
• Analysis of long-read genome and RNA-sequencing from kidney tissue
• Genome-wide association studies and eQTL studies of kidney diseases and traits

The applicant will have a strong understanding of human genetics, bioinformatics, and/or genome biology and skills in high-performance computing. They will use both well-established and newer methods for generation and analysis of diverse types of genomic data, including genome and exome sequencing, and bulk and single cell transcriptomics. They will drive their own projects and also support the efforts of other members of the group.

The Sampson Lab is located at Boston Children’s Hospital and is affiliated with Harvard Medical School. Brigham & Women’s Hospital, and the Broad Institute of MIT and Harvard. It is well-funded through multiple Federal grants and other resources. It is a vibrant, highly collaborative, and multidisciplinary environment made up of nephrologists, computational geneticists, biostatisticians, and epidemiologists, and bench researchers.

Responsibilities
• Leading investigations into personalized, next-generation approaches to genomic diagnosis for children with proteinuric kidney disease.
• Designing, troubleshooting, and analysis of diverse genomic discovery efforts using our own genomic & phenotypic data & those aggregated from publicly available resources.
• Communication with external collaborators, and contributions to the preparation of manuscripts, grants, and presentations.

Minimum qualifications:
• PhD in genetics/genomics, biocomputing/bioinformatics, statistics, or a related field
• Experience in any of the following: human genetics/genomics, variant calling, rare diseases, single cell approaches
• Programming experience in UNIX, R, and/or Python
• Familiarity with high-performance and/or cloud computing
• Evidence of prior publication(s) and conference/oral presentations
• Willingness to collaborate and interact with others

**Preferred qualifications:**
• Working with bioinformatics analysis pipelines, code version control (e.g., git) tools and/or experience with standard bioinformatic tools (e.g., samtools, PLINK, bedtools)
• Familiarity with reproducible data science using Jupyter Notebook or RMarkdown or other
• An understanding of biological systems

**Interested candidates should send a cover letter & CV to:**
[matthew.sampson@childrens.harvard.edu](mailto:matthew.sampson@childrens.harvard.edu)
Matt Sampson, MD MSCE
Warren E. Grupe Chair in Pediatric Nephrology, Boston Children’s Hospital
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Associate Member, Broad Institute
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We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.