Postdoctoral Fellowship: Integrative Genomics in Lung Disease
Brigham and Women’s Hospital and Harvard Medical School

The Channing Division of Network Medicine at Brigham and Women's Hospital is looking for exceptional postdoctoral fellowship candidates to advance genomic research in the study of chronic lung diseases. Our group has led genetic and multi-omic studies in chronic obstructive pulmonary disease, the third leading cause of death worldwide, as well as interstitial lung disease and other respiratory phenotypes, identifying novel genetic associations, disease genes, and pathways. The fellow will work on two R01-funded projects using whole genome sequencing data, as well as RNA-Seq and proteomics data, participating in the Trans-Omics in Precision Medicine (TOPMed) Program. Analysis tasks include: identifying novel common, rare and low frequency variants in multi-ethnic samples for lung function, COPD, mucous plugging and bronchiectasis, and other related phenotypes; differential expression analyses using RNA-Seq and proteomics data; multi-ethnic fine-mapping; molecular (RNA and protein) QTL analysis; and risk score and disease subtype identification using machine learning and network methods. The candidate will work with Dr. Michael Cho, Associate Professor of Medicine at Harvard Medical School and Brigham and Women’s Hospital as part of an interdisciplinary and multi-institutional team, including genetic epidemiologists, biostatisticians, computer scientists, physicians, and molecular biologists.

Qualified candidates should have a Ph.D. in biostatistics, bioinformatics, or related quantitative field, with previous experience in analysis of large-scale omics data and strong programming skills in R / Bioconductor and/or Python. Specific experience with genetic association and analysis of sequencing data, as well as basic understanding of machine learning methods, are of added interest. M.D.'s with quantitative experience are also encouraged to apply. Candidates should also have excellent communication (oral and written) and documentation skills, adhere to reproducible research standards, and work well in teams and interact with all levels of staff.

Brigham and Women’s Hospital is a major teaching affiliate of Harvard Medical School and part of Mass General Brigham, the largest recipient of NIH funding among independent hospitals. The Division of Network Medicine is a research division within the Department of Medicine whose goal is to define the etiology and reclassify complex disease using network- and systems-based approaches. This group includes some of the largest population-based and pulmonary cohorts in the world, and an outstanding track record of mentoring.

We are an equal opportunity employer that strongly values diversity, equity and inclusion, 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 condition or any other characteristic protected by law.
Qualified candidates should submit their CV, the names of two references, and a cover letter to Dr. Michael Cho (michael.cho@channing.harvard.edu). Promising candidates will be invited for interviews and a presentation. Funding for this position is available immediately, but start time is flexible.

Brigham and Women’s Hospital strives to keep its workplace safe and secure for the protection of patients, visitors, and staff. Therefore, our offer of employment is contingent upon completion of the following items.

- Satisfactory reference checks
- Satisfactory criminal background checks
- Authorization to work in the United States
- Medical clearance from our Occupational Health department which includes pre-employment drug screening (if applicable)
- Annual compliance with Mass General Brigham’s Influenza Vaccination Policy
- Compliance with Mass General Brigham’s COVID 19 Vaccination Policy
- Successful review of the Medicare program's Sanctions and Exclusions List
- Verification of education, current licensures and registrations, and credentialing (if applicable)