

**Position:** Research Scientist – Bioinformatics Analyst  
**Location:** Genomics and Bioinformatics Hub,  
Department of Neurology, Brigham and Women’s Hospital, Harvard Medical School

We are looking for a bioinformatician or computational biologist to work with data from a wide variety of experimental platforms, with a focus on next-generation sequencing technologies. This role provides a unique opportunity to collaborate with world-class researchers who are working to understand and treat a wide range of diseases, including Alzheimer’s, Parkinson’s, multiple sclerosis, glioblastoma, and others.

### **About us**

The Genomics and Bioinformatics Hub is a newly established program for bioinformatics research, services, and training in the Department of Neurology at Brigham and Women’s Hospital (BWH), a world-leading center of excellence in academic medicine and research. Jointly supported by the Program for Interdisciplinary Neuroscience and the Precision Neurology Program, the goal of the Genomics and Bioinformatics Hub is to bridge the gap between neuroscientists and computational scientists to their mutual benefit, and to advance the application of cutting-edge computational methods for brain disorders research. The hub will develop bioinformatics tools, data resources, infrastructure, and will provide training and collaborative support to the neuro research community (including neurology, neuro-oncology, neurosurgery, neuropathology, and basic neuroscience) at BWH, Harvard, and potentially with our industry collaborators.

### **About you**

You have a background in biomedical or quantitative science and a strong interest in working with medical and/or biological researchers. You enjoy solving scientific questions with computational skills. You are an active user in biostars.org. You like to collaborate with an interdisciplinary team. You can integrate your knowledge of biology, genetics and cell biology with your computational knowledge to excel at communicating with programmers and wet-lab scientists alike. You are an independent learner, are keen to learn and apply new methods, and are motivated to continually expand your skills. You have good coding and data management habits that enable reproducible research. You are time-sensitive and able to simultaneously work on different projects and deadlines.

The position is for two years with the possibility of further extension. The position is based at the new Hale Building for Transformative Medicine (HBTM) at Brigham and Women’s Hospital. The successful candidate will be appointed to the BWH Medical Staff as a Research Associate, and the Department of Neurology will propose that s/he be appointed as a Research Associate at the Harvard Medical School (HMS); however, final approval of this appointment rests with HMS.

### **Responsibilities and duties**

Reporting to the Hub director, and coordinating closely with other Hub members, the applicant will work on all aspects of the hub mission, providing expert bioinformatics support and promoting the hub within the BWH research community. S/he will be expected to develop collaborations and connections to researchers across multiple departments, to become informed about their work, and to contribute to the overall development of the hub strategy. Specific duties will include the following:

- Using existing bioinformatics tools to perform standard next-generation sequencing (NGS) data analysis, incl. genomic, transcriptomic, epigenomic, and other data;
- Developing or adapting new algorithms and pipeline to support customized data analysis;
- Documenting all work thoroughly, and providing manuscript-level reporting of final analyses and results;
- Providing project-based collaborative support in bioinformatics to investigators in different areas, including neurology, neuro-oncology, neurosurgery, neuropathology, and basis neuroscience;
- Coordinating with collaborating Research Computing groups to ensure consistent computing resources and data storage;

- Providing basic and advanced bioinformatics training to students and researchers in BWH, building on the success of our existing Bioinformatics Club (<http://bioinformatics.bwh.harvard.edu>). The research scientist is expected to assist the Director to maintain the training environment.
- We also have access to a sequencing platform (NextSeq and 10x Genomics) and the Research Scientist will manage the sequencing data stored on the server.

## Qualifications

We are looking for a candidate with the following skills and experience:

- Master's or doctoral degree in a related field (Bioinformatics, Statistics, Engineering, Computer Science etc.)
- Strong computational genomics experience in one of the following fields: Bulk RNA-Seq, single-cell sequencing data analysis, small RNA-Seq, ChIP-Seq, ATAC-Seq, whole-genome sequencing, target sequencing, exome-sequencing, CAGE, Hi-C.
- Fluent programming skills in R, Bash, and one or more scripting languages (Python, Perl, C or C++)
- Good spoken and written communication skills in English.
- At least one first-authored or co-authored paper, submitted, accepted or published in an English-language journal.
- Research experience in neuroscience is a plus.
- Github or other version control experience is a plus
- Cloud computing experience is a plus
- Statistics background is a plus

Informal inquiries may be directed to Xianjun Dong, PhD, Director of Genomics and Bioinformatics Hub ([xdong@rics.bwh.harvard.edu](mailto:xdong@rics.bwh.harvard.edu)), or to Charles Jennings, PhD, Executive Director, Program for Interdisciplinary Neuroscience ([cgjennings@bwh.harvard.edu](mailto:cgjennings@bwh.harvard.edu)).

For consideration for this position, please send a cover letter explaining your background and motivation, detailing how you feel your skills can enrich the group's activities, three (3) references and a full CV including contact details **as a combined PDF** to:

Xianjun Dong, Ph.D.  
Director, Genomics and Bioinformatics Hub  
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Boston, MA 02115  
Email: [xdong@rics.bwh.harvard.edu](mailto:xdong@rics.bwh.harvard.edu)

**Brigham and Women's Hospital is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, creed, sex, sexual orientation, gender identity, national origin, ancestry, age, veteran status, disability unrelated to job requirements, genetic information, military service, or other protected status.**