
Post-doctoral Positions in Precision Medicine, Big Data and Statistical Genetics/Genomics

Applications are being sought for multiple post-doctoral positions for conducting methodological and applied research in the interface of cutting-edge areas of precision medicine, big data and statistical genetics/genomics. The candidates will join the research team of Dr. Nilanjan Chatterjee, Bloomberg Distinguished Professor at the Department of Biostatistics of the Bloomberg School of Public Health and the Department of Oncology, School of Medicine. The candidates will have opportunity to participate in a broad research program that involves development and applications of quantitative methods applicable to modern population-based studies. Broad scientific goals include discovery of new biomarkers, understanding disease mechanisms, modeling risk and developing risk-stratified approaches to disease prevention. Examples of ongoing projects include, but not limited to, integration of external genomic annotation and functional data into the analysis of genetic association studies, efficient approaches to modelling gene-environment interactions, methods for robust Mendelian-Randomization (MR) using high-dimensional genetic instruments and development and evaluation of risk prediction models for applications to precision medicine. More information about the research team and project of Dr. Chatterjee can be located at: <http://www.nilanjan chatterjee.org/>.

Candidates should have a PhD in Statistics, Biostatistics, Computer Science or similar quantitative fields. The candidates should have (1) strong computational skills and ability to manage work with large datasets (2) ability to collaborate within multi-disciplinary research team and (3) strong oral and written communication skill. Previous experience in working with large scale genetic or/and genomic datasets is desirable. Interested candidates should send CV, research statement and names of up to three references to Dr. Nilanjan Chatterjee (nilanjan@jhu.edu).

Johns Hopkins is an equal opportunity employer. and Dr. Chatterjee is committed to maintain diverse workforce in his laboratory.

Postdoctoral Position in Statistical Genetics and Computational Genomics

Applications are being sought for a post-doctoral position to carry out research in the interface of statistical genetics and computational genomics under joint supervision of Dr. Alexis Battle, Departments of Biomedical Engineering and Computer Science, and Dr. Nilanjan Chatterjee, Departments of Biostatistics and Oncology, at the Johns Hopkins University. Successful candidate will develop and apply computational and statistical methods for the integrated analysis of genome-wide association studies and high throughput molecular traits, such as genome-wide gene expression and methylation, to develop comprehensive understanding of genetic architecture of complex traits and to enhance models for risk prediction for precision medicine applications. Dr. Battle is a leading expert in computational genomics and machine learning and a key investigator of the Genotype Tissue Expression (GTEx) study. Dr. Chatterjee is a leading expert in statistical genetics with major experience in designing and analysis of large-scale genome-wide association studies of cancers and other endpoints. Joint training would allow the candidate to benefit from diverse expertise across the two groups, which have existing collaborations. Ongoing studies include, but not limited to, GWAS enrichment analysis in relationship to emerging functional genomic data, modeling genetic architecture of cis/trans-eQTL effects, Mendelian Randomization (MR) Analysis for the investigation of cascading causal effects of molecular traits and developing models for genetic risk prediction.

Qualification requires (1) PhD in statistics, computer science, engineering or similar quantitative fields and experience in statistical analysis of large scale genetic and genomic data (2) strong and versatile programming skills for the implementation of novel methods into highly scalable and user friendly software packages (3) ability to work in multi-disciplinary team and (4) strong oral and written communication skill. Interested candidates can email their CV and names of references to Alexis Battle (ajbattle@cs.jhu.edu) or/and Nilanjan Chatterjee (nilanjan@jhu.edu).

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