

Three postdoctoral fellowships are available in the lab of William Stafford Noble in the Department of Genome Sciences at the University of Washington, Seattle, WA, USA.

(1) Genomics and proteomics of the malaria parasite. We have an ongoing collaboration with the lab of Karine Le Roch to study mechanisms of gene regulation in the malaria parasite, *Plasmodium falciparum*. This project's main goal is to characterize the molecular determinants that control chromatin organization and gene regulation in this pathogen. The research continues a longstanding collaboration between the Le Roch and Noble labs and builds upon a large body of molecular, cellular, and genome-wide data generated in the Le Roch lab that demonstrate how 3D genome organization and transcription regulate sexual differentiation and parasite development.

(2) 3D genome architecture changes in HIV and methamphetamine use. The human genome is hierarchically organized in the nucleus, and this 3D organization critically impacts nuclear processes such as gene expression and DNA replication, as well as HIV integration sites and expression. This project will use genomic technologies to elucidate the role of 3D chromatin architecture in maintaining HIV reservoirs and examine how methamphetamine use impacts the reservoir. This is a collaboration with the lab of Jim Mullins, UW Microbiology.

(3) Bioinformatics and cardiac biology. Together with the lab of Chuck Murry, UW Pathology, we have an opening for postdoctoral research for projects involving bioinformatics and cardiac biology. A high priority project involves the characterization of the role of genome architecture dynamics during the differentiation of cardiovascular cells from human pluripotent stem cells. This project is part of an ongoing collaboration funded through the UW Center for Nuclear Organization & Function (<http://www.uw-cnof.com>). A successful candidate should have strong computational skills and be willing to learn required wet lab skills.

Our research group develops and applies computational techniques for modeling and understanding biological processes at the molecular level. Our research emphasizes the application of statistical and machine learning techniques. We apply these techniques to various types of biological data, including DNA and protein sequence data, shotgun proteomics mass spectrometry data, and a variety of high-throughput genomic data types. More information is available at <http://noble.gs.washington.edu>.

An ideal candidate would have training both in machine learning and computational biology. However, talented individuals who lack

significant background in one of these two areas will also be considered. Starting dates are flexible.

The Department of Genome Sciences was founded in September 2001 as the fusion of the Departments of Genetics and Molecular Biotechnology. Research in the department addresses leading edge questions in biology and medicine by developing and applying genetic, genomic and computational approaches that take advantage of genomic information now available for humans, model organisms and a host of other species. Ten faculty are members of the National Academy of Sciences, including 2001 Nobel Prize winner Dr. Lee Hartwell. Four training faculty are Howard Hughes Medical Institute Investigators.

The University of Washington is consistently ranked as one of the top research universities in the country and has more than 25,000 undergraduates and 9,000 others enrolled in its professional and graduate programs. Seattle is considered one of the nation's most beautiful and livable cities, boasting an array of cultural activities, parks, sports teams and restaurants, and serving as the gateway to National Parks and Forests, as well as boating, skiing and hiking areas.

The University of Washington is a culturally diverse community, and we strongly encourage applications from women and minority candidates. The University of Washington is an Affirmative Action/Equal Opportunity Employer.

Applications will be accepted until the position is filled. Please submit a CV, research statement and names of at least three references to [william-noble@uw.edu](mailto:william-noble@uw.edu).