**Post-Doctoral Position**
**University of Pennsylvania – Perelman School of Medicine**

The Voight lab invites applications for a computational Post-Doctoral position at the University of Pennsylvania School of Medicine, within the Department of Systems Pharmacology and Translational Therapeutics and the Department of Genetics. The lab focuses on translating discoveries from human genetics data into insights about the biological basis and genetic architecture of human disease (ultimately toward developing new therapeutics targets for human disease), and understanding selection during recent human evolution.

**Objectives:**
The candidate will have the opportunity to work with large collections of human genetic data sets, focused around population genetics problems, i.e., inference of mutation rates and signatures of selection in the genome. In particular, projects will be built around (i) machine learning methods to models for mutation rate across the human genome, integrating large-scale functional annotations of the genome, (ii) applying developed, cutting-edge models for mutation rate at high resolution to infer natural selection in the genome and apply them to existing and newly-generated human genomic data sets, and/or (iii) develop novel methods that utilize these models and insights generated therein in a disease association context.

The applicant will focus their efforts on the methodological development in these areas. However, this will also include large-scale analysis and applications to human genomics data numbering in the tens of thousands, sequenced across the entire genome. The applicant also will work to develop approaches that translate any insights into actionable information in clinical and bench-lab experimental settings.

**Qualifications:**
1. The candidate will have a MD, PhD, or equivalent doctorate, with a strong background in one or more of the following areas: statistics, biostatistics, population genetics, human genetics, genetic epidemiology, computational biology and/or genomics, bioinformatics.
2. The ideal candidate will have a track record of scientific productivity and leadership.
3. The ideal candidate will demonstrate a working proficiency in programming, scripting, and statistical computing (i.e., C/C++, Python, PERL, R, etc.), will have experience handling large data sets in the UNIX/LINUX operating environment, experience in high-performance cluster computing.

**Application Instructions:**
To apply, please send (i) a cover letter that includes the names and contacts for three references and a short statement of research interests, and (ii) a current CV to: Benjamin Voight, PhD (bvoight@upenn.edu). Further information about the lab can be found at: http://coruscant.itmat.upenn.edu