**Postdoctoral Position – Statistical Genetics/Data Science/Whole Genome Sequencing of Autism**

The Sebat laboratory at UCSD (http://sebatlab.org) is recruiting a postdoctoral fellow in statistical genetics/data science to lead a project on the whole-genome analysis of autism spectrum disorder (ASD). Our lab is compiling large datasets of whole genomes, exomes and detailed clinical phenotypes on ASD families. The goal of this study is to understand how the combined effects of rare variants (SVs, SNPs, indels and STRs) and common polygenic risk influence behavioral traits and determine risk for ASD.

This postdoctoral position will lead the statistical analysis of the combined dataset (N = 30,000 genomes in ASD and 200,000 well-phenotyped population controls from the UK Biobank). Analysts will have support from the lab's bioinformatics staff for data wrangling and processing. Analyses will focus on (1) how specific genes and genetic factors individually influence behavior; (2) how the combined genetic load of multiple factors contribute to phenotypic variation across the autism spectrum; and (3) how the genetic load within specific molecular pathways relates to psychiatric traits. These studies have the potential to capture a substantial fraction of the "missing heritability" of ASD and could significantly transform our current understanding of the molecular basis of psychiatric traits.

We are seeking a data scientist with an interest in applying statistical genetics, computational biology and machine learning to large-scale genetic studies. Strong candidates will have excellent programming and data analytic skills, knowledge of statistics, familiarity with genome informatics tools, and a strong publication record. A 25% salary increase is given to postdoc appointees that are successful in obtaining a postdoctoral fellowship. **Applicants should send a CV and a list of three references by email to jsebat@ucsd.edu.**