

## Postdoctoral Researcher in Computational Genomics and Systems Biology

A post-doctoral position is available in the Institute of Genomic Biology (IGB) at the University of Illinois at Urbana-Champaign. The postdoc will work on a project funded by the Simons Foundation Life Sciences Program (2013-16), titled “Molecular Roots of the Social Brain” (MRSB, PI: Lisa Stubbs). This project seeks to determine whether social behavior arises, in part, from a “dynamic genome” that is transcriptionally responsive to the social environment; and, if so, whether key brain molecular modules of social responsiveness are deeply conserved in evolution. The post-doc will be housed in the “Gene Networks for Neural & Developmental Plasticity” (GNDP) theme of the IGB, and will be directly supervised by faculty members Saurabh Sinha and Jian Ma.

The MRSB project will involve large scale data generation in the form of gene expression and chromatin state measurements from distinct brain regions in three different species – mouse, stickleback fish, and honeybee – upon exposing the animal to situations of social challenge and opportunity. The post-doc will be expected to work on novel computational approaches to analyze processed gene expression data, e.g., regulated genes and their expression, along with DNA sequence information and chromatin state data, to reach core molecular mechanisms, such as elements of transcriptional regulatory networks, shared by analogous behavioral responses in the three species. Gene regulatory network inference from multi-omic data sets and comparison of regulatory networks across species will be the special emphasis of the data analysis.

A degree in Computer Science, Physics, Systems Biology, Statistics, or a related discipline is expected, along with research experience in genomics and proficiency in programming. A Ph.D. is required by the time of joining.

### Job Information

Position Type: Post-Doctoral Researcher  
Start Date: ASAP  
Duration: Full Time  
Status: open

### Contact Information

Saurabh Sinha  
Dept of Computer Science,  
University of Illinois at Urbana Champaign  
201 N. Goodwin Ave, Urbana, IL 61801.

### More information:

Institute of Genomic Biology: <http://www.igb.illinois.edu/>  
GNDP Theme: <http://www.igb.illinois.edu/research-areas/genomics-neural>  
Sinha lab: <http://www.sinhalab.net/>  
Ma lab: <http://compbio.bioen.illinois.edu/>

How To Apply: To apply for the position, please submit to [sinhas@illinois.edu](mailto:sinhas@illinois.edu) the following application materials as a single pdf file : (1) CV, (2) up to three recent publications, and (3) contact information for 2 references. Informal queries are also welcome.