

A postdoctoral fellow position is available immediately for candidates interested in complex systems/systems biology. The initial appointment will be for one year, with possible extension for one year or more conditioned on performance and funding.

The research will focus on the theoretical/mathematical modeling and algorithm development in the study of the emergent spatial-temporal orders in complex systems. The successful candidate can participate in one of the two ongoing projects: (1) the multi-scale complex system that regulates glucose homeostasis, a basic physiological process that provides energy to all cells in human body. The study includes the synchronization of the pancreatic islet beta cell oscillation, the insulin/glucose feedback loops in blood circulation, and the applications to clinical studies of glucose tolerance. (2) The spatial-temporal architecture of transcriptome. This mainly includes the development of new genetic network modeling algorithms utilizing concepts and theories from physics/mathematics, and applications to integrative genomics.

Candidates with PhD training in physics, applied mathematics, or related is preferred. Due to the interdisciplinary nature of the research, candidates from other basic science areas with strong quantitative training will also be considered. Experience with differential equations, network theory, scientific programming and simulation, are desirable though not required. Application should consist of a one-page statement of research interest, names of three references, a CV with publication record and/or thesis topic. Please send the application and inquires to: xujingw@uab.edu. (205) 934-8186.

Research will be conducted in the research group of Dr. Xujing Wang in the Department of Physics (<http://www.phys.uab.edu/xwang>) and the Comprehensive Diabetes Center (<http://diabetes.dom.uab.edu>), at the University of Alabama at Birmingham (UAB). There will be ample opportunity to interact with a team of interdisciplinary investigators that includes theoretical physicist, mathematical biologist, applied mathematician, system biologist, geneticist, as well as laboratory and clinical scientists.

Both the physics department and the comprehensive diabetes center at UAB have developed a strong record of extramurally funded interdisciplinary research, and have extensive collaboration with many other department and research centers. UAB is an Equal Opportunity/Affirmative Action employer. UAB offers competitive benefit, more information can be found at <http://www.postdocs.uab.edu/>. Salary is commensurate with qualifications and in general follows NIH postdoctoral stipends guideline.