Description:
A postdoctoral fellow position is available in the research group of Dr. Tian Hong at the Department of Biochemistry and Cellular and Molecular Biology (BCMB), the University of Tennessee, Knoxville (UTK). Work in the group involves using mathematical modeling and data analysis to produce useful biological information and concepts that current theories cannot provide. Examples of the biological topics include epithelial cell plasticity in development and metastasis, development of motor neurons, differentiation of immune cells, and gene regulatory networks in plant and yeast cells. All of these projects are in close collaborations with experimentalists. The group is also interested in developing theories and methods that are broadly useful in biology. The group is affiliated with National Institute for Mathematical and Biological Synthesis (NIMBioS) at UTK, which offers a vibrant environment for mathematical and computational biologists with a variety of collaborative education, outreach and research programs. More information about the research group can be found at http://www.tianhonglab.org/research

Duties/Responsibilities:
Specific responsibilities for this position include:
• Construction and analysis of mathematical models for biological systems
• Bioinformatic analysis of biological data
• Collaboration with multi-disciplinary teams
• Preparation and presentation of results in open literature journals and at relevant conferences

Minimum Required Education and Experience:
• A PhD degree in computational biology, bioinformatics, mathematics, or any other natural science and engineering field
• A publication track record in relevant areas
• Basic programming skills

Preferred Education and Experience
• Proficient in Python, R, Julia or C++
• Experience with processing next generation sequencing data
• Experience with high performance computing
• Experience in working in multi-disciplinary teams with both modelers and experimentalists

Minimum Required Skills and Abilities:
• Familiarity with mathematical modeling using differential equations
• Basic knowledge in statistics
• Good understanding of molecular and cellular level biology
• Excellent written and oral communication skills and the ability to communicate in English to a scientific audience

Additional Information
• Please attach the following electronic documents to the application: CV, and the names and email addresses at least three references.
• Review of applications will begin immediately and continue until the position is filled
• This position is a full-time assignment for 3 years, contingent on successful performance and continued funding.