Special Issue on
Biomolecular Networks and Human Diseases

Call for Papers

Now, it is widely acknowledged that genetically caused diseases or disorders (e.g., cancer, AIDS, and obesity) stem from the dysfunction of molecular biological systems, not only their isolated components (e.g., genes, proteins, and metabolites). Molecular biological systems typically include gene regulatory networks, protein-protein interaction networks, metabolic networks, and signal transduction networks. With advances in high-throughput measurement techniques such as microarray, ChIP-chip, yeast two-hybrid analysis, and mass spectrometry, large-scale biological data have been and will continuously be produced. Such data contain insightful information for understanding the mechanism of molecular biological systems and have proved to be useful in diagnosis, treatment, and drug design for genetically inherited diseases or disorders.

For this special issue, we strongly encourage authors to submit their original studies in modeling/construction, analysis, synthesis, and control of disease-related biomolecular networks. Potential topics include, but are not limited to:

- Biomolecular network modeling/construction
- Prediction of disease-causing molecules from biomolecular networks
- Dynamic analysis of biomolecular networks
- Identification of drug targets from biomolecular networks
- Parameter estimation of nonlinear dynamic molecular systems
- Controllability and observability of biomolecular networks
- Specific disease-related molecular networks
- Therapeutic molecular networks
- Disease-related molecular (e.g., protein, transcriptome and ncRNA, and metabolite) complex or functional module detection
- Application tools for biomolecular network visualization and analysis

Before submission, authors should carefully read over the journal's Author Guidelines, which are located at http://www.hindawi.com/journals/bmri/guidelines/. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/bioinformatics/bnhd/ according to the following timetable:

Manuscript Due	Friday, 10 January 2014
First Round of Reviews	Friday, 04 April 2014
Publication Date	Friday, 30 May 2014

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