

Special Issue for Current Bioinformatics

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Plant Bioinformatics: from genome to phenome

Aim & Scope:

With the exploration of big omics data in plants, we are faced with the problem of how to interpret and exploit the rapidly accumulating sets of publicly available omics data. The development and application of computational algorithms, databases and tools are desirable for the efficient processing, management and visualization of large-scale omics data. However, analyzing such big data and deriving biological knowledge and applying it back for predictions and further experimentation is becoming a challenging task. Bioinformatics analyses are important approaches to comprehensively understand how a plant system works by exploiting computational methods to integrate multiple levels of omics datasets. The main objective of this special issue is to provide a forum for researchers to present latest advances and state-of-the-art techniques, tools and applications in analyzing plant omics data. Both original research papers and review articles related to plant bioinformatics will be considered for publication.

Keywords:

Plant, Bioinformatics, High-throughput sequencing, Big data

Potential topics include, but are not limited to:

- Comparative genomics
- Gene regulatory networks
- Genome-phenome-environment network analysis
- Genome-wide association studies
- High-throughput sequencing analysis and applications
- Proteomics
- Metabolomics
- Big data analytics and discovery
- Complex-data visualization
- Virtual cell modeling

Schedule:

Manuscript submission deadline: April 30, 2017

Peer review due: June 30, 2017

Notification of acceptance by the Guest Editor: August 15, 2017

Final manuscripts due: October 1, 2017