Special Issue

Comparative Omics Analyses in Plant Evolution

Message from the Guest Editor

Studying plant evolution can reveal principles of the emergence of novel traits, such as multicellularity, sexual reproduction, and hormone signaling. Typically, the evolution of these traits is studied through comparative genomic and phylogenomic analyses, which assume that the traits emerge and evolve as gene families. However, genes and gene families form higher-order functional units (gene modules), which employ multiple genes from different gene families. These gene modules can be identified by analyzing omics data, such as protein–protein interaction networks, and by identifying transcriptionally co-regulated (co-expressed) genes, among others. Therefore, a more rewarding approach to explain the evolution of new traits, adaptations, and gene functions should by necessity compare omics data across different experiments and species. This Special Issue is poised to address the studies, approaches, and databases that compare omics data.

Guest Editor

Dr. Marek Mutwil

School of Biological Sciences, Nanyang Technological University, 60 Nanyang Drive, Singapore 637551, Singapore

Deadline for manuscript submissions

closed (28 February 2020)

Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/24892

Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

mdpi.com/journal/plants

Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed

mdpi.com/journal/plants

About the Journal

Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

MDPI