Special Issue

Dissecting Plant-Environment Interactions with Modern Tools and Techniques: In the Climate Change Era

Message from the Guest Editors

Understanding the molecular aspects of plant–environment interactions such as plant–plant, plant-biotic, and plant-abiotic factors is crucial to design climate-smart crops for the future. Gaining molecular insights into plant interactions and their exploitation for agricultural purposes would be beneficial to achieving the "zero hunger" goal set by the United Nations in 2015 during this climate-change era. We welcome the articles or reviews related to plant-environment interactions and applications of different tools, including genome editing, pyrosequencing, and next-generation sequencing, which add to our understanding of plant interactions with any of the biotic or abiotic factors. In addition, modern tools such as CRISPR/Cas9, base editing, and prime editing for plant biology that may help to explore the molecular aspects in plant interactions for basic and applied research will be considered. Papers describing the basics and applications for crop improvement related to the above-mentioned topics, including the isolation and identification of plant-beneficial microbes, plant-pathogenic interactions, climate-smart crops, and designer crops, will also be considered.

Guest Editors

Dr. Rahul Mahadev Shelake

Plant Molecular Biology and Biotechnology Research Center, Gyeongsang National University, Jinju 501, Republic of Korea

Dr. Ritesh Kumar

Department of Agronomy & Plant Genetics, University of Minnesota, Saint Paul, MN 55108, USA

Deadline for manuscript submissions

closed (30 June 2024)

Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/166762

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