Special Issue

Plant-Pathogen Molecular Interactions: Evolution, Mechanisms and Agricultural Implementation

Message from the Guest Editor

Plant-pathogen molecular interactions are an essential step toward the activation of immunity mechanisms and repertoires of defense responses in plants, along with pathogenicity deployment and the virulent performance of pathogens. The presently existent molecular interactions and immune mechanisms appear because of historical plant-pathogen coevolution. This has been canonically elucidated as the zig-zag model, in which multiple immunity mechanisms including pattern- and effector-triggered immunity interact to enhance plant resistance against diseases. The scientific and technological advances have enabled the identification and characterization of various genes and proteins involved in plant-pathogen interactions. This has led to the development of new approaches for controlling plant diseases. Understanding the mechanisms and evolution of plant-pathogen interactions is critical for developing effective agricultural strategies that minimize crop losses and maximize yields. We invite submissions of research articles and reviews on plantpathogen molecular interactions, with a focus on evolutionary and mechanistic aspects, as well as their implications for agriculture.

Guest Editor

Dr. Hansong Dong

College of Plant Protection and State Key Laboratory of Crop Biology, Shandong Agricultural University, Taian 271018, China

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/169894

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



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)

