

Special Issue

Origin, Evolution and Functional Mechanisms of Plant Immune System

Message from the Guest Editors

We are delighted to announce a Special Issue of *Plants* dedicated to exploring the origin, evolution, functional role and regulatory mechanisms of the plant immune system. This Special Issue aims to bring together cutting-edge research and insights into the fascinating world of the plant immune system. We invite contributions covering a wide range of topics, including, but not limited to:

- Genetic mapping of novel R gene loci in crops;
- Functional characterization of immune-related genes;
- Evolution of immune-related genes;
- Application of omics approaches to study plant immunity;
- Co-evolutionary dynamics between plants and pathogens;
- Role of plant hormones and signaling pathways in immunity;
- Engineering plant immunity for enhanced disease resistance.

We welcome original research articles, perspectives, opinions, reviews and methodological papers that contribute to our understanding of plant immune systems from diverse perspectives and methodologies. This Special Issue provides an excellent opportunity to showcase groundbreaking research and foster interdisciplinary collaborations in the field of plant biology.

Guest Editors

Dr. Zhu-Qing Shao

School of Life Sciences, Nanjing University, Nanjing 210023, China

Dr. Jia-Yu Xue

College of Horticulture, Nanjing Agricultural University, Nanjing 210095, China

Deadline for manuscript submissions

closed (31 July 2025)



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/200871

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

[mdpi.com/journal/
plants](https://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](https://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, and 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)