Special Issue

The Mechanisms of Plant Resistance and Pathogenesis

Message from the Guest Editors

Plant diseases continue to seriously threaten the safety of food production worldwide. Understanding how pathogens change adaptive mechanisms to infection in plant hosts and how plants develop diverse resistance mechanisms to beat pathogens will provide crucial scientific support for better prevention and control of plant diseases. Therefore, this research topic aims at highlighting the latest research findings in understanding the mechanisms of plant resistance and pathogenesis. We welcome research articles, reviews, and novel viewpoints/hypotheses which provide comprehensive information about the mechanisms of plant resistance and pathogenesis. Articles in the field of comprehensive prevention and control of diseases will also be of research interest. Molecular interactions between plants and pathogens like fungi, bacteria, viruses, oomycetes, and nematodes;

Plant pathogenesis mechanisms;

Plant physiology of pathogen interactions;

Plant immune responses to pathogens at the molecular and cellular level;

Evasion and/or suppression of plant defense responses by pathogens;

Breeding strategies to create resistant plant cultivars.

Guest Editors

Prof. Dr. Yuanhu Xuan

Dr. Jiangsheng Chen

Dr. Luchao Bai

Deadline for manuscript submissions

closed (31 August 2025)



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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

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