# Special Issue

# Molecular Biology and Genomics of Plant-Pathogen Interactions

### Message from the Guest Editor

Plant pathogens are a major problem for both natural and agricultural systems, resulting in significant economic losses. These pathogens primarily infect plants by recognizing and binding to pathogen receptors on plant cell membranes. Despite this, plants have developed complex defense mechanisms, known as plant immunity, to protect against pathogens such as bacteria, fungi and nematodes. This innate plant immunity is based on identifying pathogen-associated molecular patterns (PAMPs), which trigger the plant's basal immune responses.

Plants have evolved intracellular receptors called nucleotide-binding leucine-rich repeats (NLRs) to detect these cytoplasmic effectors and activate effector-triggered immunity. The interaction between these effectors and the plant immune network determines the outcome of plant–pathogen interactions. Understanding how pathogens adopt appropriate adaptive mechanisms during plant infection and exploiting the diversity of plant process mechanisms to control resistance/susceptibility to plant diseases will help protect natural and agroforestry ecosystems.

### Guest Editor

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### Deadline for manuscript submissions

closed (28 February 2025)

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*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

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