



Molecular Mechanisms of Plant Defense against Fungal Pathogens

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Deadline for manuscript submissions:

closed (10 August 2024)

Message from the Guest Editors

Dear Colleagues,

Fungi constitute the largest number of plant pathogens. They can infect all parts of the plant at any phase, causing very diverse and devastating diseases, such as root rot, stem rust, leaf blight, ergot, and so on, which results in severe losses in yield and quality of various agricultural systems worldwide. In the long term of survival competition with pathogenic micro-organisms, plant hosts have evolved a sophisticated defense system to defend themselves against pathogens. However, rapid pathogenicity variation of natural fungal isolates leading to the occurrence of new crop diseases urges us to explore plant immune signaling pathways further and deeper, and to clone more disease resistance genes for breeding. Therefore, the aim of this Special Issue of *Plants* is to pool and publish new discoveries about molecular mechanisms of plant defense against fungal pathogens, which will highlight, but not be limited to, PTI or ETI responses, defense hormone signaling, transcriptional reprogramming, small RNA interference, metabolic pathways, and other novel immune mechanisms in plants.





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Message from the Editor-in-Chief

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