

Special Issue

Regulatory Signals in Plant Growth–Defense Trade Off

Message from the Guest Editors

When challenged by biotic stresses, plants rely on their innate immune system for their survival, which can be activated by microbe-associated and damage-associated molecular patterns (MAMPs and DAMPs) in association with reactive oxygen species (ROS) production and ion fluxes changes, up-regulation of defense genes and down-regulation of growth genes, cell wall reinforcement, stomatal closure, and modification of xylem differentiation. Activation of immunity is also accompanied by down-regulation of growth, referred to as growth–defense trade-off. Salicylic acid, jasmonic acid, cytokinin, and ethylene are the major controlling hormones. ROS and calcium (Ca²⁺), with their complex dynamics and regulation, play a main regulatory role in both immunity and development, and their formation is finely tuned. This Special Issue is open to all research articles. Particularly welcome are research papers on the following topics:

- Immunity and response to biotic stress;
- Effect of ion fluxes on plant growth and development under biotic stress.

Guest Editors

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Dr. Monica Colombo

Deadline for manuscript submissions

closed (20 December 2021)



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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

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