



Biochemical and Molecular Regulations of Priming: How Plants Enhance Their Defence against Environmental Pressures

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Message from the Guest Editors

Dear Colleagues,

Plants, in addition to their adaptive genetic variation in traits linked to climate, can also rely on the so-called “priming of defence,” which results in a faster, stronger, and more efficient resistance response upon subsequent pathogen attack or stressful events. Primed condition can be reached through the application of chemical compounds but also by beneficial soil microorganisms, such as rhizobacteria and root-associated fungi. Recently, new research frontiers have been also investigated, such as the beneficial plant-virus interactions and the possibility to exploit the innate plant silencing pathway using double stranded RNAs (dsRNAs). In a primed plant, several changes take place at the physiological, molecular, and/or epigenetic levels, and this information is stored (by the memory effect), allowing a more robust defence in the presence of a challenge, i.e., biotic and abiotic stresses. This Special Issue is open to both research and review papers focused on the investigation of the mechanisms leading to priming status in a plant.





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