

Special Issue

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

Message from the Guest Editors

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.

Guest Editors

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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