Special Issue

The Signalling Function of Plant GTP-Binding Proteins

Message from the Guest Editor

The ROP small GTP-binding proteins are central to various processes that determine plant shape and function. These small molecules are versatile switches that interact with the plethora of upstream regulators and downstream effectors. In this way they are capable of integrating hormonal, developmental, and abiotic/biotic stress signaling pathways. At the cellular level, they control the size, shape, and polarity of cells organizing primarily the cytoskeleton, vesicular transport, and gene expression. Despite the accumulating experimental data signifying the role of ROP GTPases and their interacting proteins in plant development and adaptation, our knowledge about the associated signaling pathways is still scarce. The number of ROP-mediated signaling pathways have been mapped from a specific receptor to a specific final target is rather low. With this Special Issue, we would like to encourage the publication of further details about the signaling function of ROPs. Manuscripts characterizing ROPs themselves as well as their regulators, effectors, and further upstream and downstream events linking these molecules to developmental, hormonal, and environmental responses are welcome.

Guest Editor

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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.

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