Special Issue

The Genetics of Plant Metabolism

Message from the Guest Editor

The diversity of the metabolic features of a plant is a consequence of genomic evolution and genetic diversity. Next-generation sequencing (NGS) rapidly increases our knowledge of genetic diversity by sequencing genomes of populations or different species and providing transcriptomes of different developmental stages, tissues, or even specific cell types of a plant. Genome-wide expression studies provide insights into the molecular basis of complex traits and identify common genetic variants underlying metabolic diversity. Coupled with targeted and untargeted metabolite analysis or metabolomics, genetic, and genomic approaches can unravel plant metabolism, its regulation and metabolite signaling, compartmentalization of metabolic pathways, and metabolite transport, as well as adaptation mechanisms to environmental stress. This Special Issue will focus on advances in genetic approaches studying plant metabolism to enhance not only our understanding of metabolic pathways and the underlying genetic basis, but elucidating the plasticity of metabolic regulation in response to biotic and abiotic stress affecting plant performance and resistance by selection or genetic manipulation.

Guest Editor

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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, 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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