Special Issue

Genome-Scale Metabolic Networks in Plants

Message from the Guest Editors

Genome-scale Metabolic Network (GSMN) in plants refers to a comprehensive model that maps all the biochemical reactions, metabolites, and genes involved in the metabolism of a plant organism. Key features of Genome-Scale Metabolic Networks in plants include a detailed collection of biochemical pathways involved in the plant's metabolism, such as carbon, nitrogen, sulphur, and lipid metabolism. They link metabolic reactions to specific genes and the proteins they encode, which catalyse these reactions. A computational approach is often used to predict the flow of metabolites through the network, helping to understand metabolic behaviour under different conditions. GSMNs are used in metabolic engineering to design plants with enhanced traits (e.g., improved stress resistance, higher yield, or the production of biofuels or pharmaceuticals). In summary, a Genome-Scale Metabolic Network in plants is a powerful tool to study and manipulate the complex biochemical systems that drive plant growth, development, and response to environmental stimuli.

Guest Editors

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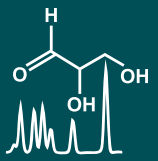

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Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

Editor-in-Chief

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