Special Issue

Multi-Omics for Identifying Biosynthetic Pathways of Active Components in Medicinal Plants

Message from the Guest Editors

Medicinal plants are an important source of natural products that have long played a vital role in disease treatment and health promotion. These compounds are notable for their structural diversity, broad biological activities, and high safety and efficacy, making them valuable for drug discovery and clinical applications. However, medicinal plant resources are often scarce, slow-growing, and influenced by environmental factors. The low content of natural products and limited extraction efficiency further restrict their development and use. Recent advances in omics technologies, metabolic engineering, and synthetic biology have enabled the elucidation of biosynthetic pathways and the scalable production of valuable metabolites through microbial or cellular systems. This Special Issue highlights the latest progress in natural products from medicinal plants, focusing on biosynthetic pathway elucidation, functional gene characterization, and synthetic biology applications for efficient production. We welcome research and review articles that provide new insights and perspectives for both basic research and industrial translation.

Guest Editors

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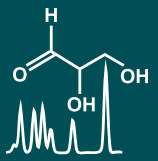

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About the Journal

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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