



an Open Access Journal by MDPI

Biosynthetic Pathways and Molecular Regulatory Mechanisms of Active Ingredients in Medicinal Plants

Guest Editors:

Dr. Qi Tang

College of Horticulture, Hunan Agricultural University, Changsha 410128, China

Dr. Zhixing Qing

College of Veterinary Medicine, Hunan Agricultural University, Changsha 410128, China

Deadline for manuscript submissions: **31 May 2025**



Message from the Guest Editors

Dear colleagues,

Medicinal plants are an important resource for humans. Recently, significant progress has been made in genomics, epigenomics, transcriptomics, proteomics and metabolomics of medicinal plants. Numerous studies have contributed to the biosynthetic pathway of active ingredients, genes encoding key enzymes of the pathway, and regulatory mechanisms of active ingredients. This open-access Special Issue of Plants highlights recent advances in the biosynthesis and regulatory mechanisms of active ingredients. Topics of this Special Issue include, but are not limited to, the following:

Genomics, epigenomics, transcriptomics, protomics and metabolomics of medicinal plants;

Biosynthetic pathways of secondary metabolites;

Key enzyme genes involved in the biosynthesis of secondary metabolites;

Transcription factors and regulatory networks in medicinal plants;

Metabolic engineering and synthetic biology of active ingredients;

Application of high-throughput sequencing technologies;

Databases associated with the biosynthesis and regulation of active ingredients;

Novel technologies and strategies for secondary metabolism studies.







an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

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 community.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

Contact Us

Plants Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/plants plants@mdpi.com X@Plants_MDPl