

Special Issue

Plant-Derived Bioactive Compounds for Pharmacological Applications

Message from the Guest Editors

Plant-derived bioactive compounds are vital for human health, showcasing diverse properties like **antioxidant**, **antimicrobial**, **anti-inflammatory**, **anticarcinogenic**, and **neuroprotective effects**. They are promising in preventing and managing non-communicable diseases, including cardiovascular disorders, autoimmune conditions, cancer, metabolic syndromes, and neurodegenerative diseases. The exploration of these natural molecules is central in various fields like **phytochemistry**, **biochemistry**, **pharmacology**, **molecular biology**, **biotechnology**, **medicinal chemistry**, and **pharmaceutical innovation**. This Special Issue invites contributions highlighting advancements in the discovery, characterization, and application of plant-based bioactive compounds. Topics of interest include **high-throughput screening techniques**, **novel extraction and isolation methods**, **structural analysis**, and **evaluations of pharmacological activities in vivo and in vitro**. We also encourage studies using advanced technologies such as **CRISPR**, **genome editing**, **bioprocess engineering**, and **bioreactor-based production** to optimize identification, synthesis, and therapeutic applications of these bioactive molecules.

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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