

## 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.

### Guest Editors

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### Deadline for manuscript submissions

closed (20 April 2026)



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