

Special Issue

Future Innovation and Challenges in Bioactive Compounds from Plant Foods: Towards Sustainable Health

Message from the Guest Editors

Bioactive compounds from plant-based foods are leading a global shift toward more sustainable and health-oriented nutrition as these naturally derived molecules—such as antioxidants, anti-inflammatory agents, and functional phytochemicals—are increasingly recognized for their ability to support health and reduce the risk of chronic diseases. However, unlocking their full potential still presents challenges. These include improving eco-friendly extraction methods; exploring new sources such as agro-industrial byproducts, microalgae, and lab-grown foods; and enhancing bioavailability and functional performance. There is also a growing need to clarify their mechanisms of action through advanced biological models. This Special Issue offers a platform for research that bridges current needs and future directions in this evolving field. We welcome original articles and reviews exploring the extraction, characterization, and functional evaluation of plant-based bioactive compounds, with a focus on sustainability, circular approaches, and emerging applications. Contributions on innovative food production in controlled environments or extreme contexts are also encouraged.

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Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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