Special Issue

Research Progress on Metabolic Regulation and Bioactivity of Functional Ingredients in Edible and Medicinal Mushrooms

Message from the Guest Editors

Advances in genomics, metabolomics, and metabolic engineering techniques have provided deeper insights into the metabolic networks of edible and medicinal fungi, enabling the optimization of cultivation conditions and genetic modifications to enhance the yield and potency of functional ingredients. Understanding the interplay between environmental factors, metabolic regulation, and bioactivity is key to the development of novel therapeutic and nutraceutical products. This Special Issue seeks contributions exploring how 'horticultural practices (e.g., cultivation systems, environmental controls, and post-harvest treatments) influence the biosynthesis and preservation of functional components in mushrooms. Topics may include but are not limited to the following: 1. The roles of substrate composition and environmental controls, such as light quality in mushroom metabolomics.
2. Sustainable cultivation methods for high-value nutraceutical mushrooms.
3. The integration of omics technologies to guide horticultural optimization.

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Message from the Editor-in-Chief

Horticultural plants and their products provide sustenance, health, and beauty. A confluence of factors is putting increasing pressure on horticultural production to evolve, and innovative research is addressing these challenges. *Horticulturae* provides a venue to communicate research results in a rapid manner with open access, allowing everyone the opportunity to stay abreast of leading research addressing horticulture. I invite you to consider publishing the results of your research in this high quality, peer-reviewed journal.

Editor-in-Chief

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