

Special Issue

Molecular Advances in Stress Response, Growth, Development, and Breeding of Horticultural Crops

Message from the Guest Editors

Horticultural crops—fruits, vegetables, ornamental plants, tea crops, edible fungi, and medicinal plants—are vital to human nutrition, health, and quality of life. Yet their extraordinary taxonomic diversity, complex domestication histories, and frequently limited genetic resources have left many species underexplored at the molecular level. Rapid advances in multi-omics, genome editing, single-cell and spatial transcriptomics, and data-driven breeding now offer unprecedented opportunities to decode how horticultural plants sense and respond to stress, control growth and development, and translate this knowledge into improved varieties. This Special Issue aims to showcase cutting-edge studies that elucidate molecular mechanisms—from genes and regulatory networks to proteins, metabolites, and biomolecular complexes—and bridge discovery and application in yield, resilience, and product quality. We particularly welcome integrative studies that connect laboratory insights with field performance or postharvest traits, as well as contributions that establish resources, methods, and computational frameworks that enable the community to accelerate progress.

Guest Editors

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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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