Special Issue

Contribution of Omics Sciences to Agricultural Biotechnology

Message from the Guest Editors

Omics sciences facilitate a systems biology approach to unravel the intricate interactions among genes, proteins, and metabolites that shape phenotypes. This holistic strategy depends significantly on high-throughput technologies, bioinformatics, large-scale computational analyses, and diverse biological disciplines. As a result, it drives advancements in (i) improving crop quality and yield; (ii) enhancing the nutritional composition of agrifoods; (iii) deepening our understanding of the molecular mechanisms underlying resistance to (a)biotic stresses; and (iv) deciphering the functional dynamics of plant–microbe interactions. This Special Issue invites contributions that explore these themes, encompassing experimental studies, computational modeling based on basic cell biology experiments, methodological innovations, and comprehensive reviews. Interdisciplinary approaches integrating diverse fields of biology are particularly encouraged to deepen our understanding of these complex biological phenomena.

Guest Editors

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Deadline for manuscript submissions

closed (30 September 2025)

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Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.5 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).