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Genetics and Genomics of Polyploid Plants

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Deadline for manuscript submissions:

closed (5 September 2024)

Message from the Guest Editors

Polyploid is a heritable condition of the possession of more than two complete sets of chromosomes, and is particularly common in plants. Whole-genome polyploidization events are a key driving force in the evolutionary history of plants and have played an important role in the domestication of crops. By displaying novel phenotypes or exceeding the range of parental species, polyploids gain a fitness advantage. Polyploidy affects many traits, such as morphology, physiology, and resistance to stress. All possible allelic combinations produce hybrid proteins and protein diversity. Polyploidization is an acute shock that triggers genome reshuffling and modifies gene regulation, the epigenetic landscape, and the activity of transposable elements. This Special Issue aims to support readers with the articles on the most recent and promising discoveries in polyploid plants, both auto- and allopolyploids. The focus will be on the multidisciplinary genetic and epigenetic study of polyploids and how polyploidization affects the morphology, physiology, biochemistry, and molecular biology of plants. Multi-omics approaches, including modelling and integrative analyses, are also welcome.



mdpi.com/si/146481

Special Issue



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Message from the Editor-in-Chief

Genes are central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fastmoving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised.

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