

## Special Issue

# Genetics and Breeding of Polyploid Plants

### Message from the Guest Editors

Polyploidy has long been recognized as an important evolutionary force for speciation, adaptation, and diversification in plants. Polyploidization events to be associated with genetic and epigenetic changes, include structural chromosome rearrangements, aneuploidy, point mutations, loss of duplicated genes and gene conversion, modifications in the chromatin compaction levels, RNA interference and dosage compensation. These changes often involve alterations in the reproduction modes and fertility, increase the organs size, phenotypic variability, colonization of new habitats, heterosis, mutational robustness, among others. The revelation that a large number of plant species have a polyploid genome, including several important crops, has attracted the attention of plant breeders for the application of artificial polyploidy as a tool for crop improvement. This Special Issue invites contributions focused on cytogenetics, genetic resources, genetic systems (ploidy level, reproductive mode, pollination syndrome and fertility), patterns of inheritance, genetic diversity, phylogeny, evolution, genomic analysis, epigenetics, and genetic breeding of polyploid plants.

### Guest Editors

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### Deadline for manuscript submissions

closed (20 November 2024)

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## Genes

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*Genes* is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving 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. Why not consider *Genes* for your next genetics paper?

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### Editor-in-Chief

Prof. Dr. Selvarangan Ponnazhagan  
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