



Genetics, Genomics and Biotechnology of Plant Cytoplasmic Organelles

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Deadline for manuscript submissions:

closed (28 February 2021)

Message from the Guest Editors

Chloroplasts and mitochondria are essential plant organelles involved in many fundamental processes. They are semi-autonomous organelles; hence, their function is dependent upon cross-talk between nuclear and organelle genetic systems. Chloroplasts and mitochondria are also known as stress sensors, since any dysfunction in their activity, caused by both biotic and abiotic factors, leads to a global defense response of the plant involving hormone, ROS, and other metabolic pathways' activation.

The goal of this Special Issue is to provide new advances in the field of the genetics, genomics, and biotechnology of plant cytoplasmic organelles:

- Sequencing of organellar genomes/transcriptomes aimed at providing insight into the evolution of plant species, developing new molecular markers suitable for the study of genetic diversity, analyzing gene expression and maturation, etc.;
- Discovering novel gene functions and deciphering unknown mechanisms, as well as uncovering the molecular mechanisms at the basis of important processes in which chloroplasts or mitochondria are somehow involved;
- Engineering of plastid DNA.





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Message from the Editor-in-Chief

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