



## Exploration of Epigenome and Abiotic Stress Tolerance in Crop Plants

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Deadline for manuscript  
submissions:  
**closed (25 October 2023)**

### Message from the Guest Editors

The variations in the climate have led to the escalation of several abiotic stresses causing deleterious effects on crop production. These abiotic stresses induce epigenetic changes altering the epigenome and expression of many genes. Because of their inheritable nature, epigenetic changes occur due to abiotic stresses, emerging as a novel tool in developing stress-resilient crops. Epigenetic markers and epigenetic quantitative loci (epi-QTLs) can be utilized in developing epigenetic alleles (epialleles), epigenetic recombinant inbred lines (epi-RILs), and epigenetic hybrids (epi-hybrids) for enhanced abiotic stress tolerance. Moreover, the advances in sequencing technologies enable the prediction of epigenetic changes at the whole genome level. However, epigenetic engineering is still challenging owing to plants' high genome complexity. Nevertheless, efforts have been made and will continue to complete the roadmap of the epigenome in crops and help in developing climate-resilient crop varieties. Therefore, this Special Issue provides a platform for the research community to share knowledge on epigenetics and epigenomics in abiotic stress management in various crop plants.





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## Message from the Editor-in-Chief

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