Special Issue

DNA Damage and Repair Response in Plants

Message from the Guest Editor

All living organisms must maintain genome integrity for survival. Several cellular activities, including DNA replication/transcription or other metabolic reactions, may cause DNA damage. Exogenous and endogenous DNA damages reduce the genome's stability, impair development, and lower crop yield. Developing efficient mechanisms to maintain genome integrity is crucial for all organisms, including plants. An important mechanism contributing to genome stability is the DNA Damage Response, which activates DNA repair pathways and, in proliferating cells, stops cell division until DNA repair is complete. There has been considerable research into how DNA damage occurs, and it is repaired in bacteria, fungi, mammalian, and plant models. However, many elements of DNA damage and repair, especially in meristem or germline cells, remain undiscovered in plants. A better understanding of plants' DNA damage and repair processes will help accelerate traditional and targeted strategies for crop genome engineering. For this Special Issue of Plants, we invite articles to expand our current understanding of the DNA damage and repair mechanism in plant cells.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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