



plants



an Open Access Journal by MDPI

DNA Damage and Repair Response in Plants

Guest Editor:

Dr. Diwaker Tripathi

Department of Biology, University
of Washington, Seattle, WA, USA

Deadline for manuscript
submissions:

closed (1 April 2024)

Message from the Guest Editor

Dear Colleagues,

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.



mdpi.com/si/175034

Special Issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science,
University of Manitoba, Winnipeg,
MB R3T 2N2, Canada

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

Contact Us

Plants Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/plants
plants@mdpi.com
[X@Plants_MDPI](https://twitter.com/Plants_MDPI)