

Special Issue

Epigenetics and DNA Repair: Regulatory Mechanisms and Therapeutic Opportunities

Message from the Guest Editor

In eukaryotic cells, DNA damage occurs in chromatin, a DNA–protein complex that strongly compacts DNA. The packaging of DNA in chromatin creates a strong barrier against DNA-damage-response proteins that must interact with DNA to prevent mutations and cell death. Therefore, during DNA repair, chromatin’s structure is extensively and reversibly modified by factors such as chromatin remodelers, histone variants, and histone post-translational modifications ensure access of the regulatory proteins and DNA repair machinery to their DNA targets. The epigenetic factors that modulate the chromatin environment strongly contribute to an efficient DNA damage response. This highly dynamic process of DNA repair in the chromatin environment is essential for the functioning and survival of the cell. In this Special Issue of *Cells*, we invite researchers to present original studies and state-of-the-art reviews on the mechanisms and regulation of DNA repair in a chromatin environment, and to discuss their data and opinions.

Guest Editor

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Deadline for manuscript submissions

closed (15 December 2025)



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



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About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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