

## Special Issue

# Molecular Mechanism of DNA Replication and Repair

### Message from the Guest Editors

dsDNA is a stable, chemically inert molecule continuously subjected to a variety of exogenous and endogenous insults throughout the cell cycle. Unrepaired or misrepaired DNA lesions may cause mutations or chromosomal damage and, ultimately, abnormalities, including oncogenic transformation. For the maintenance of genomic stability, the organisms have developed signal pathways that give rise to a DNA damage response (DDR). This mechanism is characterized by its capability to tolerate DNA damage and structural impediments during DNA synthesis; thus, it replicates fork progression and stability in the presence of blocking structures or DNA lesions. Malfunctioning DDR can cause fork arrest and eventually fork collapse, leading to the formation of DNA double strand breaks. This Special Issue of *IJMS* aims to expand our current understanding on molecular and cellular mechanisms of DNA replication and repair. We want to offer a platform for high-quality publications on various sides of DNA replication and repair research.

### Guest Editors

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### Deadline for manuscript submissions

closed (28 February 2023)



## International Journal of Molecular Sciences

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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### Editor-in-Chief

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