





an Open Access Journal by MDPI

# Recent Advances on DNA Damage Response: From Molecular Mechanisms to Therapeutic Opportunities

Guest Editors:

#### Dr. Alessandra Di Masi

Department of Sciences, Roma Tre University, Viale Guglielmo Marconi 446, 00146 Rome, Italy

#### Dr. Francesco Berardinelli

Dipartimento di Scienze and INFN, Università Roma Tre, 00146 Roma, Italy

Deadline for manuscript submissions:

30 June 2024

# **Message from the Guest Editors**

Dear Colleagues,

Cells are continuously exposed to endogenous and exogenous DNA-damaging agents. To properly protect the genome, all types of DNA lesions are repaired by complex DNA damage response (DDR) pathways that include cell cycle arrest as well as transcriptional and posttranslational activation of genes and proteins, including those associated with DNA repair, senescence and programmed cell death. The DDR acts through sensors, transducers, and effectors that orchestrate the spatial and temporal order of DNA/protein and protein/protein interactions to allow the maintenance of genomic stability and integrity. Improper DDR may result in various diseases, including cancer, premature aging, immunodeficiencies, chronic inflammatory conditions, and autoimmune disorders. Understanding the broader roles of DDR in cell and tissue homeostasis has brought key molecular mechanisms into sharper focus, providing valuable information for the identification of novel druggable targets. In this Special Issue, original studies, review articles, case reports, and commentaries focused on the molecular mechanisms and therapeutic strategies related to DDR are warmly welcome.













an Open Access Journal by MDPI

## **Editor-in-Chief**

#### Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

## Message from the Editor-in-Chief

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.

## **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, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (*Biochemistry & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

### **Contact Us**