







an Open Access Journal by MDPI

DNA Damage Response from Molecular Mechanisms to Cancer Therapy

Guest Editors:

Dr. Luigi Alfano

Istituto Nazionale Tumori "Fondazione G. Pascale", Napoli, Italy

Prof. Dr. Antonio Giordano

1. Sbarro Institute for Cancer Research and Molecular Medicine, Center for Biotechnology, Department of Biology, College of Science and Technology, Temple University, Philadelphia, PA 19122, USA 2. Department of Medical Biotechnology, University of Siena, 53100 Siena, Italy

Deadline for manuscript submissions:

20 September 2025

Message from the Guest Editors

Dear Colleagues,

The DNA damage response (DDR) could be defined as a double face of tumour: both the cause and treatment. Some DDR proteins are involved in the cancer-prone syndrome. Conversely, the DNA repair defects are used as the "Achille's heel" of cancer, favouring treatment with DNA damage agents through radiation therapy or cisplatin generating various kinds of DNA lesions (single or double strand breaks). In this scenario, the identification of novel therapeutic strategies based on the personal genetic makeup could be essential for improving the cancer treatments. To this aim, the dissection of novel proteins involved in the DDR plays an important role in cancer therapy.

This Special Issue will highlight novel discoveries in the context of the DNA damage response, from molecular mechanisms to clinical aspects, as potential novel strategies for cancer therapy. Please note that the special issue is focused on molecular research, so the pure clinical research will not be accepted. But clinical submissions with biomolecular experiments are welcomed.

Dr. Luigi Alfano Prof. Dr. Antonio Giordano *Guest Editors*



Specialsue









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 and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

Contact Us