Special Issue

Radiobiology-New Advances

Message from the Guest Editors

To date, radiobiology has played a pivotal role in understanding how ionizing radiation affects living systems, from molecular and cellular mechanisms to tissue and organism-level responses. In recent years, significant progress has been made in uncovering the complex biological processes triggered by radiation exposure, including DNA damage and repair pathways, cell cycle regulation, immune modulation, and the tumor microenvironment. This Special Issue aims to present the latest research and emerging trends in radiobiology, highlighting innovative approaches that are driving the field forward. Topics of interest include, but are not limited to, radiation-induced signaling pathways. radiosensitizers and radioprotectors, hypoxia-related mechanisms, normal tissue toxicity, and novel irradiation techniques such as FLASH and particle therapy. By bringing together contributions from both basic and translational research, this Special Issue seeks to foster a deeper understanding of radiation biology and its application to cancer treatment and bevond.

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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.

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