

Special Issue

Molecular Research in Radiobiology 2.0

Message from the Guest Editor

This Special Issue is the continuation of our 2021 Special Issue “**Molecular Research in Radiobiology**”. Radiobiology has significantly impacted science and medicine in the last century, using biological models to study targeted and non-targeted effects of radiation in both cancerous and normal tissue. The use of molecular tools in radiobiology led to discoveries of the DNA damage response (DDR) signaling pathway and further molecular mechanisms of repair, radiosensitivity, radioresistance, and biomarkers of radiation response. Translational radiobiology and studies on the tumor microenvironment have provided a deeper understanding of the effects of clinical radiation therapy (RT) fractionation on treatment efficacy by the 5 Rs (Repair, Redistribution, Reoxygenation, Repopulation, and Radiosensitivity), and more recently the reactivation of an anti-tumour response (the 6th R) significant for recent immunotherapy/RT combination regimes. Recent advances in radiobiology can be mainly attributed to rapid molecular and technological advances including omics and systems biology approaches.

Guest Editor

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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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