

Special Issue

Molecular Aspects of Tumor Radiotherapy

Message from the Guest Editor

The molecular aspects of tumor radiotherapy represent a critical frontier in modern cancer research, where understanding the intricate molecular mechanisms underlying radiation response has become paramount for advancing personalized therapeutic strategies. Despite the role of radiotherapy in curing approximately 40% of cancers, treatment resistance remains a formidable clinical challenge, demanding deeper molecular insights to optimize therapeutic outcomes.

We especially encourage submissions examining novel combination strategies that enhance radiotherapy efficacy through metabolic modulators, DNA repair inhibitors, and immunotherapeutic agents. Studies utilizing diverse experimental models, from in vitro cellular systems to patient-derived xenografts and clinical specimens, are particularly valued. Furthermore, research investigating predictive biomarkers for treatment response and innovative approaches to overcome resistance mechanisms, including targeting the tumor microenvironment and hypoxia-mediated resistance, will significantly contribute to this collection.

Guest Editor

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Deadline for manuscript submissions

20 December 2025



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/248237

*International Journal of
Molecular Sciences*
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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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