

Special Issue

Novel Radiotherapeutic Approaches: Molecular Aspects and Radiobiological Mechanisms

Message from the Guest Editor

Therapies with a significant impact on tumour control or sparing of normal tissues are still in their preclinical stages or waiting for clinical validation. Similar to the transition from standard (2Gy/fraction) to altered fractionation schedules, radiotherapy delivery has undergone important evolutions from conventional to nonconventional administration. High-dose, spatially fractionated radiation also known as GRID therapy has been clinically evaluated over the last few decades using various grid designs to allow for a non-uniform dose delivery. With a similar concept, a more recently developed nonconventional irradiation technique employing minibeam via an array of closely spaced beams is appraised. This form of beam settings is thought to influence cell signalling via abscopal effects, leading to the difference in response between malignant and healthy cells. The aim of this Special Issue is to encompass both review articles and original research on the molecular and radiobiological aspects behind the success of nonconventional radiation delivery, including radiobiological modelling and laboratory research.

Guest Editor

Prof. Dr. Loredana Marcu

1. Faculty of Informatics & Science, University of Oradea, 410087 Oradea, Romania
2. UniSA Allied Health and Human Performance, University of South Australia, Adelaide 5000, Australia

Deadline for manuscript submissions

closed (30 November 2022)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/74456

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



[mdpi.com/journal/
ijms](https://mdpi.com/journal/ijms)



About the Journal

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.

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

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)