Special Issue

Novel Biomarkers and Dose-Response Modifiers in Radiation Oncology and Nuclear Medicine: Molecular Insights for Personalized Therapy and Precision Medicine

Message from the Guest Editors

Radiation oncology and nuclear medicine are placing increasing importance on testing and employing biomarkers to reveal key information about specific cancers and how they respond to particular therapies. Another pivotal issue is the manner in which biological molecules modify individual responses to ionizing radiation. Innovative targeting based on molecules that increase the local effects of radiation is a further aspect to be considered. The objective of this Special Issue is to furnish a comprehensive overview of contemporary methodologies employed for predicting outcomes and modifying responses to external radiotherapy. brachytherapy, and internal radiotherapy in the domain of nuclear medicine. A particular focus of this Special Issue is to provide an overview of the molecular mechanisms intended for personalized approaches in the application of ionizing radiation for cancer treatments.

Guest Editors

Prof. Dr. Wolfgang Sauerwein

- 1. Radiation Oncology, University Hospital Essen, University Duisburg, Strahlenklinik, Hufeland Street 55, 45122 Essen, Germany
- 2. EBG MedAustron GmbH, Marie Curie-Straße 5, 2700 Wiener Neustadt, Austria
- 3. Neutron Therapy Research Center, Okayama University, Okayama 700-8530, Japan
- 4. German Society for Boron Neutron Capture Therapy, 45122 Essen, Germany

Prof. Dr. Andrea Wittig

Department of Radiation Therapy and Radiation Oncology, University Hospital Würzburg, Josef-Schneider-Str. 11, 97080 Würzburg, Germany

Deadline for manuscript submissions

31 March 2026



Cells

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 10.5 Indexed in PubMed



mdpi.com/si/254488

Cells
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
cells@mdpi.com

mdpi.com/journal/cells





Cells

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 10.5 Indexed in PubMed



About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. Cells encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

Editors-in-Chief

Dr. Alexander E. Kalyuzhny

Dental Basic Sciences, University of Minnesota, 308 Harvard St. SE, Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation Centre, The University of Copenhagen, Copenhagen, Denmark

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Cell Biology) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

