

## Special Issue

# The Synergy of Radiotherapy and Immunotherapy

### Message from the Guest Editors

Studies have demonstrated that immunologic cell death in response to ionizing radiation allows for increased anti-tumor T-cell activation. Additionally, RT has been shown to induce immune-stimulatory and/or immune-suppressive modifications in the tumor microenvironment. However, RT alone is not always adequate to overcome these immunosuppressive mechanisms. Immune checkpoint inhibitors (ICIs) have demonstrated improvements in overall survival for multiple advanced malignancies and are now frequently used in this setting. In 2011, ipilimumab was the first ICI approved by the US Food and Drug Administration. Ipilimumab is a monoclonal antibody to CTLA-4, which serves as a regulator of T-cell activation. Subsequently, agents targeting the PD-1/PD-L1 axis were approved. Due to their properties, ICIs have the potential to reverse the immune exhaustion that occurs following chronic T-cell activation. Thus, RT and ICIs can behave synergistically to enhance anti-tumor immunity. We encourage contributors to submit manuscripts addressing any of the different aspects of radiation therapy and/or immunotherapy.

### Guest Editors

Dr. Eric J. Lehrer

Department of Radiation Oncology, Icahn School of Medicine at Mount Sinai, New York, NY, USA

Dr. Daniel M. Trifiletti

Department of Radiation Oncology, Mayo Clinic, Jacksonville, FL 32224, USA

### Deadline for manuscript submissions

closed (30 April 2023)



## Biomedicines

an Open Access Journal  
by MDPI

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



[mdpi.com/si/110617](https://mdpi.com/si/110617)

*Biomedicines*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomedicines@mdpi.com](mailto:biomedicines@mdpi.com)

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





# Biomedicines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

*Biomedicines* (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to *Biomedicines*, be it original research, review articles, or developing Special Issues of current key topics.

---

### Editor-in-Chief

Prof. Dr. Felipe Fregni

1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

---

### Author Benefits

#### High Visibility:

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

#### Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Medicine (miscellaneous))

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).