

## Special Issue

# Advancements in Technologies for Radiation Biology, Oncology, and Protection

### Message from the Guest Editors

As the understanding of cancer biology deepens, the role of radiation as both a therapeutic tool and a factor in cancer etiology becomes increasingly significant. This Special Issue aims to showcase innovative technologies that advance our knowledge in radiation-induced carcinogenesis, enhance radiation protection strategies, and improve therapeutic outcomes in oncology. We particularly encourage contributions that explore novel methodologies, interdisciplinary approaches, and the translation of research into clinical practice. Areas of emerging technologies and innovative research of interest include, but are not limited to, the following: Multi-omics research and big data analytics; Systems biology and the integration of multi-omics approaches; AI and deep learning in radiation research; Radiomics and new imaging technologies in radiotherapy planning; Advancements in radiotherapy, such as FLASH radiotherapy; Synthetic biology integration and targeted alpha therapy; New radiation-induced biomarker development and biodosimetry; Individual radiation sensitivity and personalized biodosimetry; Adverse outcome pathway research; Benchmark dose modeling.

### Guest Editors

Prof. Dr. Zhixiang Wang

Signal Transduction Research Group, Department of Medical Genetics, Faculty of Medicine and Dentistry, University of Alberta, Edmonton, AB T6G 2H7, Canada

Dr. Yi Wang

1. Radiobiology and Health, Isotopes, Radiobiology & Environment Directorate (IRED), Canadian Nuclear Laboratories, Chalk River, ON K0J 1J0, Canada

2. Department of Biochemistry Microbiology and Immunology, Faculty of Medicine, University of Ottawa, Ottawa, ON K1H 8M5, Canada

**Deadline for manuscript submissions**



## Cancers

an Open Access Journal  
by MDPI

Impact Factor 4.4  
CiteScore 8.8  
Indexed in PubMed



[mdpi.com/si/215421](https://mdpi.com/si/215421)

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

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





# Cancers

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.4  
CiteScore 8.8  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

*Cancers* is an international online journal addressing both clinical and basic science issues related to cancer research. The journal is publishing in Open Access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

---

### Editor-in-Chief

Prof. Dr. Samuel C. Mok

Department of Gynecologic Oncology and Reproductive Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX 77030, USA

---

### 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, Embase, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Oncology) / CiteScore - Q1 (Oncology)