

## Special Issue

# The Role of Genome in Cancer Therapy

### Message from the Guest Editors

Cancer is a collective term for a wide range of diseases characterized by the growth of abnormal cells. Cells undergo many gene changes prior to the occurrence of cancer. About 5–10% of cancers are caused by inherited gene defects. Genome research can help understand the mechanisms of these gene changes. The genome has played a crucial role in cancer research over the past decade. Genome research helps humans to identify cancer-related molecular alterations and their potential functional impacts, and DNA molecules may be treated as potential targets to design cancer therapies. This Special Issue aims to collect original articles and reviews, focusing on the latest research and discoveries in genome-based cancer treatment, as well as prospects for future development. This Special Issue is dedicated to exploring the complex genetic and molecular mechanisms behind cancer development, metastasis and drug resistance, through genome analysis and research to understand cancer pathogenesis and diagnosis, as well as prevention and molecular therapy strategies.

### Guest Editors

Dr. Yoav Smith

Genomic Data Analysis Unit, The Hebrew University of Jerusalem-Hadassah Medical School, The Hebrew University of Jerusalem, Jerusalem, Israel

Dr. Hovav Nechushtan

Hadassah Hebrew University Hospital, Gene Therapy Institute, P.O. Box 12000, Jerusalem 91120, Israel

### Deadline for manuscript submissions

20 February 2025



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 8.1  
Indexed in PubMed



[mdpi.com/si/189079](https://mdpi.com/si/189079)

*International Journal of  
Molecular Sciences*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

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

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





# International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 8.1  
Indexed in PubMed



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

[ijms](https://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 (Inorganic Chemistry)