

## Special Issue

# Advances in Cancer-Related Transcriptome and Genome Analyses

### Message from the Guest Editor

The advent of high-throughput sequencing technologies opened a new era in molecular medicine and cancer research, allowing the genome-wide study of the molecular characteristics of tumours at the nucleotide level. As a more recent technology, single-cell sequencing allows an even higher resolution for dissecting the tumour environment at the cellular scale, while long-read sequencing improves genome assembly and the detection of transcript isoforms and structural variants.

DNA-seq and RNA-seq experiments generate massive amounts of data, which require the application of advanced interdisciplinary techniques, including bioinformatics, biostatistics, and artificial intelligence, to extract meaningful information. The molecular complexity of tumours, which requires the combination of multiple levels of information, and the difficulties of cancer studies make transcriptome and genome analysis even more challenging in cancer research.

We welcome submissions on cancer-related transcriptome and genome analyses, with a focus on the analysis of novel or existing cancer omics data sets bringing new knowledge on molecular mechanisms and aberrancies driving tumour biogenesis and progression.

### Guest Editor

Dr. Enrico Gaffo

Department of Molecular Medicine, University of Padova, 35121 Padova, Italy

### Deadline for manuscript submissions

closed (20 February 2025)



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/151687](https://mdpi.com/si/151687)

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