

Special Issue

Advances in Gene and Cell Therapy

Message from the Guest Editor

Cell therapy consists of implanting cells to repair or regenerate an organ. These cells may be adult, embryonic or induced pluripotent stem cells, and are the subject of many research programs and clinical assays, in particular, in the field of cardiopathies and skin diseases. Immunotherapy treatment of cancer, using CAR-T, is also a cell therapy that is being increasingly employed. In recent years, a technological health revolution has appeared, with the possibility of editing the genome, mainly using the CRISPR-Cas9 system. Two women, J. Doudna and E. Charpentier, received the 2020 Nobel Prize for developing this technology. Another medical revolution is the use of mRNA for transient gene transfer, as used in COVID-19 vaccines. The present Special Issue aims to update these fields, including preclinical research aspects of molecular and cell biology that design the medicine of the future. Potential topics include, but are not limited to, the following: Gene therapy (preclinical research and clinical assays); Cell therapy (preclinical research and clinical assays); RNA-based therapies or vaccines; Immunotherapy; Genome editing; Development of vectors; Oncolytic vectors.

Guest Editor

Dr. Anne-Catherine Prats
UMR 1297-I2MC, Université de Toulouse, Inserm, UT3, FHU IMPACT,
31432 Toulouse, France

Deadline for manuscript submissions

closed (31 March 2023)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/116371

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)