

Special Issue

Precision Nucleic Acid Therapeutics

Message from the Guest Editor

Oligonucleotide therapeutic approaches, including antisense oligonucleotides, siRNA, aptamers, microRNA mimics, anti-miRs, and DNAzymes, continue to demonstrate great potential in developing drugs for the treatment of various inherited and acquired diseases. So far, eight antisense oligonucleotide drugs (Vitravene, Kynamro, Exondys 51, Spinraza, Tegsedi, Waylivra, Milasen, and Vyondys 53), two siRNA drugs (Onpattro and Givlaari), and one aptamer drug (Macugen) have received approvals for clinical use, and notably, eight of them were approved in the last five years alone. The use of chemically modified nucleic acids are paramount towards developing successful oligonucleotide drugs, but so far only a very small number of nucleic acid chemistries have been utilised in clinical developments. Although the oligonucleotide therapeutics field has progressed significantly in the last three decades, delivery efficacy, tissue-specific targeting, and the cost of therapy still remain as major challenges. This Special Issue is initiated to further promote the advancements of the field in all aspects of functional nucleic acid therapeutic developments.

Guest Editor

Prof. Dr. Rakesh N. Veedu

Centre for Molecular Medicine and Innovative Therapeutics, and Perron Institute for Neurological & Translational Science, Murdoch University, Perth, Australia

Deadline for manuscript submissions

closed (30 September 2021)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/53242

*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)* 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, and molecular biophysics. *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. José L. Quiles
Department of Physiology, Institute of Nutrition and Food Technology
"Jose Mataix", Biomedical Research Center, University of Granada,
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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, CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)