

Special Issue

Ion Conductance and Ion Regulation in Human Health and Disease

Message from the Guest Editor

The gradients in ion concentration across the cell membrane are associated with many processes that define life. Therefore, the knowledge of ion conductance and ion regulation is vital to understanding cellular physiology and pathophysiology. This Special Issue deals with structures and functions of ion transport across membranes, with ion regulation based on intracellular ion stores and signaling processes involving ion transport. It includes studies of excitable cells but also covers non-excitable cells. Studies on model cells and cell lines as well as primary cells and tissue are welcome. This Special Issue covers original research and comprehensive reviews. Since *IJMS* is a journal of molecular science, pure clinical studies will not be suitable for this Special Issue; however, clinical submissions with biomolecular experiments are welcome.

Guest Editor

Prof. Dr. Lars Kaestner

Theoretical Medicine and Biosciences, Medical Faculty, Saarland University, 66421 Homburg, Germany

Deadline for manuscript submissions

closed (20 March 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/186684

*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)