



Physiology and Molecular Medicine of Molecular Hydrogen

Guest Editors:

Dr. Tyler W. LeBaron

1. Department of Kinesiology and Outdoor Recreation, Southern Utah University, Cedar City, UT 84720, USA
2. Molecular Hydrogen Institute, Cedar City, UT 84720, USA

Dr. John Nagi Kheir

1. Department of Pediatrics, Harvard Medical School, Boston, MA, USA
2. Staff Physician, Boston Children's Hospital, Boston, MA, USA

Deadline for manuscript
submissions:

30 September 2024

Message from the Guest Editors

Dear Colleagues,

Molecular hydrogen (H₂ gas) has emerged as a fascinating molecule with the ability to penetrate biomembranes and access subcellular compartments. Recent research has unveiled its diverse therapeutic effects, spanning its antioxidant, anti-inflammatory, and antiapoptotic activities. Moreover, H₂ has been shown to influence microRNA expression, protein phosphorylation cascades, and various signal transduction pathways. Demonstrating its versatility, hydrogen's therapeutic potential has been explored in over 170 different animal/human disease models, encompassing a wide array of human physiological systems.

In light of this, our Special Issue aims to gather contributions that advance the exploration of molecular hydrogen's therapeutic utility. We welcome submissions encompassing both in vitro cellular mechanistic studies and in vivo investigations in animal models and human clinical settings. Original research articles, reviews, perspectives, and short communications are all encouraged, provided they contribute to our understanding of the pharmacokinetics, pharmacodynamics, and therapeutic applications of molecular hydrogen.





an Open Access Journal by MDPI

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

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.

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 & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

Contact Us

*International Journal of Molecular
Sciences* Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/ijms
ijms@mdpi.com
X@IJMS_MDPI