



Iron Dyshomeostasis

Guest Editors:

**Dr. Carlo Marya Thomas
Marobbio**

Department of Biosciences,
Biotechnology and Environment,
University of Bari, Via Orabona 4,
70125 Bari, Italy

Dr. Sara Anjomani Virmouni

Department of Life Sciences,
Brunel University London,
London, UK

Deadline for manuscript
submissions:

20 February 2025

Message from the Guest Editors

Iron plays a crucial role in many physiological processes of the human body. A plethora of highly conserved regulatory and signaling pathways comprising metal uptake, transport, release, cellular storage, and metal recycling tightly control the dynamics of iron distribution inside the cells. Iron dyshomeostasis is usually associated with altered distribution and accumulation of iron in different compartments of cells. It is connected to multifactorial cellular dysfunction, causing oxidative stress, iron-induced lipid peroxidation, inflammatory responses, and ferroptosis, a programmed cell death process associated with iron dysregulation. It is supposed to be linked to many pathological processes, especially blood disorders, cancer, metabolic disorders, neurodegenerative diseases, as well as viral infections. In this collection, we will present an updated view of iron dyshomeostasis, discussing the associations with pathological processes. It will be also discussed how accumulated knowledge on this process is helping the creation of novel therapeutic strategies.





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 and Molecular Biology) / CiteScore - Q1 (Inorganic Chemistry)

Contact Us

*International Journal of Molecular
Sciences* Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

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