## **Special Issue**

## Metalloproteins: How Metals Shape Protein Structure and Function

## Message from the Guest Editor

Metal ions play a critical role as structural, catalytic and signaling components of proteins in all living organisms. Metalloproteins can bind single or multiple metals in the form of simple ions, clusters or with cofactors of varying complexity. Transition metals such as Fe, Cu, Mn and the post-transition metal Zn are involved in a remarkably wide variety of cellular processes, ranging from respiration to photosynthesis, oxygen transport, DNA synthesis and gene regulation, among others. Other transition metals such as Co, Mo, Ni, V and W are much less frequent in proteins; however, they are also essential for key biochemical reactions in all kingdoms of life. Metal coordination and chemistry shape protein structure and function, so it is not surprising that defects in metal homeostasis (either due to excess or deficiency) often lead to pathological states. This Special Issue of IJMS welcomes contributions in all areas of metalloprotein biology and biophysics, including the relation between molecular structure, mechanism and function, metal-mediated regulation and signaling, roles in health and disease and techniques for the study of metalloproteins.

### **Guest Editor**

Dr. Maria Carmela Bonaccorsi Di Patti Department of Biochemical Science "A. Rossi Fanelli", Sapienza University of Rome, 00185 Rome, Italy

### 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/171890

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





# International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





## 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)

