

## Special Issue

# Antioxidants and Enzyme Inhibitors: Design, Synthesis and Action Mechanisms

### Message from the Guest Editors

Antioxidants are notoriously relevant species that prevent the oxidation of molecules, playing an important role in the control of oxidative stress in living systems. Due to the chemical structure, antioxidants can carry out their action by directly reacting with radicals or inhibiting the source of reactive species, such as transition metal ions or enzymes, saving cells and the macromolecules they are composed of from damages that can be the source of the onset of severe and inflammation-based diseases. With respect to enzymes, the aim of this Special Issue is to provide an overview on the power of antioxidants in the inhibition of these biological catalysts, spanning in silico designs and synthesis of new compounds to the understanding of relevant action mechanisms. Both theoretical and experimental research devoted to accumulating the information repertoire useful for reinforcing treatments versus oxidative stress also implicated in many neurodegenerative processes are welcome, either in the case of identification of new compounds for new targets or in the use of already known species for new therapies.

### Guest Editors

Prof. Dr. Tiziana Marino

Dipartimento di Chimica e Tecnologie Chimiche, Università della Calabria, 87036 Arcavacata di Rende, CS, Italy

Dr. Mario Prejanò

Dipartimento di Chimica e Tecnologie Chimiche, Università Della Calabria, Via P. Bucci, Cubo 12/D, I-87030 Rende, CS, Italy

### Deadline for manuscript submissions

closed (20 April 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/182178](https://mdpi.com/si/182178)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto: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)