

Special Issue

Advanced Research on Enzymes in Biocatalysis

Message from the Guest Editors

Biocatalysis represents a key technology for sustainable and efficient chemical processes, leveraging the remarkable specificity and catalytic power of enzymes. From industrial bioprocesses to novel biorefinery strategies, enzyme-based approaches are transforming sectors such as pharmaceuticals, food, biofuels, and materials science. This Special Issue aims to highlight cutting-edge advancements in enzyme engineering, bioprocess development, and computational strategies to optimize biocatalytic systems. We welcome contributions on enzyme discovery, immobilization techniques, cascade biocatalysis, and innovative bioprocessing approaches. Topics of interest include molecular and computational design of enzymes, machine learning-assisted enzyme engineering, and applications of enzymatic catalysis in green chemistry and biomass valorisation. By bringing together experimental and theoretical insights, this issue will provide a comprehensive view of current trends and future directions in biocatalysis. Researchers in academia and industry are invited to contribute original research articles, reviews, and short communications.

Guest Editors

Dr. Simona Varriale

Dr. Samuel De Visser

Dr. Salvatore Fusco

Deadline for manuscript submissions

31 August 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/236572

*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)