



## Design of Biocatalysts and Their Applications for Asymmetric Transformations, C-C Bond Formation and Biodegradation

Guest Editor:

**Dr. Ekaterina Yu. Bezsudnova**

Bach Institute of Biochemistry,  
Research Center of  
Biotechnology of the Russian  
Academy of Sciences, Leninsky  
Ave. 33, bld. 2, 119071 Moscow,  
Russia

Deadline for manuscript  
submissions:

**closed (30 April 2024)**

### Message from the Guest Editor

Great progress is observed in enzyme applications for the synthesis of non-natural compounds and the construction of artificial enzymes. These achievements are based on fundamental knowledge of structure-function relationships in enzymes and a deep understanding of active site architecture. Despite high throughput methods for the design of enzymes and enzymatic cascades, the development of a stable effective biocatalyst is still a time-consuming task, that requires knowledge and skills in various fields of biochemistry, molecular biology, and organic chemistry. With this Special Issue, we aim to collect original research articles, review articles, and short communications dealing with the development of biocatalysts (both discovery of new enzymes and the design of enzymes for the process). Fundamental studies on the molecular basis of the stability of enzymes in harsh industrial environments, including water-organic solvent media are welcome.





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