



Whole-Cell System and Synthetic Biology

Guest Editors:

Prof. Dr. Zhihong Xin

Key Laboratory of Food
Processing and Quality Control,
College of Food Science and
Technology, Nanjing Agricultural
University, Nanjing 210095, China

Dr. Jingjing Tian

Key Laboratory of Food
Processing and Quality Control,
College of Food Science and
Technology, Nanjing Agricultural
University, Nanjing 210095, China

Deadline for manuscript
submissions:

20 October 2024

Message from the Guest Editors

The whole-cell system has been of great interest recently and has advanced the analysis and manufacturing techniques in the past decade, benefitted by the development of molecular biology and synthetic biology. Key issues gaps in the area are as follows: (1) Gene interactions and regulatory networks still need to be explored. (2) Technical approaches need to be upgraded to edit the whole cell system. (3) The performance of the whole-cell system needs to be improved. (4) How to effectively apply the whole cell system in food, environment and other fields needs to be understood. Therefore, the aim of this Special Issue is to summarize and broaden the knowledge in new gene circuits, innovative molecular modification methods and the application of whole cell systems.

Authors are invited to submit original research and review articles which address the areas discussed above. Topics include but are not limited to:

- Identification and mining of new molecular networks in whole-cell systems;
- Methods for upgrading and the modification of whole-cell systems;
- Application of whole-cell systems in food, environment and other fields.





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