



## Antibacterial Activity against Drug-Resistant Strains, 2nd Edition

Guest Editors:

**Dr. Rosa Sessa**

Department of Public Health and  
Infectious Diseases, University of  
Rome “Sapienza”, 00185 Rome,  
Italy

**Dr. Simone Filardo**

Department of Public Health and  
Infectious Diseases, “Sapienza”  
University, 00185 Rome, Italy

Deadline for manuscript  
submissions:

**20 July 2025**

### Message from the Guest Editors

Dear Colleagues,

Antibacterial resistance is one of the greatest threats to human health, resulting in an increased number of deaths due to once curable infectious diseases. Indeed, the emergence of drug-resistant bacteria has been prioritized by the World Health Organization as one of the top ten public health problems worldwide. Over the years, the widespread misuse and overuse of antibiotics in the human, animal, and environmental domains have led to the global rapid spread of multi-drug resistant pathogens, beginning with the emergence of methicillin-resistant *Staphylococcus aureus*. The following appearance of extended-spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae all over the globe, including some *Escherichia coli* strains and the ESKAPE pathogens, has further limited the treatment options at our disposal. The aim of this Special Issue is to encourage original articles tackling this current issue, including the antibacterial activity of novel compounds as well as the molecular mechanisms underlying the antibiotic resistance for the discovery of new promising targets.





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 and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

## Contact Us

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI