



Development of Active Compounds to Combat Antibiotic Resistant Microorganisms

Guest Editors:

Dr. Aleksandra Królicka

Intercollegiate Faculty of
Biotechnology UG-MUG,
Laboratory of Biologically Active
Compounds, University of
Gdansk, 80-307 Gdansk, Poland

**Dr. Marta Krychowiak-
Mańnicka**

Intercollegiate Faculty of
Biotechnology UG-MUG,
Laboratory of Biologically Active
Compounds, University of
Gdansk, 80-307 Gdansk, Poland

Deadline for manuscript
submissions:

closed (28 February 2022)

Message from the Guest Editors

Currently, despite the broad spectrum of antimicrobial compounds, bacterial infections are among the leading causes of death. Moreover, infections resulting from multidrug-resistant bacteria (MDR) strains are an increasing problem in modern medicine. Due to bacterial resistance and a limited possibility of new antibiotic breakthrough, we are inevitably faced with further development of new therapeutic methods to combat human bacterial pathogens.

The mechanisms of bacterial resistance are diverse and include such defense mechanisms as drug enzymatic degradation, removal of compound with the use of pumps (active transport), modifications of drug-target sites of action, or creation of an alternative metabolic pathway.

To address the Special Issue of treating bacterial infections, we are searching for new antibiotics, natural-occurring antibacterial compounds, e.g., plant secondary metabolites or peptides, synthetic substances, e.g., metal nanoparticles, and combining antibacterial substances and/or therapies aimed at obtaining a synergistic effect to prevent bacterial resistance.





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