



## Drug Resistance: Mechanisms and New Strategies

Guest Editors:

**Prof. Dr. Ian Macreadie**

School of Science, RMIT  
University, Bundoora West  
Campus, PO Box 71, Bundoora,  
VIC 3083, Australia

**Dr. John Merlino**

Department of Microbiology and  
Infectious Diseases, The  
University of Sydney, Sydney,  
Australia

Deadline for manuscript  
submissions:

**closed (30 September 2019)**

### Message from the Guest Editors

The ability of microbes to exist in large populations with constantly arising inevitable heterogeneity means that there is capacity for mutants resistant to drugs to reproduce during drug treatments, overcoming individuals undergoing drug treatment. These mutants can further spread throughout the population. In the face of such widespread antimicrobial resistance, new defense solutions are urgently needed.

This Special Issue of *IJMS* will examine new drugs and new strategies for dealing with microbial threats. We welcome articles on new drugs, new ways of applying drugs and entirely new approaches, including bacteriophage and competing microbe therapies.

Topics include, but are not limited to:

- Molecular mechanisms of antibiotic resistance and new therapeutic strategies;
- Drug–microbe interactions;
- Phage therapeutic strategies;
- Increasing and modifying host defenses;
- Host–microbe interactions;
- Probiotic approaches to drug resistant microbes.





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 (Inorganic 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