

Special Issue

Recent Advances in Molecular Mechanisms of Bacterial Resistance and Antibiotic Therapy

Message from the Guest Editor

Bacterial resistance is a global health emergency. Understanding the molecular mechanisms by which bacteria resist the action of antibiotics is crucial for recognizing global resistance patterns, improving the use of existing drugs, and developing new strategies to combat resistance. Similarly, revealing the targets or molecular mechanisms of antimicrobials is necessary for developing new therapeutics, finding new antibacterial action models, and designing or screening new drugs that are less likely to develop resistance. Areas of interest include, but are not limited to:

- New clues related to antibiotic resistance, such as enzymatic modification, quorum sensing systems, efflux pumps, changed membrane permeability, regulatory genes or factors, etc.;
- New advances in the molecular targets or mechanisms of traditional bacterostatic, or bactericidal agents, such as small molecule compounds, antimicrobial peptides, antimicrobial combinations, hybrid antibiotics, and repurposing drugs, etc.
- New discoveries and perspectives on non-traditional antibacterial mechanisms of potential medicinal molecules, such as anti-virulence agents, immune modulators, and toxin neutralizers.

Guest Editor

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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.

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