

## Special Issue

# Molecular Insight into Antimicrobial Resistance

### Message from the Guest Editors

Antimicrobial resistance (AMR) remains a critical global health threat, driven by complex molecular mechanisms. This Special Issue aims to explore recent advances in understanding the genetic and biochemical basis of resistance in major pathogens, including methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *Enterococcus* (VRE), extended-spectrum  $\beta$ -lactamase (ESBL)-producing bacteria, and carbapenem-resistant *Enterobacterales* (CRE). Of particular interest are emerging resistances such as linezolid resistance in enterococci and reduced susceptibility of *Enterobacterales* to novel agents and antibiotic combinations. We also welcome studies on resistance to last-resort antimicrobials, horizontal gene transfer, resistance evolution under selective pressure, and molecular surveillance approaches. Contributions involving genomic, transcriptomic, proteomic, or structural insights into AMR mechanisms are encouraged. By shedding light on these molecular underpinnings, this Special Issue aims to inform better therapeutic strategies and guide the development of innovative antimicrobial agents.

### Guest Editors

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### Deadline for manuscript submissions

30 December 2025



## International Journal of Molecular Sciences

an Open Access Journal  
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Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



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*International Journal of  
Molecular Sciences*  
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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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