

Special Issue on  
**Research Progress on Antibiotic Resistance or Drug-Resistant Pathogens**

# CALL FOR PAPERS

Antimicrobial resistance (AMR) is now considered to be the most complex threat to public health security. The emergence and prevalence of drug-resistant pathogens have severely hampered the clinical effectiveness of conventional anti-infective therapy, leading to many deaths and increased economic losses. Nowadays, accumulating evidence reveals the transmission of AMR between humans, animals, and the environment. Therefore, a one-health concept is required in the field of AMR research.

Currently, there are several critical challenges that limit the future studies on AMR. First, the mechanisms of the emergence and evolution of drug-resistant pathogens, as well as their interaction with the host. Second, the transmission mechanisms of AMR, including the dominant multidrug-resistant clones and the underlying genomic basis with One Health perspective, diversity of mobile elements facilitating the transmission of AMR genes. Third, there is an urgent need to explore novel intervention and antibacterial strategies for combating the increasing AMR crisis.

For this Special Issue, we welcome original research and review articles of research progress on antibiotic resistance or drug-resistant pathogens, including, but are not limited to, the following aspects: (1) identification of novel antibacterial agents from natural products, de novo synthesis and chemical modification/optimization; (2) discovery of novel antibiotic adjuvants from unexplored molecules or previously approved compounds to rescue the effectiveness of existing antibiotics, as well as reduce their toxicity; (3) novel alternatives to current antibiotics, such as antimicrobial peptides, probiotics, anti-virulence agents and phages; (4) novel antibiotic resistance mechanisms and their transmission risk causing public health; (5) rapid detection and surveillance approaches of emerging multidrug-resistant pathogen clones among different settings.

Potential topics include but are not limited to the following:

- ▶ Discovery of novel antimicrobial compounds and its antibacterial targets
- ▶ Identification of novel antibiotic adjuvants and mechanisms of action
- ▶ Alternatives to antibiotics, such as anti-virulence agents and antimicrobial peptides
- ▶ Identification of inhibitors of AMR transmission and their mechanisms
- ▶ Deciphering antibiotic resistance mechanisms of emerging resistant bacterial clones
- ▶ Genomic basis and diversity of AMR genetic elements plasmids, ICEs, and genomic islands, etc.
- ▶ Transmission and evolution of prevalent clones in One Health context
- ▶ Detection and genomic surveillance of risky MDR clones

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.wiley.com/submit?specialIssue=754818>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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