

Special Issue

Novel Mechanisms of Bacterial Antibiotic Resistance

Message from the Guest Editor

Bacterial antibiotic resistance poses a significant threat to global public health and can render standard therapeutic regimens for infectious diseases ineffective, leading to increased morbidity and mortality. As bacterial pathogens evolve and adapt, it is crucial to understand the molecular mechanisms underlying resistance. Such knowledge informs effective treatment strategies, infection control, and drug development. Known mechanisms of bacterial antibiotic resistance include enzymatic modification or degradation of antibiotics, altered target sites through chromosomal mutations, efflux pumps and decreased drug permeability, and biofilm formation. This Special Issue of *Biomolecules* will be focused on novel molecular mechanisms that enable bacteria to resist and survive in the presence of antibiotics. Manuscripts elucidating resistome profiles, environmental reservoirs of resistance genes and dissemination to pathogenic bacteria will also be very welcome. Submissions exploring antibiotic resistance mechanisms by using comparative genomic, bioinformatic, and phylogenetic approaches will also be in line with the topic of this Special Issue.

Guest Editor

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Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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