Special Issue

Bacterial Enzymes and Antibiotic Resistance

Message from the Guest Editor

Antibiotic resistance, defined as the capacity of microorganisms to escape the action of antibiotics, represents a global health problem. It is estimated that 700,000 people die yearly worldwide from drug-resistant bacteria infections, and that this number may reach 50 million by the year 2050. As for human infections, misuse of antibiotics in livestock farming has also triggered antibiotic resistance issues. A huge economic impact is certain if no rapid action is taken over the coming years to overcome antibiotic resistance. Tackling bacterial antibiotic resistance has consequently been classified as a high priority by the World Health Organization. Mechanisms of drug resistance are highly diverse and can concern one or several antibiotic classes; among these strategies are modification of the cell wall to increase impermeability to drug-like compounds, inactivation of the drug, modification of the drug target, or efflux of the antibiotic. This Special Issue will publish original research papers or reviews on all aspects of bacterial enzymes involved in antibiotic resistance as well as studies reporting ways to overcome their action.

Guest Editor

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Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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