Special Issue

Antimicrobial Properties of Nanoparticles

Message from the Guest Editors

The scientific explorations of nanoparticles for their inherent therapeutic potencies as antimicrobial and antiviral agents also due to increasing incidences of antibiotic resistance have gained more attention in recent time. Several investigations have demonstrated the potential of nanoparticles in the treatment of various microbial infections. The therapeutic applications of nanoparticles as either delivery agents or broad spectrum inhibitory agents against viral and microbial infections are ready to be fully exploited.

The broad spectrum antimicrobial activity of nanoparticles is exerted through multifaceted mechanisms. The adhesion of nanoparticles to microbial cells, production of reactive oxygen species, and their penetration inside the cells, have been recognized as the most prominent modes of antimicrobial action.

The present Special Issue focuses on the antibacterial, antiviral, antifungal, and antiparasitic potential of nanoparticles and the analysis of their mechanisms of action. The emerging efforts to address current challenges and solutions for the production of nanoparticles and the treatment of infectious diseases will also be considered.

Guest Editors

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Deadline for manuscript submissions

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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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