



Frontiers of Antimicrobial Nanoparticles

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Infectious disease still represents a significant challenge in health care, being one of the major causes of mortality in the world. In addition, the use of many conventional drugs is hampered by a lack of efficacy, emergence of resistance, adverse effects, and high costs. In this context, nanotechnology plays a key role in improving the efficacy of existing drugs by the use of nanoengineered drug delivery systems. Nevertheless, other relevant applications of nanoparticles are found in antibacterial coatings for implantable devices and medicinal materials to prevent infection and promote wound healing, as well as in bacterial detection systems. This Special Issue is aimed at covering recent advances in the synthesis, assembly, mechanistic understanding and uses of nanotechnology applied to the development of novel systems for the prevention, detection and treatment of microbial infections.

Several classes of antimicrobial nanosystems are discussed:

Antibacterial polymers

Antimicrobial drug delivery systems

Inorganic-polymer hybrid nanoparticles

Antibacterial coating

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Message from the Editor-in-Chief

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