

Special Issue

Nanoparticle-Based Vaccines and Therapeutics for Multidrug-Resistant Pathogens

Message from the Guest Editors

In this Special Issue, we highlight the impact that nanoparticle-based vaccines and therapeutics can play in the fight against multidrug-resistant pathogens. As the spread of antimicrobial resistance continues to reduce the available pool of effective therapeutics, the development of novel strategies is essential to prevent infection and overcome existing resistance reservoirs. The intersection of nanotechnology and medicine, creating nanotherapeutics, offers enormous promise in terms of solving the challenges faced when overcoming MDR pathogens. For example, nanovaccines and nanotherapeutics can be synthesized to optimize uptake by a desired immune cell population or tailored to enhance biodistribution. By harnessing the benefits conferred by nanotechnology into new vaccine and therapeutic applications, we unlock new mechanistic insights that can aid rational drug design and improve clinical options. This Special Issue discusses how the intersection of nanotechnology, vaccines, and therapeutics advances the frontier in terms of identifying and developing novel solutions to the multidrug resistance crisis.

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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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