



Role of Nanoparticles as Immunotherapy Agents

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The application of nanotechnology offers tremendous advantages for diagnosis and therapy in various fields of medicine and, at present, about 230 NPs are used in medicine. The majority of them activate immunity or have no effects; a minority induce immunosuppression or dysregulation of the immune system. Currently, several studies explore the immunostimulating properties of NPs to be used for anticancer therapies and as a vaccine adjuvant and delivery system for infectious, immune, and allergic diseases, their use depending on their effects on various components of the immune system. These effects can be due to several NPs characteristics, such as chemical composition, size, surface charge, shape, dissolution, and, first of all, surface chemistry/functionalization and surface coating. NPs can be engineered to either avoid interaction or to specifically interact with the immune system, inducing immunosuppression or immune stimulation.

This Special Issue will collect reviews and original works to represent an updated reference in the field.





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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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