

Special Issue

The Use of Nanoparticles in Vaccine Development

Message from the Guest Editor

Vaccines have been a cornerstone of public health, successfully controlling and eradicating infectious diseases around the world. However, despite their effectiveness, certain challenges persist, including weak immunogenicity, in vivo instability, toxicity concerns, and the need for multiple administrations. Recent advancements in nanotechnology offer potential solutions to address these limitations and revolutionize vaccine development. Potential topics for this Special Issue may include, but are not limited to, the following:

- The design and engineering of nanoparticle-based vaccine delivery systems;
- Immune responses elicited by nanoparticle vaccines;
- Novel adjuvants and formulations using nanoparticles;
- The biocompatibility and safety assessment of nanoparticle vaccines;
- Nanoparticles used for targeted vaccine delivery and enhanced antigen presentation;
- The stability and storage of nanoparticle-based vaccines;
- Clinical trials and translational studies of nanoparticle vaccines;
- The comparative analysis of nanoparticle vaccines with conventional vaccine approaches;
- Nanoparticles in the development of vaccines against emerging infectious diseases.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Vaccines (ISSN 2076-393X) has had a 6-year history of publishing peer-reviewed state of the art research that advances the knowledge of immunology in human disease protection. Immunotherapeutics, prophylactic vaccines, immunomodulators, adjuvants and the global differences in regulatory affairs are some of the highlights of the research published that have shaped global health. Our open access policy allows all researchers and interested parties to immediately scrutinize the rigorous evidence our publications have to offer. We are proud to present the work and perspectives of many to contribute to future decisions concerning human health.

Editor-in-Chief

Prof. Dr. Ralph A. Tripp

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