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Engineered Nanoparticle Mediated Vaccine Development for Immunoprevention of Cancer

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Deadline for manuscript submissions:

closed (10 August 2023)

Message from the Guest Editors

Dear Colleagues,

Several nanoparticulate systems such as liposomes, polymers, micelles, virus like nanoparticles, and inorganic nanoparticles, to name a few, have been utilized for cancer vaccination strategies. Several factors such as size, shape, surface charge, route of administration, time in circulation, etc., of these nano-constructs determines the efficacy of the loaded immunological agents (vaccines).

Cancer malignancies differ widely from each other in tumor antigen type and tumor microenvironment, which includes tumor resident and infiltrating immune cells. They are highly heterogenous within the same type of cancer (immune “hot” or “cold” tumors). For this reason, one-for-all design in the nanoparticle development to positively trigger immunogenicity will not work effectively for all types of cancer. A precise engineering of these systems by taking the tumor microenvironment and its immune status into consideration is of utmost importance. Engineering of nanoparticle design parameters will bring out a stable functional nanoplatform for cancer vaccine delivery.

In this Special Issue, original research articles and reviews are welcome.



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Special Issue



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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.

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