Special Issue

Next-Generation Platforms for Vaccine Design and Immune Evaluation

Message from the Guest Editors

The rapid growth of vaccine technologies, accelerated by the COVID-19 pandemic, has introduced powerful platforms such as mRNA vaccines, viral vectors, peptide constructs, and nanoparticle systems. Alongside these, computational tools, bioinformatics, and AI are reshaping vaccine discovery by improving design and immune response prediction. However, challenges remain, including boosting immunogenicity, achieving long-term protection, and understanding host-pathogen interactions. Combining innovative platforms with in silico modeling, omics approaches, and clinical validation offers new solutions. This Special Issue welcomes contributions on next-generation vaccine design, Al-driven development, delivery technologies, systems immunology, and translational perspectives in vaccine innovation.

Guest Editors

Dr. Valentina Di Salvatore

Department of Drug Sciences, Università degli Studi di Catania, Catania, Italy

Dr. Giulia Russo

Department of Drug Sciences, Università degli Studi di Catania, Catania, Italy

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Vaccines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
vaccines@mdpi.com

mdpi.com/journal/ vaccines





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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.

Editor-in-Chief

Prof. Dr. Ralph A. Tripp

Department of Infectious Diseases, College of Veterinary Medicine, University of Georgia, Athens, GA 30602-7387, USA

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