

Special Issue

Innovative Strategies to Boost the Immunogenicity of Cancer Vaccines

Message from the Guest Editors

Cancer vaccines hold great promise in immunology, yet their clinical efficacy has often been limited by the low immunogenicity of tumor antigens and the challenge of immune tolerance. This Special Issue highlights recent advances in developing and optimizing cancer vaccines, including subunit protein, peptide-based, mRNA, and viral vector platforms, to elicit potent and durable anti-tumor immune responses. We welcome contributions on novel antigen design, delivery technologies, and adjuvant systems that enhance antigen uptake, processing, and presentation. Particular emphasis will be placed on strategies that upregulate MHC class I and II expression, expand epitope coverage, and overcome HLA restriction as well as tumor antigen heterogeneity. We also invite studies exploring the combination of cancer vaccines with other modalities, such as immune checkpoint inhibitors, cytokine therapies, adoptive T cell transfer, antibody-drug conjugates (ADCs), and T cell engagers, to synergistically improve therapeutic efficacy. This Special Issue aims to showcase state-of-the-art innovations driving the next generation of cancer vaccines toward meaningful clinical impacts.

Guest Editors

Prof. Dr. Eric O'Neill

Department of Oncology, University of Oxford, Old Road Campus Research Building, Roosevelt Drive, Headington, Oxford OX3 7DQ, UK

Dr. Shisong Jiang

Department of Oncology, University of Oxford, Old Road Campus Research Building, Roosevelt Drive, Headington, Oxford OX3 7DQ, UK

Deadline for manuscript submissions

15 January 2027



Vaccines

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 9.9
Indexed in PubMed



mdpi.com/si/243645

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

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About the Journal

Message from the Editor-in-Chief

Vaccines (ISSN 2076-393X), founded in 2013, now has a firm history of publishing peer-reviewed, state-of-the-art research papers on vaccines and vaccination in the broadest sense. Areas covered include, but are not limited to, novel and emerging vaccine technologies, building on in-depth knowledge of what constitutes a protective immune response. These can be new vaccines for old diseases, or old vaccines for new diseases. Vaccines against cancer and autoimmune diseases explicitly are also within the scope of the journal. Because public opinion and even government policies towards vaccines and vaccination have changed, vaccine policy and public health issues are major concerns. Climate change will also have an impact on the spread of infectious diseases, and thus also on vaccine and vaccination policies worldwide.

Editor-in-Chief

Prof. Dr. Ger Rijkers

Department of Health, Cognition and Behavior, University College
Roosevelt, 4331 CB Middelburg, The Netherlands

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