



Advances in Cancer Immunotherapy and Vaccines Research: 2nd Edition

Guest Editor:

Dr. Takumi Kumai

Department of Otolaryngology
Head and Neck Surgery,
Asahikawa Medical University,
Midorigaoka East 2-1-1-1,
Asahikawa, Hokkaido 0788510,
Japan

Deadline for manuscript
submissions:

28 February 2027

Message from the Guest Editor

Immunotherapy is now a standard therapy in addition to surgery, chemotherapy, and radiotherapy for treating cancer. Immune checkpoint blockades are a form of immunotherapy that have acceptable results in many types of tumors. However, it only works for around 20% of patients, as it depends on the immune cells already present in the tumor microenvironment. If these cells are lacking or exhausted, the treatment is not effective. Tumor vaccines can help by increasing the number of antitumor immune cells, including CD8 T cells and CD4 T cells. Peptide epitopes from tumor-associated antigens (TAAs) can be used to develop a tumor vaccine. In the past, vaccines using tumor-derived peptides and inadequate adjuvants (such as incomplete Freund's adjuvant) failed to achieve clinical antitumor effects. However, with improvements in our understanding of the immune system, we can now use peptides, costimulatory molecules, and cytokines in combination with adequate adjuvants to expand T cells and impede the immune-suppressive environment. This Special Issue will gather the latest advances in the field of tumor immunology to optimize tumor vaccines.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Ger Rijkers

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

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.

Author Benefits

Open Access: free for readers, with **article processing charges (APC)** paid by authors or their institutions.

High Visibility: indexed within **Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPus / SciFinder, and other databases.**

Journal Rank: JCR - Q2 (Medicine, Research and Experimental) / CiteScore - Q1 (Infectious Diseases)

Contact Us

Vaccines Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/vaccines
vaccines@mdpi.com
[X@Vaccines_MDPI](https://twitter.com/Vaccines_MDPI)