Special Issue

Modulating CD4+ T Cells for Cancer Immunotherapy: Emerging Strategies and Applications

Message from the Guest Editor

Dear colleagues, Immunomodulation is one of the key strategies used to fight cancer. As CD4+ T cells are key in regulating various effector immune responses, modulating their function to generate a robust effector response while overcoming the immunosuppressive tumor microenvironment is paramount for effective cancer immunotherapy. CD4+ T cells may promote antitumor immunity via different mechanisms, such as enhancing antigen presentation; the costimulation, activation, and homing of effector immune cells to the tumor site; and the direct killing of cancer cells. Several cancer vaccine approaches targeting CD4+ T cells have shown promise in the clinic. Harnessing the full potential of the immune system to fight cancer still requires a deeper understanding of CD4+ T cell activation, acquisition of the effector function, and sustaining a durable and robust antitumor immune response. In this Special Issue, we invite scholars to submit their work focusing on the role of CD4+ T cells in cancer immunotherapy and the design of immunomodulatory strategies, including vaccines, to regulate these cells for robust therapeutic immune response against cancer.

Guest Editor

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Deadline for manuscript submissions

closed (1 September 2025)

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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

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