Special Issue

Vaccines for Tuberculosis Control

Message from the Guest Editors

Tuberculosis (TB), caused by Mycobacterium tuberculosis, remains a major cause of death worldwide. Despite the century-old BCG vaccine, TB continues to threaten health, particularly in low- and middle-income countries. Drug-resistant strains complicate control. underscoring the need for broad protection. Recent advancements have transformed Mtb vaccine research. Integrating multi-omics with bioinformatics enables effective vaccine design. Candidates must contain novel immunodominant epitopes for immune cells. Predicting antigen-MHC binding and mapping protective pathways are essential, while machine learning accelerates nextgeneration mRNA and viral vector vaccines. This Special Issue presents scientific findings in TB vaccine development. It features research and reviews enhancing understanding of immune mechanisms, antigen discovery, and vaccine translation. We welcome original research, reviews, and perspectives. Research areas include:

- Novel vaccine candidates;
- Recombinant and live-attenuated vaccine;
- Host-vaccine interaction:
- New animal models for evaluation;
- Subunit, peptide, viral, and mRNA-based TB vaccines;
- Adjuvant immunology and delivery strategies.

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About the Journal

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

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