

## Special Issue

# Research Progress of New Tuberculosis Vaccines and Vaccine Design for Intracellular Pathogens

### Message from the Guest Editors

Intracellular parasitic bacteria, including *Mycobacterium tuberculosis* (*M. Tuberculosis*), *Rickettsia*, *Chlamydia*, *Salmonella Typhi*, *Legionella*, and *Listeria*, pose significant threats to global health due to their ability to evade host immune responses by residing within host cells. For instance, tuberculosis (TB) caused an estimated 10.8 million new cases and 1.25 million deaths in 2023 (WHO, 2024). The limitations of current vaccines – most notably the *Bacillus Calmette–Guérin* (BCG) vaccine, which provides only partial protection against adult pulmonary TB—underscore the urgent need for innovative vaccine development strategies tailored to the unique biology of intracellular pathogens. This Special Issue aims to highlight cutting-edge research on vaccine development for intracellular pathogens, with a focus on TB as a model system but extending to other medically relevant species. We invite original research articles and reviews that address the following themes:

- Novel protective antigen discovery;
- Host-pathogen interaction;
- Immunodominant or multiepitope validation;
- Vaccine evaluation models.

### Guest Editors

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### Deadline for manuscript submissions

7 July 2026



## Vaccines

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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.

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### Editor-in-Chief

Prof. Dr. Ralph A. Tripp

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