



## Immune Response and Vaccination Effectiveness against *Mycobacterium tuberculosis* Infection

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### Message from the Guest Editor

Dear Colleagues,

Tuberculosis is still a major challenge for both humans and animals. BCG, the only vaccine that is currently available on the market, was designed 100 years ago. The lack of correlates of protection is one of the major hallmarks that hamper any quick and feasible development. There is a need for a better understanding of TB natural history in order to design reliable biomarkers. This should include not only ad hoc clinical trials, taking into account the One Health approach, but also information obtained from contact studies, including WGS from *M. tuberculosis* strains for better surveillance, to evaluate natural mechanisms of protection against active TB. On the other hand, new candidates both for human and animal protection have to fill the pipeline, so there is a need for new candidates, better experimental models for testing them, and the design of new tools, including in silico ones, to optimize clinical trials.

Prof. Dr. Pere-Joan Cardona  
*Guest Editor*





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## Message from the Editor-in-Chief

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