Stellingen

Behorende bij het proefschrift:

**Discovery of dormancy associated antigens of *Mycobacterium tuberculosis*:**

Novel targets for the development of post-exposure or therapeutic tuberculosis vaccines

1. T cell responses against antigens encoded by the DosR regulon of *M. tuberculosis* are associated with natural protection against reactivation TB; the dormancy antigens therefore form promising targets for the development of vaccines against reactivation from latent tuberculosis *(this thesis)*

2. The fact that the dormancy antigens of *M. tuberculosis* contain both CD4⁺ and CD8⁺ T cell epitopes is favorable for the development of anti-tuberculosis vaccines based on peptides or long peptides derived from antigens encoded by the DosR regulon of *M. tuberculosis* *(this thesis)*

3. The inefficiency of BCG to protect against reactivation TB may be in part explained by the fact that BCG does not induce T cell responses to the dormancy antigens of *M. tuberculosis* despite the fact that BCG possesses an identical set of dormancy genes *(this thesis)*

4. Non-tuberculous mycobacteria induce T cell responses, which cross-react with the dormancy antigens of *M. tuberculosis* *(this thesis)*

5. The route of delivery and formulation of a *M. tuberculosis* Rv1733c DNA vaccine in mice determine the immunogenicity of the DNA vaccine *(this thesis)*

6. Late stage antigens (i.e. dormancy and resuscitation antigens) have potential for post-exposure vaccines to prevent reactivation of TB, or in a multistage vaccine strategy combined with prophylactic vaccines for maximum impact on all stages of *M. tuberculosis* infection *(Peter Andersen, Trends in Microbiology 2006, 15(1):7-13)*

7. The availability of microbial genome sequences and the development of microarray-based expression profiling methods have made it possible to capture the transcriptome of an organism during different states of growth *(Dirk Schnappinger, Gary K. Schoolnik en Sabine Ehrt, Microbes and Infection 2006, 8:1132-1140)*
8. CD4⁺ T cells that simultaneously produce IFNγ, TNF and IL-2 may provide optimal effector function and protection (Patricia A. Darrah et al., Nature Medicine 2007, 13(7):843-850)

9. “There is no bigger test for humanity than the crisis of global health. Without compassion, we won’t do anything. Without science, we can’t do anything” (Bill Gates).

10. “Krijg de pokken” is niet meer van deze tijd, “krijg de tering” helaas nog wel

11. Promoveren is net als werken in de horeca: keihard werken op onregelmatige tijden

12. Wees jezelf, er zijn al zoveel anderen (Loesje)