

Therapeutic vaccines for drug-resistant tuberculosis

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Despite impressive advances in the last decades, TB control has been jeopardized by a staggering emergence of drug-resistant, and especially, multidrug-resistant (MDR) TB. Collapsing TB services and poor adherence to principles of TB management have facilitated the emerging epidemic of MDRTB. Novel TB drugs are now reaching the market. Still, without vaccines, the current global TB epidemic, and the goal set by the World Medical Association to eradicate TB by the year 2050, remains unattainable. BCG, the only currently available TB vaccine, provides limited protection, but does not impact on TB transmission. Therefore, novel TB vaccines are needed. Of over 70 products are currently in the pipeline to be developed for possible use as TB vaccine, only five products were identified to enter clinical testing for possible use as a immuno-therapeutic product. Such products may shorten, and perhaps enhance efficacy, of MDRTB treatment. Current MDRTB treatment lasts up to 20 months with drugs that have important adverse effects, and successful outcome is currently only 50-60%. MDRTB therefore provides an ideal platform for testing these candidate therapeutic vaccine products. Studies to evaluate these products may require novel, innovative study designs. Author's group is currently embarking on studies to evaluate two of these products in patients with MDRTB.

Biography

Tjip Van Der Werf completed his PhD thesis on TB and *M. ulcerans* disease in Ghana in 1991, where he is trained as a pulmonary physician. After having worked in intensive care, he resumed studying mycobacterial infections especially, drug treatment-related studies, after having obtained research funding from various sources, including Dutch government and EU grants. His current research includes PK/PD studies in MDRTB and clinical studies both in the Netherlands as well as in high endemic regions in Eastern Europe and Asia, and in *M. ulcerans* infection in West Africa. He was appointed as a Professor in Infectious Diseases at the University of Groningen, the Netherlands.

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