The BCG vaccine: its manipulation and limitations.

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Today, the only licensed vaccine against tuberculosis (TB) is an attenuated vaccine derived from Mycobacterium bovis, the so-called BCG (Bacillus Calmette-Guérin). While this vaccine grants protection against TB in children, it fails to prevent the most common form of disease, pulmonary TB, at any age. Genetic manipulation of BCG can improve this vaccine's immunogenicity with an improve safety profile, but it can also bring in unfavorable effects. The purpose of this talk is to discuss some of the current efforts to improve the BCG vaccine, such as recombinant BCG strains expressing heterologous antigens, and their limitations on the journey to yield a promising new vaccine approach.