# Antibacterial phosphine complex

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## Technology description

**Antibacterial phosphine complex**

"Effective antimicrobial activity, reduced toxicity, and the possibility of treating current drug-resistant tuberculosis"

This technique includes a new class of antitubercle bacilli active compounds and their obtaining process. The new compounds have the potential to treat the current drug-resistant strains. The compound can be used for the preparation of tuberculosis drugs, antiseptics and disinfectants.

Question:. As that numb of drug-resistant bacteria used for routine treatment of tuberculosis increase, it is necessary to improve the activity of existing drugs or to develop new active drug.

Proposed solution: The compounds developed have proven to be efficient, Extracorporeal extracorporeal The main cause of tuberculosis, Mycobacterium tuberculosis Sensitive to current treatment regimens and clinical isolates of single and multi-drug resistance.

Market potential

According to the World Health Organization, 1.8 million people die of tuberculosis each year. In the same year, 8.7 million new cases of disease were reported worldwide; 4.9% of them were from drug-resistant strains. Expenditure on tuberculosis treatment and control in high-incidence countries is expected to reach $2.6 billion in 2010, 68 per cent of which is related to Russia and South Africa. In Brazil, spending is projected at $99 million in 2010, more than 90 per cent of government spending (Global Tuberculosis Control, World Health Organization, 2010).

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## Advantages

The compounds developed have high inhibitory activity against them Mycobacterium tuberculosis As effective or superior as the current first-line drugs used for treatment (rifampicin, isoniazid, ethambutol and pyrazinamide), the cytotoxicity was minimal in the trial Extracorporeal extracorporeal In macrophage culture. The big difference also lies in the effect on the current drug-resistant bacteria. The use of compounds will bring many benefits, such as:

-Effective treatment of tuberculosis and possible treatment of antimicrobial-resistant tuberculosis;

-Reducing the duration of treatment;

-New drugs should reduce abandonment and treatment costs in a more efficient and shorter time frame.

## Institution

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