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## (54) Title of the invention: A BIOGENIC TITANIUM METAL NANOPARTICLES COMPOSITION WITH AN IMPROVED INVITRO ACTIVITY ON MULTIDRUG RESISTANT TUBERCULOSIS BACTERIA AND CANCER CELL LINES

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## (57) Abstract:

The present invention relates to preparation of biosynthesized metal nanoparticles. This report details isoniazid based TiNPs with potential for the treatment of tuberculosis at its nano level. TiNPs displayed excellent invitro inhibition against Mycobacterium tuberculosis (MTB) H37RV, MDR-TB and MTB strains with a MIC of  $4\mu g/mL$  at maximum. It also showed cytotoxic property against cervical, lung and breast cancer cell lines.

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