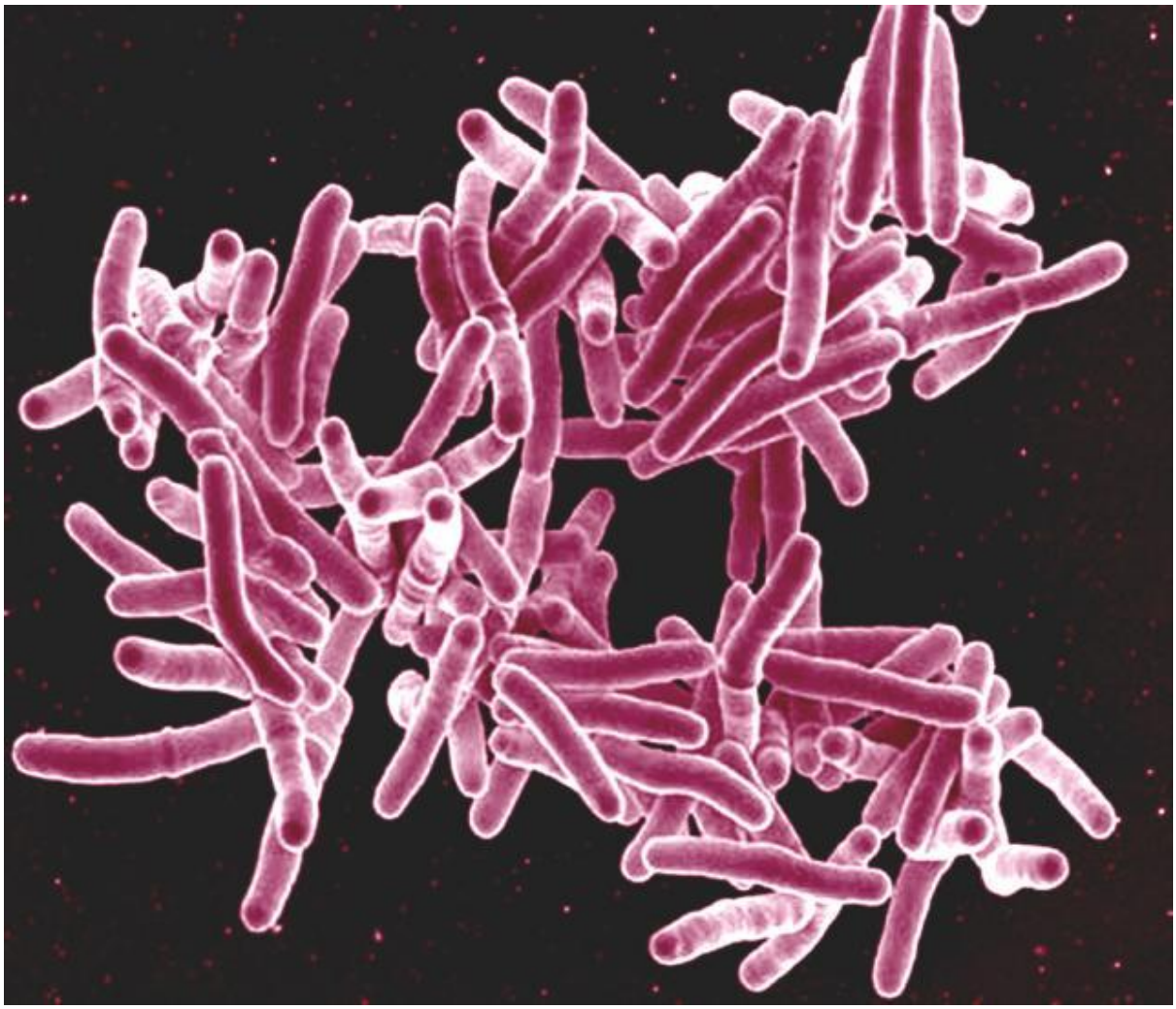
DBT-ICGEB study finds a potential molecule against TB

New Delhi, Nov 26: Tuberculosis (TB) remains one of the greatest health concerns worldwide, which kills more people than any other infection. The currently available treatment for the disease is a toxic, multidrug and lengthy process which impairs host immunity and leads to the emergence of drug-resistant mutants. Therefore, a new therapeutic approach that minimizes these risks is required to counter tuberculosis.



A new study at DBT-International Centre for Genetic Engineering and Biotechnology (DBT-ICGEB) has demonstrated that a molecule called [6]-Gingerol, which is an active compound of ginger inhibited mycobacterial growth inside the lungs, spleen and liver of mice infected with Mycobacterium tuberculosis.

The molecule displayed immunomodulatory properties as it increased expression of pro-inflammatory cytokines and enhanced Th1/Th17 responses in the spleen of [6]-Gingerol treated mice. It showed promising results as an adjunct drug, along with front line anti-TB drug isoniazid. Interestingly, [6]-Gingerol exhibited anti-tubercular activity against dormant/starved bacilli and drug-resistant variants of M.tb. This study revealed that [6]-Gingerol has excellent potential as an adjunct anti-mycobacterial and immunomodulatory

drug for the treatment of drug-susceptible and drug-resistant strains of TB. This study is recently published in International Immunopharmacol.

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