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# Development of novel antitubercular drugs: Current status

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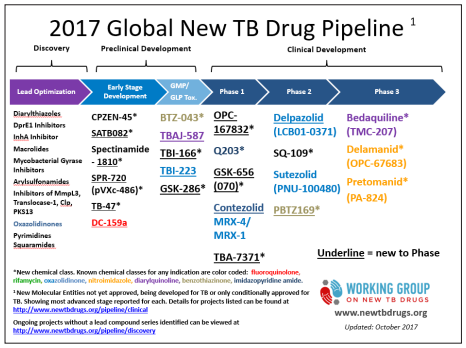
Tuberculosis (TB) is one of the most ancient diseases of mankind and has co-evolved with humans for many thousands of years. Drug-resistant TB is a continuing threat. Modern chemotherapy has significantly improved patient outcomes against drug sensitive tuberculosis. However, the rapid emergences of drug-resistant tuberculosis, together with the bacterium's ability to persist and remain latent present a major public health challenge. To overcome this problem, research into novel anti-tuberculosis targets and drug candidates is thus of paramount importance. Recent advances in molecular tools make possible the identification of targets essential for survival and persistence whose inhibition is likely to shorten therapy. Various new drug targets and drug candidates have been recently reviewed. Currently, there are several drug candidates in different phases of the discovery, pre-clinical and clinical development. There are also several ongoing trials using repurposed drugs, where different combinations and doses of drugs that are currently on the market, are being tested with a view of optimizing therapies. One can correlate various QSAR studies and the various mechanisms involved in the survival and resistance of Mycobacterium tuberculosis and novel molecules can be designed and docked on receptors to ensure the antitubercular activity against resistant strains of MTB (H37Rv).




## Recent Publications

1. Chaudhari R Y, Bhise S B, Yadav A S and Sonawane T (2016) QSAR, Synthesis and Docking Study of 1,4-DHP as Novel Antitubercular Agents. *JPRCP;* 6(1): 1-10.
2. Ghodke Yogita Deepak and Yadav Anita Shashikant (2014) Extraction and pharmacological screening of carvone and its derivatives. *International Journal of Pharmaceutical Archive;* 3(1): 273-284.

## Biography

Anita Yadav has her expertise in computer aided drug designing. She has worked on Structure Based Drug Designing, Ligand Based Drug Designing, 2D, 3D and Group QSAR based Drug Designing, De-Novo Designing, Homology Modelling, Pharmacophore modelling, Lead Identification and QSPR Designing. She can design any agonist and antagonist for the resistant bacterial strains. She has worked on Synthesis, Purification, and Structural Elucidation & Pharmacological Evaluation of following classes of compounds: Anti-tubercular, Anti-diabetic, Anti-malarial, Anti -inflammatory and Antibacterial agents..She is Working as "Assistant Professor in Pharmaceutical Chemistry" at Dr. L. H. Hiranandani College of Pharmacy, Ulhasnagar (Affiliated to Mumbai University). She won many prizes for her research. She guided 11 M-Pharmacy students and received Rs.55, 000/- for her research projects from Mumbai University. She has 1 international and 3 national publication also 2 international and 19 national presentations to her credit.

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