

## POWERING THE NEXT GENERATION OF ANTIBIOTIC SOLUTIONS

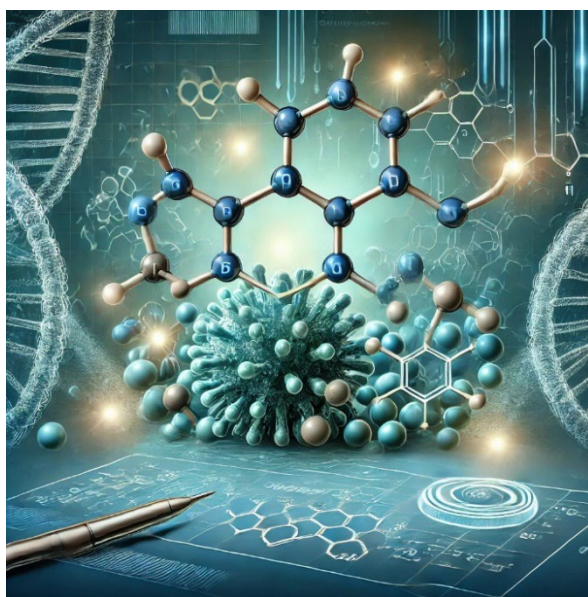
This technology involves novel compounds designed to inhibit 1-deoxy-D-xylulose-5-phosphate reductoisomerase (DXR), a key enzyme in the non-mevalonate pathway, specifically targeting *Mycobacterium tuberculosis*. By blocking this enzyme, the compounds disrupt essential metabolic processes in tuberculosis bacteria, presenting a new mechanism for combating multi-drug resistant strains.

### Key Features

- **Novel Mechanism of Action:** Targets the non-mevalonate pathway absent in humans, reducing side-effects
- **Enhanced Efficacy:** Compounds are engineered to bind multiple active sites on DXR, offering increased potency over existing antibiotics
- **Versatile Application:** Potential for use in treating drug-resistant tuberculosis and other infections relying on the same pathway

### Applications

- **Antibiotic Development:** Targeted for new tuberculosis treatments, especially for multi-drug and extensively drug-resistant strains
- **Pharmaceutical Research:** Offers a new pathway for developing antibiotics effective against bacteria that use the non-mevalonate pathway



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