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DST provides Rs 75 lakh worth grant to Peptris Technologies & FNDR for innovative antibiotic development project

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Developing an antibiotic adept at inhibiting the FabI enzyme and combatting critical gram-negative pathogens



The Technology Development Board (TDB) has penned an agreement with Peptris Technologies and the Foundation for Neglected Disease Research (FNDR), Bengaluru. Under the agreement, the Board has sanctioned a grant of Rs 75 lakh towards the project "ANAGRANINF - Development of a Novel Class of Antibiotics Against Gram-Negative Bacterial-Infections," against the total project cost of Rs 1.5 crore.

This collaborative endeavour is believed to foster innovation in the field of healthcare. The project is a joint effort between Indian and Spanish companies, with ABAC Therapeutics Sl serving as the Spanish Project Lead.

Led by the Department of Science & Technology and the Centre for the Development of Technology and Innovation, E.P.E. (CDTI), the bilateral programme aims to drive market-driven research and technology development while fostering partnerships and business-led collaborative projects between the two nations, thereby propelling innovation in healthcare forward.

The project's primary objective is to develop a novel lead compound, particularly an antibiotic, adept at inhibiting the FabI enzyme and combatting critical gram-negative pathogens. Harnessing the power of proprietary artificial intelligence (AI) tools and adhering to stringent guidelines, the project aims to produce a series of compounds that not only exhibit enhanced efficacy but also align with the rigorous criteria laid out by the World Health Organisation (WHO) for tackling antimicrobial resistance (AMR) infections.

The selected hit molecule MMV1578564 has exhibited promising activity against gram-negative pathogens, serving as a foundation for further research and development efforts. Further, the project aims to identify a candidate that meets WHO's innovation criteria, ensuring a new chemical structure, no cross-resistance with existing commercial classes, a novel target, and a novel mechanism of action.