



Press Release

IIT Bhubaneswar and ILS Transfer Novel TB Vaccine Technology to TechInvention: Facilitated by NRDC

Bhubaneswar, 24th November 2025: Indian Institute of Technology (IIT) Bhubaneswar and the Institute of Life Sciences (ILS), Bhubaneswar, along with the National Research Development Corporation (NRDC), have signed a Quadripartite License Agreement (QLA) with TechInvention Lifecare Limited for the technology transfer and future commercialization of a novel TB vaccine candidate titled **“HSP Subunit Vaccine in Adjuvant (DDA) Against *Mycobacterium tuberculosis*.”**

Tuberculosis (TB) remains one of the world’s deadliest infectious diseases, claiming 1.23 million lives in 2024 alone, as reported by the WHO. Ending the TB epidemic by 2030 is a key global health priority under the United Nations Sustainable Development Goals (SDGs). However, the world continues to rely on the Bacillus Calmette Guérin (BCG) vaccine, developed over a century ago, which provides only limited protection mainly to infants and is largely ineffective in preventing pulmonary TB in adolescents and adults. To address this critical unmet need, a next-generation HSP Subunit Vaccine has been developed through collaborative research led by Prof. Ashis Biswas of Indian Institute of Technology (IIT) Bhubaneswar and Dr. Sunil Kumar Raghav of Institute of Life Sciences (ILS), Bhubaneswar. This vaccine candidate is designed to trigger strong humoral and cell-mediated immune responses while enhancing the protective efficacy of the existing BCG vaccine. In view of its significant public health potential, National Research Development Corporation (NRDC) proactively identified and evaluated this technology and facilitated the licensing process to ensure its advancement.

The technology exchange was held at ILS Bhubaneswar in the presence of several senior dignitaries including Dr. Debasis Dash, Director, ILS; Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar; Prof. Dinakar Pasla, Dean (Sponsored Research & Industrial Consultancy), IIT Bhubaneswar; Dr. B. K. Sahu, Senior Regional Manager & Head – Outreach Offices, NRDC; Syed S. Ahmed, Director & CEO, TechInvention Lifecare Limited; Dr. Sunil Kumar Raghav, Scientist F, ILS Bhubaneswar; Dr. Ashis Biswas, Professor, School of Basic Sciences, IIT Bhubaneswar, along with other distinguished guests.

The HSP Subunit Vaccine candidate, jointly developed by the premier institutions ILS and IIT Bhubaneswar, represents a significant advancement in India’s efforts to combat *Mycobacterium tuberculosis*. This collaboration reflects the robustness of India’s research ecosystem and its commitment to addressing critical public health challenges.

TechInvention Lifecare Limited, the licensed industry partner, will play a key role in translating this indigenous vaccine technology into a viable public health solution. With strong expertise in vaccine development, regulatory readiness, and global health innovation, TechInvention brings deep technical strength and established manufacturing capabilities.

This partnership ensures that the jointly developed vaccine candidate advances efficiently from research to product development, validation, and eventual commercialization. It strengthens India's mission to eliminate tuberculosis and underscores the transformative potential of indigenous, research-driven healthcare innovations for national and global health.