



TDB-DST extends support to M/s TechInvention Lifecare Ltd., Navi Mumbai for Indigenous Development of 16-Valent Pneumococcal Conjugate Vaccine

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The Technology Development Board (TDB), Department of Science & Technology, Government of India, has sanctioned financial support to M/s TechInvention Lifecare Limited, Navi Mumbai for the establishment of a commercial-scale cGMP facility for the production of an indigenously developed 16-valent Pneumococcal Conjugate Vaccine (PCV-16). The supported project aims to strengthen India's capability in next-generation conjugate vaccines and reduce long-term dependence on imported products through domestic innovation and manufacturing.

The PCV-16 technology is built on a strategically selected panel of 16 pneumococcal serotypes, representing strains most associated with invasive pneumococcal disease (IPD), antimicrobial resistance and high fatality risks in India and other low- and middle-income countries. While 13 serotypes overlap with existing global PCV platforms, the inclusion of three emerging serotypes—12F, 15A and 22F—provides broader coverage against evolving non-vaccine serogroups, reinforcing the public-health value of this indigenous approach.

The project reflects a science-based re-evaluation of serotype prioritisation, designed to support cost-effective immunisation for children, the elderly and vulnerable populations. The early upstream and downstream development was conducted at TechInvention's BSL-2 facility within the BSC BioNEST Bio-Incubator, RCB Faridabad, and later advanced to the company's GMP-aligned high-containment R&D centre, 'HORIZON', in Navi Mumbai. An Indian patent has been filed to safeguard the unique serotype design and process innovations.

With TDB's support, the project will now move towards full-scale cGMP manufacturing, ensuring that advanced conjugate vaccine technologies are developed, validated and commercialised within the country. The initiative is expected to significantly bolster India's self-reliance in critical vaccines, enhance domestic biomanufacturing capacity and create pathways for future multivalent platforms.

TechInvention Lifecare Limited has demonstrated growing technical capability, held over 15 patents and working on multiple indigenous vaccine candidates, including India's first 6-in-1 meningococcal conjugate vaccine. The company has also been recognised by national agencies for contributions to next-generation vaccine innovation.

Speaking on the occasion, Sh. Rajesh Kumar Pathak, Secretary, TDB, stated: “The PCV-16 project represents the type of high-impact, next-generation vaccine technology that TDB aims to support. By enabling indigenous development and commercial-scale manufacturing, we are strengthening national preparedness and ensuring India’s immunisation ecosystem is supported by reliable, home-grown solutions.”

The promoters of TechInvention added: “Support from TDB will accelerate the transition of our PCV-16 from advanced R&D to large-scale, affordable production. This partnership is central to our effort to deliver broad-coverage vaccines tailored for India and LMICs.”



NKR/AK

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