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Govt supports TechInvention Lifecare for development of 16-valent Pneumococcal Conjugate Vaccine

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PCV-16 technology is built on a strategically selected panel of 16 pneumococcal serotypes



The Technology Development Board (TDB), Department of Science & Technology, Government of India, has sanctioned financial support to Mumbai-based startup TechInvention Lifecare 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.