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Zydus to develop world's first combination vaccine to offer protection against shigellosis and typhoid for children

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Project is expected to get underway in March 2025, supported by the Gates Foundation



Ahmedabad-based Zydus Lifesciences has announced its focus on the development of a combination vaccine against shigellosis and typhoid. This combination vaccine, being developed for the first time in the world, underscores India's innovation capabilities with the potential to provide protection against deadly enteric diseases - Typhoid and Shigella.

Zydus will carry out early-stage development, animal immunogenicity studies and regulatory preclinical toxicology studies for this combination vaccine. The project is expected to get underway in March 2025, and is being supported by the Gates Foundation.

Zydus will collaborate with a partner for the research and co-development of a combination vaccine using Zydus' WHO prequalified Typhoid conjugate vaccine (ZyVac TCV) and Shigella Vaccine from Zydus' partner.

Vaccination remains the most effective way of preventing and controlling the disease. The TCV-Shigella combination vaccine aims to protect children below 5 years against shigellosis, a diarrhoeal disease caused by the Shigella bacteria and typhoid fever, caused by salmonella bacteria in areas where both the diseases are endemic. This combination of vaccines, if found successful, will safeguard children against two lethal enteric diseases of global relevance and potentially offer a viable solution in a scenario where childhood immunisation schedules are becoming increasingly crowded, expensive, and unsustainable.

An estimated 11–21 million cases of typhoid fever and 5 million cases of paratyphoid fever occur worldwide each year, causing an estimated 135,000–230,000 deaths.

Further, Shigella was the second-leading cause of diarrhoeal mortality in 2016 among all ages, and the leading bacterial cause of diarrhoea, accounting for approximately 212 000 deaths and about 13% of all diarrhoea- associated deaths.