

## **BCIL seeks partner to commercialise new typhoid vaccine**

By Dr. Bilqeesa Bhat

The Department of Biotechnology's Biotech Consortium India Limited (BCIL) is looking for an industrial partner for commercialization of a technology for producing a Bivalent Outer Membrane Vesicles (OMV) vaccine against typhoid. Typhoid fever usually occurs in children aged between 5–15 years.

Typhoid is a bacterial infection and two strains of the bacteria - *Salmonella typhi* and *Salmonella paratyphi* A are prime cause for the infection in south-central and south-east Asia. *Salmonella Paratyphi* A has been responsible for escalating illness cases reported across Asia. However, at present, there are no vaccines available against it commercially. The new vaccine overcomes this problem.

The vaccine contains what are called outer membrane vesicles of both the Salmonella strains in equal proportion and thus can be effective against both of them. Further, the technology does not involve use of proteins, excipients (stabilizing substance) or any antibiotics. It has 80-100% potential to invoke body's response (immunogenicity), and is much safer for use.

Proof of concept for this technology has been established by demonstrating the efficacy of vaccine in animal model (mice). In-house validation has also been completed. Further, the technology offers a simple method to purify outer membrane vesicles. A patent has been filed for the invention.

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