

# A recombinant vaccine composition against Salmonella Typhi/Paratyphi and Shigella infections

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**About the Technology:** A recombinant fusion protein of T2544 and IpaB, two conserved proteins from Salmonella Typhi/ Paratyphi and Shigella spp, respectively, purified by ion-exchange and size-exclusion chromatography.

**Technology ID:** ICMR/EoI/PM/34/Recombinant Salmonella Vaccine/2026

**Lead Inventor:** Dr. Santasabuj Das

**Institute:** ICMR - National Institute for Research in Bacterial Infections

**Technology Domain:** Vaccine and Therapeutics

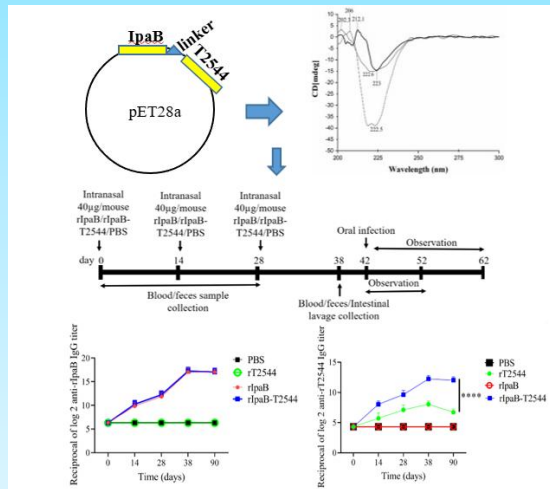
**Disease Area (Broad):** Enteric infections – Typhoid, Paratyphoid, and Shigellosis

**Need and utility of the Technology from Public health perspective:**

Existing vaccines provide limited coverage and weak mucosal immunity, with no licensed vaccines for paratyphoid and shigellosis. This vaccine addresses the unmet need for multi-pathogen, mucosal protection, especially in endemic regions.

## Technology Readiness level (TRL):

TRL-4: Validated at in house laboratory



## Validation Status and Study Outcome:

- Inhouse Validation –Complete
- Efficacy Outcome: Demonstrated protection against Shigella spp., Salmonella Typhi, and Salmonella Paratyphi A. Induced robust mucosal and systemic immune responses

**Publication:** NA

**Market Potential:** A needle-free, multivalent vaccine has strong potential for public health programs in LMICs.

**Unmet need:** High disease burden, rising antimicrobial resistance, and absence of licensed vaccines for paratyphoid and shigellosis create a significant global market gap.

**IP Filing:** Patent application filed