

C-CAMP AMR INNOVATOR SCHOOL 2026

Making bacterial molecular testing simpler to adopt.

SwiftDNA Xtract + SensoAid

THE DEVELOPMENT OPPORTUNITY

Trita is developing a modular workflow that connects rapid DNA preparation with portable molecular detection. The immediate opportunity is to translate existing bacterial laboratory work into a focused diagnostic application with defined performance requirements and a structured validation pathway.

COMMERCIALY AVAILABLE

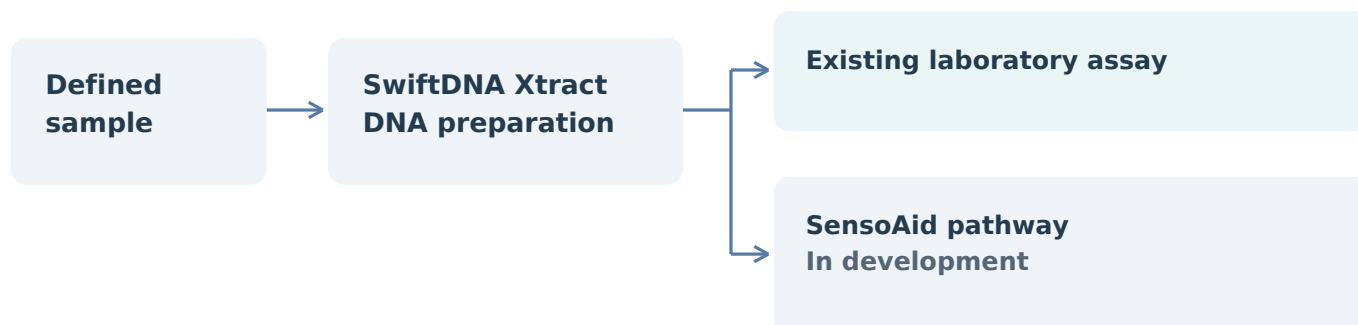
SwiftDNA Xtract

Rapid DNA extraction, approximately 8-10 minutes, without extraction instruments. Provides a standalone entry point for use with supported downstream molecular workflows.

IN DEVELOPMENT

SensoAid

Portable molecular-detection platform based on LAMP chemistry. Biochemistry is internally standardised; final device engineering and application-specific validation remain in progress.

TWO ADOPTION ROUTES

Conceptual workflow. Target- and sample-specific compatibility must be demonstrated for each route; this diagram does not imply an automated or clinically validated end-to-end system.

LABORATORY FEASIBILITY

Evidence and development status

The current foundation is an internal research and development programme. The statements below summarise company-reported progress and distinguish that progress from the evaluations still required.

50+

In-house experiments reported by the R&D team, including comparisons and optimisation. This is a programme-wide count, not a clinical sample size or a target-specific validation cohort.

Extraction and amplification

SwiftDNA and LAMP workflows have been investigated independently and in combination in-house. This supports further development of a linked workflow.

Bacterial starting point

Development work includes *Staphylococcus*. The proposed application will specify the exact species, specimen and molecular target supported by the experimental records.

Wider development experience

The company also reports work involving *Candida*, *Leptospira*, *Klebsiella* and *Acinetobacter*. These are development organisms, not a list of validated clinical indications.

Repeatability

Internal repeatability and reproducibility observations have been reported. Quantitative claims require a defined study design, replicate counts and review of the underlying data.

SCIENTIFIC RATIONALE AND CLAIM BOUNDARY

Linking DNA preparation with target-specific amplification is a testable technical proposition. The present summary supports laboratory feasibility; it does not establish clinical accuracy, resistance-marker detection or antibiotic susceptibility testing. No raw datasets or numerical accuracy estimates are included in this brief.

FROM FEASIBILITY TO PRODUCT

What the School will help us build

Our objective is to convert the existing bacterial-testing work into a focused, documented IVD development programme. The following priorities are proposed next steps, rather than completed milestones.

01

Define the intended use

Select one bacterial target-sample application; define the user, setting, result interpretation and appropriate reference comparator.

02

Translate needs into design requirements

Document performance and usability requirements, workflow risks, contamination controls and verification criteria.

03

Build a structured validation plan

Plan analytical sensitivity, specificity, interference and reproducibility studies, followed by external and clinical evaluation appropriate to the intended use.

04

Establish quality and regulatory readiness

Develop traceable records, controlled procedures, QC and change management; map the Indian regulatory pathway and clarify IP/technology-transfer responsibilities.

APPLICANT AND DELIVERY TEAM

Pranav Maneesh

Founding Director | Trita Biotech Private Limited

Full-time director connecting product planning, user requirements and commercialisation. Scientific leadership: Dr Maneesh Mailankot, CEO and Chief Innovator. R&D partner: Origin Diagnostics & Research.

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