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THSTI encourages faculty members to establish spin-offs and startups to develop their own technologies•

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The Translational Health Science and Technology Institute (THSTI), an institute of the Biotechnology Research and Innovation Council (BRIC), Department of Biotechnology, Government of India, recently hosted its third annual industry business meet, SYNCHN 2026 (Synergistic Collaboration in Healthcare Innovation), at the NCR Biotech Science Cluster campus in Faridabad. The event brought together prominent global health leaders, biotechnology experts, venture capitalists, startups, and policymakers to address coordination gaps and build a concrete pipeline to transfer lab-bench science into commercial-scale patient solutions. Following the event, BioSpectrum spoke in detail with Prof. Ganesan Karthikeyan, Executive Director of THSTI, about the institute's robust translation capacity for supporting biotech innovation in the country.



What are the key industry-academia R&D projects taking place at THSTI? Please share details.

Key THSTI-industry R&D projects include-

Vaccines and monoclonal antibodies: Collaborative projects with leading industry players, such as Panacea Biotec for Mpox and pan-betacoronavirus vaccine candidates, and Aurigene and Aragen for Nipah monoclonal antibody development

GMP CAR-T Facility: Establishing a dedicated GMP CAR-T facility in partnership with Miltenyi Biotec and Immuneel

Live biotherapeutics: Licensed in-house developed microbial consortium technologies to Sundyota Numandis Probioceticals

AI-based imaging tools: THSTI has developed AI-based models to estimate the gestational age in pregnant women and has onboarded CareMother and Qure.ai as industry partners for further development.

The preclinical research facility on animal models: Operating as a designated centre in the global CEPI-animal model network laboratory, this facility creates and provides animal models to support vaccine & countermeasure safety assessments and assays to support industry and academic partners

Bioassay Laboratory: This NABL- accredited and ISO certified lab operates as a designated CEPI centralized facility offering validated testing services to industry and academia.

What are the major challenges being addressed through these R&D projects?

The primary focus is the development of indigenous biopharmaceutical technologies that are both affordable and fully compliant with national and global regulatory standards.

How is THSTI supporting the commercialisation of innovations taking place at your labs?

THSTI is building infrastructure, Accelerated Productisation and Pandemic Preparedness (APEX), aimed at bridging the critical gap from TRL-3 to TRL-7 for technologies/innovations that have established proof of concept in collaboration with industry. This facility, along with the Medical Research Centre (MRC), will be available to both industry and academia to support innovations, moving them from PoC to First-in-Human studies. THSTI also encourages faculty members to establish spin-offs and startups to develop their own technologies.

What are THSTI's plans for the next five years to strengthen biotech innovations in India? Is THSTI planning to open more labs, facilities and centres in the coming years? How is the government planning this expansion?

Over the next five years, THSTI plans to scale its translational capabilities through government-supported infrastructure expansions. THSTI recognises that the field of supporting technologies from TRL-3 to TRL-7 doesn't have many takers. This is where THSTI is filling the gap by building APEX and MRC.

The APEX, supported by the government, will provide a pilot-scale manufacturing biofoundry for monoclonal antibodies and live biotherapeutics. The facility will also offer a dedicated space to industry, startups and SMEs. This facility is being set up in consultation and collaboration with the industry.

The 50-bed Medical Research Centre (MRC) houses India's first Controlled Human Infection Studies (CHIS) platform, early phase trial facilities, and an advanced GMP CAR-T cell unit.

What are your major takeaways from SYNCHN 2026, as compared to the previous 2 editions? How do you plan to further strengthen this event in 2027?

Major takeaways include-

Transitioned from initial networking and exploratory LoIs in early editions toward executing binding co-development agreements and tech transfer deals.

Latest edition of SYNCHN 2026 saw increased industry participation centred around biomanufacturing platforms, cell and gene therapies, and AI-driven biological discovery.

Expanded participation from regulatory authorities and deep-tech venture investors.

Plans for SYNCHN 2027-

Establish a sustainable model of collaborative development between government, academia, and industry.

Broaden international outreach to involve global academic institutions and healthcare industry leaders.

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