

India's next growth phase will be driven not just by infrastructure, but by capability building and process excellence: Dr Uma Sinha Datta

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As India accelerates its ambitions in biologics and biosimilars, the country's next growth phase will be driven not just by infrastructure, but by capability building and process excellence said Dr Uma Sinha Datta, Director – Process Development at Cytiva India.

Speaking about the evolving biopharma landscape, Dr Uma emphasised that while India has long been recognised for its strength in generics and vaccines, biologics demand a fundamentally different ecosystem. "Biopharma manufacturing is science-intensive and skill-intensive. It requires hands-on training, exposure to advanced equipment, and deep understanding of both upstream and downstream processes," she said.

At the core of Cytiva India's strategy is its Fast Track Process Development Services (PDS) facility in Bangalore — a 30,000 sq. ft. centre equipped with advanced bioreactors up to 200 litres, chromatography systems, and integrated downstream processing platforms. According to Dr Uma the facility is designed not only to support companies in accelerating development timelines but also to address one of the sector's biggest bottlenecks: skilled talent.

"Unlike IT or traditional pharma, biologics training cannot be purely theoretical," she explained. "It involves expensive consumables, complex instruments, and regulatory precision. Our programmes are structured to simulate real manufacturing environments so professionals gain practical exposure, not just conceptual knowledge."

Dr Uma noted that the centre offers modular three- to five-day industry programmes covering upstream process development, downstream purification, scale-up strategies, and regulatory readiness. In addition, collaborations with academic institutions and sector skill councils are underway to create blended learning models combining digital coursework with immersive laboratory experience.

Beyond skilling, Dr Uma underscored the importance of process optimisation in unlocking market opportunity. While biological systems follow fixed timelines, inefficiencies in development can significantly delay commercialization. “Fast Track does not change biology,” she clarified. “What it changes is how efficiently we move from molecule to market. By reducing avoidable iterations and improving process robustness early, companies can save both time and cost.”

Looking ahead, Dr Uma sees India’s biologics ecosystem evolving into a globally competitive network anchored by biotech clusters in Bengaluru, Hyderabad, Pune, and Ahmedabad. “The opportunity is significant,” she said. “If we invest equally in infrastructure and human capital, India can move from being a cost-effective manufacturer to becoming a centre of excellence in biologics development.”

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