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"We will be launching minimal residual disease testing for cancer patients this year"

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Preventive healthcare and personalised medicine are poised to become central pillars of healthcare delivery in India. And supporting this ambition is Bengaluru-based Strand Life Sciences, a subsidiary of Reliance Industries Limited. The company has also recently announced the grant of an Indian patent covering its integrated platform for early cancer detection using cell-free DNA (cfDNA) analysis, reinforcing its strategy of developing integrated, AI-enabled molecular approaches for early cancer detection and precision oncology. To find out more about the company's precision medicine initiatives, BioSpectrum India spoke to Dr Ramesh Hariharan CEO at Strand Life Sciences.



The company has recently launched the most advanced proteomics platform in India. How do you plan to expand and strengthen its presence in the country?

Strand Life Sciences recently launched advanced proteomics capabilities powered by Olink™ Explore HT, one of the world's most advanced high-throughput proteomics platforms and among the first of its kind to be made available in India. The platform enables analysis of over 5,400 protein biomarkers from just 2 µL of sample, significantly strengthening large-scale multi-omics research capabilities.

To expand and strengthen its presence in India, Strand plans to leverage its extensive clinical partner network to support large cohort studies across oncology, nephrology, metabolic diseases, and rare disorders. By integrating proteomics with genomics, bioinformatics, and clinical data, the company aims to deliver end-to-end multi-omics programs and collaborate with pharmaceutical, biotechnology, and academic partners to accelerate biomarker discovery, translational research, and precision medicine initiatives.

Could you elaborate on this product's development?

The development of Strand's proteomics offering reflects a strategic expansion from genomics into comprehensive multi-omics research. Recognizing the growing need for integrated biological insights, Strand invested in Olink® Explore HT, one of the world's most advanced high-throughput proteomics platforms, to complement its established strengths in genomics, bioinformatics, clinical research, and patient recruitment.

A key milestone in this journey was achieving Certified Service Provider (CSP) status for Olink® Explore HT following a rigorous concordance validation process, making Strand the first laboratory in South Asia to attain this recognition. The platform enables measurement of more than 5,400 protein biomarkers from as little as 2 µL of sample, with 99.5 per cent specificity and exceptional sensitivity for low-abundance proteins.

The service has already demonstrated its capabilities through a chronic kidney disease (CKD) study involving 600 patients, showcasing its value for large-scale biomarker discovery and translational research. Built on Strand's CAP- and NABL-accredited laboratory infrastructure in Bangalore, the platform is integrated with clinical phenotyping, genomics, and advanced bioinformatics, enabling end-to-end multi-omics studies.

The assay is costed to fit into academic and industry research grants. With time, as clinical applications emerge, we will optimise assays costs for more routine use.

Are you planning to launch more proteomics- and genomics-based products this year? Please share details. How much growth is the company expecting this fiscal?

Several genomic products are planned for this year. Most notable of these would be minimal residual disease testing for cancer patients. Further proteomics products will be launched next year. We expect >30 per cent growth in FY27.

The company has primarily focused on cancer care and detection. Are you now exploring other disease areas as well?

Although cancer diagnostics and precision oncology have been important focus areas for Strand, our work extends well beyond oncology. We have a strong presence in rare disease and reproductive health, offering solutions such as MaatriSeq® for prenatal screening, infertility screening panels, and couple carrier screening to support informed reproductive decisions. Notably, MaatriSeq® is India's first non-invasive prenatal screening (NIPS) test specifically tailored and clinically validated for the Indian population, improving the relevance and accuracy of screening for expectant parents in the country.

We have also expanded into genomic wellness through products such as Strand Breast Assure, NutriDNA, and Genomic Health Insights, which help individuals understand their genetic predisposition to health conditions and make proactive lifestyle choices.

In addition, Strand has deep expertise in bioinformatics and clinical research, supporting pharmaceutical, biotechnology, and healthcare organisations with advanced data analytics, genomics, multi-omics, and translational research programmes. This breadth of capabilities allows us to address a wide spectrum of healthcare and research needs, from disease diagnosis and prevention to drug discovery and precision medicine.

What challenges is Strand addressing within the proteomics and genomics market in India and Asia?

Strand Life Sciences is addressing several key challenges across the proteomics and genomics landscape in India and Asia. One of the most significant gaps has been the limited availability of integrated, end-to-end multi-omics capabilities that bring together clinical data, genomics, proteomics, and advanced bioinformatics within a single framework. By introducing advanced technologies such as Olink® Explore HT and combining them with our established strengths in genomics, bioinformatics, and clinical research, Strand enables researchers and healthcare organisations to generate deeper biological insights, accelerate biomarker discovery, and advance precision medicine.

Equally important is the need for high-quality data generation and interpretation from diverse Asian populations, which have historically been underrepresented in global research. Through our bioinformatics expertise, clinical research capabilities, and extensive network of healthcare partners, we support large-scale studies, patient recruitment, and translational research programs that help pharmaceutical, biotechnology, and academic organisations generate clinically meaningful evidence relevant to the region.

These capabilities ultimately translate into impact across multiple healthcare domains. In oncology, we help address the growing need for earlier detection, precision diagnostics, biomarker identification, and personalised treatment strategies. In rare diseases, our genomic testing solutions help shorten the diagnostic journey for patients and families by improving the identification of underlying genetic causes. In reproductive health, offerings such as MaatriSeq®, infertility screening, and carrier screening provide accurate, population-relevant genetic insights that support informed reproductive decisions.

Beyond disease diagnosis and treatment, Strand is also helping drive the shift toward preventive and personalised healthcare through its genomic wellness portfolio, including Breast Assure, NutriDNA, and Genomic Health Insights. Together, these capabilities position Strand to bridge the gap between cutting-edge omics technologies and real-world healthcare needs, enabling better outcomes for patients, researchers, and healthcare providers across India and Asia.

How do you see Strand contributing to the future of preventive healthcare and personalised medicine in India over the next five years?

At Strand, our focus is on making advanced genomic and multi-omics insights more accessible, actionable, and clinically relevant. Over the next five years, we aim to expand our capabilities across genomics, proteomics, bioinformatics, and clinical research to support earlier disease detection, better risk prediction, and more personalised interventions. We also see significant opportunities in genomic wellness, reproductive health, oncology, and rare diseases. By generating evidence from Indian populations and working closely with healthcare providers, we hope to help shift healthcare from a reactive model to a more predictive and preventive one.

What are your views on the evolution of genomics & proteomics-based innovations in India?

India has made remarkable progress in genomics over the past decade, driven by greater awareness, falling sequencing costs, and increasing adoption in both research and clinical settings. I believe proteomics represents the next frontier, providing a dynamic view of disease biology that complements genomic information. As these technologies become more integrated, we will move beyond understanding genetic predisposition to measuring how diseases actually manifest and progress in real time. India is uniquely positioned to contribute to this evolution because of its large, diverse population and

growing research ecosystem. The future lies in combining genomics, proteomics, clinical data, and advanced analytics to generate insights that are both globally relevant and locally meaningful.

How do you foresee multi-omics & AI revolutionising the healthcare sector by 2030?

By 2030, I expect multi-omics and artificial intelligence to fundamentally transform how we understand, diagnose, and manage disease. Multi-omics will enable a much more comprehensive view of human biology by integrating genomic, proteomic, and clinical data, while AI will help uncover patterns that would be impossible to identify through conventional analysis. Together, these technologies will accelerate biomarker discovery, improve disease prediction, enable earlier diagnosis, and support more precise treatment decisions. They will also play a critical role in drug discovery and clinical research. The organisations that can effectively combine high-quality biological data with advanced AI-driven interpretation will be best positioned to drive the next generation of precision medicine.

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