BETTING ON MOLECULAR BIOLOGY-BASED DIAGNOSTICS

Sequoia Capital backed MedGenome aspires to become a global leader in the Molecular Biology based diagnostics space. To achieve this, the company is working towards launching new platforms & tests and its rejigging its marketing machine.

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In September this year, MedGenome, a prominent genomics research and diagnostics company, raised a US $30 million Series-C from Sequoia India and Sofina s.a., with participation from Zodius Capital; Kris Gopalakrishnan, co-founder and former CEO of Infosys; and Lakshmi Narayanan, former CEO of Cognizant. Set up by Sam Santosh, MedGenome was initially funded with his personal funds until he raised Series-A funding of US $4 million from investors led by Emerge Ventures. With its first round of funding in 2013, MedGenome shifted its headquarters to Bengaluru, where it set up a next-generation sequencing lab. "It is the only lab in the country to possess next-generation sequencing technology platforms, such as Illumina's Hiseq X 10, 4000 and 2500. It has also earned the distinction of being the highest throughput NGS lab in South- East Asia," says a proud Santosh.

In 2015, the company raised its Series-B to the tune of US $20 million led by Sequoia Capital and has since then expanded its presence in the South Asian markets and has also set up a CLIA / CAP certified lab in the U.S.

The most recently raised funds will be used to increase the development of the MedGenome's affordable diagnostics tests and will also be used to expand its market penetration by increasing customer awareness on the importance of genetic tests. The company is also expanding its research services offering in the western markets.

The founding journey in genomics

Sam Santosh is passionate about science and technology and believes that harnessing the power of science is critical to innovation and wealth creation. With this belief he set out on his entrepreneurial venture in 1992 with California Software Ltd. which grew well to become a global player with over 1,200 employees in eight countries. "Just as technology was the key driver of business in the 20th century, I am certain that science will directly drive economic development as well as social and environmental well-being in the 21st century," he says. It is this belief that led to his shift from Software Services where he spent the first 20 years to a future that blends science and technology with business.

SAM SANTOSH, FOUNDER, MEDGENOME

"During 2008-2009, genome sequencing was beginning to catch on in the U.S. I strongly think that genomics could have

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more of an impact than computing and that is the thought that compelled me to start SciGenome Inc.," recalls Santosh. In 2010, he set up SciGenom in Kerala to provide genomics services and offerings across various sectors including human, agriculture, microbial and animals. With the growing potential of genomic services for enabling precision medicine SciGenom spun off its human genomics division MedGenome as an independent entity in 2013. "Through MedGenome I felt that we would able to create a revolution in India in the field of medical diagnostics," says Santosh.

Helping its mission gain traction

MedGenome's mission is to improve global health by decoding the genetic information contained in an individual's genome. With this plan in place, the company has taken long strides in the right direction and has been growing constantly since its inception. It currently has a workforce of 350 people. "We recruit people with sequencing skills and a genomics background for our lab related roles and highly qualified IT professionals with a combined depth in bioinformatics and exposure to biology for our bioinformatics roles," says Santosh.

The company's comprehensive range of genetic testing across various disease areas provides useful insights to clinicians for better diagnosis, treatment and management of diseases. It offers next-generation sequencing based genomic solutions in cancer immunotherapy. It has unique access to genomics data with clinical and phenotypic data that provides insights into complex diseases at the genetic and molecular level and facilitates research in personalised health care.

To name just a few of its achievements, MedGenome is the only genomics firm to conduct a very accurate non-invasive prenatal test in a facility in India to predict the risk of chromosomal disorders in-foetus. It has also launched genetic carrier screening test to screen for diseases and genetic variations that are specific to Indian population and has launched India's first validated liquid biopsy screening test, Oncotrack, to monitor cancer treatment.

Conquering the challenge of awareness

In the initial days, the company's biggest challenge was to create awareness among healthcare providers. It held symposiums and mini-symposiums for clinicians and researchers in various cities on a regular basis and also had conferences trying to get its message across to the target audience. While this is an ongoing process, affordability was another concern. However, as clinicians began understanding the benefits of genetic tests in the long run, they started adopting these faster. "Interestingly, the other challenge was rapid technology advancement and our company is committed to investing in these latest advancements to provide the best offerings to our patients," says Santosh.

Talking about customer acquisition, Santosh says, "The clinicians are our customers and our entire focus is to create awareness on the potential of genetic testing." For this, MedGenome has taken numerous initiatives like organising CMEs, symposiums, round tables and meetings. It also has a sales force of about 100 people who are spread across the country and constantly interact with the doctors on the same.

Scaling up strategy

MedGenome's larger goal is to become a leader in the molecular biology-based diagnostics space. The company is working towards this by introducing new platforms such as micro array, FISH and flow cytometry and also by adding important tests in its portfolio such as liquid biopsy, high resolution HLA typing, carrier screening and more. This apart, it is aggressively working in the field to make the medical fraternity aware of the range and utility of its diagnostic solutions. Currently, it offers over 400 genetic tests across all key disease areas and has a network of more than 400 hospitals for diagnostics and 10 plus research collaborators across the country. "Knowing the tremendous potential of our portfolio in reducing the burden of disease, we have started offering them in nearby countries and have started getting good traction, " says Santosh.

The company's revenue has also doubled to US $16.5 million in 2016-17. "After having seen initial success, we are now on the path of moving towards handling bigger and more complex problems like the role of genetics in response to drugs and predicting adverse events and associated complications at an early stage; identifying the disease sub-types; segmentation of patients based on their genetic profile for clinical trials; capturing individual's physiology parameters and interactions with environment through wearable devices and environmental sensors through smart phones," says Santosh. All these problems require significant advancements in many technologies, both for measuring accurate data and for analysing such data for better modelling and prediction of human health. The company aims to explore collaborations as well as develop AI/ML technologies in-house, especially for analysing such multi-modal data, and creating products for improving overall human health.

"We are paving the road for genetic testing in India. There aren't many people who have made the right investments in this domain. The market is huge and big enough to support a large number of players and, in fact, more players are needed to develop the market," concludes Santosh.