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MedGenome to build India-specific data for gene-based testing kits

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Hyderabad: MedGenome Labs Pvt. Ltd, a genomics-based diagnostics and research services firm backed by venture capital firm Sequoia Capital, said it has started work on building India-specific baseline data to develop more accurate gene-based diagnostic testing kits.

The baseline data involves collecting blood samples from volunteers, and sequencing their DNA to find out variations and genetic mutations.

"We really don't have enough data on the Indian population. Many of the diagnostics and drug dosages are meant for a Caucasian population," said Sam Santhosh, chief executive officer at MedGenome.

To cover the entire population, about 1,000 DNA samples will have to be tested, which will cost around ₹10 crore, he said.

"Many mutations or changes in the genes are different for different racial groups and that has a big impact on diagnosis and drug usage," Santhosh said.

Based in Bengaluru, MedGenome offers genomics-based diagnostic solutions to hospitals and doctors as well as genomic research services to pharmaceutical and biotech companies and academic research institutions in India.

The company raised $20 million (around ₹127 crore) from Sequoia Capital as part of a second round of funding in June.

"So we want to use some of the money (raised from Sequoia) to build baseline data for the Indian population," Santhosh said.

The baseline data will help develop diagnostics test with much better accuracy, he added.

MedGenome, with ₹60 crore sales in the year ended March, said it also plans to use funds raised from Sequoia to expand its research laboratory in Benguluru.

Genomics, the study of genes and their functions, provides doctors and patients with insights into the assessment and management of different types of diseases.

MedGenome offers more than 100 tests currently across oncology, cardiology, ophthalmology, neurology and nephrology. The company also developed India's first non-invasive prenatal test this year.

The Human Genome Project, one of the greatest scientific achievements in the last decade, decoded the last of the three billion letters that make up the human genome.

Since then, the cost of sequencing has dropped dramatically—from $3 billion for the first human genome to a few hundred thousand rupees today.

With the knowledge gained from the project, several start-ups have started new diagnostic tests and development of medicines that can be matched with gene variants linked to disease.

Armed with information about disease causing mutations, doctors are able to predict the potential risk the person faces in future.

The market for gene tests is set to expand to $25 billion from $5 billion within a decade as more doctors use a patient's genetic make-up to tailor treatments, according to a report last year from UnitedHealth Group Inc., the largest US health insurer.