

# Genomics lab at Madras Medical Mission to offer 'targeted treatment'

SPECIAL CORRESPONDENT

**CHENNAI:** To offer better targeted treatment to patients and to research and identify genetic patterns, city hospital Madras Medical Mission, along with MedGenome, a genomics-based diagnostics and research company, has set up a genomics laboratory at the hospital.

Apart from offering genetic testing for basic disorders, the facility will also help doctors sequence the genes of patients with specific diseases such as congenital heart defects, pulmonary arterial hypertension and cardiomyopathy, for instance, to see if they can identify genes that may be linked with these disorders, said K. Shivakumar, paediatric cardiologist at the hospital.

This apart, the lab will help the hospital set up a broad-based database of gene profiles of Indians, said Mulasari Ajit S., director

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of cardiology at the hospital.

"Eight out of every 1,000 babies are born with some form of birth defect of the heart. In 90 per cent of these cases, the specific gene pattern has not been identified. Trying to identify them may show us a pattern," said Dr. Shivakumar.

A study of hypertension in the Indian population by Dr. Ajit in association with IIT-Madras showed a mutation of a gene, which predisposes people to hypertension, in 6.7 per cent of the population studied as compared to less than one per cent the Caucasian population "However, this study needs to be scaled up

and proved in larger populations," he said.

Cardiovascular disease apart, the lab will also be able to offer testing and counselling in a number of other areas, including oncology, neurology, nephrology, diabetes and reproductive medicine.

Once clinicians know that a patient with a particular genotype does not respond to a drug for instance, they will be able to offer therapy that is targeted to that patient, said V.L. Ramprasad, chief operating officer, MedGenome.

The doctors said that while costs for already established tests would vary between Rs. 2,000 and Rs. 15,000, larger tests would not be charged to patients as they would help improve knowledge in the medical community and that the hospital would apply for grants in order to take up this research.