It's all in the genes

Research love spurs Genome Explorations

By Rimin Dutt
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Divyen Patel

MEMPHIS, Tenn. - Ten years ago, while working at a gene therapy lab at St. Jude's Hospital in Memphis, Divyen Patel stumbled upon a technology that he believed would change the way gene research is carried out.

Patel was convinced that the technique, called "Microarray," which could read information on all the genes of a genome in a single slide, as opposed to measuring one gene at a time, would be a different and useful means in researching sources of diseases.

Because the technology was expensive and difficult for research labs to afford and use, he decided to launch a company that would read the genes for other labs.

In 2001, he teamed up with his friend Arno Justman to launch Genome Explorations Inc. Patel is the company's chief executive officer.

He bought a license from Affymetrics Inc., the manufacturer of the Microarray technology, and hired a team of scientists who would produce clinical data for labs around the country.

And Patel's vision paid off. The company became profitable in its first year. It finished the first year with $1.1 million in revenues and 70 customers.

Today, the company has 210 customers. They include Harvard University, Massachusetts Institute of Technology, Massachusetts General Hospital and the University of California at Los Angeles.

"We became profitable in our first quarter and we have tripled the number of customers," the 42-year-old Patel said. "We have grown so fast that we are two years ahead of our business plan."

When the company was launched, the aim was to target Memphis companies in the first year, then the rest of the United States in the second year. However, by the second year, the company already had customers in Europe and Asia. Now, it is looking to establish distributors in France and has already found one in India.

The company plans to launch a full-fledged laboratory in India in the next six months, said Patel.

Patel said he had not anticipated that the idea would become such a success when he

launched the company.

"The technology was the driving force behind starting the company," he said. "It was a cool technology to have access to, but very few colleges had that because it's expensive and needs trained people."

One study with about 10 samples costs about $100,000, said Patel.

With Genome Explorations, colleges could ship tissue samples over to the company, and then scientists at Genome Explorations would prepare the analysis and clinical data and send it back.

Genome Explorations' location in Memphis, which is also the headquarters of FedEx, has played a huge role in the company's success, according to Patel.

"We are working with biodegradable services and it is critical that we have overnight shipping services," he said. FedEx has special services through which it ships biodegradable material on dry ice, he added.

Genome Explorations is poised for growth and is expected to make about $6.5 million in revenues over the next two years, said Patel.

The company's services are increasingly being used to conduct genetic studies to find causes for diabetes, Alzheimer's, leukemia and cancer, said Patel.

For Patel, research, which forms the core of Genome Explorations, has been like a passion. He has been involved in clinical research since 1987, when he left medical school to pursue a career in research in college.

"In terms of therapeutic work, you can do more as a Ph.D. student," he said.

He completed his doctor's degree at the University of Leeds in England, publishing 14 papers as a graduate student and focusing on methods for diagnosis of leukemia.

Patel was born in London and spent most of his childhood there. He moved to India for four years, while he was growing up, but went back to London to pursue all his formal education. He graduated from the University of Liverpool with a bachelor's degree in biochemistry before he attended the University of Leeds.

He joined the University of Tennessee in 1992 to do further research in the causes of diseases.

He began his research in genes in 1994, when he joined St. Jude Children's Research Hospital in Memphis.

His dedication to research is well known among his colleagues. Even now, he said he

works for most of the day and sleeps for just about three hours every night.

Professor Eldon Gisert, director of the Center of Vision Research, Department of Ophthalmology and Health Science, at the University of Tennessee recalls Patel as a "shining star" who did "wonderful" work with the Microarray technology.

Gisert has used the technology for his own research work on eyes.

Some of his most important research studies would not have been possible without Patel's services, he said.

"Not only is he bright and capable, but he also an expert in Microarray technology," said Gisert.