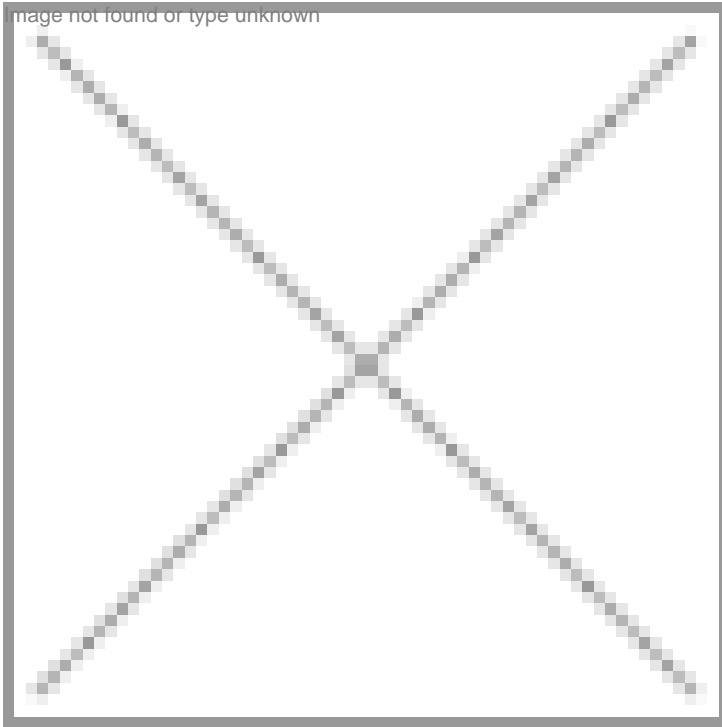


## Ignited Mind

13 December 2007 | News

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**Ignited Mind**

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He is the first icon of India's fledgling biotechnology sector. The 59-year-old Varaprasad Reddy, managing director of Hyderabad-based Shantha Biotechnics, is the pioneer who introduced the first home-made recombinant DNA product, by developing the Hepatitis B vaccine. Shantha Biotech, named after his mother, is an ideal case study on modern entrepreneurship. An electronics engineer, he was stung by the scorn poured by one of the world's top biotech company on India's ability to produce the Hepatitis B vaccine. He had sought the Hepatitis B vaccine from this biotech giant after being mesmerized by the preventive capabilities of this vaccine while casually attending a vaccine symposium in the US where he had gone to get over the fracas over a previous entrepreneurship venture making high power batteries for India's missile systems. The rest is history. When denied the vaccine making technology, Reddy sold his family properties in Andhra Pradesh, sought the help of scientists at India's premier research lab, CCMB, developed the Hepatitis B vaccine in just over four years and introduced the vaccine at one-tenth the price of the imported product. Reddy made Hepatitis B vaccines not only affordable to India's millions of children but also launched the mass immunization drive. A special report on why Varaprasad Reddy is the BioSpectrum Person of the year 2007.

Varaprasad Reddy, popularly called as KV, by his close associates turned 59 on November 17. His mother finds him always busy and involved with the company and his entire family is proud of him. In fact, everyone in the industry is proud of Reddy for his efforts to pioneer modern biotech in the country and develop affordable vaccines and therapies. He has virtually set standards for regulatory guidelines, manufacturing standards, product development, business ethics, and leadership, among many other things. Reddy says whatever he did was merely due to provocation. Provocation only strengthened his determination to stay focused to achieve his cause.

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Started in 1993, Shantha Biotechnics today is over Rs 130 crore in revenues and expects to end the year at about Rs 150 crore. Shantha Biotech has given the nation the first indigenously developed Hepatitis B vaccine, besides other r-DNA based products, which was a turning point not only in the history of the company but also in the biotech history of the country.

Another major turning point for Shantha Biotech was in 2006 when Merieux Alliance acquired a 60 percent stake in the company. Alain Merieux, chairman, Merieux Alliance at that time said "Shantha Biotechnics and the excellent team working here will be the center of several global development and manufacturing for vaccines and other biological products. As a first step we have decided to make an investment in a state-of-the-art suite for increasing Hepatitis B manufacturing capacity at the National Technology Awards for R&D excellence and the

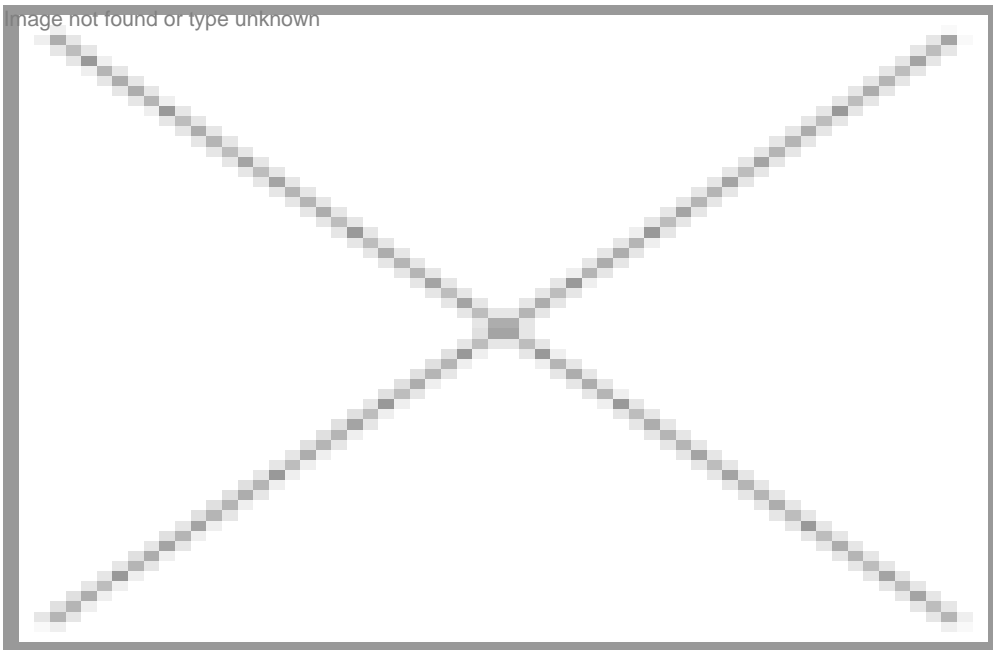
Prestigious Civilian Award on Varaprasad Reddy to go for a public issue as the investors before this deal wanted the scrip to float the Phusha company was giving dividends right from the very first year of commercialization. In 1998, the dividend was 25 percent, in the year 2000 for every share two bonus shares were offered and a further 25 percent dividend was announced, and 50 percent there after. There were five major investors and all of them got almost three times their investment just through dividends. However, when the Omani investors got an offer from Merieux Alliance, it was too tempting for them to decline.

Reddy is happy with the progress made after the deal. "They have not changed the name of the company and the philosophy and priorities of the company remain the same. They have strengthened my position further by given me a position on their board and doubling my position in this company," added Reddy. The focus of the company now will be on vaccines. And it would move out from therapeutic proteins. Shantha hopes to become a global company now both in terms of products and reach. "I have retirement plans but I will continue for another four or five years and then pursue my other interests like music and literature," said Reddy.

According to Reddy, things have changed a lot today for entrepreneurs compared to his time. There are more opportunities and new entrepreneurs can approach people like Reddy who have already tread a tough path. "Entrepreneurs should be aware of what is happening and should be prepared for any consequences. They should be frustration proof and there is a way one can do it. He has to fight back," added Reddy. Science can be taught but attitude cannot be taught.

The secret of success-fight back-is also Varaprasad's story. He started Shantha Biotechnics without any background in biotech or association with biotech. He wanted to provide affordable Hepatitis B vaccine in the country. He was denied the technology by a global major and he fought back by indigenously developing the first recombinant vaccine, Shanvac B, in India. He fought the battle for raising funds, regulatory system, and even commercialization of the product. Banks were not willing to give loans for biotech projects then. He had no pharma background and didn't know the distribution dynamics. The big pharma companies were not ready to market Shanvac B as they saw a market potential of Rs 5-50 lakh in sales in the first year. Reddy fought back by recruiting some people and directly selling the vaccine. Shantha notched up sales of Rs 7.5 crore in just six months.

As a result of Shantha's efforts Hepatitis B vaccines are available for as low as Rs 16 compared to Rs 800 per dose for the imported vaccine in 1998. Today, Shantha supplies nearly half the world's requirement of Hepatitis B vaccine procured for global immunization plans. Shantha has been exporting to around 14 countries other than the UNICEF. With Merieux Alliance as the partner, Shantha has made giant strides in the last 12 months and is all set to emerge as one of the world's top affordable vaccine makers in next five years.



### **Recombinant product pioneer**

"I did my graduation in electronic engineering from Andhra University and started my career as research scientist in Defence Labs. I left that place and joined Andhra Pradesh Industrial Development Corporation (APIDC).

My first entrepreneurial venture started in 1985 when I invested in a company doing a project on batteries as it suited my background. Also the company was focusing on doing some R&D in batteries for supply to defence. I quit it due to differences that cropped up with the promoters.

I had attended a WHO Summit for the global impact of vaccines, where I heard for the first time about hepatitis B. The cost of vaccines was very prohibitive in India and I wanted to develop affordable drugs. That was why I started Shantha Biotechnics.

At that time I was trying to get some funding from the banks. Though I had won several awards in the previous companies and also knew several key people in the banks, they were not ready to invest. The objection was I did not have the technology nor the R&D background. We received a big boost when Yusuf Bin Alawi Abdullah, the then Foreign Minister of Sultanate of Oman, promised to invest. He invested in the company along with friends as co-promoters in 1995 and also arranged for long-term loans from Oman International Bank at low rates of interest. We had Rs 1.9 crore in our equity fund. And Shanvac was developed. Ours was the first recombinant product in the country. The then prime minister, I K Gujral was very excited about it and also made an announcement in the parliament".

**"Shantha will now focus on vaccines only"**

Varaprasad Reddy, managing director, Shantha Biotechnics

**When you set up the organization, what was the most important quality that you looked for in a candidate?**

Science can be taught but attitude cannot be taught. I was looking for attitude in a person who could contribute to the organization. So I was looking for people who had the passion of doing something.

**Why did you venture into biotech and how did you develop your first product?**

I was in a very bad state of mind after my experience with Hyderabad Batteries. I wanted to have some peace and went to my cousin's place in the US. It was there for the first time at a WHO summit on the global impact of vaccines that I heard about Hepatitis B. It was not an affordable vaccine costing about Rs 800 per dose. And for a family with four or more children people had to spend somewhere around Rs 10,000. People were willing to spend money on a disease to get cured, but were not willing to spend on protecting against an infection. That tempted me. I was enquiring with my cousin and friends on that how to acquire this technology. My cousin suggested me to go to a leading global player to get the technology and transfer this technology. But I was ridiculed. I took it as a challenge and vowed to develop it in two-three years. Though I couldn't do it in two years, I did it in four-and-half years.

There was no regulatory system to approve recombinant DNA products and nobody understood how to do this. There was no protocol available. I got it all from international regulatory agencies and convinced the authorities to set up the process to test recombinant drugs. I went finally to CCMB and they provided us some space. I used to pay Rs 1.25 lakh per month. The scientific ambience at CCMB had given the right atmosphere for scientists to do the development. That was how we developed the first recombinant product in the country.

**Why did you go to TDB?**

The initial money that I raised for setting up Shantha Biotechnics was completely spent on development and there was no money left for commercialization. At that time a great thing happened in the country. The Technology Development Board (TDB) was formed by the Department of Science and Technology. The first loan application was from Shantha Biotechnics for commercialization of home grown products. That was the greatest support from the government of India. They initially got a loan of Rs 5 crore and later Rs 8 crore. We recruited some people, trained them, and after six months we were ready to market. Today our turnover is Rs 130 crore. This year probably we will touch Rs 150 crore. Shantha can never be termed as a generic company, productwise we are into generics but conceptwise we are totally innovative.

**What will be the focus of Shantha Biotech now?**

The company is going to focus only on vaccines post the Merieux Alliance deal. Shantha will become Merieux Alliance's worldwide centre for its prophylactic vaccine activities.

I will continue as managing director.

N Suresh & Ch. Srinivas Rao