



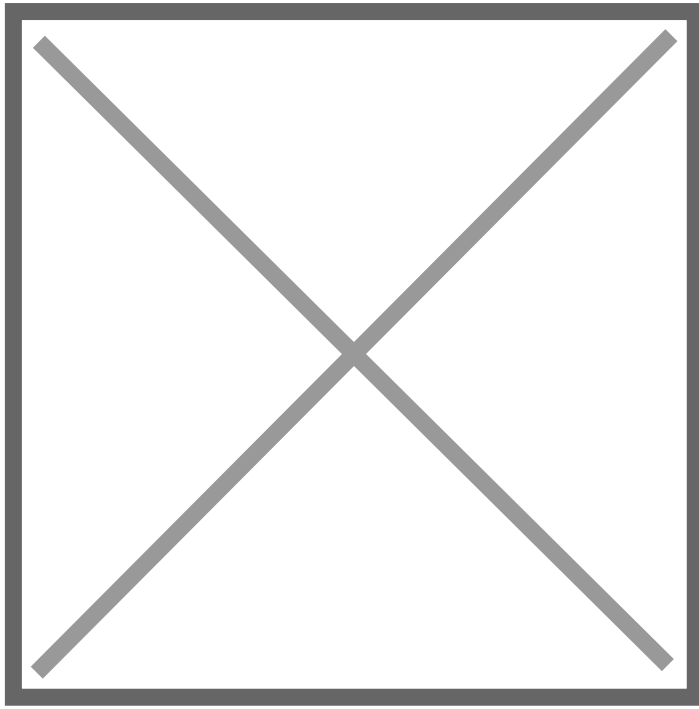
BioSpect

the business of Bio

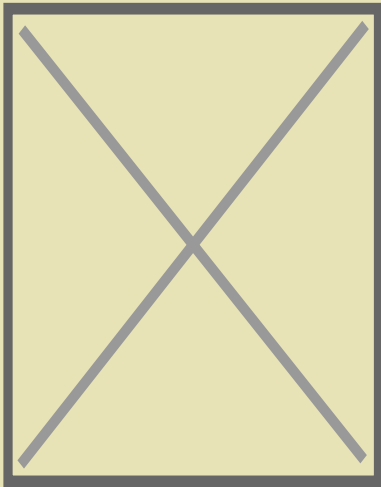
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Biotech Guru

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Biotech Guru



Dr Vijay Chandru

Career: Currently an academician-turned-entrepreneur.

Co-inventor of Simputer, a novel hand-held computer.

Awards: Hughes Fellow (1982-85), AT&T Fellow (1991-1993), Fellow of Indian Academy of Sciences (1996), Dewang Mehta Award for Innovation in IT (2001), Technology Pioneer of World Economic Forum 2007.

Academics: PhD from the Massachusetts Institute of Technology in 1992.

In the Indian biotech space, Dr Vijay Chandru, has a unique place. By stepping out, even though partially, out of the secure environs of the Indian Institute of Science(IISc), Bangalore, he showed the way to other academics to fulfill their entrepreneurial dreams. As the country's best known and first academic-turned successful entrepreneur, Chandru is a trendsetter. What is more important is the fact that within seven years of its founding, Strand Lifesciences has turned the corner and registered a marginal profit in the last 12 months, a remarkable achievement in the life sciences sector, despite continuing investments for future growth. Chandru and his team has achieved this even amidst one of the most traumatic periods of his life, after escaping a killer bullet fired by a terrorist on a fateful December evening outside the IISc auditorium in 2005. Chandru's accomplishments have ignited the entrepreneurial dreams of many other scientists in the country. And the Strand story has also spurred the government to encourage Chandru's of the future by the plan to introduce an Indian version of the Bayh-Dole Act to unlock the scientific treasures of discoveries currently locked up in the laboratory vaults of hundreds of publicly funded research centers. A BioSpectrum insight into what makes Chandru, chosen the BioSpectrum Entrepreneur of the Year 2007, dream up his big plans.

In India, only a handful of academics are willing to take up entrepreneurship. And Dr Vijay Chandru, chairman and managing director, Strand Life Sciences is one who has taken the bold step in the late Nineties. He has been focused and has led Strand through the tough times of slowing bioinformatics sector developing products, attracting talented people, and growing up the value chain. Strand's focus has been on developing products. In fact some of its products today serve as key platforms. The transforming event for Strand Life Sciences was when it was approached by Stratagene with an idea to retire some of its competing products and replace it with those of Strand's. The contract was signed in December 2005 and by 2006 Strand's products were in the market being sold by Stratagene. The platform was Avadis, which incidentally was also the winner of BioSpectrum Product of the Year as early as 2003. This clearly was an indication of the quality, the technology and the product from Strand.

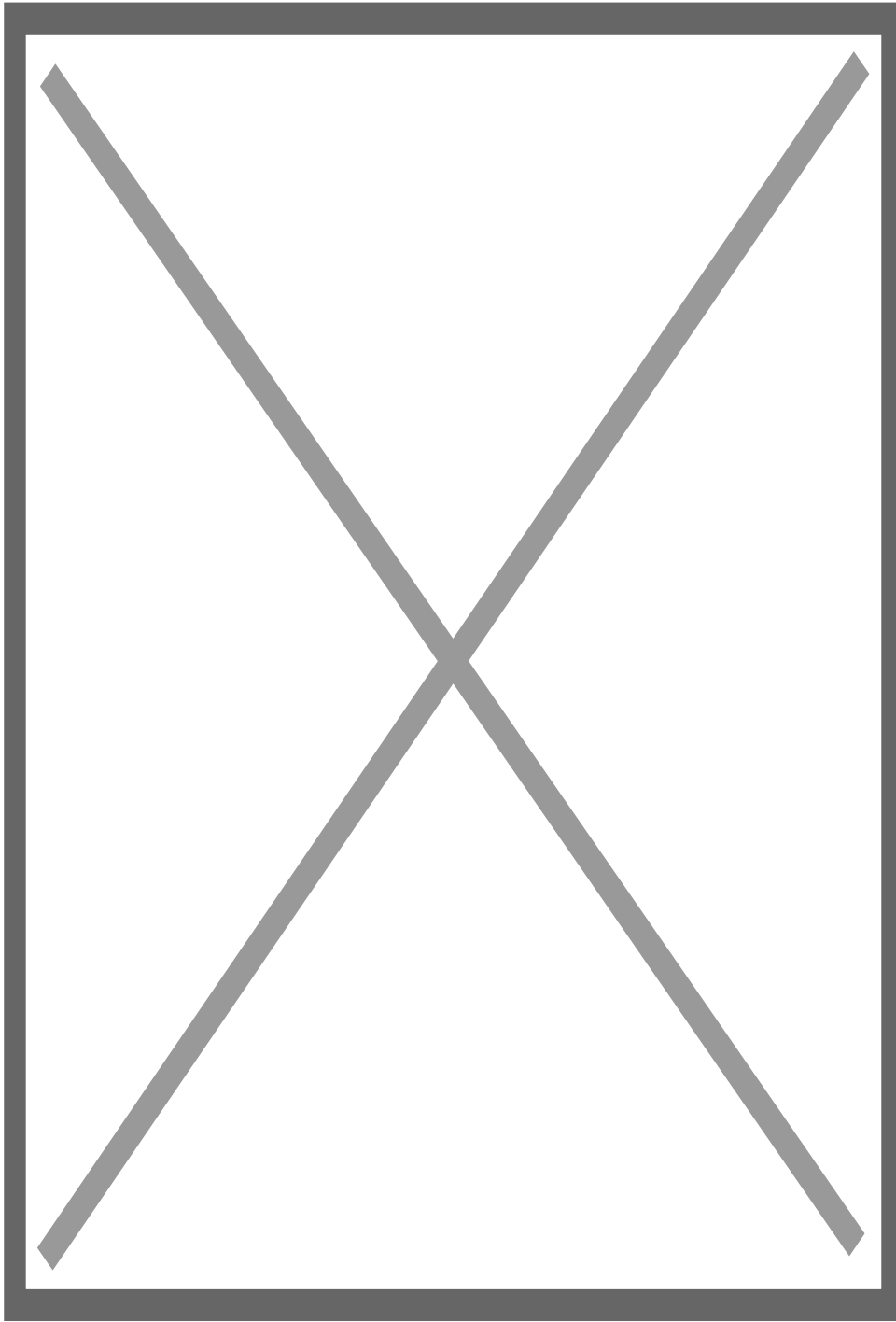
In addition, Stratagene also saw an opportunity for new product which involved creation of an incredible technology for natural language processing. In a span of 9-12 months, Strand built ArrayAssist Expression, ArrayAssist Exon and Pathway Architect and released it into the market in 2006. Stratagene had committed \$400 million to Strand and it was a 50:50 revenue share. The understanding was that only 50 percent would go into marketing and sales. This kind of revenue share of 50:50 is seldom seen in the industry. And Strand also had the ownership of the intellectual property and branding for the product. The product actually said powered by Avadis from Strand Life Sciences. This according to the management team of Strand was a real turning point for the company.

The next big event for Strand was when Stratagene was acquired by Agilent and its partner became a \$6 billion company from being a \$100 million revenue company. The informatics arm of Stratagene accounted for about \$5 million in revenue as against Agilent's which is around \$100 million. This represented a huge qualitative jump for Strand. It was a tense moment for all at Strand with the Agilent-Stratagene development. But Strand was surprised when Agilent announced to replace its GeneSpring product with something on Avadis. The agreements were similar to the amendments that it had with Stratagene and Agilent signed a multiyear revenue commitment. This has been a huge step forward for Strand and a new version of the product will hit the market early next year.

The company's topline has also grown. "In business there is always some amount of luck. But I think the real lesson here is that Strand had spent enormous amount of effort and went all out to learn the art of creating a platform technology," said Dr Chandru.

Strand now has the platform in which changes can be affected very rapidly. The testimony to this lies in the fact that Agilent chose Strand because of its agile software process. It is bringing out a new version of the product in every two weeks.

Strand today is not just a technology company but is also creating intellectual property enabled by that technology. So intellectual property is an important game and a big chunk of investments are actually dedicated to that. There are few interesting modeling projects that Strand is doing like liver modeling projects for the drug induced liver injury. This is to leverage technology from the applications side. It is now in the process of putting several partnerships in place. It is working with several discovery groups. "We are not going to be an independent drug discoverer or diagnostic discoverer but we will have a piece of several such intellectual properties," stated Dr Chandru. It is also focusing on solutions and services development within discovery and informatics space in the pharma side. This interesting development began just 12 months ago. It senses that there is an opening for being able to go in that space and offer pharma services from India with a mixed model of onsite, offshore, and typical outsourcing. Clearly, the company is in for an exciting time and on its way to becoming a global leader. Thanks to Chandru's collective leadership, vision, and negotiating skills.



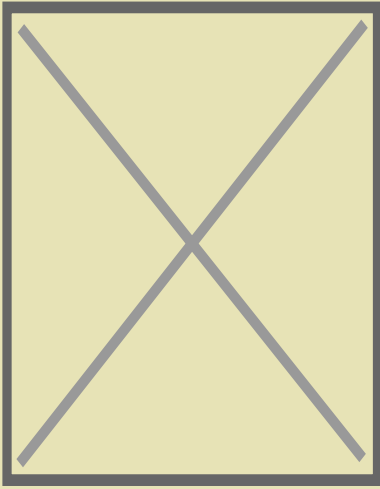
Germination of Strand

"Ramesh Hariharan and I were colleagues at IISc. By the mid 90s, it was fairly clear that the interface between life sciences and computers science was going to be a rich interface. Ramesh was already working on some problems in genetics and writing research papers. It was Gautham Nadig, director, Metahelix Life Sciences, who introduced me to proteomics. I used to teach a course on computational geometry at IISc and Gautham was a student. He gave me lots of papers to read on proteins, protein folding problem and protein geometry. So there was some intellectual interest in this interface.

By 1995 Ramesh joined us and we set up a joint computational lab in IISc; some of it was around scientific computation and some around the Simputer technology. We started getting the ideas about entrepreneurship in 1998, when I visited a biotech company in the US, which needed a lot of help on informatics. They heard of Bangalore and wanted me to find a good informatics group. I felt may be our lab will do. We then negotiated and got it as a sponsored project in our lab in IISc and our lab used to be called as the Perceptual Computing Lab.

A year later we asked IISc if we could float companies. We were strongly determined and Prof. HB Kincha at IISc made that happen. He is now the vice-chancellor of VTU. In October 2000, we were given the green signal. I went back to that biotech company in the US and told them that we are now going to be a company. It agreed to stick to the project and we signed a contract for expansion. It was a \$350,000-project for three years. We just started of with that. We didn't have to go look for funding. We had the project, we had the revenue".

"We aspire to be a leading discovery research informatics company globally"



-Dr Vijay Chandru, MD, Strand Life Sciences

When will we see Strand Life Sciences making big news?

In terms of when you will see great things from Strand, I would say we are a little bit away from making a major splash but what you will see is major growth. In the next two years, you would see Strand blossoming and scaling up to a mid-size company. We certainly have passed the start-up stage and are geared up to getting to the next big level. We are on a very fast track.

One thing very certain in Strand is that we will not play in the commoditization space. So the question of how we scale will be different from others. That would be the interesting aspect of our story. We will stay at the high value end of discovery chain.

We have sensed that we have something in the chemistry space which can make a splash. It's a brand new product based on the Avadis platform.

Will there be any Strand product which will have a global impetus in the coming future?

The GeneSpring 9.0, the product we are putting in January, is one such kind of product. It is the blockbuster product for the microarray analysis globally with almost 6,000-7,000 users. This is the product with the largest customer base. Today if you go to the research biology community, which does DNA expression, pathway analysis, etc and tell them that GeneSpring analysis is enabled by Strand, a lot of them will say that their discovery and research is enabled by that technology.

What is the turnover of Strand?

We cannot speak about the Agilent (GeneSpring 9.0) deal but let me say that we are already above the Rs 10-crore mark for this year and we expect to end the year close to Rs 20 crore.

What is your vision for the next five years?

Five years is a long period to forecast in terms of revenues. But our aspiration is to become one of the leading discovery research informatics companies in the world.

As an organization what would be that one thing unique to Strand?

It is definitely the collective leadership. There is a lot of consensus decision-making here and also a congenial environment.

So have the last two years been satisfying for you?

In terms of business, the last two years have been very productive. The quality of colleagues and the depth of the team are tremendous assets. I was completely out of action but still the company has done well. We have seen bioinformatics go through its toughest time but we stood out in that. We stayed with informatics in life sciences. We didn't build a wet lab or get involved in services. The expectation from genomics was hyped too early in 2000 and now probably has a better foundation. This will explode when next generation sequencing will pick up and consumer genomics and all such things get personalized. The timing of that is of course something that nobody seems to know clearly. But possibly the rise of bioinformatics will happen around these events.