

Developing a Biotech Hub

By A V Vedpuriswar & Surajit Pal

Biotech is probably the most exciting knowledge business in the world today. Bill Gates once remarked that if he had not made it big in the world of computer software, he would surely have moved into Biotech!

Hyderabad's software boom in the late 1990s has raised hopes about the city emerging as a Biotech hub. What can the city do to become India's Biotech capital in the face of stiff competition from cities like Bangalore, Pune and New Delhi?

At the outset, we need to understand that Biotech is quite different from computer software. Biotech involves more scientific expertise. Domain knowledge is also more critical in Biotech than in software. Take new drug discovery, one of the important applications of Biotech. Prof. Vijay Chandru of IISC, Bangalore explains how the business paradigm here is quite different from the software industry, "It's not easy to break a new drug development project into neat compartments or disciplines and outsource each portion from a different company. The different disciplines of drug research cannot be joined end to end to form a long pipe... Those who offer the entire value chain in the drug development process will be the ultimate winners." Chandru points out that the dream of every modern biotech company in the US is to become a drug company because that is where the money lies.

But Hyderabad does have a bright future in Biotech, if it plays its cards well. A tremendous advantage which Hyderabad enjoys is that it has some outstanding educational institutions. These include the Centre for Cellular and Molecular Biology, Indian Institute of Chemical Technology and University of Hyderabad. These institutions will stand the city in good stead. A parallel is in order here. Bangalore's take-off as a software development centre was to a great extent the result of several private engineering colleges cropping up in and around the city in the 1980s. This ensured the availability of trained manpower, as the IT boom got under way.

But Hyderabad needs to invest much more in educational infrastructure. As the famous management guru, Michael Porter has repeated time and again, investment in specialized education and training facilities can never go waste. Hyderabad would also do well to upgrade the curriculum. Prof. Chandru feels that the traditional approach to training biologists with little emphasis on physical, mathematics and analytical skills is a serious flaw. He calls for a more multi disciplinary approach to training scientists. It is heartening to note in this context that Institute of Chartered Financial Analysts of India (ICFAI), is planning to launch a four year multi disciplinary B.Tech program in Biotechnology in Hyderabad, starting from this year.

Another challenge for Hyderabad is to encourage scientists in the universities to set up their own laboratories and take their ideas quickly to the market place. According to Mr. S Nandakumar, President of V N Vision, one of the leading consulting firms in the city, a scientist finishing his PhD must be encouraged with both capital and the lab infrastructure to get down to business in the shortest possible time. Here, he cites the example of Cambridge University in Britain and Stanford in the US. The role model for the city's scientists should be people like Dr. Anji Reddy, Prof. Ashok Jhujhunwala of IIT Madras and Prof. Vijay Chandru. These eminent academics have demonstrated how bridges with

the industries can be built successfully.

Nanda Kumar also feels that leadership is crucial for the development of a nascent industry like Biotech. He cites the examples of Vikram Sarabhai (Space) Homi Jehangir Bhaba (Nuclear Power) and Verghese Kurien (Dairy). Leadership is necessary to motivate Hyderabadis and make them believe that their dream is possible.

Deepanwita Chattopadhyay is CEO, ICICI Knowledge Park set up by ICICI and the Andhra Pradesh government to attract knowledge based industries. The park which is situated on a lush campus on the outskirts of the city is giving a special thrust to Biotech. It hopes to create an ambience where world class research can flourish. Ms. Chattopadhyay is quite upbeat about Hyderabad's chances of emerging as a biotech hub. She receives several enquiries each month from entrepreneurs, both Indians and NRIs. But like Nandakumar, Ms. Chattopadhyay feels that good role models are necessary to attract the right people into the industry. Hyderabad does have some big names like Dr Reddy's, Shanta Biotech and Bharat Biotech. But the leaders of these companies must play a more active role in incubating biotech start ups. She adds that Hyderabad cannot afford to rest complacent. Bangalore, with its more cosmopolitan culture, New Delhi and Pune are all formidable competitors.

For the development of any high tech industry, venture capital is a must. But appraising the business plans of biotech start ups is quite challenging as it involves specialized domain expertise. The number of Hyderabad based VCs available to fund Biotech start ups is still limited. Non availability of venture capital is a major weakness in the case of Hyderabad.

In short, Hyderabad has to work on several fronts simultaneously to emerge as the Biotech capital of India. It must invest in education, strengthen the academia – industry linkages and encourage venture capitalists to come to the city.

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