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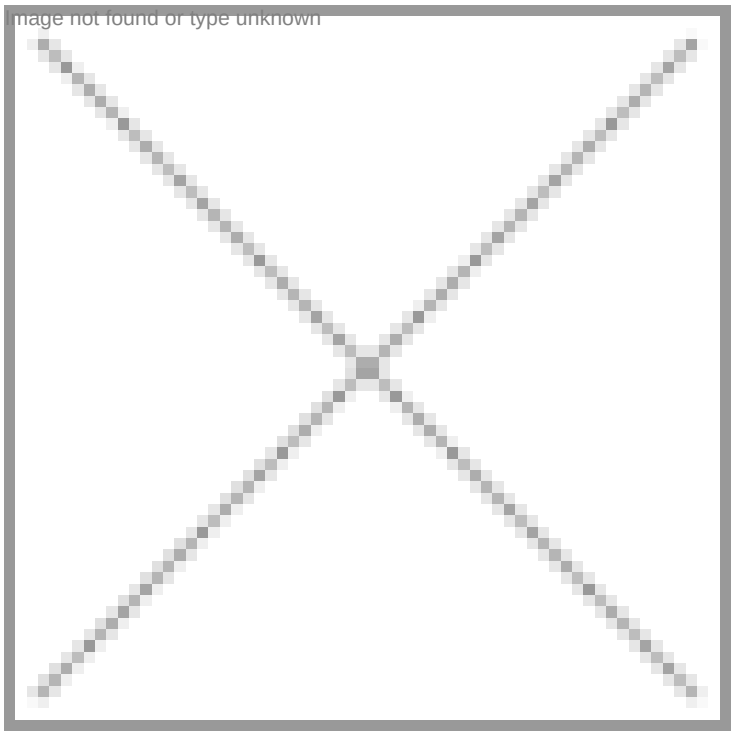
Indian Bioinformatics tools going global

13 June 2005 | News



- **Indian Bioinformatics market is about Rs 100 crore**
- **Biotech companies are setting up bioinformatics cells**
- **Biosuppliers are entering the bioinformatics space**
- **Government initiatives to support the segment**

The Indian bioinformatics market closed the year at about Rs 100 crore, of which about 40 percent is from the local market and rest from exports. This includes Rs 25 crore from sales of real bioinformatics products/ tools. Last year it was pegged at about Rs 70 crore. Considering the opportunity, it is expected to grow to $120 million (Rs 530 crores) by 2006 and likely to take a major pie in the global bioinformatics sector in next few years. India's entry into the product patent regime in 2005 has really boosted the bioinformatics sector in 2004-05. Many leading Indian pharmaceutical companies are investing on R&D to take an early lead in this new patent regime.

At present there are about 45 companies in this space mainly based in southern cities like Bangalore, the IT capital of India, Chennai and Hyderabad. About 20 percent of them are based in Delhi and a few in Pune, the knowledge center. Of these about 35 companies are actually involved in developing bioinformatics tools and products while the rest are into marketing of the tools. In addition to Indian companies, multinationals like Accelrys (a subsidiary of Pharmacopeia), Tripos are also in this space with direct presence in India. The big IT companies like Infosys, Cognizant Technologies are offering bioinformatics services while IBM, Sun Micro Systems, Intel are providing the hardwares.

With the changing scenario in the global market, many small and medium companies have either closed or joined hands with

leading companies in the same space or with biosuppliers who are into marketing of equipments/ products to biopharmaceutical and biotechnology companies. One can expect the same trend in India also as companies like Agilent, Thermo Electron, Bio-Rad are entering this space. Consolidation will become the new mantra in the years to come.

Companies like Strand Genomics, SciNova Technologies, Mascon Life Sciences, Ocimum Biosolutions, Life Sciences, Helix Genomics have about 5-8 products in their kitty. Tata Consultancy Services launched its much-awaited Biosuite product last year. These companies offer forward integration of IT systems in drug development and also help in implementing clinical trial programs at lower cost with shorter time lines. By exhibiting cost saving skills, Indian firms are getting product enquiries and business related to data mining, scientific visualization, information storage, retrieval of special structure data and simulation of long DNA sequences.

Indian players have to leverage the lower costs of infrastructure and human resources. The cost of setting up and running a bioinformatics company in India is a fraction of the cost in the US. Indian companies will have to target pharmaceutical and biotechnology companies, as well as agribiotech and industrial biotech companies.

Some Indian bioinformatics enterprises have already been acknowledged in the US and European markets for their cost saving potential. These companies have demonstrated cost saving to the extent of 30-40 percent in drug development process. With this, many Indian enterprises are getting orders to jointly collaborate with major pharmaceutical and biotech companies.

Already some companies in India have made forays locally and into the global market. In June 2004 Strand Genomics from Bangalore licensed its microarray gene expression analysis software to antibody company Abgenix in Fremont, California. And Lion Bioscience Research in Cambridge, Massachusetts, licensed NetPro, a proprietary protein interaction database of Molecular Connections, in Bangalore, to conduct drug target identification research exclusively for Bayer, Leverkusen, Germany.
Similarly Ocimum Biosolutions, which has acquired Microarrays from MWG, Germany called Ocichips and the entire array of microarray products, had sales of Rs 7 crore last year and is now targeting at reaching Rs 30 crore in 2005-06. It has entered into a marketing alliance with UBI, Scimax, Science partners to market its products in the global market. It is also looking at increasing its head count to 160 from 97 in 2004.

On the other hand Cytogenomics, an early-stage bioinformatics company based in St Louis, Missouri , with a development center in Bangalore and achieved revenue of over Rs 5 crore last year, is now looking at expanding its area of business by moving up the value chain. Currently, it is in the market with SilicoCyte, a microarray informatics product and also caters to various bioinformatics product and services. It is targeting to grow the revenue by over 300 percent in the next five years.

Even the leading biopharmaceutical companies like Dr Reddy's Labs and Wockhardt have set up bioinformatics cells to undertake research in this space, only to meet their in-house research activities. Wockhardt is working on metabolic engineering. Instead of coming as hindrance to the real bioinformatics companies these cells/units at the biopharmaceutical companies will help them in marketing their tools.

To promote the rapidly emerging field of bioinformatics in the country, many professional have joined hands and set up a non-profit society called Bioinformatics Society of India. This three-year-old society is basically aimed at bridging the gap between the educational and corporate sector. It will strive towards catering the needs of aspiring learners of this field by creating a genuine awareness and to attain perfection to set a benchmark in bioinformatics. In addition to this, the government is also making efforts to support the segment by setting up BioIT Park. The Department of Biotechnology has been working with other departments to set up this park, which is expected to position India in the global hub of Bioinformatics.

The Department of Biotechnology in its National Biotech Development Strategy has also pointed out some strategic action plans in the following areas - human resource development, infrastructure development, testing of public domain resources, inter agency coordination, strengthening of DICs and sub DICs and Bio IT parks and promotion of bioinformatics industries. These initiatives will support the segment to grow vertically and to take a major pie in the global bioinformatics sector in the next few years.