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Bioscience catalyzes the new bioeconomy

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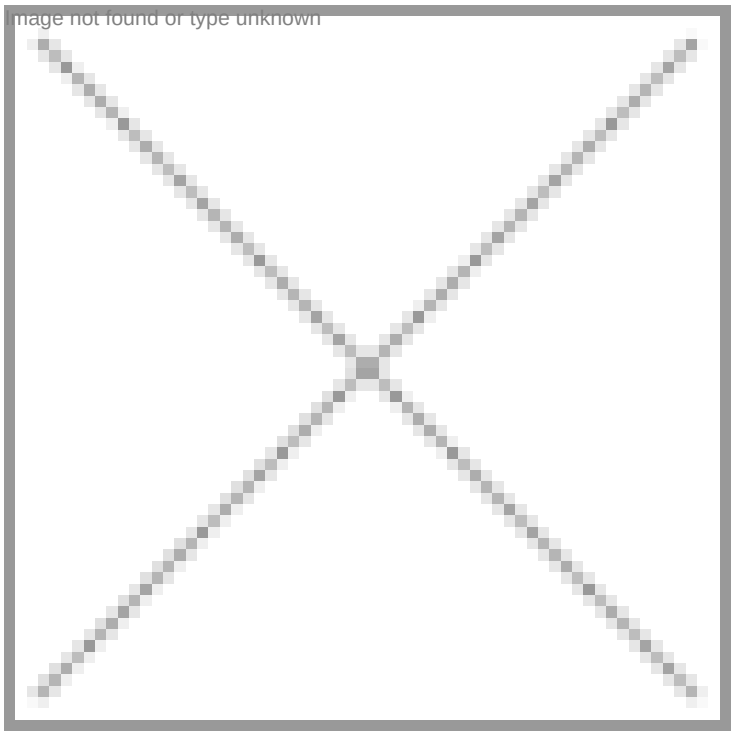

Bioscience catalyzes the new bioeconomy

It is important to understand the life science industry before we discuss the career in life science.
—Dr Peter Mueller, executive vice president and chief scientific officer, Vertex Pharmaceuticals.

As of today the Indian pharmaceutical industry is the largest amongst the emerging nations and one of the flagship sectors of the Indian economy. Indian pharmaceutical companies continue to move to the center stage of the global pharmaceutical market. There is a worldwide structural trend evolving in pharmaceuticals and Indian companies play a key role in this framework, driven by their superior biotech and drug synthesis skills, high quality and vertically integrated manufacturing assets and significant cost advantages. According to a recent Price Waterhouse Coopers report the pharmaceutical industry in India is expected to grow substantially to about $75 billion by the year 2020 and be in the league of the top 10 pharmaceutical markets. And with its intrinsic competitive advantage and cost effective manufacturing capabilities India has now become one of the most preferred outsourcing destinations for Contract Research and Manufacturing Services (CRAMS). Obviously, this constitutes a tremendous achievement, but will current business strategies and models guarantee sustained success in the future?

Globally the pharma market is currently undergoing a huge transformation led by change in demand patterns, realignment of supply chains, and global regulatory shifts. The Indian Pharma industry, in being strongly interlinked with the global pharma market, is entering in an era, where the value chain components need to be reassessed and redesigned to realize and sustain optimum value in the future. While the cost of business is increasing, the costumers are demanding more innovative pharmaceutical products at more competitive prices. The competition is definitely going to heat up. And even though the key trends in the industry today - with many drugs going off patent and pipelines for new products drying up leading to consolidation in the industry - could open opportunities for Indian companies to capitalize on the opportunity of being global suppliers for generic drugs and drive CAGR in the near term, I believe Indian pharma has to further evolve and transform from “a knowledge borrower” to “a knowledge creator” to sustain its position as a strong player in the future gobal pharma

market.

Biotech is a technology driven sector where technologies converge, leading to innovation and knowledge creation. Overall, there are five categories, namely bio-pharma, agri-biotech, bio- informatics, bio-industrial and bio-services that play a vital role in the development of biotech industry. With its “promises to make a significant contribution in enabling the development of, for example, better health care, enhanced food security through sustainable agricultural practices, improved supplies of potable water and more efficient industrial development processes for transforming raw materials”, modern biotechnology offers unique opportunities. Advances in biotechnology-related fields such as genomics, genetic engineering, chemical engineering and cell technology are transforming the industrial and environmental process and management landscape. The generic nature of biotechnology techniques makes it possible to create a new bio-economy with greater prospects for the commercialization of new biotechnology products and wider participation of the developing countries. New industrial structures are likely to emerge, driven by technological innovation. The new bio-economy will also benefit from advances in other fields, especially informatics, which would make India a premier country to take deliberate steps to create an enabling environment for its adoption.

Lately, more and more Indian companies have recognized this, know that to make an impact internationally they will have to establish a global presence and have been trying to tap the biotechnology market by aggressively entering the world biotech market through various routes, the most prominent ones being the inorganic route – via strategic alliances or acquisitions-especially for regulated markets. Biocon establishes EU presence with the acquisition of marketing&distribution co. AxiCorp GmbH (Ger). Dr. Reddy’s will acquire a portion of Dowpharma Small Molecules UK business.

Avesthagen has made four strategic acquisitions, largely to ramp up its manufacturing and marketing capabilities. Ocimum Biosolutions, a life sciences R&D enabling company, bought Maryland-based Gene Logic for $10 million. Serum Institute Ltd., picked up a 14 percent stake in Lipoxen PLC, a biopharmaceutical company specializing in the development of differentiated biologicals, vaccines and oncology drugs. Intas Biopharma aquires Biologics Process Development (US) to facilitate entry to US market. RFCL Limited acquired Wipro Biomed, to propel it into the fast growing in vivo diagnostic market and Ranbaxy Laboratories, acquired Hyderabad–based Zenotech Labs to strengthen its pipeline with specialty and biotech drugs. Also, foreign companies entering the Indian market trough acquisition and licensing agreements: Advinus Therapeutics Partnership with Genzyme (US) to develop oral compounds to treat malaria, Panacea Biotech Ltd with PharmAthene, Inc (US) for vaccine development and commercialization and Jubilant with Eli Lilly&Co (US) to collaborate on drug discovery.

Another current business trend by Indian biotechnology firms is spinning-off its R&D or bioservices sector into a separate entity, which analyst say can help attract investors into the low cost drug development and delivery sector. The current financial crisis has not had much effect on major biotechnology companies like Biocon, which plans to increase its investment in R&D in the next fiscal year to keep pace with increased orders from multinational firms. Ranbaxy, Sun Pharma, Wockhardt, Orchid Research, Glenmark Pharmaceuticals and Nicholas Piramal have all announced similar plans. India seems to be taking the necessary steps to lay a fertile field for an increased global biotech activity by betting its lower costs and talent pool to play in the global pharmaceutical market in the coming years. Because India’s track record is generics, many firms still lack the experience of taking a new biological entity all the way to regulatory approval.

Therefore, the sole acquisition route may not be sufficient in going forward. In line with Aditya Handa (Claris Lifesciences), I believe that organic growth overseas combined with technology acquisition would be more effective.

There are many small players entering the field and if they succeed, they will form a new Indian biotech segment. At present, Indian biotech players hold a mere two percent of total market share in a global perspective. Though according to a report by the Association of Biotech Led Enterprises (ABLE), the Indian biotech industry had a growth rate of 20 percent during 2007-08 and revenue earned was to the tune of $2.56 billion. The research services segment touched $500 million while bio-IT made $250 million. The Indian biotech market is targeted to hit a compound annual growth rate (CAGR) of 30 percent in the near future. This is much higher than the growth rate of the APAC region and considerably higher than the growth of the global biotech industry.

There are several elements which make the Indian biotech industry attractive to global biotech companies, like theavailability of low end R&D services, preclinical and clinical services in drug discovery and validation based on genomics, proteomics, pathway analysis and clinical trials on humans.