

News from Private Sector

Syngenta and Diversa form R&D Alliance

Recently Syngenta and Diversa have announced about the establishing of a shared biotechnology research platform. Diversa is to acquire certain technology rights from Syngenta for pharmaceutical applications, in exchange for equity. The transaction will strengthen the research capabilities of both the companies. According to Syngenta, the alliance will combine research activities in genomics and related technologies for new plant science applications, as well as for selected antibody generation and other biopharma product development. Syngenta will enter into a renewable research contract with Diversa for an initial commitment of \$118 million over seven years to be invested in products in Syngenta's chosen fields. Diversa will receive milestone payments and royalties on products developed. This collaboration will ensure that Syngenta stays at the cutting edge of genomic science and creates new product opportunities. The agreement enables them to broaden biotechnology capability and bring innovative products quickly to the market.

VIP Cotton

In another development, Syngenta Crop Protection expects to launch VIP (vegetative insecticidal protein) cotton, a transgenic, insect-resistant cotton trait in 2004. Syngenta claims that the VIP technology will provide protection against many of the major worm pests that feed on cotton plants. Like Bt cotton, VIP cotton includes a gene from *Bacillus thuringiensis*. However, the VIP gene produces a different protein, which has a different mode of

action, structure and spectrum of activities than the Bt-derived protein in Bt cotton. The cost comparison of the two varieties is yet to be attempted.

Syngenta to withdraw

Syngenta has been forced to withdraw from the controversial takeover of rice germplasm collected by the legendary agricultural scientist, Dr. R. H. Richharia, in the 1970s. It was a directive from the Indian Council of Agricultural Research (ICAR) that forced the Indira Gandhi Agricultural University, Raipur, to pull out of the controversial research collaboration with Syngenta. In light of these recent developments, Syngenta says it is still committed to new technologies. At the same time, Syngenta has reposed faith in the International Treaty on Plant Genetic Resources, which 'aims to facilitate access to genetic resources and benefit sharing.' Syngenta obviously is upset and, therefore, finds it convenient to blame the activists and environmentalists for 'misleading and false accusations'.

Syngenta has also pulled out of one of the world's leading plant genetics research centres. The move ends a three-year collaboration with the John Innes Centre near Norwich. The new Syngenta laboratory, part of a new Genome Centre complex on the site completed just eight months ago, will be abandoned and the company is also ending its involvement with the Sainsbury laboratory, which has a worldwide reputation for research in molecular plant pathology and genetics. The change is blamed on a need to rationalise a global network of R&D sites. *Source:* AgBioIndia Mailing List, December 12, 2002; Farmer's Weekly, September 9, 2002 cited from www/checkbiotech.org, 01 October, 2002; Crop Biotech Update, December 19, 2002.

Ranbaxy and Aventis in deal to market Hepatitis Vaccine

Ranbaxy Laboratories Ltd. is entering into a co-marketing alliance with France-based Aventis Pasteur for marketing its recombinant Hepatitis-B vaccine in India. This alliance will mark Ranbaxy's entry into the vaccines segment. Aventis Pasteur is a world leader in vaccines and immunology, and it produces more than 100 billion vaccine doses. According to sources,

the alliance is already in place and the company will start marketing the vaccines from the last quarter of the year. The Rs 150-crore domestic Hepatitis-B market is already cluttered with a large number of players, including Shantha Biotechnics, GlaxoSmithkline, Wockhardt, Pfizer, Serum Institute, Bharat Biotech and Panacea Biotech among others. The global market for Hepatitis-B vaccines is valued at \$1.5 billion. The company has also identified ancology as a key segment area for its biotechnology products. It has entered into a tie-up with a Chinese firm, Ahoy Anke Biotech Company, and a Korean firm, Cheil Jedaug, for bringing in a slew of biotech products like interferons, growth hormones and interleukins from countries like China, Russia, Cuba and Korea to sell them in the Indian market. *Source:* Business Standard, October 2, 2002.

Venture Capitalists and Biotech Market in India

The current potential of VC funding for the Indian biotech sector is to the tune of \$15 to 20 million per annum out of the total VC funding of \$850 million per annum. There are companies, which are basically into contract research – these could be a component of drug discovery process, R&D services, clinical trials, and proteomics. Then there is the bioinformatics side, which involves building applications for biotech needs. The Andhra Pradesh government has taken the initiative to set up a dedicated venture fund with an estimated corpus of Rs 90 crore. The government will provide Rs 15 crore towards the corpus and the rest by the APIDC-Venture Capital. The trend clearly shows that VCs have a bullish view on the long-term perspectives. The rich talent pool and pro-active measures by some state governments will help in sustaining such perspective. VCs are also eagerly waiting for the first IPO of Biocon India Ltd, slated to take place sometime in the year. Biotechnology open opportunities in areas like pharmaceuticals, agri-biotech and human genomics. Take, for instance, the pharma sector: according to industry sources by year 2005, over \$5 billion worth of biological drugs (at patented drug prices) are expected to go off-patents. Though biotechnology products constitute 5 per cent of the \$400 billion global pharmaceutical market, several biotech products have already become blockbusters with sales of over \$1 billion.

The most useful therapeutic drugs, which have emerged from biotech research, are proteins, enzymes and antibodies and the combined sales of these drugs in 2000 stood at around \$20 billion. Currently, there are at least 438 new biotech drugs in the pipeline, of which 34 are antibodies which have already completed phase II clinical trials. There are at least 175 new biotech medications under development in therapeutic area of cancer and another 39 in the area of infectious diseases. Indian biogeneric pipeline is in an evolutionary phase. While Hepatitis-B has provided the first wave of growth, too many players entering the field lead to a substantial drop in price realisation. A similar trend is being witnessed in case of Interferons for cancer and human insulin for diabetes. For the Indian companies, biogenerics are evolving along the same lines of the traditional pharmaceutical sector, which is also rooted in reverse engineering for the domestic market. From the domestic market, pharmaceutical companies graduated to other emerging markets, and then to developed markets. *Source:* Financial Express, May 27, 2002.

Dupont mulls biotech outsourcing

The world's largest chemicals firm Dupont will consider outsourcing data manipulation in biotechnology research to India. Routine data work can be shifted on the mapping of plant genetics to India. According to the \$25 billion firm that has global interests in specialty fibers, chemical polymers, agricultural and biotech products. After takeover of Pioneer, the world's largest seeds company, Dupont's agriculture business totalled \$4.2 billion in sales. In all, the company spent \$1.588 billion in research in 2001. Though the seed engineering technology is safe and good, regulatory systems are required. The technology is far too easy to handle. The environment has been at the centre of Dupont's business in India too, with its proposal to set up a Nylon 6,6 plant facing major problems in the 1990s. Dupont has a \$200 million business here, with six manufacturing facilities in three locations. The Indian operations have been growing at 14 per cent per annum. Dupont annually sources materials worth \$17 billion, the company sees India more as a talent resource base. *Source:* The Times of India, 08 Feb, 03.