

## Connexios outsources literature curation to Molecular Connections

15 July 2006 | News



### Connexios outsources literature curation to Molecular Connections

Molecular Connections will be carrying out scientific literature mining for Connexios to assist the latter in its high throughput experiment validation and target discovery purposes. As a part of the agreement, the existing literature mining team at Connexios would be taken over by Molecular Connections. Molecular Connections, would use its proprietary workflows and technologies and its long standing experience in manual curation of biomedical literature to create customized pathway information for Connexios. This would also allow Connexios to focus on its vision of being a discovery led life-sciences company. Connexios also possesses a state of the art wet lab with cell-based assay design and high throughput target identification facility, and a knowledge-driven systems biology platform which would not be a part of the deal.

Jignesh Bhate, CEO, Molecular Connections said, "Molecular Connections has come out as a clear leader in the field of high quality curation for protein interactions and pathway biology. The collaborations with Connexios is sure to open new frontiers in establishing technology partnerships across both the companies."

Dr Venkatachalam Suri, CEO of Connexios said, "We evaluated many literature curation vendors and found Molecular Connections a quality conscious company with a strong technology platform, a proven track record and high ethics."

### GEAC rubbishes claims linking Bt cotton to sheep death

During its recent meeting, the Genetic Engineering Approval Committee (GEAC) studied and discussed the mortality in sheep flocks after grazing on Bt cotton fields and strongly refuted the association of sheep deaths with the planted Bt cotton, as

claimed by the Center for Sustainable Agriculture (CSA), an Andhra Pradesh-based organization.

According to the CSA report, in three random villages surveyed at Warangal in Andhra Pradesh, "It was found that animals fed continuously on Bt cotton for up to a week became listless with erosive lesions in the mouth, nasal discharge and blackish diarrhoea."

However, after reviewing the case and the available data, the GEAC officials opined that the report appears highly exaggerated and is based more on hearsay than on scientific facts. The committee stated that the Bt cotton released for commercial cultivation has been approved after evaluation of biosafety data, which includes feeding studies. The 90-day animal feed studies conducted at the Industrial Toxicology Research Center, Lucknow, feeding studies conducted at the GB Pant University of Agriculture, Pantnagar on lactating cows and on fish at Avian Research Institute, Izatnagar indicated no toxic effect.

Now the regulators have recommended that DBT, the nodal biotech agency, may sponsor a study to assess the problem at Warangal district with the help of the local veterinary hospital. To incorporate further safeguards, in future, leaf toxicity studies will to be included as part of the biosafety studies, the committee stated. It has further decided to refer the matter to the state department of agriculture for a factual report on the allegation made by the NGOs and the findings of the post-mortem report.

According to the the acute oral toxicity study of Bt protein in mice conducted at Agriculture Group/ Environmental Health laboratory, USA, there was no treatment-related adverse finding in any of the groups administered B.t.k. HD-73 protein (Bt protein) by oral gavage at dosages up to 4200 mg/kg. The oral LD50 for B.t.k HD-73 (Bt protein) protein in mice is greater than 4200 mg/kg and the no-observed effect level is 4200 mg/kg. Further mice gavage studies have shown that an intake of 4300 mg Cry1Ac / Kg body weight had no ill effect on the mice. Assuming a similar upper safe limit for goats, in order to have an intake of 4300 mg. of Cry1Ac/Kg of body wt., the sheep should eat (assuming the sheep weighs 15 kg) 24,339 kg of leaf/50,300 kg of boll rind, which is not practically feasible.

### **New groundnut variety a boon to farmers**

The chief minister of Andhra Pradesh, Dr YS Rajasekhara Reddy, presented the groundnut variety ICGV 91114 developed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) to the farmers of Anantapur district at a function organized at the Patancheru campus of ICRISAT recently.

Congratulating ICRISAT for developing ICGV 91114, Dr Reddy said that the new variety would help the Anantapur farmers obtain a higher groundnut yield even while withstanding a longer drought. The new variety will improve the income of the farmers of the district, while protecting them from drought risk.

Dr William Dar, director general of ICRISAT, said, "It is a strong example of science with a human face, where the farmer of the semi-arid tropics decides what research product he wants from us."

Trials conducted by ICRISAT scientists with farmers' participation show that ICGV 91114 yields on an average around 10 percent (range 5 to 26 percent) more than TMV 2, the variety currently popular in Anantapur. Under good management conditions in the rabi season, ICGV 91114 can yield 2.5 to 3.0 tons per hectare. ICGV 91114 matures early, is tolerant of mid-season and end-of-season droughts, has an average shelling turnover of 75 percent, has an average oil content of 48 percent, and has better digestibility for livestock.

The groundnut breeding team from the Institute worked with the farmers to select the most suitable varieties, and together they selected ICGV 91114. The other partners in the project were the Acharya NG Ranga Agricultural Research University and the Rural Development Trust, an NGO.

To strengthen the delivery mechanism for ICGV 91114, the Agri-Business Incubator (ABI) at ICRISAT is partnering with Aakruthi Agricultural Associates of India (AAI) - a group of entrepreneurs operating agri clinics - and the Andhra Pradesh State Seed Development Corporation (APSSDC), the state government institution mandated to reach seeds to farmers.

### **Kalam dedicates new cancer drug**

The President of India, Dr APJ Abdul Kalam recently dedicated to the nation, India's first indigenously developed monoclonal antibody, BIOMab TM EGFR (Epidermal Growth Factor Receptor), developed by Biocon Ltd.

The monoclonal antibody assumes great significance from the point of view of its cost-effectiveness. The company joins the exclusive league of monoclonal antibody developers worldwide and aims to be a key player in this segment in the coming years.

Biocon's new cancer drug will also be effective in several other cancers that express EGFR, including colorectal, pancreatic, metastatic breast, non small cell lung and brain cancers. BIOMab EGFR is indicated for use in combination with radiation therapy / chemotherapy in patients with positive expression of EGFR in squamous cell carcinoma of head and neck cancer.

Dr Kalam also inaugurated Biocon Park, India's largest integrated biotech hub. Biocon Park comprises of an integrated cluster of research laboratories and manufacturing facilities laid out on a 90-acre expanse in KIADB (Karnataka Industrial Areas Development Board) industrial estate in Bommasandra Industrial Area - Phase IV.

Built with a total investment of Rs 650 crore, with further investments to follow, Biocon Park is the single largest capital investment made by the company in its 27-year history. Biocon Park is focused on exports of both bio-pharmaceutical products and research services.

Kiran Mazumdar-Shaw said, "Biocon Park, India's largest integrated bio-tech hub is a manifestation of a vision we once had. It is indeed an honor for us at Biocon to have the none other than the President dedicate our cancer drug the nation."

### **India, UK sign agreements of intent on IPR and science**

India and the UK have signed a joint statement of intent to create and implement an intellectual property rights program between the two countries. The statement was signed by Commerce and Industry minister, Kamal Nath on behalf of India and the UK Science Minister, Lord Sainsbury during the India-UK Business Leaders Forum meeting at London recently.

Delivering his keynote address at the meeting, Nath said both India and the UK have become partners of choice in science, technology and innovation because both recognize their importance in prosperity and quality of life.

Intellectual property rights is one of the key areas identified by the UK-India joint economic and trade committee as providing potential for increased trade and investment in future. Both the countries have also set up a new Indo-UK science and technology innovation council to promote collaboration in innovation, Science and Technology Minister, Kapil Sibal said.

He said that focus of the council would be on strategic areas of next generation communication technologies, biotechnology and stem cell research and advanced materials and nanotechnology. "The council will also work on key initiatives including new energy and weather systems, and climate change, thus looking at developing and delivering new products to the market," Sibal added.

He said three leading scientists each from India and the UK would work on a road map to further Indo-UK partnership through these strategic and bilateral initiatives. From the Indian side, the names of noted scientist Dr CN Rao, CSIR director general, Dr R A Mashelkar and DST secretary, Dr Ramaswamy have been proposed.

Sibal announced that the best of Indian and the UK scientists and institutions will collaborate with a funding of £8 million pounds which could go up to £12 million pounds with a matching grant from India.

The Joint Economic Trade Committee (JETCO) will also be linked with the science and technology innovation council, he informed.

### **Praj net profits rise to Rs 32 cr**

The Board of Directors of Praj, the global ethanol technology company, took on record the audited financial results for the FY

2005-06. Praj recorded sales of Rs 267 crore (Rs 235 crore) with a PBT of Rs 32 crore (Rs 28 crore). The company has improved performance in terms of EBIDTA margins which are at 13 percent as compared to 12 percent in the previous fiscal.

"We plan to improve the EBIDTA margins further. This will happen with more business from international markets wherein Praj will leverage its technology and engineering expertise. With all the five plants having been handed over in Colombia, South America, recognition for Praj's technology and execution has been clearly established. Our entry into the UK with the first fuel ethanol plant being set up for British Sugar is another milestone", said Pramod Chaudhari, chairman, Praj. The next stop for Praj will be the US where Praj is actively pursuing leads and is confident of concluding some contracts in the coming three to six months.

Apart from series of new orders in domestic market, the company has also started getting repeat orders from international customers in Latin America and South East Asia. As on date, Praj has orders on hand worth over Rs 450 crore.

The Board has approved investment of funds received through preferential allotment to expand R&D center and other resources. The new R&D center will further take on biotechnology oriented projects in areas beyond alcohol/ethanol technology. The proposal to acquire facilities in the US/Europe, to enhance the global delivery model, has also received a nod from the Board. This facility will augment Praj's existing resources and enable the company to move into newer markets without losing focus on existing markets and current commitments.

"The objective is to grow newer geographies while capitalizing on the good will in the existing market. Hence, we have devised a strategy wherein our existing clients will not be disturbed by our global ambitions," said Pramod Chaudhari.

NPIL to acquire Pfizer plant

### **NPIL to acquire Pfizer plant**

Nicholas Piramal India Ltd (NPIL) is set to acquire Pfizer's manufacturing plant in Britain.

"The Morpeth site is one of Pfizer Global Pharmaceuticals' largest high-quality, integrated facilities," a Nicholas Piramal statement said.

According to an official statement to the BSE, Nicholas Piramal said that the acquisition would expand the company's global footprint, particularly in the finished API, contained finished dosage, packaging and supply chain areas.

The Indian pharmaceutical company has signed a deal to acquire the Morpeth manufacturing facility on an asset purchase basis. This facility has potential outsourcing revenues exceeding \$350 million. The transaction is on a liability and cash free basis. With this acquisition, Nicholas Piramal would emerge as one of the world's top 10 pharmaceuticals outsourcing companies.

### **India to host InCoB 2006**

India is hosting the fifth annual international conference of the Asia Pacific Bio-informatics Network (APBioNet), InCoB 2006. This conference provides an international forum that presents cutting-edge computational biology applications and findings on interdisciplinary research such as molecular evolution, health, agriculture, sequence and structure analysis, etc.

InCoB 2006 will be held at Hotel Ashok in New Delhi on December 18-20, 2006. This event will bring together global scientists and practitioners from a wide range of disciplines, including molecular biology, medicine, computer science, mathematics and statistics. It will provide a common platform for both academia and industry to come together to enrich themselves with current developments and future trends in the field of computational biology and for developing products and services.

### **Wockhardt in-licenses dermatology drug from LSI**

Wockhardt has signed an in-licensing agreement with Life Sciences Investments, a UK-based company specializing in dermatology, to market Vitix, a patented product for the treatment of vitiligo, a pigmentation disorder.

"This agreement is part of Wockhardt's initiative to bring new advances in medicine to India," said Wockhardt chairman, Habil Khorakiwala. "We plan to expand our portfolio in cardiology, diabetology and dermatology by introducing new products that have proved their effectiveness in other parts of the world," he added.

Vitix, a gel for topical application, will be manufactured by Wockhardt in India from active pharmaceutical ingredients (API) imported from LSI. Vitix is expected to be launched in India in the last quarter of 2006.

### **Indian pharma industry worth \$6 billion**

The Indian pharmaceutical industry seems set to emerge from the confines of the generics market in which it has largely positioned itself and could soon become a major player on the global scene. A report launched by KPMG International suggests that India now has the potential to become the region's hub for R&D, manufacturing and exporting.

Much of the impetus behind India's fresh challenge for a greater share of the global industry is driven by last year's introduction of product patents. Commenting on the report's findings, John Morris, Global Head of KPMG's Pharmaceuticals practice, said: "The Indian pharma industry is currently worth \$6 billion in a global industry worth \$650 billion but is growing at ten percent, compared to the global industry rate of seven percent. The generics business remains at the heart of everything India does well and so it should, considering that India accounts for 22 percent of the global generics market. Bearing in mind that \$65 billion of prescription medicines in Europe and the US are to lose their patents in 2007-08, India is ideally positioned to sweep up much of that new business. However, the opportunity now exists for India to become so much more than just a generics player."

### **GE Healthcare's first IDC opens in Bangalore**

GE Healthcare has announced the opening of its first Integrated Development Center (IDC) at Manipal Hospital in Bangalore.

The IDC in Bangalore is expected to conduct around 1,000 scans annually as part of the planned clinical trials and will be part of a series of global multi-country clinical studies in the US, the European Union and several other countries. Over time, GE Healthcare will establish more IDCs in key strategic locations globally.

The first studies will focus on Visipaque (iodixanol), an isomolar contrast agent that was launched globally by GE Healthcare in 1996. Under the terms of the collaboration, physicians at Manipal Hospital will act as study investigators and provide clinical and imaging services and administration in the hospital.

The IDC in Bangalore will play a crucial role in GE Healthcare's ongoing global clinical research program and support its vision of "Early Health" by helping to bring new diagnostic imaging agents to market and working to address serious unmet medical needs in oncology, neurology and cardiology. The collaboration between GE Healthcare and Manipal Hospital will benefit local patients in a number of ways. Particularly, the investment in imaging infrastructure will increase access to the most advanced medical diagnostic technology available.

### **Panacea enters FMD vaccine segment**

Panacea Biotec will rollout a Foot and Mouth Disease (FMD) vaccine in the coming 18-24 months. It has collaborated with National Research Development Corporation (NRDC) for in-licensing of technology to produce and market the Foot and Mouth Disease (FMD) vaccine developed by Indian Veterinary Research Institute (IVRI).

Elaborating on the tie-up, Rajesh Jain, joint managing director, Panacea Biotec, said, "This collaboration will significantly enhance Panacea Biotec's position in the biotechnology arena. We felt that there is an urgent need of introduction of the FMD vaccine in the country, as its eradication is essential. The product has a high potential and after the successful introduction of the vaccine in India, we will move towards supplying it to the rest of the world. "

Fielding queries regarding Panacea's entry into the animal vaccine segment, Jain clarified, "There is no conscious shift per se. The FMD vaccine will give additional width to our product portfolio. Most of the companies in the vaccine arena do have a veterinary arm as an offshoot to the human vaccine segment. The FMD vaccine will be one of the products at our multi vaccine facility and we are aiming at a 25-30 percent capacity growth every year.

According to the agreement, NRDC will facilitate the transfer of know-how for the process of FMD vaccine manufacturing incorporating a new adjuvant developed by the IVRI, while Panacea will manufacture and market it in the country.

Without disclosing the financial details, Jain stated that part down payment has been made to NRDC, while the rest of it will be made post the technology transfer. He added, "Within the next 18-24 months, the vaccine would be ready for launch, post the technology transfer, up scaling exercise and regulatory clearances."

### **Nandan Biomatrix opens facility at Agri-Science Park**

Nandan Biomatrix Limited has opened an R&D, process and formulation, and biodiesel facility at the Agri-Science Park (ASP) of International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in Hyderabad.

Agri-Science Park, which brings together the expertise of ICRISAT, the state government and private sector companies, helps technology commercialization to aid farmers in the semi-arid tropics. Nandan Biomatrix's biofuel unit at the park will be able to use multiple feedstocks such as Jatropha, Pongamia etc.

The facility is also expected to standardize herbal extracts, produce standardized bulk extracts and develop specialty formulations.

Bollgard farmers are being charged a fair price: Monsanto India chief

### **Bollgard farmers are being charged a fair price: Monsanto India chief**

Bollgard cotton provides tremendous economic benefits to farmers, as evidenced by its rapid adoption rate in India. According to the research firm IMRB, Bollgard generated Rs 2,100 crore in additional profits for the more than one million Indian farmers who planted it last year. IMRB found that for every Re 1 in technology fees spent by farmers for Bollgard, they receive Rs 5.8 in value from reduced insecticide costs and increased yields over conventional cotton.

Speaking to mediapersons on the sidelines of Bangalore Bio 2006, Felipe Osorio, managing director, Mahyco Monsanto Biotech (India) Ltd (MMB) said, "While the benefits of this technology to Indian farmers are clear, it is similarly clear that Monsanto charges a fair and reasonable price in India at Rs 900, which is in fact, a lesser price on average when compared to prices in China, where agricultural practices are distinctly different."

In China, farmers are primarily planting varietal cotton seeds as opposed to high-yielding hybrid cotton seeds preferred by Indian growers, and Chinese growers plant more seed per acre than their counterparts in India. The technology fee charged by Monsanto in China based on its contractual agreement for Bollgard seeds, calculated on a per-acre basis, averages between Rs 1100 and 1200 per acre, he informed.

Nevertheless, MMB has informed its partners that effective from June 10, 2006, it will temporarily decrease the technology fee for its popular Bollgard cotton technology to Rs 880 per 450 gm bag. MMB is taking this action in order to comply with an interim order from the Monopolies and Restrictive Trade Practices (MRTP) Commission requiring MMB to change its technology fee of Rs. 900 so that it would be "reasonable" and similar to the price Monsanto charged in neighboring countries like China. MMB's request for a stay of the MRTP ruling is scheduled to be heard by the Supreme Court during the first week of July, with the merits of the appeal to be heard beginning the last week of August 2006.

The final selling price for Bollgard cotton to farmers is set by MMB's seed company partners, and this technology fee reduction may or may not have any impact on the market at this point in the season, in light of actions by others to set Bt cotton seed prices.

"This entire episode has been very unfortunate for the future growth of agriculture in India. Efforts to arbitrarily set prices take away the ability of seed companies and technology providers to meet farmer needs today and in the future, and will ultimately result in fewer choices for farmers who wish to be on the cutting edge in using leading technologies," Felipe Osario added.

MMB is still hopeful that the situation will be resolved satisfactorily. "It's my strong hope," said Osorio, "that when we set the technology fee for the next growing season, it will once again be based on the value our technology creates for farmers, and

that will serve as evidence of India's ongoing commitment to a free market economy."

### **Agri ministers' meeting**

In a major development, a meeting of agriculture ministers of seven cotton growing states chaired by Andhra Pradesh chief minister, YS Rajasekhara Reddy, in Hyderabad on June 9, 2006 unanimously decided to jointly fight a legal battle against MMB to ensure sale of Bt cotton seeds at Rs 750 per 450-gram packet as ordered by the Monopolies and Restrictive Trade Practices Commission (MRTPC). Ministers representing Gujarat, Karnataka, West Bengal, Tamil Nadu, Madhya Pradesh, Maharashtra and also Andhra Pradesh have signed a common MoU to the effect that they would all implead as parties before the MRTP Commission and the Supreme Court in the case and invite other states as well.

By another resolution, the meeting appealed to the Centre too to implead itself before the Supreme Court. It wanted the Centre to introduce legislation on seeds on the lines of the one proposed by the Andhra Pradesh government.

### **New varieties**

Meanwhile, Monsanto is all set to introduce two more genetically modified crops, Bollgard 2 and new corn seed in India. The company has got approval for the latest Bollgard technology and commercializing of the seed is expected to start during this season which will enhance the quality of the seed. Both the new genetically modified varieties will undergo field trials at 14 places in the country and right now the company is in process of deciding best states where actual tests can be performed.

BS Bureau