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GangaGen Biotechnologies, a biotechnology company focused on the development of bacteriophage-based products for prevention and treatment of bacterial infections, has received two US patents for its proprietary bacteriophage technologies – “Lysin-Deficient Bacteriophages with Reduced Immunogenicity” and “Incapacitated Whole-Cell Immunogenic Compositions.”

Announcing this at a press conference in Bangalore in the first week of July, Dr Janaki Ramachandran, president, GangaGen Biotechnologies said GangaGen scientists knocked out the phage gene that codes for the Lysin enzyme responsible for breaking down the bacterial wall and produced a Lysin-deficient bacteriophage that kills the bacterial host, undergoes one cycle of replication but remains inside the dead bacterium. “Lysin-deficient bacteriophage retain their specificity, kill the pathogenic bacterial host rapidly, but do not cause lysis (breakdown of the bacterial cell wall) and are not released into the patient or the environment. Lysin-deficient phages also permit linear dosing like antibiotics,” he explained. The second patent is a logical sequel to the first patent. It enables the development of highly effective vaccine to protect against any bacterial infection in man or animals.

GangaGen Biotechnologies Pvt Ltd (GBPL) is developing proprietary phage products to treat infections caused by staphylococcus bacteria, including nasal, urinary tract, and pseudomonas aeruginosa infection in burns and wounds.

Its Ottawa-based subsidiary GangaGen Life Sciences Inc (GLSI) is developing phage products for control of bacteria that

pose a food safety risk to humans as well as bacterial diseases in production and companion animals (pets). GLSI has demonstrated the efficacy and safety of its first phage product for the control of E.coli 0157 in cattle and expects to complete large scale field trials and get regulatory approval for the product next year. GLSI has also entered into a collaboration with Lallemand, a major animal feed distributor in Europe and South America, for developing remedies to control Salmonella infection of poultry and swine.

Founded by Dr J Ramachandran in 2000 with an investment of \$5 million, GangaGen plans to mobilize another \$5 million. Of this, US-based venture capital firm ICF Ventures Pvt Ltd which initially invested \$2 million, would pump in another \$2 million in the second round of funding, according to Vijay Angadi, managing partner, ICF Ventures.

â€œKisan Goshthiâ€? organized by Lucknow Biotech Park

The Lucknow Biotech Park organized a â€œKisan Goshthiâ€?, an educational program for farmers recently. The meeting saw the participation of farmers even from the peripheries of the city. At the event, Dr PK Seth, CEO, Lucknow Biotech Park, and Dr HM Bahl, senior deputy director of National Botanical Research Institute, emphasized on the benefits of Jatropha Curcas plants for extracting biodiesel. The farmers were educated on the need and the advantages of biodiesel and appraised about the benefits of Jatropha Curcas viz it can be planted with other plants to bridge the gap between the harvesting time of both crops for monetary benefits; can be grown on land, planted as a fence or at a distance of one meter and the intermediate land in between these plants can be used for growing medicinal herbs like turmeric, ginger, musli, sarpagandha etc. Jatropha does not affect the growth of other plants in the same field.

Lucknow Biotech Park enters into new tie-ups

The Lucknow Biotech Park has entered into a twin agreement with an upcoming US-based company Clintech Research LLC, New Jersey and IQRA Biotech Services, Lucknow. Dr Sri Prakash Srivastava, a native of Lucknow and educated in Lucknow, now settled in New Jersey, USA is the founder, president and chief executive officer of this organization. The company is drawing up plans to perform clinical trial/operations and pre-clinical regulatory toxicology services to pharmaceutical/biotechnology companies for their new chemical entities and IND. Initially, the company is setting up a wholly owned subsidiary at the Lucknow Biotech Park to manage clinical operations as well as use the existing facilities for pre-clinical regulatory toxicology and bio-efficacy evaluation of the new chemical entities. Subsequently, they plan to set up R&D laboratories of their own for such purpose at the Biotech Park, Lucknow.

Dr Syed Ahmad, director of IQRA Biotech Services will be developing the first Human DNA Bank in Asia and identified to be the second globally. At present this technical know-how is only being used by the Federal Bureau of Investigation, USA. The sequence data mode will be programmed through a smart chip device. This technology will be highly applicable at the domestic and international entry points, financial credit sector, judiciary, vehicle licensing authorities and the public distribution system at large. The Biotech Park economy based infrastructure is unfolding global technology at the doorstep.

CyberMedia profits up 47 percent in Q1

CyberMedia, publishers of BioSpectrum, has registered a 28 percent increase in income year-on-year (YoY) in Q1 2005-06, with revenues of Rs 151.64 million (Rs 15.16 crore) compared to Rs 118.38 million in Q1 of 2004-05. CyberMedia had its IPO in May and listed on the bourses on June 10, 2005. This is the first quarterly results after listing. The operating profit increased by 49 percent over Q1 in 2004-05 to Rs 19.02 million. The revenues from publishing business increased by 42 percent YoY to Rs 103.25 million. Revenues from research business increased by 51 percent and online business by 83 percent in Q1.

"It has been another successful quarter for CyberMedia. Our strategy of focusing on high growth, high margin businesses has started giving positive results with operating margins improving to 13 percent. Also the last quarter has seen us successfully commence our 'content BPO' operations with initial manpower strength of around 90 professionals," said Pradeep Gupta, managing director, CyberMedia.

Patents Symposium in Goa

The Goa Institute of Management (GIM), a premier business school located in Goa is organizing 'The Patents Symposium 2005' on August 20-21 at Panaji. The symposium endeavors to provide a legal and business perspective with the new patent regime and strategies to be adopted for a sustainable and successful future. It will be inaugurated by Atomic Energy Commission (AEC) chairman, Dr Anil Kakodkar. Prominent pharma and biotech industry leaders like Dr K Anji Reddy of Dr Reddy's Lab, Dr Swati Piramal of Nicholas Piramal, Dr Girish Teland of Roche Scientific company, Dr Arno Hartmann, patent expert from Merck, Germany, Pradip Mazumdar of Syngenta are among the participants.

Conference organizer Dr Anand Kolwalkar of GIM said the success of Indian companies affected by the strong IPR protection afforded as a consequence of the shift to product patent regime would depend on the strategies they adopt. The future will be determined by how well companies market their products to several regions and distribute risks, their forward and backward integration capabilities, their R&D strength, their consolidation through mergers and acquisitions, co marketing and licensing agreements. The meeting will discuss these issues.

Biocon's first quarter revenues at Rs 176 crore

Biocon Ltd announced its financial performance for the three months ended June 30, 2005. Biocon group's sales ended at Rs 174 crores matched sales revenues of Q1 FY-2005 as well as the previous quarter. The PAT stood at Rs 39 crore, a decline of 7 percent from the previous quarter and a 20 percent decline from Q1 FY-2005. The decline in PAT was attributed to higher tax charge in the current quarter due to a significant portion of export sales being routed through domestic channels; reduced treasury income of Rs 2 crore commensurate with the deployment of IPO funds in the expansion program.

Contract research services from Syngene and Clinigene registered a 35 percent growth over Q1 FY-2005 and matched the previous quarter. Syngene has signed up new contracts during the quarter, which will generate additional revenues in the forthcoming quarters. The strategic partnership with SCIREX, a US-based CRO is also expected to generate additional business for Clinigene this fiscal. "Biocon's new facilities are set to address US Patent expirations of Pravastatin and Simvastatin in mid-2006, which will open up significant opportunities for Biocon starting Q4 FY 2006," informed Kiran Mazumdar-Shaw, chairman and managing director, Biocon. Further Biocon's Pichia based recombinant human insulin, Insugen, is under registration in over 20 countries in Europe, Middle East, Latin America and Asia. "Biocon's discovery led research programs are making good progress: Oral Insulin is on track to file an IND with USFDA by the end of this year. Biomab, an anti EGFR antibody is in the final stages of Phase II b clinical trials and expects to file for fast track approval in India by the year end," said Mazumdar-Shaw.

Bharat Biotech launches REGEN-D

Hyderabad-based Bharat Biotech International Ltd set a precedent in the arena of diabetic foot care, burn injuries and skin grafts by launching therapeutic, REGEN - D, a recombinant epidermal growth factor (rhEGF). Dr NK Ganguly, director general, Indian Council of Medical Research formally launched the country's first rhEGF, indigenously developed, and manufactured by Bharat Biotech, in Chennai. "REGEN -D is the result of a unique publicprivate technology collaboration. Bharat Biotech has developed this extraordinary therapeutic REGEN -D in collaboration with the Institute of Genomics and Integrated Biology (IGIB), a CSIR institution, New Delhi," remarked Dr Ganguly.

REGEN-D is being launched in two strengths -- REGEN - 50 for diabetic foot ulcers and REGEN - 60 for burns and skin grafts. Dr Krishna M Ella, chairman and managing director, Bharat Biotech said, "REGEN -D 150 manufactured indigenously will tremendously impact the lives of a vast patient population in affected with diabetic foot ulcers and REGEN - D 60 has a great role to play in the burns care."

Enormous potential for Indian Bioinformatics market: CII

The Indian Bioinformatics market, which is only 2.5 percent of the global market, has the potential to capture 5 percent of the global pie, provided the government ushers in necessary changes. According to a report 'Building Blocks of Bioinformatics: Human Resource Requirements In India', prepared by the Confederation of Indian Industry (CII) and the Department of Information Technology (DIT), the future seems very bright for the industry since majority of the Indian Bioinformatics companies are planning to increase their scale of operations.

The report states that to capture 5 percent of the global market, the industry would need to grow at a CAGR of 42 percent. Painting a bullish picture, the report states that 42 percent of the sample companies are planning to increase the scale because they are investing more resources in R&D and product development. The report also adds that for expanding the operations, there would be a huge surge in demand for bioinformaticians.

According to the report, the total annual manpower required by the industry to achieve a growth rate of 42 percent would be 6484 professionals in 2008-09 and 26362 professionals in 2012-13. Further, the report estimates that nearly 670 teachers would be required in the formal education sector in 2008-09. "Assuming a very realistic target for all the institutes by 2012-13, requirements for faculty would rise to 2723", states the report.

Merck makes a comeback

Merck, one of the world's largest research-driven pharmaceutical companies, has started its second innings in India through MSD Pharmaceuticals, its wholly owned subsidiary unit. Merck Sharp & Dohme Pharmaceuticals commonly known as MSD Pharmaceuticals, kickstarted its operations by introducing and marketing its innovative hospital products and exploring other research opportunities in the country. The US-based company is involved in discovering, developing, manufacturing and marketing a broad range of innovative pharmaceutical products to preserve and improve human health globally and its Indian operations plans to focus on sales and marketing of products and also innovative research down the line. Briefing the media, Leonard Tauro, managing director, MSD India, said that the company would commence its marketing operations by launching two of its life-saving drugs - Zienam, a broad spectrum beta-lactam antibiotic and Aggrastat, a platelet aggregation inhibitor used to treat cardiac complications. The company is looking for marketing tie-ups and alliances with other Indian companies.

Panacea Biotec - Q1 Net soars 145% to Rs 21.40 crore

Panacea Biotec has recorded a remarkable performance during the quarter ended June 2005 with the turnover during the quarter zooming by 63 percent at Rs160.94 crore as compared to Rs 98.64 crore in the first quarter of previous year. Profit before tax during Q1 has jumped to Rs 32.61 crore as against Rs 13.39 crore during the corresponding period in the previous year. Net profit after tax, is sharply higher at Rs 21.40 crore as compared to Rs 8.74 crore in the corresponding quarter of the previous year.

Rajesh Jain, joint managing director, Panacea Biotec, said, "The phenomenal growth in our financials is driven by our novel strategies to position Panacea Biotec as the leading health management company". "Panacea Biotec is commissioning three research centers in the second half of the current financial year, namely, New Drug Discovery Research Centre at Mohali, Punjab, to develop new chemical entities, Biopharmaceutical Research Centre in New Delhi to churn out novel therapeutics and Global Research & Development centre at Navi Mumbai, to develop advanced drug delivery system based products", he added.

BioSyntech, Nicholas Piramal ink LoI

BioSyntech has signed a Letter of Intent (LoI) with Nicholas Piramal India Limited (NPIL), one of India's leading pharmaceutical companies, pursuant to which NPIL will subscribe to 7,500,000 common shares of the company at a price of C\$0.80 per share. NPIL's post-issue shareholding will be approximately 17 percent of issued shares.

BioSyntech is a Canada-based biotechnology research company that specializes in the discovery, development and manufacturing of cost-effective and physician-friendly biologic implants for therapeutic delivery and regenerative medicine. BioSyntech specializes in gel-based platforms that are liquid in nature at room temperature and solid at body temperature. The gels are biodegradable, have porous internal structure and enable easy flow of blood nutrients, cells and fluids. These gels are minimally invasive and have controlled residence time.

The company's lead products under advanced development are BSTCarGel(R), BST-DermOn and BST-InPod, which are for cartilage regeneration, wound healing activation and fat pad reconstruction for heel pain respectively. BioSyntech has six other products under development for regenerative medicine and therapeutic delivery platforms.

As part of the arrangement, NPIL will acquire exclusive rights for marketing, sales and distribution of current and future products of BioSyntech for India, Pakistan, Sri Lanka, Bangladesh, Laos, Cambodia, Vietnam and Philippines.

In addition, the companies have agreed to explore opportunities to collaborate for research and development activities with respect to future products of NPIL using BioSyntech's technological platforms.

The Letter of Intent provides that for so long as NPIL shall be the registered holder of at least 5,000,000 shares of the company, the board of directors of BioSyntech shall include representatives of NPIL in proportion to its shareholding, subject to a minimum of one director. In addition, NPIL will have proportional pre-emptive rights in the event the company offers further equity securities. This arrangement, which has been approved by the board of both companies, is conditional on

satisfactory completion of due diligence, on regulatory approvals and on the signing of definitive agreements.

Commenting on this transaction, Claude LeDuc, CEO of BioSyntech said, "We are very excited about this collaboration which brings to BioSyntech significant funding from a committed strategic partner, distribution for its products in South-East Asia and the possibility to joint venture R&D activities in India."

Wockhardt Biotech SBU gets 3 more registrations

Wockhardt Ltd has reported a 55 percent rise in net profit for the second quarter ended June 30, 2005. Its sales at Rs. 377 crore showed a 29 percent increase over the corresponding quarter of 2004.

During the quarter Wockhardt's Biotech SBU received three more registrations for biopharmaceuticals in overseas markets, taking the total registrations received so far to 20. Wockhardt's biotech portfolio grew by 61 percent during the quarter, driven by the robust growth in both Wosulin (recombinant insulin) and Wepox (erythropoietin). Wosulin sales during the quarter showed a 50 percent increase over the first quarter of 2005. Wosulin Pen, India's first automatic insulin delivery device, launched during the quarter, has received a good response from consumers. Wockhardt Biotech Park received good manufacturing practices (GMP) certification for its Wepox facility from the World Health Organization (WHO) during the quarter.

Indian presence at the third

annual Stem Cell meeting The International Society for Stem Cell Research (ISSCR) held its 3rd annual meeting in San Francisco on June 23-25, 2005. This meeting attracted over 2,000 scientists from around the globe to share research results and talk about future studies. Leading experts working in the stem cell research arena including Ian Wilmut, Jeff Thompson, Irving Weissman, Nobel Laureate Paul Berg and leading professors and clinicians from Stanford, John Hopkins, Harvard, Cambridge University, attended the meeting. There were six posters presentations from India at the meeting. There were two posters each from School of Biotechnology, Guru Gobind Singh Indraprastha University, Delhi and the All India Institute of Medical Sciences, New Delhi and one poster each from Deccan College of Medical Sciences, Hyderabad, and the National Centre of Cell Science, Pune.

Dr Krishnamurthy Kannan, professor, School of Biotechnology, Indraprastha University, who attended the meeting commented, "The conference saw a increased interest towards epigenetics research and how the reprogramming happens at the epigenetic level. Many failures in the area of stem cell are being attributed to incorrect reprogramming at the epigenetic level". The meeting showed exciting data from various laboratories and a possible fallout of this visit could be a collaboration with the Stanford Research Center for finding receptors on Ubiquitin for stem cells. Stanford has shown keen interest in this area", he added.

DaimlerChrysler touches second phase of Jatrophabiodiesel project

After putting the vehicles to test in humid conditions, DaimlerChrysler is now testing biodiesel powered Mercedes-Benz cars in frozen climatic conditions

After successfully clocking 5,900 km in hot and humid conditions using Jatropa biodiesel, automotive major DaimlerChrysler now plans to test the two C-class Mercedes-Benz cars and an additional Mercedes-Benz Viano across the demanding terrain of Leh and Ladakh.

DaimlerChrysler corporate affairs and finance director Suhas Kadlaskar flagged off the cars yesterday that will go to Chandigarh before beginning the 1,920 km journey to Leh. DaimlerChrysler has initiated the ambitious Jatropa Biodiesel program in collaboration with Central Salt and Marine Chemicals Research Institute (CSMCRI) and the University of Hohenheim.

As part of its sustainability initiative, DaimlerChrysler has spent over Rs 3.5 crore to develop biodiesel from the Jatropa plants from the wastelands in Gujarat and Orissa. The company began testing the project last year in April when 2 C-Class Mercedes-Benz cars completed a 35-day journey in South, Western India and Delhi. After completing the second phase of testing in cold climatic conditions, a technical feasibility report will be prepared on the project by the end of the year stating that technically biodiesel fuel is the perfect fuel for India.

“India faces difficult challenges. The most pressing is one of pollution. Moreover, the dependability on imports is very high to the tune of 70 per cent. The country has over 130 million hectares lying unused. If this is used to cultivate the Jatropha plant, we could convert challenges to opportunities,” said Kadlaskar. DaimlerChrysler is currently running the project on 30 hectares of land in Gujarat and Orissa.

The objective is to take the project to a stage of commercial viability. DaimlerChrysler is therefore mooted a village cooperative society concept that would run Jatropha farms generating one to two tons of biodiesel per day. The company is willing to offer a guarantee for the purchase of 50,000 liters of biodiesel fuel from such cooperatives. The company is in the process of finalizing plans for a cooperative in the next two months that would cultivate Jatropha on 500 hectares of land in Gujarat and Orissa.

DaimlerChrysler also plans to invest an additional Rs two crore for developing the project. While DaimlerChrysler will take care of the organization, funding and vehicle fleet testing, CSMCRI will implement the project and Hohenheim University will coordinate and evaluate the project. Kadlaskar said UN has expressed an interest in the second phase of the project. “Should the second phase of testing be successful, the demonstration project can be upscaled from local plantation to a model for regional, national and international development,” Kadlaskar said.

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