AstraZeneca Opens Its Biggest Asian Plant in China

A US$100m plant opened in Wuxi and the company is looking into further investment in China

UK-based pharmaceutical giant AstraZeneca (AZN) has recently opened a new plant in Wuxi, Jiangsu, a city some 100 kilometers to the west of Shanghai. The plant is AZN’s biggest investment project in Asia.

AZN has invested US$100 million in the plant, which will produce drugs such as the ulcer drug Losec, hypertension drug Betaloc, and Pulmicort, which is used to treat inflammation of the respiratory tract.

The plant has a total floor area of 32,000 square meters. It is estimated to have an annual production capacity of 1.5 billion tablets, 70 million capsules, 2.5 million bottles of oral solutions, 4 million bottles of dose-aerosols and sprays, and 6 million vials of sterile products.

AZN’s Wuxi plant opened at a time when many multinational pharmaceutical companies are trying to get a foothold or expand their presence in China’s drug market, which is expected to increase sharply in line with the country’s aging population.

At a news conference, Mr. Tom McKippop, AZN’s chief executive officer said that he believes the prospects for new drugs introduced into China are very good. With over a billion people, China is potentially a very large market over a long period of time.

China’s anticipated entry into the World Trade Organization (WTO) later this year is of importance for the company’s business strategy in China because it will mean more protection of intellectual property rights in the country and curtailing of counterfeit pharmaceuticals. Therefore it is expected to be easier for foreign companies to sell their products in China. This will greatly help innovative companies like AZN which will be investing huge amounts of money over the long haul.

According to Mr. McKippop, the Wuxi plant will produce products for local consumption, but in the future it may manufacture drugs for export.

Degussa to Establish China’s Largest Amino Acid Production Base

Germany-based Degussa, one of world’s top 500 companies and the world’s second largest company in terms of production of special chemicals, has recently signed an agreement with China’s Only-Time Pharmaceuticals Co., a private business based in Guangxi, to jointly finance the production of amino acids in south China.

The joint venture aims to establish China’s largest amino acid production base within two years, capable of producing 18 types of products with an annual output of 5,000 tons. The annual output value is expected to exceed US$30 million.

According to the agreement, Degussa and its Chinese counterpart will invest US$22.5 million in the initial stage mainly for the construction of production lines in Guangxi.

Degussa’s presence in China dates back to World War II. Currently, in addition to its two joint ventures in the eastern coastal province of Shandong, the company has set up subsidiaries or business offices in Hong Kong, Beijing, Shanghai and Shenzhen. In addition, it is now focusing on expanding its business in the Asia-Pacific region.

The Chinese partner, Only-Time Pharmaceuticals Co., is capable of producing nine types of amino acids, which are being marketed in the domestic and international markets, including Europe, the US and Southeast Asia. The company reported an output of US$6.4 million in fiscal 2000, of which US$2.3 million was from export. The pre-tax profit of the company in the year 2000 exceeded US$1.0 million.
Taiwan’s Vita Genomics to Focus on Genetic Research

Newly established in Taiwan, the company with focus on identifying genes related to diseases common in Asia

Newly established Vita Genomics Inc., formally known as Celera Asia, has announced its establishment recently. Invested by local companies, it will focus on Asian-specific genetic research.

Ellson Chen, a former scientist at US-based Celera Genomics, is the president and CEO of the new company, while his brother Preston Chen, founder of Taiwan's Ho Tung Chemical, is the chairman. The investors include Ho Tung Chemical, China Development Industrial bank, Cathay Life Insurance Co Ltd, National Securities Corp and the Executive Yuan's Development Fund. The original main investor US-based Celera Genomics, which was to invest 20 percent of the US$100 million needed to establish the company, is now part of the Vita deal with a US$5 million investment-stock shares traded in return for unlimited access to the Celera's extensive genetic database.

Ellson Chen said his company would first concentrate on identifying genes related to some diseases common in Asia, such as liver cancer and nasal cancer. The research results would be patented and licensed to other companies or used to develop new pharmaceutical products in cooperation with international drug makers. He indicated that the company expects to break even in three to five years and is scheduled to go public in Taiwan or overseas in one to five years. He also expects his company to become the leading genetic information provider in Asia and extend ties with relevant partners in mainland China, South Korea, Hong Kong and Singapore.

The new company will be located in the Taipei Biotechnology Park until the company's laboratory in the Tainan Science-based Industrial Park is ready in May this year. After that, the Taipei office will remain as branch office. The company will also operate a bio-information branch office in Burlingame, California to handle bioinformatics research.

Yamanouchi to Invest 50 Billion Yen on Genomics

Yamanouchi Pharmaceutical Co. Ltd. has announced its plan to more than double its investment in genome business to 50 billion yen (US$412.9 million) over the next five years. At a recent press conference, Toichi Takenaka, president of Yamanouchi said that there would be no future for his company in ten years from now, unless they invest in genomes now.

Yamanouchi is one of the largest pharmaceutical companies in Japan. The company is planning to invest 80 billion yen (US$660.7 million) in research and development in 2005/06. Japanese pharmaceutical and biotechnology companies have been increasing their investments in recent years to find potential material to develop new drugs.

The genome investment is part of Yamanouchi's new mid-term business plan, under which it aims to post 100 billion yen on group operating profit on sales of 600 billion yen in 2005/06, up from 97 billion operating profit on estimated sales of 457 billion yen in 2000/01.

New Obesity Drug Developed by Australian Company

Undergoing Clinical Trials

Metabolic Pharmaceuticals Limited, a Melbourne-based biotechnology company, is currently carrying out Phase I human clinical trials for its obesity drug AOD9604. The trials are being carried out in Manchester, UK, and so far results have been encouraging. Preparations are presently being made for the start of the Phase Ib human clinical trial which is scheduled for the second half of 2001. Phase Ib involves establishing whether AOD9604 can be safely administered orally in humans and it will be followed by Phase II efficacy trials which will assess fat loss in obese subjects.

AOD9604 was discovered at Melbourne’s Monash University and its mode of action is specifically on the body’s fat cells causing accelerated use of stored fats. The drug is analogous to the active fat-reducing portion of the human growth hormone molecule. When orally administered to laboratory
animals, AOD9604 elicits all the natural fat-reducing effects of the intact growth hormone without any of its unwanted side effects. So far, the drug has shown excellent clinical tolerability in the treatment sessions. AOD9604 would come in as an important drug as more than 300 million people worldwide (or 20 percent of the population in developed countries) are obese.

Metabolic Pharmaceuticals will also be investigating the potential veterinary applications of AOD9604, particularly in the back fat reduction in pigs. Currently, daily growth hormone injections are used to alleviate this back fat problem. However, with the use of a low-cost food or food additive containing AOD9604, these labor-intensive injections can be avoided. Preliminary results have shown that AOD9604 is orally active in pigs.

Reddy US Therapeutics to Present Novel Findings on Diabetes

Reddy US Therapeutics, Inc., a subsidiary of India’s Dr. Reddy’s Laboratories Limited, will be presenting some novel findings on diabetes at the upcoming 61st Annual Scientific Sessions of the American Diabetes Association (ADA) to be held in Philadelphia on 22-26 June, 2001.

The first abstract is entitled “Hyperinsulinemia markedly exacerbates glycated albumin and TNF-induced expression of endothelial inflammatory molecules MCP-1 and VCAM-1: A mechanism for accelerated atherosclerosis in insulin resistance Type II diabetes.” This preclinical study demonstrates that high levels of circulating insulin, together with other stimuli found in Type II diabetics may accelerate atherosclerosis by enhancing the expression of certain key genes. These results may partly explain the accelerated atherosclerosis observed in Type II diabetics. Therefore, this study suggests that drugs that reduce hyperinsulinemia and improve insulin resistance may provide additional therapeutic benefits for diabetic cardiovascular disease.

The second abstract is entitled “Synergistic induction of endothelial IL-6 by diabetic stimuli: An initiating event in diabetic nephropathy?” This study shows that endothelial activation and resulting production of an inflammatory cytokine, IL-6, may play a role in the genesis of diabetic nephropathy, a form of kidney disease. The results from this study will provide a new approach to designing therapeutics for the treatment of diabetic nephropathy.

According to ADA, diabetes currently affects 16 million people in the US alone. An estimated 30 to 40 percent of those with Type 1 diabetes and 10 to 15 percent of those with Type II diabetes are likely to develop kidney disease. Diabetes is the leading cause of end-stage renal disease. Cardiovascular disease, including atherosclerosis, is 2 to 4 times higher among diabetics and is the leading cause of death in this population.

Company seeks partners for new drugs

Reddy US Therapeutics Inc. is seriously exploring the possibility of partnerships with other companies for marketing and further research of drugs it is close to discovering.

These include at least four new molecular targets and screening mechanisms that are close to development. The most promising among these is a drug to prevent restinosis (reoccurrence of arterial blockages) in heart patients after treatment either through conventional open heart treatment or balloon angioplasty.

According to a company spokesperson, there are at least 50 companies working on such a drug and Dr. Reddy’s Group is ahead of competition in its development.

Reddy US is also designing a drug that will intervene to prevent kidney failure among diabetics. Others include drugs for arthritis and Alzheimer’s disease.

Kyowa Hakko to Market Cholesterol-lowering Super Soy in US and Europe

Kyowa Hakko, a leading Japanese pharmaceutical and biotechnology company, will start marketing CSPHP super soy in the US and Europe. The CSPHP is a food ingredient that can enhance the natural cholesterol-lowering properties of soy. Soy protein hydrolysate is combined with phospholipids to form CSPHP which is able to inhibit the body’s absorption of cholesterol. Japan’s Ministry of Health, Labor and Welfare has acknowledged CSPHP to be Food for Specified Health
A 3-gram dose of CSPHP taken daily for one month reduced the LDL-cholesterol level of volunteers by 17 percent and, at the same time, increased HDL-cholesterol by 14 percent.

The properties of CSPHP include heat resistance, pH neutrality and stability when mixed with other food ingredients. Thus, it is a safe and cost-effective ingredient which food producers can add to a wide range of products and manufacturing processes. Alternatively, CSPHP can be taken in powder or tablet form as a dietary supplement.

PPL Therapeutics Fails to Raise NZ$160m Funds

The recent fall in technology markets and generally poorer economic climate have led to PPL Therapeutics' decision to drop plans for the NZ$160 million (US$67.6 million) fund-raising project. The Scottish biotechnology firm was able to raise only half the amount. As a result, PPL had to shell expansion plans for its flock of cloned New Zealand sheep, which produce milk containing a human protein.

About 25 percent of PPL's sheep on the farm at Whakamaru, near Tokoroa, is genetically engineered. These transgenic ewe produce milk containing PPL's flagship product — recombinant alpha-1-antitrypsin. PPL had plans to set up its second farm in New Zealand but failed to accumulate sufficient funds.

Due to the poor market performance, existing and prospective shareholders have backed out from the fund-raising plan. Investors are unwilling to continue providing financial support as PPL was unable to raise the projected amount of NZ$160 million.

PPL had hoped that the funding would enable the company to at least breakeven in 2004. At its present "burn rate" of just under NZ$3.6 million (US$1.5 million) a month, PPL's cashflow is estimated to last for only another year. PPL plans to boost funds by implementing an alternative proposal — to raise around NZ$78 million (US$30.5 million) through a smaller placing. PPL is also considering entering into an agreement which could provide the company with an "equity line of credit".

QIAGEN Acquires Japan’s SAWADY Group

QIAGEN, a Netherlands-based company and the world's leading provider of synthetic nucleic acids, has recently acquired the Japan-based SAWADY Group. As Japan is the second largest life science market in the world, this takeover marks QIAGEN's successful attempt to penetrate into Japan's rapidly growing genomics arena.

Under the terms of the agreement, QIAGEN will acquire the three companies under the SAWADY Group (SAWADY Technology Co. Ltd., Omgen Co. Ltd. and the majority of Accord Co. Ltd.), in exchange for 854 987 shares of QIAGEN's common stock worth US$18 million. QIAGEN expects this transaction to have an immediate positive impact on QIAGEN's net income per share.

In June 2000, QIAGEN also acquired Operon Technologies (Operon) — the leader in the market for synthetic oligonucleotides, genes and related products in the US. In addition, QIAGEN is opening manufacturing facilities in Europe applying Operon's technologies.

In 2000, the worldwide market for synthetic nucleic acid products was estimated at US$200 million. The contribution of revenues from such products represented approximately 10 percent of QIAGEN's year 2000 revenues which amounted to over US$204 million. With the acquisition of both Operon and SAWADY, QIAGEN hopes to obtain a larger stake of the international nucleic acid product market.

About the companies

QIAGEN

With subsidiaries in Germany, the US, Japan, the UK, Switzerland, France, Italy, Australia and Canada, QIAGEN is the world’s leading provider of innovative enabling technologies and products for the separation, purification and handling of nucleic acids. The company has developed a comprehensive portfolio of more than 320 proprietary, consumable products for nucleic acid separation, purification and handling, nucleic acid amplification, as well as automated instrumentation, synthetic nucleic acid products and related services.

QIAGEN employs over 1400 people worldwide. Its products are sold in more than 42 countries throughout the world, to academic research markets.
and to leading pharmaceutical and biotechnology companies. In addition, the company is also positioning its products for sale into developing commercial markets, including DNA sequencing and genomics, nucleic acid-based molecular diagnostics, and genetic vaccination and gene therapy.

**SAWADY**

SAWADY was established in May 1993 in Tokyo, Japan, and has since become a leading supplier of synthetic nucleic acid products and genomics services to customers in the Japanese life sciences market. The company is committed to supplying high-quality products at competitive prices.

Due to the rapid growth in research areas such as gene chips and SNP analysis, demand for custom, synthetic DNA products is increasing rapidly in Japan. SAWADY boasts state-of-the-art facilities, such as nucleic acid synthesis and oligonucleotide purification systems built around proprietary technologies developed at SAWADY.

The SAWADY Group employs over 40 people. For the year 2000, the company's recorded net sales amount to approximately US$10 million and net income of US$0.9 million.

---

**SciClone’s Meeting on Cancer in China**

**Held recently in Shanghai, the meeting was aimed at appraising the clinical application of ZADAXIN, an immune enhancing agent.**

The National ZADAXIN® Meeting on Cancer in China, sponsored by SciClone Pharmaceuticals, was recently held in Shanghai. The meeting was aimed at appraising the clinical application of ZADAXIN, an immune enhancing agent developed by the US-based SciClone, a global specialty pharmaceutical company, which develops and commercializes novel medicines for the treatment of a broad range of serious diseases.

Approximately 800 cancer researchers and doctors, including China’s top oncologists, gathered at the meeting. More than 40 papers and abstracts containing data from cancer research and clinical trials using ZADAXIN were presented.

The Chinese symposium is also part of the Company’s worldwide cancer clinical program for ZADAXIN, which includes US phase 2 liver cancer trials, a phase 2 melanoma trial in Australia, and other clinical investigations in Italy and China.

The meeting covered three broad topics, each being the subject of a formal session:

1. treatment of cancer using ZADAXIN in combination with chemotherapy, surgery and others;
2. ZADAXIN for the specific treatment of hepatocellular carcinoma (HCC); and
3. ZADAXIN for the prevention of chemotherapeutic adverse effects.

During the second session, reports from the Shanghai Changhai Hospital, affiliated with the Second Military Medical University, showed that patients treated with ZADAXIN plus transarterial chemoembolization (TACE) had higher survival rates, compared with the control group using TACE alone. Other reports presented at the symposium also showed that ZADAXIN can help cancer patients by increasing survival rate and period, relieving symptoms, reducing side-effects of chemotherapy and radiotherapy, strengthening immunity and improving the condition of the body.

“Cancer represents the next level of ZADAXIN development in the US and Europe with much of the pioneering research being done in our current markets,” said Donald R. Sellers, SciClone's president and chief executive officer. Mr. Sellor also said: “China has an internationally recognized oncology research community and important clinical data has emerged from there. Attending the meeting, I was particularly interested in the third session. Acceptance of ZADAXIN as a significant part of combination therapies for cancer treatment in China can be a key driver for continued sales growth in that country and in markets worldwide.”

ZADAXIN has been administered to over 3000 subjects in over 70 clinical trials covering a broad range of diseases and to an estimated 7000 patients commercially with virtually no serious drug related adverse events or toxicities. ZADAXIN is approved for sale in 21 countries, principally for the treatment of hepatitis B and hepatitis C and as a vaccine adjuvant for patients with weakened immune systems. ZADAXIN is currently in a phase 3 trial in the US in combination with Pegasys® (pegylated interferon alfa-2a) for the treatment of hepatitis C, in a phase 2 trial in combination with Lamivudine for the treatment of hepatitis B and in a phase 2 trial for the treatment of
liver cancer. In Europe, a phase 3 ZADAXIN trial will complement the Company’s US hepatitis C program. ZADAXIN is also in clinical trials in Japan and Australia.

According to Mr. Sellers, Sciclone is currently mainly targeting malignant melanoma, liver cancer, hepatitis B, hepatitis C, HIV, drug-resistant tuberculosis and cystic fibrosis.

HK’s ehealthcareasia Ensures Safety of Its Internet Healthcare Administration Service

ehealthcareasia Ltd (EHA), Asia’s first listed group of e-health business, announced recently that it is planning to use VASCO’s Digipass handheld strong authentication and digital signature security platform to protect its Internet-based healthcare administration services. VASCO, a global provider of e-business security solutions, is capable of meeting the unique needs of healthcare organizations around the world. The company has recently opened a new sales office in Singapore to accelerate revenue from the fast-growing market in the Asia Pacific.

“Since we are making healthcare information available online, the security and privacy of our customers and their patients are of paramount concern to us,” said Philip Callender, Chief Technology Officer of EHA. “By incorporating Digipass security as well as advanced encryption into our systems, the security systems addressed these issues to our complete satisfaction. Healthcare providers, payers, and other participants can only access the information that they are authorized to view.”

According to Jan Valcke, Executive Vice President of Sales and Marketing for VASCO, “our work with Horizon and EHA further establishes our ability to support the business goals of healthcare organizations by safeguarding the integrity and privacy of patient information, and demonstrates our commitment to building our business in the Asia Pacific with the help of our extensive and growing network of partners and resellers.”

Listed in Hong Kong, EHA is Asia’s only public group of e-health companies. From its Hong Kong headquarters and its offices in Singapore, Australia and Taiwan, EHA provides tailored services that offer greater efficiency to the Asian healthcare services community.

The company focuses on:

- Connectivity and Transaction Services: allow health scheme operators and healthcare professionals to show and check a patient’s health scheme coverage and eligibility. Provides systems that construct and submit claims for payment to managed care and health insurance companies.
- Business and Health Professional Technology Solutions: Clinic Management, Clinical Decision Support and Mobile Point-of-Care solutions to help healthcare professionals operate their businesses and increase efficiency.
- Specialist Medical Equipment: distributing advanced medical equipment.
- Business Partnering Services: service and product marketing for healthcare insurance companies and financial services for healthcare professionals.

Pharmacia and Pfizer Fund Arthritis Program in China

Two leading pharmaceutical giants, Pharmacia and Pfizer will provide a total of RMB10 million (US$1.2 million) for a fund set up by China’s Ministry of Health to help the country prevent and fight arthritis. The donation will be made over the next five years, with RMB2 million (US$241 000) poured into activities each year.

Statistics shows that more than 355 million people in the world suffer from arthritis and rheumatoid arthritis, and 100 million are in China. Half of the people over 50 in China are suffering from arthritis. To make things worse, rheumatoid arthritis can shorten life expectancy of the patient by 10 to 15 years.

At the signing ceremony for establishment of the funds between the Ministry and the two companies, China’s Minister of Health, Mr. Zhang Wenkang described the fund as a move to help improve people’s health, which is a principal base for social and economic development. As a serious chronic disease, arthritis can affect one’s health. It is of great significance to raise people’s awareness to fight the disease.
Taiwan’s ScinoPharm Opens New Subsidiary to Focus on Biotech Research

ScinoPharm Taiwan Ltd, a custom pharmaceutical manufacturer, announced recently that it is planning to establish a subsidiary company to purely focus on biotechnology research.

Jo Shen, president of Scinopharm, a former executive from Syntex (an US-based chemical maker bought out by Roche), said that the new subsidiary is specially designed to take advantage of new drug discovery capabilities and then focus on using biotechnology to design new manufacturing processes ... and also to develop platform technologies. The new company is called ScinoPharm Biotech Ltd and will focus on four different areas of biotechnology research: genomics research, recombinant proteins and protein drug development, botanical drugs (made by bioactive ingredients in herbs and plants) and monoclonal antibody research.

Established in 1999, ScinoPharma has blossomed in the Tainan Science-based Industrial Park. The company has established an administration building, an R&D center, three manufacturing lines and a warehouse in the past 14 months. In all, the company plans to incorporate nine manufacturing lines inside seven complexes. It has also built a plant in Shanghai, China, in an effort to handle the projects more efficiently, since the Taiwan office has got so many projects and requests from the customers. In addition to the 100 researchers in its Taiwan facility, the Shanghai center will house an R&D center with another 30 researchers, as well as a small plant to produce some critical raw materials.

SciniPharma manufactures active pharmaceutical ingredients (APIs) according to customers’ requirements. APIs are the most expensive and active parts of drugs.

Ranbaxy to Expand Biotech Sector

India’s leading pharmaceutical company, Ranbaxy Laboratories, is examining the possibilities of collaboration with companies in the US, Russia and China in the biotechnology sector. The company is looking into collaborations for both research and development, as well as co-marketing of its products.

According to a company spokesperson, Ranbaxy has identified some areas in biotechnology to focus on. These include enzymes, interferons, cancer and diabetes treatments.

Ranbaxy is also looking into local government-owned research institutes under the Council for Industrial and Scientific Research, and local companies for possible collaborations in biotechnology.

NZ Biotech Firm Seeks Funding For New Anti-bacterial Drug

New Zealand biotechnology company, Blis Technologies, said that it is planning to raise NZ$7 million to finance the commercial development of the anti-bacterial “Salivaricin B” protein. The company also confirmed that it would seek to list on the main board of the New Zealand stock exchange.

“Salivaricin B” is believed to prevent or control streptococcal throat infections and the company is hoping to introduce the drug into the market within the next six months.

Singapore-listed Tianjin Zhongxin to Place A-shares in Shanghai Exchange

Tianjin Zhong Xin Pharmaceutical Group, the first Chinese company listed in the Singapore Stock Exchange since 1997, announced on 30 April 2001 that the company will float 40 million domestic A-shares at RMB10 (US$1.21) a share in the Shanghai Stock Exchange this year. The company plans to use the fund for new medicine projects.

Tianjin Zhongxin’s share price surged 48 percent before setting at the US 57 cents in active trading at the closing of the following day’s trading. Investors expect the huge gap between Singapore and Shanghai share price to provide good arbitrage opportunities.

Analysts forecast that the company’s Singapore shares should climb to around US$1.21 based on
40.32 times of its prospective earnings. But traders said a direct arbitrage is difficult because foreigners are banned in China from trading domestic A-shares and local players cannot easily trade foreign shares. But the company’s Singapore share still can enjoy an upside trend and narrow the difference with the Shanghai share.

**Indian State Cooperative and Israel Firm Form Biotech Company**

India’s Punjab State Cooperative Supply and Marketing Federation (Markfed) has recently entered into a joint venture with Sayag Group of Israel to form a company. The company, J V Mark Say Biotech, will grow vegetables in Punjab and export them to Australia, countries in the Pacific Rim, Gulf and Europe.

The Sayag Group along with Markfed, plans to rapidly expand quality vegetable cultivation in Punjab to thousands of hectares. The vegetables will be cultivated in green houses, as well as in farms. The Punjab Agricultural University will be assisting them in doing this.

Pre-fabricated green houses from Israel will be assembled in Punjab in October this year, and exports will commence three months later. The vegetables will be transported by air, and sold in the foreign markets through Sayag Group’s already established marketing network.

**Dainippon’s Zonegran Approved by FDA**

Zonegran, a new anti-epilepsy drug, has been approved by the US Food and Drug Administration (FDA) as an add-on therapy in the control of partial seizures in adults aged 16 and above with epilepsy. The drug, which has been in use in Japan since 1989, was developed by the Osaka-based Dainippon Pharmaceuticals Company Limited. Elan Pharmaceuticals, a business unit of Elan Corporation based in Ireland, has licensed the sales and marketing rights for Zonegran from Dainippon for North America and Europe.

Zonegran has a unique mechanism of action and controls seizures by blocking presynaptic voltage-sensitive sodium and calcium channels in neurons. The FDA approval of this drug gives physicians another option for treating partial seizures and improving the quality of life for adults with epilepsy.

The chairman of Elan, Donal J. Geaney, believes that Zonegran will be received well because about one-third of more than two million persons with epilepsy in the US suffer from partial seizures that are not controlled with a single-drug regime.

**Progen’s Alliance Partner to Conduct Clinical Trial of Anti-cancer Drug in Taiwan**

The alliance partner of Progen Industries Ltd., Medigen Biotechnology Corporation, has recently received approval from the Ethics Committee of the National Taiwan University Hospital (NTUH) in Taipei to conduct its first Phase Ib trial of the anti-cancer drug — PI-88. This trial will provide Medigen with information about the safety and tolerability of PI-88 in Taiwanese patients suffering from advanced forms of cancer. The data from the trial will allow Medigen researchers to design and conduct the planned Phase II trial of PI-88 in hepatoma (liver cancer) patients.

According to the strategic alliance agreement formed by the two companies in June 2000, Medigen will fund and conduct, at no cost to Progen, several trials (in addition to trials to be undertaken by Progen) focusing on disease areas in which Medigen’s collaborators have significant experience and expertise. Medigen is required to conduct the Phase Ib trial in accordance with Progen’s Investigative New Drug (IND) filings with the US Food and Drug Administration (FDA). Medigen estimated the completion date of the trial to be end of 2001, depending on recruitment numbers and response to the drug. According to Medigen sources, the Phase Ib trial is a landmark in that it will be the first FDA regulated Phase I trial conducted in Taiwan.

On 2 February 2001, Progen announced the conclusion of its own Phase Ib trial of PI-88 in cancer patients. The company is currently finalizing negotiations for the commencement of the next Phase II trial of the drug, to be conducted in the US. According to Dr. Lewis Lee, Progen’s managing director, the company is aiming to extend PI-88’s
development as quickly as possible before seeking major alliances with one or more reputable pharmaceutical/biotechnology companies for late stage development, commercialization and marketing of the drug.

About Progen
Progen is mainly involved in the research of carbohydrate-protein interactions as a source of potential therapeutics for a variety of disease conditions including cancer and inflammatory disease. The company is a world leader in the research and development of inhibitors of heparanase, a glycosaminoglycan degrading enzyme.

Progen's mission is to develop and commercialize novel therapeutics. The company has a GMP approved facility that develops and manufactures drug candidates for clinical trials.

Progen’s leading compound is the sulfated oligosaccharide PI-88, which has been shown to have anti-angiogenic and anti-metastatic properties. The compound has also been shown to be a potent anti-thrombotic. Pre-clinical test results revealed that PI-88 has the potential to work in two ways to treat cancer — firstly, it inhibits the growth of new blood vessels; and secondly, it stops tumor cells from migrating through blood vessel walls, effectively preventing the spread of secondary tumors (metastasis).

In Brief
- Bangalore Diagnostics to Launch Hepatitis C Kit
Bangalore diagnostics, manufacturer of immunodiagnostic kits in India, is planning a nationwide launch of HEP-cheX C, an indigenous ELISA kit for the detection of hepatitis C. The hepatitis C virus, which causes liver cirrhosis, changes its structure frequently after entering the human body. This makes the diagnosis of the diseases difficult.

- Dr Reddy's Enters into Marketing Alliance with Par Pharmaceuticals
Dr Reddy's Laboratories Limited has entered into an exclusive co-marketing and development agreement with Par Pharmaceuticals, Inc. covering 14 generic pharmaceutical products. Included in this group of products are fluoxetine 40mg capsules and lamotrigine 20mg and 40mg tablets. This agreement will further strengthen Dr Reddy's position in the US generics market.

Rules and Regulations
Market Access System to Ensure Farm Produce Safety in China
China's Ministry of Agriculture recently announced that China will be setting up a market access system for farm produce this year to curb pollution of farm products from residues of pesticides and chemical additives.

Liu Zhenwei, head of Department of Market and Economic Information at the Ministry of Agriculture said that Beijing, Tianjin, Shanghai and Shenzhen have been selected as candidate cities for a pilot program.

The abuse of pesticides and food additives has caused wide concern about food safety among the Chinese public over the recent years. The authorities hope that the market access system will prevent unsafe food from entering the market by enforcing safety control measures during production and marketing processes.

Mr. Liu said the first and second lists of 715 agricultural standards composed by the Ministry will take effect this year, while the draft of the third list of standards has been scheduled. The Ministry also aims to set up 20 to 30 quality supervision centers this year to build a nationwide quality supervision and inspection network. The Ministry will speed up the building of centers for inspection and accreditation of animal products, veterinary drugs and feed products.

China Issues Guidelines on Regulating Drug Marketing System
The guidelines on China's drug marketing system was recently announced by the General Office of China’s State Council. In addition to the clauses stipulated in the new drug law to be enforced in December this year, the guidelines focuses more on the distribution side of the drug market.

According to the guidelines, kickbacks and bribery involved in the purchase and selling of drugs