SciClone Pharmaceuticals’ Hepatitis B Treatment to Gain Approval in Japan

Zadaxin® is one of SciClone Pharmaceuticals’ leading drugs used in treating chronic hepatitis B patients in 24 countries around the world. Recently, the company has just completed enrollment for its phase 3 monotherapy hepatitis B trial in Japan — the second largest pharmaceutical market in the world. The study (sponsored by SciClone Japan K.K.) involves over 300 Japanese patients suffering from chronic hepatitis B infection. It consists of a six-month treatment period followed by a 12-month evaluation period, whereby the patient’s response to the drug is assessed by measuring the endpoints of hepatitis B virus (HBV) DNA negativity and improvement in ALT levels. To date, this is the largest randomized double-blind clinical trial using Zadaxin®.

Zadaxin® is a synthetic preparation of thymosin alpha-1 (a peptide that occurs naturally in humans). As an immune system enhancer (ISE) drug, it helps stimulate, maintain and direct the body’s antiviral or anticancer responses. In addition, the drug is used in certain countries as a vaccine adjuvant for patients with weakened immune systems and as an adjuvant to chemotherapy for the treatment of various cancers. Researchers are also exploring the possibility of using Zadaxin® as part of a combination therapy with Pegass®, pegylated interferon alpha-2a (a proprietary product of F. Hoffman-La Roche Ltd.), for the treatment of hepatitis C.

HBV carriers have a 200-fold increased chance of developing primary liver cancer, the most significant cancer in the world, and a significant number develop cirrhosis of the liver. If Zadaxin® is found to be a safe, sustainable and durable form of therapy, more than 350 million hepatitis B carriers worldwide (source: World Health Organization) will be on their roads to recovery. The spread of infection can also be effectively curbed. SciClone Pharmaceuticals is a global specialty pharmaceutical company involved in the development and commercialization of novel medicines used in the treatment of a broad range of the world’s most serious diseases — such as hepatitis B and C, cancer, drug-resistant tuberculosis and cystic fibrosis.

Prana Biotechnology Partners with Neuroscience Victoria

Prana Biotechnology Limited, an Australian research company established to commercialize research into Alzheimer’s disease and other major age-related degenerative disorders, has recently signed a partnership contract with Neuroscience Victoria, an Australian consortium comprising of the Howard Florey Institute, the Mental Health Research Institute, University of Melbourne and Monash University. The consortium’s new addition to the family, Prana, will thus serve as the commercializing entity for new Australian projects devoted to neuroscience research. This new partnership enables Prana to position itself as the commercial and scientific development conduit for neurological initiatives in Australia. As the only non-research institute member of the consortium, Prana can become the central station through which new Australian neuroscience projects may pass through. The company is also tied up with Kendle Pty Limited — a pharmaceutical development organization providing expertise for the commercialization and development of Prana’s products.

Prana had also recently won a US$1.75 million START Grant from the Australian Biotechnology Industry Research and Development Board (IR&D) to expand the company’s platform technology for drug treatment of neurodegenerative diseases. This grant is expected to markedly accelerate Prana’s efforts in synthesizing new chemical entities as Alzheimer’s disease therapies, through in vitro screening assays and preclinical development prior to further trials in patients suffering from the disease. Neuroscience Victoria had also recently received a major funding award from the Australian government — that is part of the US$160 million National Major Research Facilities funding package. In this new agreement with Prana, the consortium’s relationship with Prana will enable their commercialization performance to match the very highly regarded research performance of the Australian neuroscientists.
The recombinant human epidermal growth factor (EGF) has been approved for the first time for the treatment of diabetic foot ulcer in South Korea. Daewoong Pharmaceutical Co. (Seoul, Korea) has completed a phase II clinical trial of EASYEF®, a spray solution of recombinant human EGF (DWP401) and received an approval for the treatment of diabetic foot ulcer as an orphan drug by the Korean Food and Drug Administration (KFDA). Marketing of EASYEF® will commence in the third quarter of 2001 in Korea.

What is EGF

EGF is a single-chain polypeptide consisting of 53 amino acids with molecular weight of about 6,200 daltons. The six cysteine residues in the sequence of human EGF form three disulfide bonds, which are required for its biological activity.

EGF was first isolated from the submaxillary glands of adult male mice. Human EGF was discovered in human urine as an inhibitor of gastric acid secretion. Later it was proved that EGF causes both proliferation of epithelial cells and inhibition of gastric acid secretion.

Human EGF is a potent stimulator of epithelial cell, endothelial cell and fibroblast proliferation both in vitro and in vivo, which results in its potential as a promising healing agent for the treatment of various skin and corneal wounds. In dermatology, EGF has been regarded as a healing agent for skin wounds, such as diabetic ulcers, bed sores, venous stasis ulcers, skin burns and surgical incisions. In ophthalmology, EGF can be utilized as a healing agent for corneal ulcers, ophthalmic surgery, such as corneal transplantation and excimer laser keratectomy, and the prevention of corneal degeneration.

The EASYEF® Spray Solution

Daewoong has developed a novel system for producing recombinant human EGF. The production yield of the Daewoong system is ten times more than those of other known processes. Daewoong has obtained patents on this system in Korea (KR 102993; KR 107023; KR 111023; KR 114856) and other countries (US 5,652,120; JP 2609515; EP 652954). DWP401, a recombinant human EGF produced by the Daewoong system, contains the full 53 amino acids of natural EGF and are physicochemically identical to the authentic EGF. DWP401 gave a single peak (> 99.5%) on reverse-phase HPLC and was shown to be in monomeric form (> 99.5%) by size exclusion HPLC analysis. Other contaminants, such as host-derived DNA, host- or media-derived peptide and bacterial endotoxin, were negligible.

DWP401 exhibited approximately 40 percent higher mitogenic activity and a 10-fold higher receptor binding activity compared to international standard EGF (National Institute for Biological Standards and Control, WHO, Hertfordshire, UK). One milligram of DWP401 is equivalent to 1.36 x 10^6 international units. Due to its higher purity and greater specific activity, DWP401 has displayed superior pharmacological activities in animal studies. In several skin and corneal wound models, such as ischemic wounds of rabbit ears, skin transplantation of diabetes-induced rats, full-thickness skin wounds of rats, and excimer laser-injured rabbit corneal wounds, DWP401 has displayed excellent healing enhancement.

DWP401 spray, EASYEF®, is composed of two parts: the active ingredient and the diluent. It should be mixed before use by a simple one-touch operation. This preparation is stable for 24 months at 2–8°C. After mixing, the mixture is stable for 6 months at 2–8°C.

Phase II Clinical Study

A controlled and double-blinded phase II clinical study of EASYEF® was carried out to evaluate its efficacy on diabetic foot ulcer by randomized multi-center trials. The patients with diabetic foot ulcer in grade 2 and 3 by Wagner classification were included.

The diabetic foot ulcer patients were randomly assigned to placebo, low-strength (10µg/ml) and high-strength (50µg/ml) EASYEF® groups, and treated twice a day for 12 weeks. The complete healing ratio of the ulcer were 50 percent, 55 percent and 72.5 percent, respectively. The statistical results show that p=0.654 between the placebo and low-strength EASYEF® groups, p=0.039 between the placebo and high-strength EASYEF® groups, which is statistically significant.
There were no significant adverse effects of EASYEF® or differences in abnormal events among the placebo and EASYEF® groups. For further information please contact:

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Photographs of diabetic foot ulcer treated with high-strength EASYEF® (upper panel) and placebo (lower panel).
US-based Disease Sciences to Explore Possibility of Mad Cow Disease in China and Australia

Disease Sciences Inc. (DISE) has announced recently that it intends to conduct its own research to determine if mad cow disease has invaded China and Australia. While the disease has not been detected in China or Australia, it has been recently discovered in nearby Hong Kong and Korea. Japan has recently begun mass testing of domestic cattle over fears of mad cow disease in Japan’s meat supply. Inspectors in China are performing post mortem tests on hundreds of imported cows, their offspring and all cattle fed with foreign-made bone or meat meal, these tests being conducted amid concerns that imported animals and feed could have infected domestic herds.

On January 1, 2001, China stopped importing European-made meat and bone animal feed, which has been blamed for the spread of the disease among cows. Australia has also widened its post mortaling for mad cow disease to include dairy products, as part of its efforts to remain disease free. Additionally, in January 2001, scientists in Britain warned that other Asian countries such as Indonesia, Thailand, Taiwan and Sri Lanka might become the next victims of mad cow disease after buying potentially tainted feed from Britain at the height of the UK epidemic. Eating meat from infected animals is believed to cause Creutzfeldt-Jacob disease, the human variant of mad cow disease, which has killed more than 100 Europeans since the mid-1990s, mostly in Britain.

The investigation will be held by Disease Sciences advisor Dr. Anthony Austin. Dr. Wayne Goldstein, CEO of Disease Sciences, said that the recent discovery of mad cow disease in Hong Kong, its proximity to China and the fact that China did not stop importing European-made meat and bone animal feed until January 1, 2001 makes the world’s most populated country suspect as this feed has been blamed for spreading mad cow disease.

Disease Sciences is a developmental stage biopharmaceutical/clinical diagnostics company planning to employ a broad array of technologies to detect, identify and quantify substances in blood or other bodily fluids and tissues. Its primary goal will be a Transmissible Spongiform Encephalopathy (TSE) test, useful in the diagnosis of TSE diseases such as Bovine Spongiform Encephalopathy (BSE) in cattle, commonly known as mad cow disease, Scrapie in sheep, Chronic Wasting Disease (CWD) in wild deer and elk and Creutzfeldt-Jakob Disease (CJD) in humans.

On January 1, 2001, China stopped importing European-made meat and bone animal feed, which has been blamed for the spread of the disease among cows.

Test results are to be used in the diagnosis, detection, evaluation, monitoring and potential treatment of diseases and other medical conditions. The company intends to derive its revenues from patent sub-licensing fees, royalties from pharmaceutical sales, appropriate milestone payments and research and development contracts.

US-based GeneMachines Supplies Microarrayers to Genome Institute of Singapore

US-based GeneMachines has recently sold its OmniGrid microarrayers to jump-start the Genome Institute of Singapore (GIS) into full microarray production. The GIS will be a major facility comprising 250 scientists with core technology platforms including microarraying, high-throughput sequencing and SNP analysis, clone library production, proteomics, and bioinformatics. These resources will be used to bridge basic and clinical research through genomics and proteomics technologies. GIS will pursue collaborations with academic institutions and commercial enterprises, bringing together biologists, clinicians, statisticians, and informatics experts to work towards common research goals.

The Microarray Research Laboratory at GIS will be led by former US National Cancer Institute (NCI) microarray facility staff scientist, Dr. Lance Miller. As the senior group leader, Dr. Miller will oversee diverse projects, using large specimen pools from collaborators to tackle different carcinomas, as well as model systems in mice and zebra fish to study the underlying mechanisms of disease.

Commenting on his choice of arrayers, Dr. Miller said that from his past experience at the NCI with GeneMachines he knows that these arrayers will allow him to accomplish the array quality, production consistency, and capacity that he needs to fuel research at the GIS.
Beijing Genomics Institute Selected as Sun Microsystems Center of Excellence

Nasdaq-listed Sun Microsystems (Sun) has announced recently that it has selected Delaware Bioinformatics Institute and Beijing Genomics Institute as Sun Centers of Excellence (COEs). Both sites were chosen for their leadership in computational biology and their potential to advance the field through research and partnerships with other institutions. As Sun COEs, the sites will join Sun’s community of academic institutions in developing advanced technology to do groundbreaking research.

The BGI team of over 500, with 200 bioinformatics specialists in Beijing and Hangzhou, will use two Sun Enterprise™ 10 000 supercomputers to study rice and porcine genomes, among other projects.

US-based Pharmacia Donates Eye Medicine to China

US-based pharmaceutical company Pharmacia has recently donated RMB2.3 million (US$277 000) worth of specific medicine for glaucoma to the Red Cross Society of China (RCSC). According to an official with the society, glaucoma is hard to cure with only operations. The prevailing treatment in the world is medication, but Chinese patients in poor areas cannot afford the imported drugs of high price. Dr. Sun Aiming, vice-president of the RCSC, promised to give out the donated drug free to patients in the poor regions around the country.

Aiming to aid the most vulnerable group, the Love Project has since 1997 enabled the RCSC to provide medical equipment and drugs to cure eye diseases in many areas of China, including Tibet and Chongqing. In Tibet, more than 500 cataract patients have benefited from the program.
SciClone’s ZADAXIN Approved as Cancer Treatment in the Philippines

US-based SciClone has announced recently that ZADAXIN, the company’s lead immune system enhancer (ISE) drug, has been approved in the Philippines as an adjuvant to chemotherapy for the treatment of various cancers. ZADAXIN has previously been approved in the Philippines for the treatment of both hepatitis C and hepatitis B.

The cancer approval was based on previously reported clinical studies conducted by investigators both in the US and in Italy.

This marks the first time ZADAXIN has been approved specifically for cancer treatment in the world, although in some countries ZADAXIN has already been approved for use as an ISE drug without limitation to specific indications. The cancer approval was based on previously reported clinical studies conducted by investigators both in the US and in Italy.

Dr. Donald R. Sellers, SciClone’s president and CEO, said that the company’s US hepatitis C phase III program is currently the lead corporate imperative, but it is gratifying to receive the first specific regulatory recognition of the ongoing clinical and scientific work that is focused on using ZADAXIN to treat certain cancers. The development of ZADAXIN’s cancer therapy-related clinical experience data and safety base is a growing effort.

Dr. Sellers also noted that ZADAXIN is currently being used in two company-sponsored phase II US trials for liver cancer, one in combination with transarterial chemoembolization (TACE) and one using radio frequency ablation (RFA), the most widely used procedures for liver tumors that are no longer amenable to surgical resection or liver transplantation. A trial is also underway in Australia using ZADAXIN in a pure immunotherapy combination regimen for the treatment of advanced malignant melanoma.

ZADAXIN is a synthetic preparation of thymosin alpha 1, a peptide that occurs naturally in humans and is an ISE that helps stimulate, maintain and direct the body’s antiviral or anticancer responses. It has been administered to over 3000 subjects in over 70 clinical trials covering a broad range of diseases and to many thousands of patients commercially around the world with virtually no serious drug-related adverse effects or toxicities. ZADAXIN is approved for sale in 24 countries principally for the treatment of hepatitis B and hepatitis C, but also in some countries as a vaccine adjuvant for patients with weakened immune systems and as an adjuvant to chemotherapy for the treatment of various cancers.

SciClone Pharmaceuticals is a global specialty pharmaceutical company that develops and commercializes novel medicines for treating a broad range of the world’s most serious diseases. The company has focused its current product development and commercialization activities on hepatitis C, cancer, hepatitis B, drug-resistant tuberculosis and cystic fibrosis.

US-based Trinity Files New Drug Application for HIV Treatment in Thailand

Trinity Medical Group USA, Inc. has recently filed a New Drug Application (NDA) with the governing health authorities in Thailand for its HIV-1 Immunogen product, also known as REMUNE™. The NDA, which was filed by the company’s Thai affiliates, has been submitted for the use of REMUNE as a primary treatment for HIV.

The product has been studied for five years in human clinical trials in Thailand.

The application is a detailed list of requirements that include clinical demonstration of efficacy, safety, and product purity. In addition to requirements of the Ministry of Public Health, requirements of product importation have also been submitted to the Thailand Customs authorities.

Some of the application components were supplied by the Nasdaq-listed Immune Response Corporation (IRC) based in Carlsbad, California. The product has been studied for five years in human clinical trials in Thailand. REMUNE was invented by one of URC’s
Genemedix to Launch US$28.6 Million Biotech Venture Capital Fund

UK-based Genemedix has announced recently that the company will launch a US$28.6 million venture capital fund in Singapore in September this year, to tap opportunities in the Asia-Pacific. The Biotech Ventures Investment fund, to be undertaken with local investment firms, is reported to have already identified four opportunities in Singapore and Malaysia.

Genemedix’s chairman, Mr. Kim Tan, who is keeping mum on his initial investment targets, will be looking for ideas that can quickly be applied to potential treatments. Mr. Tan said that for so much of biotech in Asia, the horse has already bolted. What’s important is that the good ideas and good science can be married to other capabilities around the world, which is where he is hoping the fund can have some impact.

Mr. Tan’s push into Asia is geared to capitalize on emerging markets and local skills and facilities. In China especially, he has access to top scientists for a fraction of the cost in Europe or the US; in Malaysia, the Nilai Cancer Research Institute gives his companies priority access to clinical trials; and manufacturing and licensing his products in Malaysia and Singapore puts him in a prime position to sell drugs in the Asean and Islamic markets.

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Genemedix is a biogeneric pharmaceutical company involved in the development, manufacture and sales of a range of high value therapeutic proteins using recombinant DNA technology. The company focuses on large market biotechnology drugs that are unpatented in certain Asian, Eastern European and South American countries, and drugs that are due to come off patent in various western European territories in the next two to five years.

Germany’s Degussa

Focussing on Asia

On 9 February 2001, Degussa was created from the merger of SKW Trostberg and Degussa-Huels. The company acquired Laporte in April 2001, making it the second largest manufacturer of fine chemicals worldwide. The acquisition increased sales of fine chemicals from Euro785 million (US$706 million) to Euro1 billion (US$900 million). The number of people employed rose to 4000. Degussa has now 14 production sites in Europe, three in North America and one in Asia.

Degussa expects to increase its revenue from Asia from 12 percent of its total sales to 25 percent in the mid-term. Degussa (China) has recently been created. Degussa’s fine chemicals business unit holds a nine percent share of the fine chemicals market in Asia.

In April 2001, Degussa established a joint venture with Nanning Only Time Pharmaceuticals Co. Ltd. in China to produce amino acids. The venture will cost Euro26 million (US$23.4 million) and employ 120 people. A new cGMP processing facility is being built by the venture in Nanning, the capital of southern China’s Guangxi province. It is scheduled to go into production in 2003. The global pharmaceutical industry is growing by up to 10 percent per year. It accounts for 50 percent of the total fine chemicals market that is worth an estimated Euro40 billion (US$32 billion).  

Cancer Research Institute gives his companies priority access to clinical trials; and manufacturing and licensing his products in Malaysia and Singapore puts him in a prime position to sell drugs in the Asean and Islamic markets.
Kirin Brewery to Expand Collaboration with US-Based Dendreon

The pharmaceutical division of Kirin Brewery Co. Ltd. based in Tokyo, Japan and Dendreon Corporation based in Seattle, USA, have recently entered into an agreement to expand their collaboration.

Under the terms of the agreement, Dendreon will provide Kirin with extensive clinical development and regulatory support aimed at seeking marketing approval in Asia of Dendreon’s leading cancer vaccine candidates, Provenge™ and Mylovenge™. Kirin has also secured a supply of key components of these products from Dendreon and has obtained an option to license Dendreon’s proprietary manufacturing technology for Provenge. Following the agreement, Dendreon has already received a payment of US$10 million from Kirin.

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The Pharmaceutical Division of Kirin Brewery is focused on the development of new products in areas including cancer and hematopoietic disease. Kirin is an established leader in the development and sales of pharmaceutical products throughout Asia. Dendreon Corporation is dedicated to the discovery and development of novel products for the treatment of cancer through its innovative manipulation of the immune system.

The company currently has three therapeutic cancer vaccine candidates in clinical trials — Provenge, for the treatment of prostate cancer, in Phase III trials; Mylovenge, for the treatment of multiple myeloma, in Phase II trials; and APC8024, for the treatment of breast, ovarian and colon cancers, in Phase I trials.

“This expanded mutual commitment clearly reflects that our relationship with Kirin, now approaching three years old, is progressing well for both parties,” said Christopher S. Henney, Ph.D., D.Sc., chief executive officer of Dendreon. “As Provenge and Mylovenge move through the clinical trial process, it is important to contemplate potential commercialization of these products. Under the new agreement, Kirin is assured of a continuing source of Provenge to fill anticipated Asian needs. We look forward together to success in our efforts to launch Dendreon products in Asia and to the joining together of Dendreon and Kirin technologies in what we hope will become a family of new products.”

The pharmaceutical division of Kirin Brewery had earlier entered into an R&D collaboration with US-based Hyseq Inc. As part of the collaboration, Hyseq will fund three years of collaborative research work at Hyseq and both companies will conduct research toward the discovery of proteins and antibodies for various diseases including hematopoietic and inflammatory diseases. Discoveries during the collaboration will be jointly owned by Kirin and Hyseq, and will be jointly developed and marketed with costs, efforts and revenues shared by both companies. Kirin’s recombinant DNA-based EPSO® (erythropoietin) and GRAN® (G-CSF), co-developed with Amgen, have annual sales exceeding US$400 million in Asia. Kirin’s pharmaceutical division is now enhancing its activities on antibody and cell therapy. The company has also developed the original TC Mouse™ technology for fully human antibody development.

India’s Candila Pharma to Increase Sales in Australia and NZ

Indian company, Candila Pharmaceuticals, is targeting to achieve sales worth US$8 million by 2004 from Australia and New Zealand. The company’s senior vice-president, M. Modi, recently said that fourteen products registration are expected from Australia and New Zealand in 2002 and this should enable the company to register sales worth US$8 million by 2004. The Therapeutic Goods Administration (TGA) of Australia recently approved the manufacture of beta lactum formulations at the company’s plant near the city of Ahmedabad. This is the second approval that the company has from the TGA in less than six months.

In February this year, Candila received approval for its non-beta lactam facility which includes sterile and non-sterile dosage forms. Mr. Modi said that the TGA approval has placed Candila in a select league of pharmaceutical companies around the world having approval for both beta lactum and non-beta lactum facilities. He added that the TGA approval will pave the way for the company’s entry into Australia and New Zealand, as well as to most countries of the Pharmaceutical Inspection Cooperation Scheme.
Australian Biotech Firm among Founders of New Stem Cell Research Facility

Listed Australian biotechnology company, BresaGen Limited has recently announced its role in a collaborative research program that will develop a new research facility under a Commonwealth Government funding initiative.

Earlier Senator Nick Minchin, the Australian Minister for Industry, Science and Resources had announced that a Major National Research Facilities Program funding initiative that will provide A$5.5 million towards a new National Centre for Advanced Cell Engineering at Monash University, Melbourne will be established. This centre will involve research groups from Monash University, BresaGen and ES Cell International Pte. Ltd. with focus on exploiting the many applications of human embryonic stem cell technology.

Dr. John Smeaton, President & CEO of BresaGen said “This announcement recognises Australia’s leadership in the field of embryonic stem cell research. We are encouraged by this significant Government commitment to infrastructure to support our research. The collaborative research undertaken in the new centre will bring together the best Australian scientists working on embryonic stem cells and should ensure that companies such as BresaGen and ES Cell International can more rapidly advance their technologies”. “Between BresaGen and ES Cell International we have 10 of the 60 human embryonic stem cell lines, recently identified by President Bush, that are eligible for US National Institute of Health (NIH) research funding. This puts the two companies in a strong position to significantly extend their research capabilities”, commented Dr. Smeaton.

Australian Firm, Cerylid Biosciences, Receives A$9.9 Million Investment

Australian biotechnology company, Cerylid Biosciences Ltd., has received A$9.9 million (US$5.3 million) investment from JBWere Private Equity Fund. To date the JBWere Private Equity Fund has made five investments with Cerylid Biosciences, its first investment in a biotechnology company. Existing investors, Rothschild Bioscience Managers and CM Capital Investments (Coates Myer IIF), have also boosted their shareholdings in Cerylid bringing the total new capital raised to A$11 million (US$5.8 million).

The deal forms one of the largest single investments in an Australian biotechnology company. Cerylid’s chief executive officer, Dr. Jackie Fairley, explained that the capital injection will be used to accelerate the company into its next phase of development as a sustainable Australian player in drug discovery.

“We are delighted to have JBWere as an investor in Cerylid,” said Dr. Fairley. “The money raised from the investment will fund research to further expand Cerylid’s intellectual property portfolio. The funds will also facilitate further development and commercialisation of the company’s existing IP.”

According to Bernard Stanton, executive director of the JBWere Private Equity Fund, the Fund has strict investment criteria, investing in promising businesses with strong management teams and globally applicable products that are capable of rapid and sustainable growth.

“We have reviewed many biotechnology companies that have promising early research but are over-valued,” said Mr. Stanton. “Cerylid’s vast natural product library, exciting portfolio of genomics projects and disciplined approach to drug discovery combine to give the company a distinct competitive advantage. We believe Cerylid’s strong management team will be a driving force behind the organisation’s success and anticipate a solid return on our investment.”
Cerylid Biosciences is a genomics-driven drug discovery company that combines its extensive gene discovery programs with a unique natural products library of close to 600,000 natural extracts.

The company’s genomics programs focus on isolating genes for major human genetic diseases to develop validated drug targets. Cerylid also has a number of lead compounds isolated from its natural products library under development for cancer and inflammatory disorders.

Shriram Biotech to Produce Xanthan Gum

India’s Department of Biotechnology (DBT) has recently transferred the technology for the production of xanthan gum to local company Shriram Biotech Ltd. The technology for xanthan gum production was developed by the Birla Institute of Scientific Research in Jaipur, Rajasthan, which is under the DBT.

This is an important development as India has been relying on imported xanthan gum which is used widely by the food, pharmaceutical and industrial sectors, especially the oil industries where it is used in oil recovery. Since the food and pharmaceutical industries require high grade xanthan, which is costly, they are expected to largely benefit from the local production of xanthan gum.

Under the terms of the agreement, Shriram Biotech will develop the lab-level technology to large-scale levels and begin production in about six months. It is estimated that India requires about 300 tonnes of xanthan gum every year. At present, xanthan gum is imported mainly from the US. Locally produced xanthan gum is expected to cost at least 50 percent less than imported ones.

Under the terms of the agreement, Scotia Holdings, which is currently in debt, will receive a one time upfront payment and also receive royalties on the sales of Foscan.

Mr. Windle said that they are expecting to get formal approval for Foscan for the European market in a few months’ time. He added that they will be conducting new clinical trials in America and hope to get the product approved there in about two to three years.

Under the terms of the agreement, Scotia Holdings, which is currently in debt, will receive a one time upfront payment and also receive royalties on the sales of Foscan.

Besides this development Blue Dot Capital has set up a subsidiary, Quantanova, in Scotland to focus on cancer research.
Marketing of Bayer’s Anti-Cholesterol Drug in Taiwan Halted

German company Bayer’s marketing plan in Taiwan for cholesterol-lowering medicine has been scrapped. Bayer said recently that it would stop sales of Baycol, also known as cerivastatin, in every country except Japan, after reports of muscle destruction linked to 31 deaths in the US and at least nine other fatalities around the world since the drug was first introduced in 1997.

Even as Taiwan’s health authorities began discussions about freezing a license to allow Baycol to be sold in Taiwan, Bayer’s Taiwan operation decided to pull the plug on the drug.

Huang Yi-wen, a spokesman for Bayer, Taiwan, said that Baycol was due to be officially sold in Taiwan in October this year, but the plan has now been scrapped.

Bayer has spent a year conducting human tests on Baycol in Taiwan. No adverse side effects have been reported, and Taiwan’s Bureau of Medical Affairs under the Department of Health granted Bayer permission to sell the drug to hospitals in Taiwan last month. However, a license for over-the-counter sales of Baycol has not been issued.

Biowell’s DNA chips can be placed on products that are commonly targeted by counterfeiters, serving as a security device for a wide range of products. Inside the fingernail-sized DNA chip is a strand of DNA, a unique and complex sequence of genetic information that cannot be copied, and is readable by a machine produced by Biowell. The company is waiting for patents to clear before launching the chips, and expects to have them out within the next few months.

The company spokesman, Hsu Han-wen, said that since no two organisms in the world carry the same DNA, including identical twins, this technology is fool-proof. He pointed to credit cards, as a possible target market for its new DNA chips, being optimistic that the DNA would make credit card fraud entirely a thing of the past.

Taiwan ranks as the country with the second highest rate of credit card fraud in the world, according to the National Credit Card Center. Taiwan recently broke the world record for the most counterfeit cards recovered in a single bust. In May, Kaohsiung police confiscated 160,000 fake credit cards. The previous record was 20,000 fake credit cards seized in Guangzhou, China in 1996.

Biowell’s new DNA technology not only targets credit cards, but also other products. Last year, the company teamed up with another Taiwanese company, Markwin, to create “DNA labeling.” This process involves mixing the DNA information directly into products, not just in the form of an encapsulated chip containing DNA. The company researchers mixed fixed DNA strands into materials such as paper, plastic, paint or ceramics. So far, they have found some 20 different materials suitable for binding with DNA.

This technology can also be used when printing money. DNA strands inside money would eliminate the need for some of the special transparent images and other anti-counterfeit devices.

The company said that personal digital assistants, mobile phones and other often stolen goods could also be implanted with DNA chips, for identification purposes.
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US-based Arena Pharmaceuticals Announces Multi-Receptor Cart Collaboration with Taiwan Taigen Biotechnology

Recently, a Nasdaq-listed US pharmaceutical company, Arena Pharmaceuticals Inc., has announced the signing of a license agreement with Taigen Biotechnology Co., Ltd., a privately-held Taiwan biopharmaceutical company.

Under the terms of the agreement, Taigen has the right to select validated screening assays that include CART-activated G protein-coupled receptors for use by Taigen in the development of therapeutics that target the receptors. Arena has secured the rights of first negotiation with respect to any Taigen compound discovered by Taigen using the Arena screening assays. Tiered single to double-digit royalty payments to Arena are also provided for under the agreement based upon sales of products that may be developed or out-licensed by Taigen using the Arena assays.

Arena's CART Technology allows for ligand-independent, direct identification of small molecule compounds that regulate the activity of G protein-coupled receptors. CART is particularly useful with respect to orphan GPCRs that are estimated to comprise approximately 2 percent of the human genome. Such ligand independent screening is made possible by genetic alteration of these receptors, using widely applicable and proprietary genetic cassettes.

TaiGen, located in Taipei, Taiwan, is a privately held start-up organization with a focus on the discovery of novel treatments in the areas of oncology and immunology. Created with the assistance of the government of Taiwan, Taigen is focused on establishing itself as an initial biotechnology-based commercial enterprise in Taiwan. Taigen recently closed US$24 million out of a US$48 million total Series A financing round.

US Tanox to Set up Protein Drug Plant in Taiwan

Tanox Inc., US-based biotechnology company, plans to raise NT$14 billion (US$401 million) to establish a protein drug plant in Taiwan’s Hsinchu Science Park.

Tanox develops therapeutic products that benefit the immune system or are derived from the immune system.

The plant may commence full production as early as 2005 and will produce protein drugs such as monoclonal antibodies. The funds for the project will be raised in the US and from bank loans in Taiwan. Several Taiwanese local investors, including government’s the Executive Yuan’s Development Fund, China Synthetic Rubber and Cheng Xin Development Corp may invest in the project.

Tanox develops therapeutic products that benefit the immune system or are derived from the immune system. The company focuses on drugs in immunology (asthma/allergy and autoimmune diseases), infectious diseases and oncology, with core research and development labs and production facilities located in Houston, Texas. The company had previously tried to raise funds in Taiwan for a new plant, but the project did not receive the Executive Yuan Development Fund’s support. The fund is more likely to invest in the protein plant.