Chiron and Hoechst Marion Roussel Form Joint Vaccine Venture

California-based Chiron Corporation, a leading biotechnology company has recently teamed up with Hoechst Marion Roussel Ltd. (HMR), to form a vaccines joint venture business in India called Chiron Behring Vaccines Private Ltd. Chiron holds 51 percent shares in the new company, while HMR holds 49 percent.

**Manufacture of Rabies Vaccine**

Rabies, a viral infection of the central nervous system, is always fatal if left untreated. The largest epidemic regions are India, China and Thailand, accounting for about 80 percent of the worldwide rabies incidence and about 70 percent of the worldwide vaccine consumption.

The joint venture aims, initially, to manufacture Rabipur, a rabies vaccine, for distribution in India and certain other Asian countries. The company has bought over HMR's existing cell culture rabies vaccine manufacturing facility based at Ankleshwar, India which uses Behring's (now Chiron Behring's) production technology. The facility was established in 1991.

HMR will be responsible for marketing the new company's product in India, Nepal, Sri Lanka and Bangladesh, while Chiron will market the product in the rest of the world. In addition, HMR will market certain vaccines — hepatitis A, Hemophilus influenza type b (Hib) and measles/mumps/rubella — manufactured at Chiron's facilities in Siena, Italy and Marburg, Germany in its territories.

Said Magnus Lundberg, president of Chiron Vaccines and Chiron Therapeutics, "This joint venture is a meaningful step in establishing Chiron's presence in the international vaccines market." Chiron has already made its presence felt in key European markets through earlier acquisitions.

**Chiron Corporation's Global Business Focus**

Chiron Corporation's global business focuses on three healthcare markets: diagnostics, therapeutics and vaccines. Chiron's global vaccines business uses genetic engineering technology and adjuvants, which enhance a vaccine's effectiveness, to develop innovative products for adults and children. Its strongest market presence lies in Germany and Italy, where it sells a range of novel and conventional vaccines. On a worldwide scale, it sells its products to multinational health organizations and local distributors.

**Advantages of Cell Culture Vaccines**

The main rabies vaccines currently available in India are nerve tissue vaccines, generally considered much less safe and effective than cell culture vaccines. HMR, which commands a 70 percent share among the modern rabies vaccines used in India, has established the safety and efficacy of the Chiron anti-rabies product in a long-term field study conducted in India over a period of ten years.

---

**Axys Pharmaceuticals to Form Agricultural Biotechnology Company**

Axys Pharmaceuticals, a leading company in the integration of life science technologies with a focus on transforming gene discoveries into drugs, has announced the formation of an agricultural biotechnology company. The new company, which will be based in San Diego, will have the world-wide exclusive license to Axys' genomics, combinatorial chemistry and small molecule discovery technologies. Initial funding for the company will be provided by Bay City Capital, a merchant bank based in San Francisco. Bay City Capital will also serve as the advisory partner of the new company.

Dr. Jerry Caulder, former chairman, president and CEO of Mycogen, will be the founding chairman and CEO of the new company. He will be responsible to develop corporate partnerships and for recruiting the company's management team and scientific advisory board. Dr. Caulder said that their primary mission will be to leverage Axys' technologies in genomics, combinatorial chemistry and small molecule research by applying them in the agricultural biotechnology market. He also said that they are at present in the process of recruiting key personnel for the new company.

According to John Walker, Axys' chairman and CEO, Axys is dedicated to creating a unique position within the agricultural sector. He further said that they believed the new company will be an excellent vehicle to capitalize on their wide range of technologies.
AHP and Monsanto to Merge

American Home Products Corporation (AHP) and Monsanto Company have agreed to combine the two companies in a merger of equal transaction. AHP is one of the largest research-based pharmaceutical and health-care products company in the world, while Monsanto — a life sciences company — manufactures high-value agricultural products, pharmaceuticals and food ingredients. The combined stock market valuation of the two companies is US$96 billion.

The new life sciences company, which is yet to be named, will be dealing in pharmaceuticals, agriculture, animal health, consumer health care and nutrition. The company’s staff strength will be 75 000. It is expected to have an annual sales of US$23 billion, while its R&D budget will be US$3 billion.

There will be 22 members in the board of directors of the combined company, with equal representation from AHP and Monsanto. Monsanto chairman and CEO Robert B. Shapiro, and AHP chairman, president and CEO John R. Stafford will be co-chairmen and co-CEOs.

AHP executive vice-president, Robert Essner, will be heading the new company’s pharmaceuticals business; Monsanto vice-chairman Richard U. de Schutter will be heading the consumer transfer health care and nutrition businesses; while Monsanto president Hendrik A. Verfaillie will be heading the new company’s agricultural and health businesses. Its chief financial officer will be Mr. Robert G. Blount, AHP senior executive vice-president and chief financial officer.

AHP shareholders will retain their shares, while Monsanto share-holders will receive 1.15 shares for each Monsanto share they own, giving them about 35% of the equity.

According to Mr. Stafford and Mr. Shapiro, the merger has been triggered by the need to share strong finance, research and marketing resources in the rapidly-consolidating life-sciences industry. Mr. Stafford said that the new company, which is based on growth and opportunity, is committed to developing and marketing great products. According to Mr. Shapiro, the new company has been designed to face the increasing worldwide competition.

Huaxia Securities Company Monitors Development in Risk Investment Closely

Huaxia Securities Company, which is the biggest securities company in China, was set-up in 1992. The company started research in risk investment in 1992, and had paid much attention to latest developments, enabling it to become one of the earliest financial corporation with adequate preparation for risk investment.

According to Mr. Zhou Yingxu, the company’s director of the Strategic Investment Department, risk investment is a form of investment with a new vision and concept that operates differently from conventional financial investments. Risk investment involves an operating system which integrates financial capital and high technology. Therefore, one of the main driving forces of risk investment is the development of high technology.

Mr. Zhou said that the risk investment policy of Huaxia Securities Company depends on the following factors:

- Chinese-owned capital market and related legal system
- developments in biotechnology and the medical industry
- inflow of foreign capital
- formulation of industry policies
- improvements in the business environment
- improvements in capital control
- in-depth understanding of risk investment.

The company, which is worth US$11.5 billion, is involved in direct and indirect investments. Its investments are well-monitored and its team work closely with large medical enterprises in China. It recently established a joint venture called the Investment Counselor Corporation Ltd. with Mastin Currie Investment Management Ltd.
Cosmetic Industry in Thailand Hots up

The cosmetics and skin-care industry in Thailand is heating up as Avon Cosmetics (Thailand) Ltd makes plans to franchise and the US-based Nuyu International moves into Thailand.

Avon International has previously relied on home deliveries and boutiques to market its products. Consumers who opt for home deliveries usually have to wait for two weeks to get their order.

Avon’s managing director, Sittisak Haputpong, said Avon has to make products instantly available to representatives and consumers to beat competition in today’s market and that establishing franchises will increase Avon’s number of representatives from 100 000 to 300 000 within two or three years. Franchising will also help Avon to save 200 million baht (US$4.76 million), the estimated cost of establishing 150 boutiques.

Avon aims to have 20 franchise holders operating in Bangkok this year, and 150 nationwide by 2000. Like in Malaysia, the franchise holders will be called Avon Beauty Boutiques.

Nuyu International is also jumping on the bandwagon by making its debut in Thailand in May. The company held its soft launch in Bangkok, offering 20 personal care products. Its director and general manager in Thailand, Robin Lee, revealed that Thais owned 51% of the company, while the rest is owned by Americans and Malaysians.

He added that Thais are becoming more familiar with multi-level selling and that they can be involved in Nuyu’s business with only 1200 baht (US$29). International executive status, on the other hand, could only be achieved by buying products worth at least 80 000 baht (US$1904) for resale.

The company, which began to recruit members a year ago, at present has about 1000 members. It expects a monthly revenue of 10 million baht (US$0.24 million) in future.

Merck and Chinese Drug Company Develop Hep. B Vaccine

China’s Shenzhen Kangtai Biological Products Co. Ltd. has successfully developed a genetically-engineered vaccine against the Hepatitis B virus. The vaccine is now dominating the local pharmaceutical market.

Shenzhen Kangtai’s vaccine resulted from a collaborative effort with Merck & Co. from the US, one of the leading pharmaceutical companies in the world.

Merck & Co. had signed a technology transfer agreement with Shenzhen Kangtai and the Beijing Institute of Biological Products (BIBP) in 1989. According to the agreement Merck is responsible for maintaining the company's standard with regard to the quality of three consecutive batches of the Hep. B vaccine. Each batch of vaccine must contain at least 1 g of surface antigen proteins. The Chinese partners, on the other hand, were responsible for constructing the manufacturing facilities for the production of the vaccine. Following the signing of the agreement, Shenzhen Kangtai sent four of its engineers to Merck’s production plant in the US for training in technology design, equipment installation, and quality control. In 1994, mass production of the Hep. B vaccine began in China on a trial basis, under the supervision of experts from Merck. The vaccine produced contained 1.5 g of surface antigen proteins and had a specific activity of 0.6. In 1995 the Ministry of Health determined that the vaccine was up to Merck’s standards, and issued Shenzhen Kangtai the license to manufacture the vaccine. The company has set up a production line with an annual production capacity of 20 million doses.

Hepatitis B is one of the more important infectious diseases plaguing China. Before the development of the Shenzhen Kangtai–Merck Hep. B vaccine, there were no effective preventive medicines to treat the disease. In 1985, China succeeded in developing a plasma Hep. B vaccine from patients infected with the Hep. B virus, but who did not display any symptoms of the disease. However, large-scale production of the plasma vaccine was ruled out because of the limited number of such patients. In 1986, Merck & Co. developed the first genetically-engineered Hep. B vaccine by expressing the surface antigens of the Hep. B virus in yeast. This vaccine, which was safe to use, highly immunogenic and could be produced at a low cost, soon replaced the plasma vaccine and attracted the attention of China's State Planning Commission and the Ministry of Health. The State Planning Commission's subsequent decision to import Merck's technology for the mass production of the Hep. B vaccine resulted in the above fruitful collaboration.

China's Shenzhen Kangtai Biological Products Co. Ltd. has successfully developed a genetically-engineered vaccine against the Hepatitis B virus. The vaccine is now dominating the local pharmaceutical market.

Shenzhen Kangtai’s vaccine resulted from a collaborative effort with Merck & Co. from the US, one of the leading pharmaceutical companies in the world.

Merck & Co. had signed a technology transfer agreement with Shenzhen Kangtai and the Beijing Institute of Biological Products (BIBP) in 1989. According to the agreement Merck is responsible for maintaining the company's standard with regard to the quality of three consecutive batches of the Hep. B vaccine. Each batch of vaccine must contain at least 1 g of surface antigen proteins. The Chinese partners, on the other hand, were responsible for constructing the manufacturing facilities for the production of the vaccine. Following the signing of the agreement, Shenzhen Kangtai sent four of its engineers to Merck's production plant in the US for training in technology design, equipment installation, and quality control. In 1994, mass production of the Hep. B vaccine began in China on a trial basis, under the supervision of experts from Merck. The vaccine produced contained 1.5 g of surface antigen proteins and had a specific activity of 0.6. In 1995 the Ministry of Health determined that the vaccine was up to Merck's standards, and issued Shenzhen Kangtai the license to manufacture the vaccine. The company has set up a production line with an annual production capacity of 20 million doses.

Hepatitis B is one of the more important infectious diseases plaguing China. Before the development of the Shenzhen Kangtai–Merck Hep. B vaccine, there were no effective preventive medicines to treat the disease. In 1985, China succeeded in developing a plasma Hep. B vaccine from patients infected with the Hep. B virus, but who did not display any symptoms of the disease. However, large-scale production of the plasma vaccine was ruled out because of the limited number of such patients. In 1986, Merck & Co. developed the first genetically-engineered Hep. B vaccine by expressing the surface antigens of the Hep. B virus in yeast. This vaccine, which was safe to use, highly immunogenic and could be produced at a low cost, soon replaced the plasma vaccine and attracted the attention of China's State Planning Commission and the Ministry of Health. The State Planning Commission's subsequent decision to import Merck's technology for the mass production of the Hep. B vaccine resulted in the above fruitful collaboration.

Merck and Chinese Drug Company Develop Hep. B Vaccine

China’s Shenzhen Kangtai Biological Products Co. Ltd. has successfully developed a genetically-engineered vaccine against the Hepatitis B virus. The vaccine is now dominating the local pharmaceutical market.

Shenzhen Kangtai’s vaccine resulted from a collaborative effort with Merck & Co. from the US, one of the leading pharmaceutical companies in the world.

Merck & Co. had signed a technology transfer agreement with Shenzhen Kangtai and the Beijing Institute of Biological Products (BIBP) in 1989. According to the agreement Merck is responsible for maintaining the company's standard with regard to the quality of three consecutive batches of the Hep. B vaccine. Each batch of vaccine must contain at least 1 g of surface antigen proteins. The Chinese partners, on the other hand, were responsible for constructing the manufacturing facilities for the production of the vaccine. Following the signing of the agreement, Shenzhen Kangtai sent four of its engineers to Merck's production plant in the US for training in technology design, equipment installation, and quality control. In 1994, mass production of the Hep. B vaccine began in China on a trial basis, under the supervision of experts from Merck. The vaccine produced contained 1.5 g of surface antigen proteins and had a specific activity of 0.6. In 1995 the Ministry of Health determined that the vaccine was up to Merck's standards, and issued Shenzhen Kangtai the license to manufacture the vaccine. The company has set up a production line with an annual production capacity of 20 million doses.

Hepatitis B is one of the more important infectious diseases plaguing China. Before the development of the Shenzhen Kangtai–Merck Hep. B vaccine, there were no effective preventive medicines to treat the disease. In 1985, China succeeded in developing a plasma Hep. B vaccine from patients infected with the Hep. B virus, but who did not display any symptoms of the disease. However, large-scale production of the plasma vaccine was ruled out because of the limited number of such patients. In 1986, Merck & Co. developed the first genetically-engineered Hep. B vaccine by expressing the surface antigens of the Hep. B virus in yeast. This vaccine, which was safe to use, highly immunogenic and could be produced at a low cost, soon replaced the plasma vaccine and attracted the attention of China's State Planning Commission and the Ministry of Health. The State Planning Commission's subsequent decision to import Merck's technology for the mass production of the Hep. B vaccine resulted in the above fruitful collaboration.

Cosmetic Industry in Thailand Hots up

The cosmetics and skin-care industry in Thailand is heating up as Avon Cosmetics (Thailand) Ltd makes plans to franchise and the US-based Nuyu International moves into Thailand.

Avon International has previously relied on home deliveries and boutiques to market its products. Consumers who opt for home deliveries usually have to wait for two weeks to get their order.

Avon’s managing director, Sittisak Haputpong, said Avon has to make products instantly available to representatives and consumers to beat competition in today’s market and that establishing franchises will increase Avon’s number of representatives from 100 000 to 300 000 within two or three years. Franchising will also help Avon to save 200 million baht (US$4.76 million), the estimated cost of establishing 150 boutiques.

Avon aims to have 20 franchise holders operating in Bangkok this year, and 150 nationwide by 2000. Like in Malaysia, the franchise holders will be called Avon Beauty Boutiques.

Nuyu International is also jumping on the bandwagon by making its debut in Thailand in May. The company held its soft launch in Bangkok, offering 20 personal care products. Its director and general manager in Thailand, Robin Lee, revealed that Thais owned 51% of the company, while the rest is owned by Americans and Malaysians.

He added that Thais are becoming more familiar with multi-level selling and that they can be involved in Nuyu’s business with only 1200 baht (US$29). International executive status, on the other hand, could only be achieved by buying products worth at least 80 000 baht (US$1904) for resale.

The company, which began to recruit members a year ago, at present has about 1000 members. It expects a monthly revenue of 10 million baht (US$0.24 million) in future.