

IN BRIEF

Japan shells out for biotech

Last month, Japanese biotechnology research was given a huge boost of around ¥80 billion (\$680 million) from the Diet (Japan's parliament) to create new biotechnology-oriented business. The Ministry of International Trade and Industry (Tokyo), which will handle ¥60 billion of the funds, will use part of the money to create and market a database holding various genetic information for commercial use. Additionally, The Science and Technology Agency (Tokyo) will receive a total of ¥3.6 billion (\$30 million) for brain-sciences and genome-research programs, ¥7.1 billion to support new venture businesses at universities, and ¥13 billion for "commercially applicable research." Some of the money will go to the new genome research center at the Institute of Physical and Chemical Research (Saitama), which opened last October to carry out DNA base sequencing, analysis of the human genome, and the analysis of protein structure and function using nuclear magnetic resonance. The money forms part of the Diet's third supplementary budget totaling ¥24 trillion (US\$ 204 billion)—an economic stimulus package aimed at reviving the nation's ailing

economy. This budget features ¥4 trillion for a "social infrastructure program" aimed at building the infrastructure required for areas such as science and technology, information technology, and the environment.

Indian patents don't impress

The Indian subsidiaries of such major pharmaceutical firms as Glaxo (London), Novartis (Basel) and SmithKline Beecham (London) saw their share prices soar on the Bombay market following the Government's announcement at the end of November that it would introduce new patent laws. The new laws, to be introduced before April 1999, will allow companies to hold exclusive marketing rights to a product. However, these marketing rights do not prevent the production and sale of generic versions of drugs in India, and are only the minimum requirement set down by the World Trade Organization (WTO; Geneva), of which India became a member in 1995. The US and EU have pushed India to allow product patents, which would prevent copying of drugs for 20 years. However, according to WTO rules, India does not have to implement this until 2005. The US drug giant, Pfizer (New York), has said it

would rather wait until India provides product patents before launching its latest drugs, including Viagra, in India. "We simply cannot compete in a country without patent protection," says Simon Fraser Campbell who recently retired as vice president of the company. "Product patent protection of 20 years is necessary," he says. Until that happens "it is not profitable for Pfizer to market its latest drugs [in India]."

UK investors in merge talks

Two of the largest biotechnology investment groups in the UK are negotiating a merger. Biotechnology Investments Limited (BIL; London) and International Biotechnology Trust (IBT; London)—both divisions of Rothschilds (London)—are looking to broaden their investment portfolios by merging—something Jeremy Curnock Cook, a director at IBT, thinks will benefit shareholders in both groups. The merger has been prompted in part by the increasing size of biotechnology companies attracting investments from both IBT and BIL. BIL was set up in 1981 to invest in start-up companies whereas IBT's goal was to raise and invest \$80 million in 20 mid-stage companies during the 1990s. But as the biotechnology sector has developed, some of BIL's companies have moved into IBT's area of investment, making a merger more logical. Curnock Cook explains that the new entity will have over 100 investments, from startups to mid-stage companies, and will include biotechnology, medical devices, and healthcare-related computer software firms. The new group will also look at investing in late stage and consolidated firms—something that neither BIL nor IBT do at the moment. According to Curnock Cook, one of the main advantages of the merged group will be increased analyst coverage, which will enhance the visibility of even the smallest companies in the portfolio.

Cancer gene therapy for dogs

The first gene therapy for pets will enter trials at the beginning of 1999 for the treatment of malignant melanoma in dogs. The results from the trials will form part of the research into gene therapies to treat cancer in humans. Heska (Fort Collins, CO), which focuses on healthcare of cats, dogs, and horses, is developing the drug in conjunction with the National Jewish Medical and Research Center (NJMRC; Denver, CO), which will conduct the trials on

Heska's behalf. There are over 60 million dogs in the US alone, and the total pet oncology market is valued at \$3 billion worldwide. The therapy consists of genes encoding undisclosed cytokines and superantigens carried in a lipid-based vector—licensed from GeneMedicine (The Woodlands, TX)—that is injected directly into the tumor. "We hope the drug will be available [for dogs] at the end of 2000 or early 2001," says Grieve.



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Research collaborations

Company 1	Company 2	\$ Millions	Details
Targeted Genetics (Seattle, WA)	Medeva (London)	54	A pact to develop and commercialize Targeted Genetics' cystic fibrosis gene therapy tgAAV-CF. Medeva will pay up to \$54 million in loans, license fees, milestones, and development costs in return for global marketing rights for which it will receive royalties on sales.
Genome Pharmaceuticals (Munich, Germany)	Altana (Konstanz, Germany)	30	A five-year collaboration to find new genomic targets to control infections caused by <i>H pylori</i> and <i>C pneumoniae</i> . Altana will fund research at Genome Pharmaceuticals, which specializes in genomics and bioinformatics, with up front payments plus milestones for accepted targets.
Dyax (Cambridge, MA)	Genzyme (Cambridge, MA)	31	A collaboration to develop Dyax's compound for treatment of chronic inflammation. Dyax will develop the product with \$31 million from Genzyme in equity investments, credit lines, and milestones. Genzyme will have marketing and sales rights.
Supreme Advance Group (Xinhua, Hong Kong)	Zambon Group (Milan, Italy)	17	A joint venture to develop an antioxidant for the treatment of chronic obstructive pulmonary diseases. Zambon will put forward the \$17 million for Supreme Advance to develop the product in exchange for access to the Chinese market. Profits on sales will be split.
Myriad Genetics (Salt Lake City, UT)	Monsanto (St Louis, MO)	15	A deal whereby Myriad will use its drug discovery technology to develop drugs for two undisclosed disease pathways of interest to Monsanto. In exchange for global marketing rights, Monsanto will provide Myriad with \$15 million in up front payments, license fees, options, milestones, and royalties on sales.