ENERGY

Kew Gardens get new exhibition hall

London

Property Service Agency

ARGUABLY the most energy-efficient public building in Europe opened on Tuesday (20 March) at the Royal Botanic Gardens in Kew, London. The Sir Joseph Banks Centre for Economic Botany cost £3.4 million to build and comprises a large exhibition hall, a library and enough space to store and study Kew's important reference collection, including some 9,000 glass jars containing wood samples. The centre will use no more energy than a family house.

The building works because most of it is underground. Cool in summer and warm in winter, it is ideal for the steady temperatures needed to maintain delicate specimens. Low-grade heat comes from a heat pump driven by two boreholes sunk 7 metres into the water table. In the winter, the ground water at this depth is warmer than air at the surface: the building design exploits this difference to provide warmth.

IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

Interior view of the glazed concourse.

The radical design, one of 270 tendered, was the logical solution to a set of stringent design specifications. Apart from energy efficiency, the building had to blend in with several architecturally important buildings nearby. The exposed parts of the building are faced with fossiliferous Portland stone and crowned with a glass roof, similar in concept to the traditional Kew glasshouses as well as the modern, angular lines of the Princess of Wales Conservatory.

Economic botany has always been an important part of Kew's work, and the new centre is a tribute to the work of Sir Joseph Banks (1743-1820), the wealthy botanist who pioneered (and funded) expeditions to collect and study useful plants. Banks was the unofficial director of the Royal Gardens at Kew in the period before they opened to the public in 1840. He accompanied Captain James Cook on his voyage round the world (1768-1771), and organized the expedition to Tahiti to collect breadfruit trees for planting in British colonies. This latter expedition is remembered nowadays more for the name of its leader and his ship Bligh and the Bounty — than for its botanical purpose. Henry Gee BIOTECH PATENT DISPUTE-

Cross-licensing ordered

Washington

In a decision that may put an end to the legal sparring between Amgen, Inc. and Genetics Institute over conflicting patent rights to erythropoietin (EPO), a judge in a US district court in Boston last week ordered the two companies to license to each other their respective versions of EPO, a kidney cell glycoprotein that stimulates red-blood-cell production. The agreements would be royalty-free.

Genetics Institute and its licensee, Chugai Pharmaceuticals of Japan, have been prevented from selling their drug, Marogen, in the United States because Amgen has been granted 'orphan drug' status for its version of EPO, Epogen. The court order asks Amgen to waive that status. Once Genetics Institute secures Food and Drug Administration (FDA) approval for Marogen, a process that should move quickly, both products can be sold in the US market. The move will allow the two companies to compete while leaving the door open for them to continue the patent dispute in the federal appeals court.

The judge said that implementation of the order could be delayed for 30 days to allow the details to be finalized and to permit "expedited appeals". Failure to comply with the court's order would result in a permanent injunction enjoining the company concerned from infringing the other company's EPO patent.

Amgen has also been asked to get in touch with the appropriate administrative agencies, which Genetics Institute takes to mean the US Food and Drug Administration (FDA) and the International Trade Commission, and to withdraw all opposition to the efforts of Chugai to introduce Marogen to the US market.

Although the FDA has publicly stated its intention to approve Marogen, its rival's orphan-drug status has proved a greater stumbling block to Marogen than expected. The orphan-drug law provides manufacturers with incentives, including a seven-year marketing monopoly, to develop new treatments for rare diseases.

But Genetics Institute believes that the market for EPO is so lucrative that there is ample incentive for more than one company to compete in the marketplace.

Although the order may provide an agreement in the short term, it does not prevent one or both parties appealing against the original patent ruling of 11 December 1989 in the federal appeals court, or from claiming damages for patent infringement. Last December, a Boston court upheld the central claims of both companies' EPO patents (Amgen's US patent: 4,703,008; Genetics Institute's US patent: 4,667,195), while also declaring them partially invalid and mutually infringing (see *Nature* 343, 500; 8 February 1990).

Diane Gershon

PHARMACEUTICAL INDUSTRY -

Another drug-house merger

Washington

The year-long global consolidation of the pharmaceutical industry continued last week with the announcement that Rhone-Poulenc SA, France's largest pharmaceutical company, is to merge its human prescription-drug business with that of the Rorer Group, Inc. of Philadelphia. The new company will be called Rhone-Poulenc Rorer, Inc., 68 per cent of which will be owned by Rhone-Poulenc. Unusually, Robert E. Cawthorn, chairman and chief executive officer of Rorer, will retain those responsibilities in the new company.

In the deal, Rhone-Poulenc will purchase just over half (21.6 million shares) of Rorer's outstanding common stock at \$78 per share. It will also issue a number of contingent value rights (CVRs) equal to the number of remaining outstanding common shares held by Rorer's public shareholders. The CVRs will entitle shareholders to a payment from Rhone-Poulenc if the market price does not reach a target value of \$98.26 within three years of the merger.

The merger will cover only Rhone-

Poulenc's human pharmaceutical business, and will not affect serum and vaccine production, veterinary medicine, animal nutrition and Rhone-Poulenc's interest in Roussel Uclaf SA.

This announcement follows a series of mergers in 1989 that included the formation of such pharmaceutical giants as SmithKline Beecham and Bristol-Myers Squibb (*Nature* 338, 610; 1989). Last week, SmithKline Beecham announced it is to cut its worldwide workforce of 55,000 by ten per cent, sparing only its sales force and drug research and development.

SmithKline Beecham's pre-tax profits of \$1,168 million, up three per cent from 1988 when the companies existed separately, were coolly received on Wall Street. Many analysts feel that interest payments on SmithKline's \$3,100 million debt are responsible for the flat profits. Countering these claims, Robert P. Bauman, SmithKline Beecham's chief executive officer, insists that the company is right on track, but acknowledges that a major objective "must be to reduce our debt and interest costs".

Diane Gershon

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