

SB and GlaxoWellcome unite genomics visions

News reports of merger talks between American Home Products (Madison, NJ) and SmithKline Beecham (SB; London) on January 20th grabbed headlines and sent stock prices surging. However, the deal was called off 10 days later and, on January 30, SB announced it was now holding talks with GlaxoWellcome (London). The proposed deal, worth \$65–70 billion, would be the largest merger of any type in history and, say analysts, would be expected to unleash more mergers and acquisitions as other pharmaceutical companies endeavor to keep up.

British labor unions and the US Federal Trade Commission (Washington, DC) may oppose the merger, but if it goes ahead, the combined company would become the world's largest drug maker with \$19 billion in 1997 joint sales (\$11.6 billion from GlaxoWellcome and \$7.4 billion from SB). The new company would have a grip on over 10% of the entire US pharmaceutical market, which is worth \$93 billion, according to IMS America (New York), a provider of pharmaceutical market data. The combined research and development spending of the merged company—if it remains intact—would be \$3.3 billion, twice that of Merck (Whitehouse Station, NJ), its nearest rival.

According to the companies, SB's Jan Leschly would become the new CEO in charge of day-to-day operations, and GlaxoWellcome's deputy chairman and chief executive, Richard Sykes, would become executive chairman in charge of long-range planning. GlaxoWellcome would hold 59.9% of the new company and SB would hold 40.5%. Cost-cutting of about 25% is expected if the deal goes through, said New Jersey-based independent analyst, Hemant Shah.

Synergy between the two companies was evident in June 1996, when the two companies agreed to sequence a number of pathogenic bacteria after each had considered working with a number of smaller biotechnology firms. Although rivals in the anti-infectives area, they recognized the time and financial savings of collaboration. An unusual aspect of the deal was that resulting discoveries were to be used by each competitively rather than collaboratively.

The two companies' biotechnology initiatives over the past 5 years are particularly complementary. Each has made a strong commitment to the genetic revolution and, most recently, to pharmacogenomics—but in different ways.

Both companies' biotechnology efforts have been spearheaded by scientists with vision, SB's George Poste, and GlaxoWellcome's James Niedel. In 1993, SB started the genomics ball rolling with a \$125 million investment in

Human Genome Sciences (Rockville, MD) over 3 years. As SB endeavored to mobilize the genetic data, collaborations with Takeda (June 1995; Tokyo), Synthelabo (Le Plessis Robinson, France), Schering-Plough (Madison, NJ), and Merck KGaA (Darmstadt, Germany) all followed in July 1996. SB is also mobilizing molecular diagnostics capability for pharmacogenomic purposes. In September 1997, SB spun a company called diaDeXus, a 50/50 joint venture with Incyte Pharmaceuticals (Palo Alto, CA).

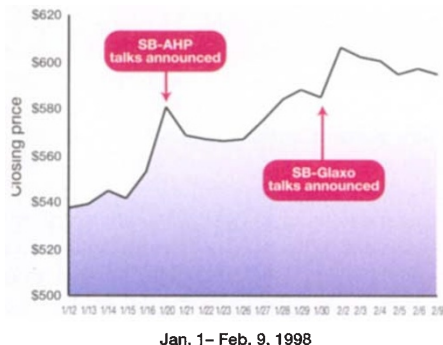
Between its two parents, diaDeXus has access to the world's two largest private repositories of genetic data.

SB has also made a number of high-throughput screening investments. On the hardware side, SB invested in June 1995 in the miniaturized automated combinatorial synthesis technology of the David Sarnoff Research Center (Princeton, NJ), and in February 1997 it bought into the fluorescence technology of Evotec BioSystems (Hamburg, Germany) for detecting single molecule interactions. In 1997, it also announced a collaboration with Cadus (Tarrytown, NY) for functional screening of cell signaling and G-protein coupled receptors.

GlaxoWellcome acquired Affymax (and half of its Palo Alto, CA, gene-chip spin-off, Affymetrix) in 1995 and integrated that company's capabilities of on-chip combinatorial chemistry across all its divisions. Niedel created a new company-wide genetics directorate in 1996, and soon after, lured his former colleague at Duke University (Raleigh, NC), Allen Roses, to head it.

In contrast to SB, GlaxoWellcome's emphasis is on the role of human genetics and population studies for selecting the targets for drug development—pharmacogenetics. "Disease genes are found by studying people with disease, not collections of genes," asserts Roses. Using well-characterized patient populations suitable for genetic analyses, he has put in place an international Clinical Genetics Network through collaboration with academic resources to help GlaxoWellcome identify the 20–30 most relevant genes for target diseases. "GlaxoWellcome is creating a high-density linkage map that allows family and association studies to localize disease gene loci, while using current screening technology in the interim," says Roses.

Vicki Brower



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SmithKline Beecham's two "mergers" boosted pharma shares overall. Data: Composite pharmaceutical index (\$DRG.X).

Chiron seeks pertussis patent boost

The Technical Board of Appeal of the European Patent Office (EPO; Munich) meets this March to consider the validity of a European patent covering the p69 surface antigen (pertactin) of *Bordetella pertussis*, a key component of many of the cell-free whooping cough vaccines currently on the market. The holder of the patent is Evans Medical, a subsidiary of Medeva (London), which has exclusively licensed the pertactin patent worldwide to SmithKline Beecham (London). Chiron (Emeryville, CA) hopes that, following a recent victory over Evans in a UK court, the EPO case will reinforce its pertussis intellectual property position in Europe.

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Chiron is the producer of Acelluvax, the first acellular vaccine in which the *B. pertussis* antigens are detoxified through genetic engineering rather than chemical treatment. Acellular *B. pertussis* vaccines are normally marketed as part of triple combination D'TaP vaccines, which also contain diphtheria and tetanus antigens. These include Acel-Imune from Takeda (Tokyo), Tripedia from Connaught (Wilowdale, Ontario, Canada), and Infanrix, from SmithKline Beecham.

The EPO appeal follows a judgment in late January in the United Kingdom that the UK portion of Evans' European patent for the pertactin antigen was invalid. One of several reasons for this was a lack of novelty. The Evans European patent, which was filed in May 1985, relies on a UK patent, filed a year before, that outlined the isolation of a *B. per-*