

CHRONICLE

Recombinant vaccines. Even as the Recombivax HB vaccine against hepatitis B, developed by Chiron Corp. (Emeryville, CA) and Merck Sharp & Dohme (West Point, PA), makes history this month by becoming the first recombinant human vaccine sold in the U.S., another such product has received marketing permission in Europe. Made by SmithKline Beckman Corp. (Philadelphia, PA), "Engerix-B" has now been approved in Belgium. Already marketing this genetically engineered hepatitis B vaccine in Singapore, SmithKline expects it to be approved in other European, Southeast Asian, and African countries within the next year.

AIDS advances. For the first time, scientists have demonstrated that only a fragment of the HTLV-III virus—specifically a surface protein called gp 120—is needed to elicit neutralizing antibodies against AIDS infection in animal models (see *Science* 234:1392-1395). This finding—by a team from Repligen Corp. (Cambridge, MA), Duke University, the National Cancer Institute, Centocor (Malvern, PA), and DuPont (Wilmington, DE)—represents an important step toward the eventual development of an AIDS vaccine.

Also working on AIDS, Bio-Rad Laboratories (Richmond, CA) filed an application with the U.S. Food and Drug Administration (FDA) for approval of an improved diagnostic. The company reports that its Western blot test seems to distinguish between antibody patterns of people who have or will develop AIDS and people who have been exposed to AIDS but will remain healthy.

Clinical progress:

- Viragen (Hiialeah, FL) announced the results of phase II clinical trials using its topically applied alpha-leukopheron™ against genital herpes. Ninety-two percent of patients tested rated the treatment "useful" as compared to 12 percent who received a placebo.

- Endotronics (Coon Rapids, MN) said that in clinical trials at the University of Minnesota the company's Acusyst-P system for generating large numbers of lymphokine-activated killer cells in cancer immunotherapy resulted in higher numbers of recov-

ered cells than did standard methods.

- Biogen (Cambridge, MA) reported that the U.S. and European double-blind clinical trials of its genetically engineered gamma interferon, Immuneron®, support previous findings of activity in the treatment of rheumatoid arthritis.

New facilities. Three companies have announced construction plans. Sero Laboratories (Randolph, MA) is pumping \$2.5 million into renovating a nearby building into a pharmaceutical pilot plant and laboratory. Also, Immunex Corp. (Seattle, WA) will build a pilot-scale development facility at its headquarters to produce pharmaceuticals in quantities for FDA clinical trials. The \$4-million facility will be funded and owned by Immunology Ventures, Immunex's joint venture with Eastman Kodak (Rochester, NY). And Kodak is getting into the act itself with a planned new home for its pharmaceutical division in two buildings near Malvern.

New financing. Even though public stock offerings aren't making the news they were last summer, a few biotech-related firms have been using this funding mechanism. CytRx Corp. (Atlanta, GA), which is working with synthetic copolymers, went public by selling 2 million units at \$6 each; CDC Life Sciences (Toronto, Canada), owner of vaccine producer Connaught Laboratories and biological safety tester Bio-Research Laboratories, sold 9.9 million shares at \$13 each; and cancer DNA-probe specialist Oncor (Gaithersburg, MD) plans to go public with a 750,000-unit offering.

A rose by any other name... Diagnostic Inc. (Minneapolis, MN) has changed its name to LifeCore Biomedical. The company has been emphasizing bioengineered hyaluronic acid rather than diagnostics ever since it sold its microbial diagnostics division in June 1984.

New recombinant protein. Scientists at Genetics Institute (Cambridge, MA) have produced the first recombinant macrophage colony stimulating factor (M-CSF or CSF-1). The substance, which stimulates macrophages and could be useful in treat-

ing cancer and infectious diseases, had previously been isolated only in small quantities from human urine. Genetics Institute has begun pre-clinical testing of M-CSF and plans human clinicals later this year.

Sandwich patent. Hybritech (San Diego, CA) has taken steps to protect its newly awarded patent on sandwich immunoassays. This unit of Eli Lilly (Indianapolis, IN) charged that some diagnostic products manufactured by Abbott Laboratories (Abbott Park, IL) infringe on the patent and has asked for damages and permanent injunctions against those products. Hybritech previously filed a similar suit against Monoclonal Antibodies Inc. (Mountain View, CA). Abbott responded that it believes the patent will be ruled invalid.

Busy month for plant specialist. Plant Genetics (Davis, CA) is forming a joint venture company called Twygen Ltd. with Twyford Seeds (Oxfordshire, U.K.) to focus on new and improved agricultural products, and it entered into multi-year R&D agreements with McCormick & Co. (Baltimore, MD) and with Merrill Lynch Technology Ventures, L.P. The three-year, \$2.5-million pact with Lynch involves the genetic improvement of major commercial potato varieties in North America. As part of the arrangements, McCormick participated in a \$5-million private equity placement by Plant Genetics, and Twyford invested \$3.15 million.

New agreements:

- Eastman Kodak's bio-products division (Rochester, NY) gained exclusive worldwide marketing rights to beta-carotene produced from the algae *Dunaliella salina* by Microbio Resources (San Diego, CA).

- Gist-Brocades N.V. (Delft, The Netherlands) and Shell Petroleum N.V. say they are investigating forming a 50/50 joint venture focusing on fine biochemicals, biopolymers, and industrial enzymes.

- California Biotechnology (Mountain View, CA) formed a joint venture-subsidiary in Sydney, Australia, called Pacific Biotechnology Pty. Ltd. In cooperation with the Garvan Institute of Medical Research, the venture will focus on human pharmaceuticals.