

# IN THE NEWS

## COMPANY PACTS SIGNAL COMMERCIAL PROGRESS

**The Hambrecht & Quist (H & Q, San Francisco, CA) Seventh Annual Healthcare Conference provided the forum for a slew of corporate announcements.** Among them, Cetus (Emeryville, CA) and Hoffmann-La Roche (Roche, Nutley, NJ) will collaborate on the development and commercialization of human diagnostics based on Cetus' polymerase chain reaction (PCR) gene-sequence amplification technology.

Roche will now fund all research and development of PCR-based human *in vitro* diagnostics at Cetus over five years, focusing on diagnoses of infectious diseases, cancer, and genetic disorders. The company received an option to market the resulting products and services, and will pay Cetus royalties.

In late December, the two firms announced settlement of their long-standing interleukin-2 (IL-2) patent dispute by agreeing to cross-license patent rights for IL-2 and polyethylene glycol IL-2. As part of that arrangement, Roche paid \$14.3 million for a 3.5 percent equity share in Cetus, with option rights that could boost its stake to 6.9 percent.

• During its presentation at the H & Q conference, Genetics Institute (Cambridge, MA) said it has signed a discovery research agreement with Syntex (Palo Alto, CA) aimed at developing pharmaceuticals targeting rheumatoid arthritis and cancer, as well as other diseases. In what was characterized as a "true joint venture," scientists from both companies will participate in the research, and both companies will share equally in any profits.

• Synbiotics (San Diego, CA) is looking for both U.S. and foreign corporate partners to participate in its newly-formed company Unisyn, which will develop, manufacture, and market high-density mammalian cell-culture production systems.

• The Food and Drug Administration (FDA) has approved Ortho Diagnostic Systems' (Raritan, NJ) hepatitis B antibody test that uses a recombinant antigen developed by California company Chiron (Emeryville). It is the first approved recombinant immunodiagnostic test in a series under development in a collaborative program between the companies.

The two also have filed an Investi-

gational New Drug (IND) application with the FDA for clinical trials of a screening test for the presence of antibodies against hepatitis non-A, non-B virus.

• St. Louis, MO company Invitron and ImmunoLogic (Cambridge, MA) jointly will create mammalian cell lines to be used in developing vaccines for the treatment and prevention of acquired immunodeficiency syndrome (AIDS). ImmunoLogic will provide proprietary, hybrid genetic material which Invitron will insert in mammalian cell lines and adapt to large-scale production.

• Marrow-Tech (Elmsford, NY) and Harvard Medical School (Boston, MA) will collaborate on AIDS research, using Marrow-Tech's proprietary bone marrow cultures as a model for studying the effects of the virus on the human immune system. The Harvard group, headed by Jerome Groopman, will also investigate various potential therapies for their ability to prevent immune-cell infection by the virus.

• Genentech (So. San Francisco, CA) also announced two product development agreements at the H & Q Conference, with Tokyo's Mitsubishi Kasei and California Biotechnology (CalBio), in Mountain View, CA (see "Genentech: Don't Sell the Company Short," in this issue).

CalBio has also extended into Japan, teaming up with Tokyo's Kaken Pharmaceutical to develop and market CalBio's wound-healing fibroblast growth factor in U.S. preclinical.

**Also discussed at H & Q was Amgen's** (Thousand Oaks, CA) request before the International Trade Commission (ITC) to enjoin Japan's Chugai (Tokyo) from exporting erythropoietin (EPO) to the U.S. An administrative law judge rejected the request, which is based on a claim of patent infringement on Amgen's genetically-engineered EPO.

Chugai has licensed EPO from Genetics Institute, which is in the midst of litigation with Amgen over patent rights. The judge did find Amgen's patent enforceable, but because it is based on a product, not a process, he decided that it does not constitute an unfair trade practice under the Tariff Act of 1930. The case now goes before the full ITC.

**Financing neuroscience startups—**often referred to as biotechnology's next frontier—continues. Cambridge NeuroScience Research (Cambridge, MA) has completed a \$10 million second round financing to help continue its development of novel antipsychotics and neuroprotectives for stroke, trauma, Alzheimer's disease, and other central nervous system disorders.

• Neurogen (Branford, CT) will complete a private placement in January. It is expected to be in the range of \$5 million.

• Also in the Northeast, Cambridge, MA-based Immunogen announced completion of a \$9 million private financing. The company will apply part of the proceeds to continue clinical trials of its anti-cancer drug for non-Hodgkin's lymphoma and acute lymphocytic leukemia, underway at Boston's Dana-Farber Cancer Institute.

• Hana Biologics (Alameda, CA), also involved in funding clinicals, will apply proceeds from a preferred stock offering to its second round diabetes clinical studies, as well as its cell transplant research and development of diabetes, Parkinson's disease, and hemophilia treatments.

Hana also raised \$2 million in the second closing of a private placement of preferred stock and common stock warrants.

• Bissendorf Biosciences (Richardson, TX) acquired Biosciences Corp. of Texas (Houston), which has been involved in developing cancer diagnosis and monitoring methods.

• And there is a new drug for treating hormone-dependent breast cancer. U.S. Bioscience (Blue Bell, PA) has just acquired an exclusive license from the British Technology Group (London) to develop and market pyridoglutethimide, which inhibits tumor growth by blocking estrogen production.

• The rivalry between Danish pharmaceutical company Novo Industri (Bagsvaerd) and Nordisk Genotefte (Gentofte) will end. The two companies have announced plans to merge. The new entity, to be called Novo-Nordisk AS, will have a combined market value of \$1.3 billion, making it one of Europe's biggest biotechnology concerns.

• Biotechnica Agriculture (Cam-

bridge, MA) has signed a letter of intent to acquire the J. M. Schultz Seed Company (Dieterich, IL).

**In the realm of applications and approvals,** Agracetus (Middleton, WI) has submitted to the U.S. Department of Agriculture's Animal and Plant Health Inspection Service an application to field-test caterpillar-resistant strains of cotton.

• Moving from plants to transplants, XOMA (Berkeley, CA) has asked the FDA to approve its therapeutic monoclonal antibody-based treatment for graft-versus-host dis-

ease complications arising out of bone marrow transplantations.

• The FDA has approved for marketing Praxis Biologics' (Rochester, NY) vaccine against diseases caused by *Haemophilus influenzae* type B, such as meningitis.

Earlier, Bristol-Myers (New York, NY) agreed to increase its funding of Praxis' pediatric vaccine against respiratory syncytical virus by \$5 million. North American rights to the vaccine also reverted to Praxis. In return, Praxis adjusted the price and extended the exercise period of warrants held by Bristol-Myers.

• Connaught Laboratories' (Swiftwater, PA) conjugate vaccine against *H. influenzae b* will now be administered to children in Iceland under a new government program. It has been used in the U.S. and Canada in children over 18 months old for the last year and a half.

• Chemex (Denver, CO) has submitted an IND to the FDA for its proprietary topical treatment for actinic (solar) keratosis, a potentially precancerous skin condition.

• Genelabs, Inc. (Redwood City, CA) and the University of California-San Francisco have just received a patent on a potential AIDS therapeutic drug, GLQ223. The compound, a purified plant protein, inhibits human immunodeficiency virus (HIV) replication in T-lymphocytes and macrophages *in vitro*. Genelabs has filed an IND to begin human trials.

**Another skin treatment, Advanced Polymer Systems' (APS, Redwood City, CA) sun protector,** is the subject of a new U.S. patent. It uses a micro-sponge technology in which drugs are incorporated into microscopic spheres. Manipulating the composition of the spheres controls delivery time and allows them to be triggered by changes in heat, moisture, or outside pressure.

APS also agreed recently to enter into a joint development and licensing agreement with the William Wrigley Company (Chicago, IL) to apply the delivery system in chewing gum.

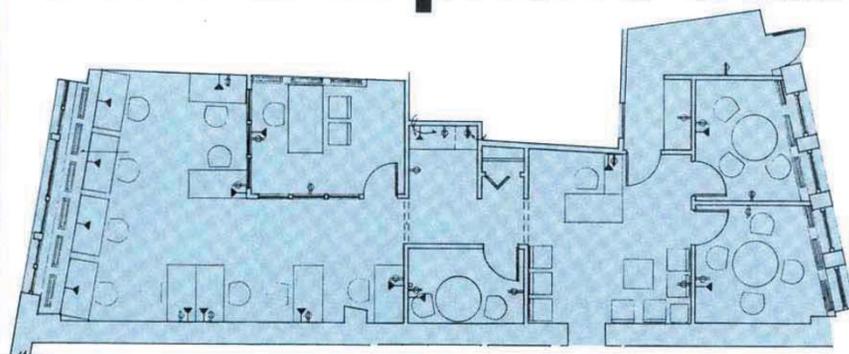
• International Genetic Engineering (Ingene, Santa Monica, CA) has acquired all rights to the Beatrice Company's (Chicago, IL) low-calorie sweetener thaumatin.

Under Beatrice's sponsorship, Ingene has developed a new method for producing this naturally-occurring sweetener by fermentation of genetically-engineered yeast.

**As expected, Samuel Broder** was named to be the director of the National Cancer Institute (NCI, Bethesda, MD), succeeding Vincent DeVita, Jr. Broder has been with NCI for 16 years, most recently as associate director for clinical oncology.

**The plane crash of Pam American Flight 103 took the lives of two members of the biotechnology community.** Aboard were Irving Sigal, senior director of molecular biology at the Merck Sharp & Dohme Research Labs (Rahway, NJ), and Jay Kingham, the Pharmaceutical Manufacturers Association (Washington, D.C.) senior vice president for international affairs.

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