

The market for contract production of monoclonal antibodies will double annually through 1987, according to a report from Theta Technology Corp. (Wethersfield, CT). The growth rate will still be at 50 percent by 1989, the report states, with a total market size of \$60 million. In recent deals, Celltech (Slough, U.K.) agreed to make monoclonals for Ortho Diagnostic Systems' blood grouping products; Endotronics (Minneapolis, MN) landed a contract to produce a cell line for McDonnell Douglas Astronautics, and Bio-Response is reportedly in discussions with Sandoz for the culturing of a mammalian cell line and with the U.S. Army for new work on antibodies against chemical agents.

New AIDS test approvals were gained by Cellular Products (Buffalo, NY) and Biotech Research Laboratories (BTRL, Rockville, MD). The Food and Drug Administration cleared Cellular Products to begin clinical evaluation of its blood test for antibody to HTLV-III virus. The Department of Health and Human Services granted BTRL an interstate clinical laboratory license for its test to detect HTLV-III antibodies.

New agreements involving biotech companies:

- Genentech (South San Francisco, CA) and Boehringer Ingelheim GmbH (Ingelheim, F.R.G.) established a research institute in Vienna, Austria, to study the molecular basis of cancer.
- ABI Biotechnology (Winnipeg, Canada) and Cingene Corp. (Toronto, Canada) agreed to form a joint venture to develop technology to produce recombinant Factor VIII.
- Cutter Biological (Emeryville, CA), acquired Speywood Laboratories' marketing rights to the recombinant Factor VIII developed with Genentech.
- Biogen N.V. (Geneva) and Sumitomo Pharmaceuticals (Japan) will collaborate on the development of human granulocyte-macrophage colony stimulating factor.
- Hybritech (San Diego, CA) signed a marketing agreement with an undisclosed consumer company for its pregnancy and home diagnostic kits.
- Two Swedish companies, Alfa-Laval and AB Cardo, have ended their

joint ventures. Alfa-Laval will take control of Chemap, a biotech equipment firm, and Cardo will own AC Biotechnics, which develops process technology.

- Genzyme (Boston, MA) and CooperVision (Menlo Park, CA) will jointly develop ophthalmic products based on hyaluronic acid, which Genzyme produces via fermentation.

New ventures in biotechnology continue to spring up. Biotech Research Laboratories (BTRL) and a group of Singapore investors have formed a company in Singapore called Diagnostic Biotechnology, Ltd. It will be capitalized at up to \$4.5 million, and will produce selected diagnostic products developed at BTRL for marketing in Asia. Flow Industries (Kent, WA) formed BioControl Systems, Inc. to focus on safety tests for the food, water, and milk industries. And P&S Biochemicals Ltd. (Liverpool, U.K.) formed a U.S. subsidiary called P&S Biochemicals Inc. to distribute its products in the North America.

A DNA probe test for malaria has been developed at Hebrew University (Jerusalem). The test requires only a minute blood sample, and it could allow early diagnosis of the disease.

Human fibroblast interferon is being marketed in Israel by InterPharm Ltd. (Rehovot, Israel) as a treatment for genital herpes. The company, a member of the Ares-Serono group, also has licenses in Italy to distribute interferon preparations against certain infections.

A \$35-million research center will be built by Miles Laboratories (Elkhart, IN) in West Haven, CT. The 120-scientist facility will become the focus for Miles' drug research in North America.

The latest biotech patent controversy is over DNA synthesis technology. University Patents (Westport, CT) is now suing Biosearch (San Rafael, CA) and Biosyntech (Burlingame, CA) in addition to American BioNuclear (Emeryville, CA) for infringing on two patents. One covers nucleoside phosphoramidites to produce DNA; the other is for the process to link these chemicals into chains of DNA. According to Biosearch, University Patents' coverage includes only meth-

oxy amidites, while Biosearch is marketing a beta-cyanoethyl amidite.

The United Kingdom Department of Trade and Industry plans to invest \$62 million over the next five years for research on health care, agricultural genetic engineering, and food sciences.

The market for L- and D-dipeptide sweeteners used in baking will exceed \$350 million by 1990, according to a study by Eldib Engineering & Research (Berkeley Heights, NJ). According to the report, the price of D-amino acids, now in the \$50 to \$300 per kilogram range, could drop dramatically if the new sweeteners are approved by the Food and Drug Administration.

Stanford University Medical School's use of monoclonal antibody therapy on 11 cancer patients suffering from lymphoma has shown "encouraging" but mixed results. Now the researchers intend to treat patients with more than one monoclonal, depending on the cell population in each patient's tumor.

Delays in the importation of cell lines, vectors, and reagents into the U.S. may now be decreased due to a change in the procedures of the Animal and Plant Health Inspection Service (APHIS). According to the Association of Biotechnology Companies (Washington, D.C.), the streamlined importation process will reduce average delays from 6-18 months to less than 2 months. At the same time, however, the U.S. Defense Department is seeking to limit the transfer of unspecified biotechnology to the Soviet bloc via closer Cocom (Coordinating Committee for Multilateral Export Controls) scrutiny. Stephen D. Bryen, Deputy Assistant Secretary of Defense, declined to expand on accounts published in the *Washington Post*.

Clinical immunology tests will more than double in volume and reach an annual level of \$556 million by 1990, according to a new study by Frost & Sullivan (New York, NY). Serology tests made up 57 percent of these tests in 1984, and this segment will account for 55 percent of 1990 tests, according to the report. "Clinical Immunology Testing Market."