JAPAN ROUNDUP

The Japan Key Technology Center, Meiji Seika Kaisha (Tokyo), and Daicel Chemical Industries (Sakai-shi) have started a joint venture called M&D Research Co. to study the synthesis of active peptides for the chemical, food, and drug industries. The new company plans to research methods for synthesizing active peptides via both recombinant DNA technology and synthetic processes.

•

Toyo Soda Manufacturing Co. (Tokyo) will begin a cooperative aspartame project with the Dutch Chemical group DSM starting with construction of a plant for the production of aspartame. The joint venture, DSM's first with a Japanese company, is named the Holland Sweetener Company and will be located in Sittard, The Netherlands.

•

Fine Cosmetic Co. has applied chitosan, a cationic polymer produced by refining chitin, to cosmetics production. Chitin, the basic polysaccharide contained in the shells of certain crustaceans, can form a high-performance film retaining twice as much water as glycerin.

•

Joint research at Kirin Brewery (Tokyo) and Tokyo University has determined that the specific DNA in the cytoplasm of a rice cell which causes pollen sterility is in fact two circular molecules with molecular weights of 2,000 and 1,600. Kirin has also created a new vegetable named "Semposai" by culturing embryos from a cross-fertilization of two different cabbages. The hybrid will be marketed by Tokita Seed.

•

Snow Brand Milk Products (Tokyo) has found that *Lactobacillus acidphilus* suppresses the amount of cholesterol in the blood of rats and may have an anti-arteriosclerotic effect. The company has also purified lactoferrin from cow's milk using mouse monoclonal antibodies against human lactoferrin and bovine lactoferrin. Snow Brand has put its β-lactoferrin on the laboratory reagent market through Toyobo.

•

Chugai Pharmaceutical Co. (Tokyo) announced that it has established "Chugai U.S.A., Inc." as part of its plan for internationalization of its business development.

•

Shionogi Pharmaceutical (Osaka) has agreed to import Eli Lilly's (Indianapolis, IN) pro-insulin, manufactured by Lilly's mass-production technique. The new antidiabetic was developed using genetic recombination. The two companies are also working on combining proinsulin and insulin.

•

Kikkoman Enzymes Ltd. (Chiba) and Noda Industrial Co. (Hyogo) have cloned the gene for creatinase, which is used to test for kidney disorders, from *Flavobacterium*.

ASTM

DEFINING STANDARDS FOR THE BIOTECH INDUSTRY

NEW ORLEANS—The setting of uniform standards is one sure sign that an industry is maturing. The American Society for Testing and Materials (ASTM) has developed and defined standards for industrial sectors as diverse as iron and steel products, textiles, and plastics. Now it is tackling biotechnology.

The ASTM's newest committee, E-48 on Biotechnology, was established a year ago. That committee, chaired by Kevin Ulmer (Center for Advanced Research in Biotechnology, Shady Grove, MD), held its second meeting here in May. The committee's charge is "the promotion of knowledge and the development of standards classifications, guides, practices, specifications, terminology, and test methods for biotechnology." ASTM standards are voluntary consensus documents "used to integrate production processes, specify materials, assure quality, promote trade, and enhance safety."

The standards-making is divided among various subcommittees and task groups:

- **E48.01 on Materials for Biotechnology** has task groups on recommended practices for the characterization of enzymes, standards for quality control of culture media components, standardization of biological activity units, quality control of synthetic DNA, and definitions and tests for impurities and contaminants.
- **E48.02 on Characterization and Identification of Biological Systems** will look at cells, organisms, vectors, and viruses. The expanded list includes plasmids, genetically modified microorganisms, viruses and viroids, animal cell lines and tissues, plant cell lines and tissues, transposable elements, and genetically modified plants. The subcommittee will also tackle guidelines for maintenance and preservation of cultures.
- **E48.03 on Processes and their Controls** will develop standards for chromatography, filtration and membrane technology, and P1/P4 monitoring.
- **E48.04 on Environmental Issues** addresses environmental use and monitoring, the criteria for transportation and disposal of large quantities of microorganisms, and performance criteria for measuring levels of inactivation of microorganisms.

With environmental issues commanding so much industry and environmental attention right now, the Biotechnology Committee and the Biological Effects and Environmental Fate Committee have joined forces to organize and present a symposium, tentatively titled "Measurement of Environmental Fate and Impact of Genetically Altered Microorganisms," to be held in the fall of 1987. The symposium will focus on the specificity and sensitivity of monitoring techniques and on methods for assessing environmental fate and effects—including predictive modeling of environmental fate, design features for microcosm testing, and design features and containment practices for greenhouse testing and small-scale field tests. As David Glass (BioTechnica International, Cambridge, MA), chairman of the task group, said, "this is *not* a regulatory exercise. We intend to provide the tools—standards, procedures—to help companies comply with regulatory agencies." In fact, according to Glass, "We would like to come out of the symposium saying 'these are the tests necessary for this application and these are the tests to be done for that application.'"

—Jennifer Van Brunt

For information on biotechnology and the ASTM, write to ASTM, 1916 Race Street, Philadelphia, PA 19103