

JAPAN ROUNDUP

The Institute of Physical and Chemical Research (RIKEN) of the Science and Technology Agency has designed a new strain of recombinant *E. coli* with secretory properties. When penicillinase genes are introduced via *E. coli* plasmid pMB9, the strain both produces and secretes the enzyme. pMB9 encodes a *kil* gene product that punctures the cell wall; the penicillinase gene contains an activator of *kil*.

Plantech Institute, a joint venture of Mitsubishi Chemical Industry and Mitsubishi Corporation, has created a hybrid carrot through asymmetric cell fusion of a wild type and an agricultural variety of carrot. Asymmetric cell fusion unites a regular host cell and another cell in which the nucleus has been inactivated by radiation. Only the cytoplasmic DNA is transferred into the host cell. The resulting plants produce more seeds than normal hybrids.

Dinabot, a joint biotech venture es-

tablished by Dainippon Pharmaceutical and Abbott Labs (North Chicago, IL) will emphasize development of diagnostic agents for the elderly. The company is planning to market 20-30 kinds of new or improved diagnostic agents within a year.

Nippon Research Chemical (Kobe) will start producing alpha type interferon under a licensed contract with a U.S. manufacturer. They will produce the interferon in addition to their urokinase.

Unitika, Ltd. (Osaka), textile manufacturer, has developed a highly accurate diagnostic reagent for measuring the amylase content in blood using thermostable enzymes. The kit contains glucose phosphate isomerase and phosphofructokinase which give a higher level of accuracy.

BioRad Labs Japan, a wholly-owned subsidiary of the U.S. company, will soon market its GENE PULSER in

Japan. The system applies high voltage to a cell container in which both host cells and hybrid plasmids are placed.

Eisai Co. Ltd. (Tokyo) has developed a possible liver cancer test, based on a monoclonal antibody that detects PIVKA-II, and is beginning clinical trials. PIVKA-II is a protein produced in the absence of vitamin K.

Monoclonal antibodies to myosin are in the clinic as a serum diagnostic for myocardial infarctions. Reportedly more sensitive than creatine kinase, the kit was developed by Yoshio Yazaki at the University of Tokyo and is being tested by Yamasa Shoyu Co. (Shyoshi).

Oji Cornstarch Co. Ltd. (Tokyo) has cloned the gene for a malto-oligosaccharide-producing enzyme, and has introduced it into *Bacillus subtilis*. The result was 200 times better production of this anabolic enzyme.

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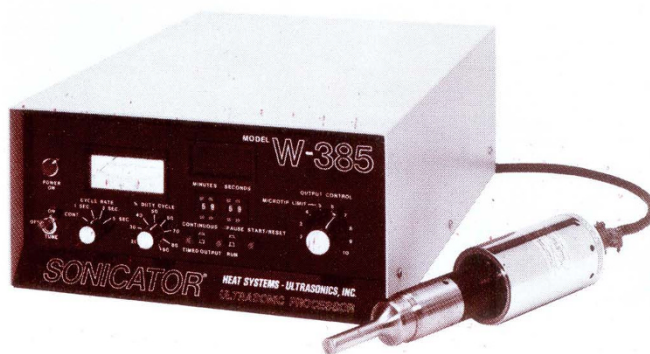
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