

JAPAN ROUNDUP

The Institute of Physical and Chemical Research was formally nominated as the World Data Center on Microorganisms by the World Federation for Culture Collection at the 15th International Union of Microbiological Societies Congress held in Osaka this September. The Institute began in April 1990 offering access to its five databases, compiled since 1986, of names and study areas of researchers worldwide; bacterial strains; algae; cultured plant cells; and antibodies.

In Thailand, The Ministry of Education, Science and Culture (Tokyo) plans to establish the Biotechnology Research Center (its tentative name). As well, it plans two new exchange programs linking Japanese universities and research organizations in ASEAN countries in the next fiscal year to foster economic development. These developments extend the existing exchange program between Osaka University and Mahidol University in Thailand, and will be established and operated in cooperation with the Japan International Cooperation Agency. As part of the exchange,

Tokyo University will cooperate with University of Science (Malaysia) in oceanographic studies; Kyoto University will join the Indonesian Institute of Sciences in social science research.

A research group at the National Institute of Agrobiological Resources of the Ministry of Agriculture, Forestry, and Fisheries has developed a super-nodulation variant of soybean with enhanced nitrogen-fixation abilities. The research group applied a chemical mutagen, ethyl methanesulfonate (EMS) to soybean seeds; screening of 7,000 second generation seeds yielded one plant that formed 6–10 fold more nodules than the parent strain. This is the world's third super-nodulation variant, following Australian and U.S. successes, and is expected to be useful in developing a high-yield soybean requiring less fertilizer. The researchers are now working to improve the new variant's growth rate.

Kuraray (Osaka) has developed a mass production system for the Fcε high-affinity receptor protein, which recognizes the Fc fragment of IgE.

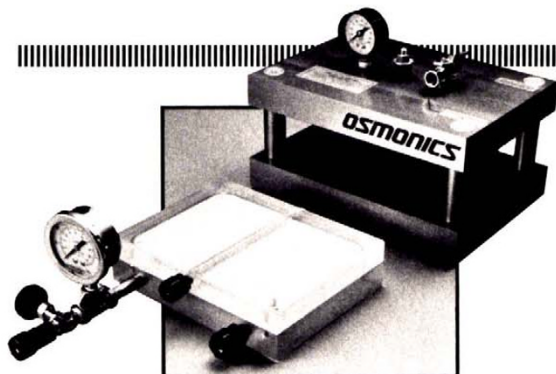
IgE Fc-fragment binding to an Fcε receptor on the surface of a mast cell or basophil—combined with antigen binding to the IgE on the cell surface—causes the release of biologically active amines such as histamine. The company plans to use this system as a model for constructing an exocytosis-based molecular recognition system triggered by the Fcε receptor. Such a system may help elucidate the molecular mechanism of exocytosis and its relationship to the high-efficiency production system of proteins. Mass production of the receptor relies on a B cell strain that has been transformed using the Epstein-Barr virus. The receptor is purified from the culture medium using anti-Fcε-receptor monoclonal antibodies and ion-exchange chromatography. The purified receptor has a molecular weight of 27 kD.

Prepared by Mutsumi Yoshida, Biol Technology Japan, Kyoikusha Publishing Company, Shinjuku Hourai Building, 20, Nishishinjuku-1, Shinjuku-ku, Tokyo 160.

NEW!

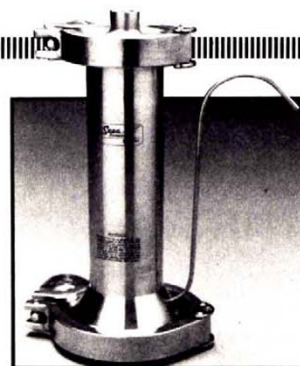
Lab devices speed up, simplify

Membrane Separations



SEPA® CF membrane cell

Crossflow membrane filtration designed to accurately simulate larger systems (patent pending). Unique piston clamping mechanism simplifies membrane change-out. Laminar or turbulent flow with pressures to 100 psig. Accepts any flat sheet membrane.



SEPA® ST membrane cell

Chemical resistant high pressure (to 1000 psig) stirred cell accepts standard membrane discs (47-50 mm diameter). No pump required, only inert pressure source. RO, UF or MF. Ideal for non-aqueous or aggressive aqueous solutions.

Call Toll Free: 1-800/351-9008, ext. 300
or write: 5951 Clearwater Drive • Minnetonka, Minnesota 55343 USA



Write in No. 359 on Reader Service Card