POTLIGHT SHINES ON INTERNATIONAL BIOTECH

OSAKA, JAPAN—Sometimes a meeting session seems particularly timely and appropriate. *Biotechnology: The International Situation* at BioJapan87 was such a session. Just hours before the mid-October workshop convened here, Susumu Tonegawa (MIT, Cambridge, MA) received word that he had become the first Japanese scientist to win the Nobel Prize in Medicine. And Osaka University itself is the home of the International Center of Co-Operative Research in Biotechnology inspired by the late Professor Hisaharu Taguchi.

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It was against this background that Ron Cape (Cetus Corp., Emeryville, CA) presented his "Harmony Fellowship" proposal to an audience that read like a *Who's Who* in Japanese biotechnology. He received a notably enthusiastic reception.

The fellowships, Cape said, are meant to address the issues of ensuring the most rapid development of the biotechnologies and delivering the benefits of such development to both producers and users. They are designed as prestigious post-graduate exchanges, initially between Japan and the United States, and are distinguished from other programs, in Cape's words, by the "unprecedented incorporation of a requirement that applicants not only be first-rate scientists but that they undergo special instruction in the language and culture of their host country." Cape envisions that such a program, which could begin as early as 1989, would foster the production of an elite cadre of biotechnologists uniquely sensitive to both important scientific problems and the nuances of international scientific exchange. He is currently engaged in raising an initial endowment of six million dollars, primarily from the private sector, to finance the project.

Some criticized the proposal, believing that it would be unrealistic to expect the best post-graduate candidates to invest significant time away from their academic pursuits while being educated in another culture and language. In reply, Cape warned against prejudgment. "I don't agree," Cape said, "let's see who applies."

Another program—one that has been in place for a number of years and exemplifies the possibilities for viable multinational cooperation in biotechnology—was reviewed by Edgar Da Silva of the Division of Scientific Research and Higher Education, UNESCO (Paris). The network of Microbiological Resource Centers (MIR-

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This map shows the locations of the primary research institutions comprising the Microbiological Resource Centers (MIRCENs) network of the United Nations Educational, Scientific and Cultural Organization (UNESCO). MIRCENs are active in promoting the applications of microbiology to strengthen the economies of developing countries.

CENs), today numbering 15 primary institutions in 13 countries (see map), is designed "to provide a worldwide infrastructure to facilitate regional and inter-regional cooperation for the management, distribution, and utilization of microbial gene pools, and to provide focal centers, particularly in developing countries, for training personnel and disseminating microbiological knowledge."

Among the areas in which MIR-CENs are active, the field of nitrogen fixation provides perhaps the clearest example of the impact the network can have on food-crop production in the developing world. The center in

Nairobi, Kenya, has organized the production and distribution of *Rhizobium* inocula to enable farmers to reduce their dependence on chemical fertilizers and effectively increase the yield of leguminous crops.

Along with organizing international conferences, providing strain data, and maintaining culture collections, the network has recently begun a peer-reviewed journal (the MIRCEN Journal of Applied Microbiology and Biotechnology, published by Oxford University Press) to document and facilitate the utilization of research results from its growing number of cooperating centers.—Harvey Bialy

NEW FUNDS FOCUS ON BIOTECH INVESTMENTS

NEW YORK—Stock market turbulence aside, and even though biotechnology is not quite the novelty it was several years ago, several new funds have been formed recently to reap the benefits of investing in genetic engineering ventures.

The largest of this new breed is the Biotechnology Venture Fund S.A., incorporated in Luxembourg and advised by Abingworth Management Ltd. (London). Stephen Bunting and David Leathers jumped ship from N. M. Rothschild Asset Management Ltd. (London) and its successful Biotechnology Investments Ltd. (BIL) fund earlier this year to become directors at Abingworth and start the new venture. With its target of \$50 million now raised—largely from European insurance companies and pension funds—the fund has begun investing in companies that emphasize biotech and healthcare. In addition to buying into several publicly traded firms, the fund so far has pumped money into three private start-ups:

• Alkermes, which is to be located near Boston and will emphasize neurobiology;

• Immunetech Pharmaceuticals (La Jolla, CA), which has an anti-allergy peptide in phase III clinical trials and is developing a compound against autoimmune disorders; and