

## THE LAST WORD/

# COBIOTECH: ICSU'S FOCUS ON BIOTECHNOLOGY

by Philipp Gerhardt

Curious or skeptical friends often ask, "What and why is COBIOTECH? What is it doing?" After serving as president during its formative years, I attempt here to describe this organization's emerging role in biotechnology internationally.

COBIOTECH is the acronym of the Committee for Biotechnology, a transdisciplinary consortium within the International Council of Scientific Unions (ICSU). ICSU is a nongovernmental umbrella organization of 20 scientific unions, 75 national academies of science and councils of research, and 26 associate scientific organizations. Its goal is simply to encourage cooperation in international scientific activity for the benefit of humankind, with special concern for the world's less developed countries. ICSU pursues this objective through a network of scientific unions, scientific and special committees, inter-union commissions, working groups, and permanent services. ICSU organizes joint international scientific programs and projects in multi- or trans-disciplinary fields, such as the current International Geosphere-Biosphere Program.

ICSU enjoys reciprocal working associations with a number of intergovernmental organizations, notably UNESCO (the United Nations Educational, Scientific, and Cultural Organization).

Responding to a grass roots request by scientific union members who felt the need for a transdisciplinary group to coordinate all aspects of biotechnology internationally, ICSU formed COBIOTECH in September 1986. Its objectives boil down to initiation and cooperation with appropriate organizations, including the industrial community, for the advancement of research and education and for the transfer of information and resources in biotechnology.

This international approach is reflected in the composition of COBIOTECH's steering group: Ephraim Katchalski-Katzir, president (Israel), Konstantin G. Skryabin, secretary (USSR); Isao Karube, treasurer (Japan); Ronald E. Cape, (USA); Philipp Gerhardt (USA); K.C.A.M. Luyben (The Netherlands), S.N.C. Okonkwo (Nigeria); Manfred Ringpfeil (G.D.R.); and Carlos Rolz (Guatemala). The recently retired secretary, Chile's Jorge E. Allende, contributed greatly to establishing COBIOTECH as an effective organization. COBIOTECH convenes its general assembly annually—the next one is scheduled in Copenhagen on July 13–14 1990, following the 5th European Congress on Biotechnology.

COBIOTECH cooperates with other interdisciplinary committees within ICSU. The Scientific Committee on Genetic Experimentation (COGENE), for instance, focuses on research activities related to recombinant DNA technology, whereas COBIOTECH covers the breadth of biotechnology. The Committee on Data for Science and Technology (CODATA) is concerned with data management and use. And the International Biosciences Network (IBN) is a joint ICSU-UNESCO program to assist developing countries to build up their capacities in the biological

sciences, including biotechnology. COBIOTECH also interacts with regional biotechnology organizations, such as the European Federation of Biotechnologists, and with various intergovernmental organizations including UNESCO, UNIDO (the U.N.'s Industrial Development Organization) and its International Center for Genetic Engineering and Biotechnology in Trieste, and UNDP (the U.N.'s Development Program).

COBIOTECH's activities are in three general directions—research, education, and information transfer. In each of these it seeks to avoid duplicating existing activities and to join in cooperative efforts.

Research activities are focused on conferences and workshops in selected areas. The first International Conference on Marine Biotechnology was held in September 1989 in Tokyo, and a second one is scheduled for September 1991 in Washington, D.C. A workshop on the degradation and utilization of lignocellulose is to be held on June 27–30, 1990 in Trieste, Italy, in cooperation with UNIDO's International Centre for Genetic Engineering and Biotechnology.

COBIOTECH's educational activities are managed by a coordinating panel, with financial support from multiple sponsors. Recent or upcoming examples include training courses on biogas production (in Nigeria), microbial breeding (in Italy and Yugoslavia), the next generation of vaccines (in Switzerland), yeast biotechnology (in Colombia and Nigeria), engineering of biological reactions and processes (in Guatemala), techniques for human genome research (in Chile), micropropagation of forestry species (in Venezuela), advanced plant biotechnology (in the USSR and Nigeria), protein engineering (in Latin America), and environmental biotechnology (also in Latin America).

The main focus of COBIOTECH's informational activities is a resource book, *Biotechnology Worldwide*, which will contain reports on the state of biotechnology in more than 40 developing and developed countries, as viewed by selected internal correspondents. Provision will be made for inexpensive publication and for reproduction and wide distribution in developing countries.

COBIOTECH's steering group met recently in conjunction with a symposium on Human Genome Research: Strategies and Priorities, in Paris. There the new leadership aimed its sights on where and how to serve biotechnology in the years ahead.

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