

Toward a Biology CERN

Sixteen nations are determined to overcome the U.S. lead and to slow down the brain drain.

by David Alan Ehrlich

Western Europe, satisfied that its nuclear physics research cooperative has already put the old continent in a class with the two postwar giants, has made a strong move into molecular biology.

European science officials also expect the move to help plug the brain drain to the United States, while training a reservoir of younger research talent.

Two hundred scientists have already joined in a private European molecular biology cooperation. In a second phase, 16 nations sent their leading scientists to a closed session in Geneva to organize an intergovernmental-level but formally independent laboratory and institute—EMBO—the European Molecular Biology Organization.

Their model is generally successful 15-year-old CERN—European Center for Nuclear Research—rival to the U.S. and Russia in high energy physics.

"There are striking similarities between molecular biology and high energy physics, one seeking to understand the fundamental properties of life and the other of matter," says CERN's Director General Dr. Bernard Gregory.

The new biological center is expected to be located near CERN. Swiss authorities will welcome the center and indeed are sparking the drive to establish it.

Federal official Dr. Willy Spühler typifies the European view. "Molecular biology has been making rapid strides in the U.S.," he says. "Well-known institutes and laboratories there have proved a more and more powerful attraction for young European biologists, who didn't always benefit here from the encouragement and resources they need.

"Nonetheless Europe has played a primary role in the beginnings and in the evolution of the life sciences. Important laboratories have been created, for example, at Cambridge, Naples, Geneva and Zurich.

"Yet our national efforts alone cannot ensure that Europe will continue to play the role to which her scientific record entitles her."

Molecular biology, Dr. Spühler says, "is a natural, almost inevitable convergence of several other sciences, for example biochemistry, biophysics and genetics, into a close amalgam that aims at understanding the meaning of

the phenomenon of life at the level of the molecules that make up living cells."

He expects the unfolding of entirely new horizons in the field, "even comparable to the astonishing evolution of physics in the last few decades."

In the first European conference on the scheme, participants included Austria, Belgium, Denmark, West Germany, France, Greece, Italy, Netherlands, Norway, Poland, Spain, Sweden, Switzerland, Turkey and Yugoslavia. All are members of CERN, in which Poland, Turkey and Yugoslavia have observer status.

Also eight United Nations specialized agencies and private professional international societies took part. Euratom, Council of Europe, the Organization for Economic Cooperation and Development, the European Space Research Organization, the International Council of Scientific Unions, World Health Organization and the International Life Sciences Institute were among them. Some had done surveys and held preliminary meetings on the prospects and pitfalls of all European effort.

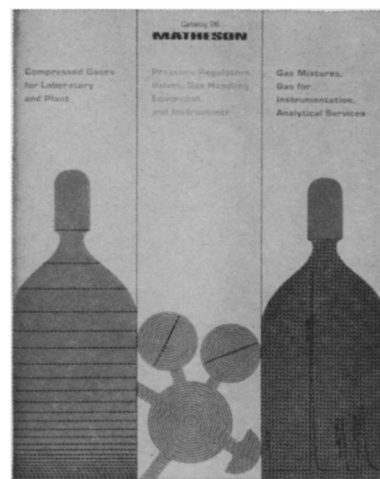
A second session of the conference has been planned for before the end of the year. The Swiss will again prepare it. Meanwhile a working party will draft a tentative agreement.

At the same time national organizations will expand their own activities. Dr. Olivier Reverdin of Geneva, conference president and board member of Switzerland's new national scientific research foundation, emphasizes that "national programs will be made more effective by adjusting them to one another, federalizing them if you will permit an expression borrowed from my country's political vocabulary."

He credits Prof. Paul Guggenheim of Geneva with drawing up the outline of EMBO's structure. Prof. Guggenheim is known to have offered alternative plans. Possibly the new institution will entrust the secretariat functions to an existing agency to eliminate red tape.

Another leading participant is Dr. John C. Kendrew, deputy chairman of the British Medical Research Council's molecular biology lab in Cambridge. EMBO chairman is Dr. Max Perutz, head of the Cambridge laboratory with whom Dr. Kendrew won the Nobel Prize in 1962 for work on the structure of proteins.

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