from abroad

GENEVA

European physicists unite

Europe is a mass of political fragments. Where governments are involved, even its science is fragmented—an artificial situation which is only now beginning to be erased (SN: 3/30 p. 302).

There is precedent, however, for science to break trails that led to the ultimate bridging of national boundaries. The nuclear cooperative, CERN, is one example; the growing European Molecular Biology Organization is another.

Europe's national physical societies have been pressing for years for expansion of cooperation in physics. Since a meeting in Bologna, Italy, two years ago, the movement toward a European Physics Community has been gaining momentum.

The constitution of such an association is now almost ready, and only one more meeting, in Prague within several months, will precede a general assembly in Florence in the fall.

Forty members of the steering committee and representatives of 20 national societies from most Western and Eastern countries, except the Soviet Union, have brought the new organization this far.

The Italians, notably Prof. L. P. Bernardini of the Normal Superior School of Pisa, are spearheading the move. Preliminary meetings were held in Pisa and London and Prof. Bernardini has been heartened by encouragement from scientists at CERN.

Italy does not have many centers of today's big science, and, unless national demands interfere, many Europeans will support Italy for headquarters; the secretariat may rotate among national societies.

Dr. Hugo Thiemann, Swiss director-general of the Battelle Memorial Research Institute in Geneva, where the last planning session was held, says the community will hold regular conferences on the "same basis as the American Physical Society," including one or two general ones annually and specialized meetings organized by divisions, such as solid-state and electron optics.

Leading physicists also want uniform membership requirements, liberalized teacher exchange and more influence in universities on such matters as sabbaticals. If publishers and members can agree, a new more rational system than now exists will be set up for abstracts and papers.

Whether the new community will become a forum for European physics on the profounder international issues will depend on leadership. But many physicists openly criticize some older men of lacking leadership fiber and needing a push from younger men.

However, physics has been the best of all European sciences. One reason that high-energy physics has made such progress, notably via CERN, is that the scientists joined forces and pushed.

The same cannot be said for solid-state physics, a loosely organized fraction, nor optics, which is weak, nor other specialties which the new community will be expected to stimulate.

The national societies represented so far included: Italy, Britain, France, Germany, Switzerland, Israel, Belgium, Luxembourg, Holland, Sweden, Yugoslavia, Romania, Czechoslovakia and Hungary. Expected to join are Austria, Norway, Denmark, Finland and Poland, judging from expressions of interest.

The Soviets sent a telegram to the Battelle session conveying regrets, but it is believed some form of association will be worked out.

Hope for next 20 years

The World Health Organization has polled a score of Nobelists to determine what they consider the most important medical challenges of the next 20 years. The poll has been put on film; its first showing was to be at the World Health Assembly in early May.

Some of the statements:

Arthur Kornberg, Stanford University Medical School: "Our most serious problems will be in supplying food in sufficient amounts to feed the world's population and to curb the increase in population. . . . The other area is an understanding of the chemistry that underlies behavior."

Peter Medawar, National Institute for Medical Research, London: "What will happen . . . depends entirely on what we want to happen. I would like most of all . . . the elucidation of the physical causes of mental illness."

Hugo Theorell, Nobel Medical Institute, Stockholm: "I'm an optimist, so I hope most of the infectious diseases will be cured. Probably we can do a lot more about cancer. . . . On the whole, the problem that will become more and more important is how to prevent the symptoms of aging. There will be a lot of old people—the blind, the deaf, God knows what—but we must do something, much more than now."

Severo Ochoa, New York University Medical School: The prevention and cure of cancer is one of the most important possible achievements . . . that one might expect to see accomplished maybe within the next 20 years. Myocardial infarction would be in the same category. Possibly enough knowledge will be gathered so medicine will be able to combat these scourges."

Macfarlane Burnet, Microbiology School, Melbourne University: "We will find out how the body looks after incipient malignancies, incipient degenerative changes. And the greatest discovery of all might well be to eliminate or at least postpone malignancy by some nonspecific method, and see to it that people, if they are genetically sound, stay healthy until they die of old age."

Joshua Lederberg, Stanford: "During the next 20 years, I anticipate important attacks on problems that have to do with the structure of the brain, with the identification and eradication of viruses, and with the control of constitutional diseases and aging."

David Alan Ehrlich

AUSTRALIA

Free transplant service

Australia's first free organ transplant service appears certain to go into operation at the Princess Alexandra Hospital, Brisbane, this year. The opening of the unit waits a final decision by the Queensland Government.

It is expected that the service will deal with up to 20 kidney transplants a year—mainly using organs from accident victims—and that these operations will be part of Queensland's normal free hospital service.

"Plans prepared by Brisbane medical authorities are being urgently considered," a Health Ministry spokesman says. "Many people die in Queensland each year from kidney failure. They might be saved or have their lives prolonged by transplants."

Problems to be decided involve the use of operating rooms and the timing and movement of patients. Advisers have stated that transplant surgery is now clinically acceptable in limited fields and these fields include kidney transplants. Queensland's estimated deaths from this type of correctable kidney failure total 75 a year.

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