

maticians and scientists, signed an appeal organized by Academician Sakharov. In the United States the Federation of American Scientists set up a Committee in Defense of Sergei Kovalev. The committee wrote just before the trial to Soviet ambassador Dobrynin asking, with the endorsement of 92 biologist members of the National Academy of Sciences, for clemency or amnesty for Kovalev. (The committee had also tried to enlist the support of members of the Federation of American Scientists for Experimental Biology and of the American Institute of Biological Sciences, but the executive directors of both organizations refused to make their list of members available for circulation of the appeal.)

The FAS held a press conference after Kovalev's trial and conviction, protesting that the actions "are in direct violation of the Helsinki agreement in which the Soviet Union and other signatories pledged themselves to 'promote and encourage the effective exercise of civil, political, economic, social, cultural and other rights and freedoms.'" Kovalev, the FAS said in a statement signed by Matthew Meselson, John Edsall, Thomas Eisner, Torsten Wiesel, and nine Nobel laureates in biology, is an important

test case of the Soviet Union's intentions under the Helsinki agreement.

At the FAS committee's request, several senators wrote about the Kovalev trial to the Soviet embassy. Their reply was the copy of an interview given to a Soviet paper by U.S.S.R. First Deputy Minister of Justice Alexander Sukharev. In Sukharev's opinion, Kovalev had an open trial and "all standards and guarantees of court procedure were observed. The case was held in the biggest courtroom. Many of those who wished to attend were present at the trial, their number being limited, of course, by the courtroom's seating capacity," the minister of justice explained.

Following the letter from Academician Sakharov that warned of Kovalev's failing health, the FAS committee wrote this August to the Soviet Ministry of Internal Affairs renewing the appeal for clemency and amnesty and requesting that Kovalev be transferred to a prison hospital for the rectal prolapse operation he needs. Many who supported the earlier FAS appeal on his behalf have made the same request to the commandant of the Perm labor camp where Kovalev is held. Return receipts indicate that the letters were at least delivered.

Cornell University's Section of Neuro-

biology and Behavior recently offered Kovalev an appointment as a visiting scholar, and Representative Matthew McHugh (R-N.Y.) has introduced a resolution asking that the President urge the U.S.S.R. to let Kovalev accept the invitation "in accordance with the spirit of détente." "Be assured," FAS director Stone wrote to Kovalev recently, "that we consider your defense and good health to be a matter of conscience for us and will pursue this question as long as necessary."

When the state prosecutor asked for the near maximum sentence for Kovalev, he explained that "I have in mind the damage which has been done to the prestige of the Soviet Union in the international arena in the eyes of world public opinion." But, if the Initiative Group's information is correct, it is the Soviet state which has prostituted psychiatry, abused its own judicial procedures in the prosecution of Kovalev, punished him for the mere expression of beliefs, and is even now withholding the medical treatment on which his life may depend. What could do greater damage to the state's prestige in the eyes of world public opinion than its own undisguisable contempt for its laws and its citizens?

—NICHOLAS WADE

ICSU: Seeking to Separate International Science, Politics

The International Council of Scientific Unions (ICSU) is best known as advocate and organizer of international scientific programs such as the International Geophysical Year (IGY) and the International Biological Program (IBP) and as a champion of freedom of scientists to participate in its activities. ICSU prides itself on being a "nongovernmental" organization and, indeed, it has managed to buffer itself against some of the more direct political pressures that afflict U.N.-based intergovernmental scientific organizations.

But in the international arena in which ICSU operates there obviously can be no freedom from politics, as was evident at ICSU's biennial general assembly held in Washington, D.C., from 11 to 15 October. At that meeting, ICSU sought to find a formula under which the People's Republic of China, which is not now

represented in ICSU, could be brought into the organization without expelling Taiwan. As has been true of such efforts in international organizations over the last quarter century the attempt failed, and there is still no formula for having scientists from the two Chinas active in the same organization.

There was no direct request before the assembly that the People's Republic be admitted—but it was logical that the matter be dealt with since the absence of Chinese scientists constitutes the most obvious gap in ICSU's membership. The way ICSU handled the matter illustrates its approach to this complex issue.

At stake was ICSU's basic principle of "universality" which holds that members of scientific communities in any country ought to be able to participate in international scientific activities whatever the relations between countries

may be. For years, ICSU officials actively have sought the participation of scientists from the People's Republic, but China's terms have been the same as it has insisted upon as a condition for participation in all international organizations—that Taiwan be expelled. This is something ICSU refuses to do.

At issue, of course, is formal recognition of which government represents China. The government of the Republic of China on Taiwan still claims to represent all of China, so the Peking regime will not join any organization of which Taiwan is a member. When this question came up in the United Nations, it finally was settled on Peking's terms, with Taiwan expelled from the world organization; the issue still blocks progress toward full diplomatic relations between the United States and China.

One thing which made things awkward for ICSU officials was the controversial decision of the International Union of Geological Sciences (IUGS), to expel Taiwan and vote the People's Republic into membership. (IUGS is a strong union within ICSU.) The rationale of the IUGS action at its own congress in Sydney was that the Taiwanese science academy which adheres to ICSU was in "er-

ror" in claiming to represent all of China. The United States delegation voted against the expulsion of Taiwan and protested the action, but then joined in the unanimous vote for Chinese membership.

ICSU at its meeting reacted to the IUGS action by passing a multipart reso-

lution which started by recommending "that all the Scientific Unions of ICSU adhere to the principle of Universality of Science and not exclude from membership any community of scientists which effectively represent the scientific activity in a definite territory."

The resolution went on, however,

to express the Union's "eagerness to welcome into ICSU and the affiliated Unions, National Members representing the great scientific community of the People's Republic of China," and topped the resolution off on a slightly pained note by urging "IUGS to provide for participation in its work by the community of geologists in Taiwan." But for the present it is unlikely the geological union can do that.

The China question has become a chronic, intractable item on the agendas of international organizations. And for the two principal parties the issue carries a weight of historical and psychological complexity which outsiders do not always fully appreciate. Although it still has a long way to go in resolving the two Chinas issue, ICSU has been more fortunate in dealing with other difficult relationships. At times when either-or terms prevailed in most spheres, ICSU's membership has included, for example, both Germanies, both Koreas, and, until the fall of the Saigon regime, both Vietnams. Israel and Egypt are currently ICSU members, and South Africa and several black African countries are on the rolls.

In general, trends since the early days of the Cold War have been favorable to ICSU's following its principle of universality. The effects of East-West tensions are seen as having been most severe during the McCarthy era of the early 1950's, when travel by scientists in either direction was very difficult. An event remembered as having marked a milestone in scientific relations between Western and socialist countries was the U.S. government's issuance of visas to East German scientists to attend a meeting of one of ICSU's constituent unions in Berkeley, California, in 1963. By and large, the nations centrally involved in the Cold War tensions have relaxed the restrictions imposed in the 1950's. Three Cuban scientists, for example, were granted visas by the State Department to attend the Washington meeting. But in recent years, there have been some reversals. Countries such as Israel, South Africa, and Taiwan have been the targets of action in intergovernmental organizations, including Unesco. In his report to the Washington meeting, ICSU's outgoing president, Harrison Brown of Caltech, said that the principle of universality was "under enormous strain" during the past year. He pointed to the China conflict and also the actions at the Olympic games in Montreal this summer as jeopardizing the principle of universality, which has applied to athletics as well as science.

ICSU has a standing Committee on

Briefing

First "Right-to-Die" Law Passes

California has become the first state in the nation to enact what is variously called "death-with-dignity" or "right-to-die" legislation that makes a "living will" a legally valid document. Under the law, which takes effect 1 January 1977, a person may execute a will that says, in effect, "I do not want to be hooked up to a respirator or kept alive by other artificial means when I am terminally ill and death is imminent" (*Science*, 17 September).

Two persons other than the will writer's relatives must witness his signing to make the document valid. And although there are no provisions in the law for penalizing physicians who ignore a patient's living will, it does say that failure to follow the patient's expressed wishes will constitute "unprofessional conduct." The law does protect physicians who terminate life-support in accordance with the will and also states that insurance companies cannot treat such a death as a suicide and, therefore, withhold death benefits.

The bill followed a stormy course in the legislature, where it was opposed by groups claiming that it marked the first step on the deadly road to euthanasia, but in the end it survived and was signed into law by Governor Edmund G. Brown, Jr., late one evening, just before the 30-day period he had to consider it in was about to expire. In a statement made after the signing, Brown, a former Roman Catholic seminarian, said, "There's a very ancient moral doctrine that there's no moral obligation to sustain life through artificial and extraordinary means." Indeed, this is the position of the Catholic Church, although it opposes euthanasia. "Machines should serve humans rather than the reverse," Brown declared after reportedly struggling over whether to sign the bill.

The California law as presently written would contribute nothing to the resolution of a case such as that involving Karen

Ann Quinlan because it requires that the living will be signed while an individual is mentally competent.

Last year, 16 states, in addition to California, considered "death-with-dignity" legislation (*Science*, 26 December 1975). Sidney Rossoff, president of the Society for the Right to Die, a 40-year-old lobbying group in New York City, thinks the California bill has set a precedent other states will follow. "There's no doubt about it that the passage of the California law will show legislators in other states that they should not fear the subject, that the public is ready for it," he says. Maybe so.—B.J.C.

Charges Dropped in Haemmerli Case in Switzerland

A year ago, the question of letting the dying die stirred great controversy in Europe in the case of Urs Peter Haemmerli, a Zurich physician who was accused of murder for discontinuing life-sustaining measures in the terminally ill (*Science*, 26 December 1975). In effect, Haemmerli was charged with practicing what he refers to as "passive euthanasia" because he refused to force-feed patients to postpone imminent death.

Recently, a Swiss court cleared Haemmerli of the charges brought against him by a local councilwoman and city health official—charges Haemmerli alleges were politically motivated. In what is thought to be a precedent setting case, the court said, "One cannot accuse a doctor of manslaughter if he decides to withhold nourishment from a patient whose human personality has been lost due to severe brain damage."

Haemmerli, for his part, is now suing the government for \$40,000 for losses in income and costs incurred in his defense in a case he thinks the state should never have brought. It was, he says, a "stupid accusation."—B.J.C.

Free Circulation of Scientists charged with assisting the organization's officers in dealing with free-passage problems. Its practice is to ask scientific organizations to intercede with their governments when there are visa problems. ICSU's bargaining power, however, is limited essentially to its ability to rally international scientific opinion plus the threat to discourage the holding of international scientific meetings in a particular country, with the loss of prestige and foreign exchange which that implies. Brown said in Washington that free-passage problems have lessened in recent years.

In pursuing the principle of universality, ICSU often faces problems posed not only by relations between countries, but also by conditions within a particular country. When a country does not permit one of its own scientists to travel, ICSU is clearly faced with a problem quite different from that of trying to persuade a country to issue visas for visiting scientists. The difficulties Jewish scientists in the Soviet Union encounter in emigrating to Israel provides, perhaps, the most publicized example, but ICSU is confronted with cases ranging from actions of less developed countries to discourage emigration of their scientists on brain-drain grounds to the imprisonment of scientists on political grounds by authoritarian regimes such as Chile.

ICSU is inhibited from acting in such cases by a tradition of noninterference in the internal affairs of the countries with which it deals, and the organization's statutes, in fact, require such a policy. But Brown said he has acted in individual cases on behalf of such scientists, and ICSU officials say that the organization's influence has worked to benefit a number of scientists.

ICSU has had a Committee on Migration in recent years. At the Washington meeting the panel's name was changed to the Committee on the Safeguard of the Pursuit of Science. This was apparently done in accordance with a widening of the committee's terms of reference and perhaps to make it clear that the committee was not dealing exclusively with problems of Jewish scientists in the Soviet Union where the term "migration" has become something of a code word signifying the problem of Soviet Jews. In addition to providing general assistance to the executive board on matters of combating restrictions on scientists, the committee will collect, document, and analyze cases "where bona fide scientists have been seriously restricted in the pursuit of scientific research or have been prevented from communicating with fellow scientists."

ICSU has been criticized in the past for concentrating on the problems of scientists impeded from traveling to international meetings while ignoring the plight of scientists prevented from pursuing their careers in their own countries. ICSU has traditionally preferred a cautious, noncontroversial approach to problems, but if it implements the new resolution vigorously it could fill the need for an international clearinghouse for information on scientists denied the right to work in their own countries.

ICSU's involvement in politics is in one sense a distraction from its main purpose of "encouraging international scientific activity for the benefit of mankind." The main function of ICSU's scientific committees and commissions, in which hundreds of scientists participate, is to promote and coordinate international collaborative research programs. These are usually of an interdisciplinary sort and therefore do not come under the purview of specific unions. Programs of research in Antarctica, the oceans, space, and on water are examples.

Focus on Basic Research

Basic research has been and continues to be a main concern of ICSU, but especially in recent years the organization has sought more ways of discharging the social responsibility of science at an international level. ICSU's Scientific Committee on Problems of the Environment (SCOPE) and Committee on Science and Technology in Developing Countries (COSTED) are prime examples; they are intended to coordinate actions by member unions in these fields. In this same vein, ICSU is contemplating involving itself seriously with problems of agricultural production, although its officers emphasize that the focus would be basic research relevant to agriculture.

ICSU, in the tradition of the IGY and IBP, is moving forward with what is likely to be an ambitious program of research on the solar system. And at its recent meeting, ICSU's assembly formally established a Committee on Genetic Experimentation to look at issues involving recombinant DNA research. This is not, as Sir John Kendrew, ICSU's secretary general said, to be another safeguards committee, but rather is designed to fill a broader international coordinating role. The committee's chairman, William J. Whelan, said, "The committee is not going to preside over the demise of genetic manipulation. The committee will take stock of agreement and differences around the world on the formulation of guidelines. The com-

mittee will help with training for those countries which don't have it—training courses in safety measures."

ICSU seems to have managed its internal politics fairly successfully. A reasonable balance is maintained among the officers and on the board between the Western and socialist member nations. Brown, an American, will be succeeded in the presidency by F. B. Straub, of the Institute of Biochemistry in Budapest. And, over the years, scientists active in ICSU have maintained a working consensus on policy. But there is more to be done. Straub notes that, perforce, ICSU has been composed mostly of scientists from industrialized Western nations and that, as a representative of a small East European country, he would like to encourage participation of capable scientists from developing nations to give ICSU "a more international character."

Like most international organizations, ICSU is experiencing financial problems. The Council's annual budget for administrative functions is \$650,000, with a total of some \$4 million for the ICSU "family" of 17 international scientific unions and associated scientific organizations. Money comes from the unions, which contribute a small percentage of their dues to ICSU, and from the governments of the 64 national members, which pay according to a scale determined by the general wealth of the member country and the number of unions to which it adheres. The other major source of income is a subvention from Unesco on a year-to-year basis. The amount varies according to the projects ICSU is carrying on, and a portion of the funds goes directly to individual unions.

ICSU does work closely with some Unesco-based intergovernmental agencies, most notably the World Meteorological Organization (WMO). ICSU and WMO in 1967 agreed to undertake a major joint project aimed at improving meteorological forecasting—the Global Atmospheric Research Program (GARP). In prospect now is expansion of the program to include work to determine whether or not major global climatological change is in progress.

Increasingly, ICSU is being called on to provide scientific advice and aid to intergovernmental organizations. ICSU is able to invoke the voluntary cooperation of the international scientific community to a remarkable degree. And cooperation with the intergovernmental organizations is likely to make ICSU more effective in achieving some of its goals. But it certainly won't make it any easier for ICSU to stick to its nonpolitical principles.—JOHN WALSH