Geneticists Boycott Moscow Congress

The harsh sentence recently imposed on Russian physicist and human rights advocate Yuriy Orlov by a Soviet court has strained U.S.-Soviet relations in measurable ways. Almost immediately following the 19 May sentencing, National Academy of Sciences (NAS) president Philip Handler issued a strong public protest (*Science*, 2 June), and within days an NAS delegation of 19 physicists canceled plans to travel to Russia for a symposium on the theoretical physics of condensed matter.

Now, American geneticists are struggling with their consciences as they decide whether to offer their weight to the protest by boycotting the 14th International Congress of Genetics, which is to be held in Moscow on 20–31 August—the first in the Soviet Union since Lysenko. The decision is made difficult by conflicting feelings about the importance of protest versus the value of maintaining contact with individual Soviet scientists.

At the annual meeting of the Genetics Society of America participants, responding in part to unofficial advice from individuals at the NAS and the State Department, came up with a genetically heterogeneous position condemning Orlov's sentence "as a violation of the basic right of free speech," while leaving it to individuals to decide whether or not to go for the congress. The Genetics Society's statement reads in part:

> We reaffirm the commitment of the Genetics Society to the position of the International Council of Scientific Unions that international scientific meetings be free of political activity.
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> We believe that attendance . . . is a matter for each individual to decide. . . .
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> We recognize the importance, especially for Soviet scientists, to have an opportunity to interact with geneticists from other countries in an atmosphere favoring free exchange of ideas. Attendance would also affirm the importance of openness of international scientific meetings to participants from all countries.
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> We emphasize that attendance by U.S. geneticists in no way signifies approval of measures taken by the Soviet government against scientists such as Orlov and Sergei Kovalev. We also understand and sympathize with any geneticist who, in protest, now chooses not to participate in the Moscow Genetics Congress.

More than 200 American geneticists have registered for the congress. It is too early to know how many of them will decide to stay home, but there are signs that a number will do so.

One of the first to resign from the congress was James F. Crow, of the University of Wisconsin at Madison. Because Crow was the American vice president of the meeting, his decision to stay away is expected to influence other U.S. participants. Crow wrote the president of the congress, saying "You understand, of course, that my objection is to the action of your government and does not alter my regard for individual Soviet scientists." He added that he hopes "for an early indication of a changed policy" by the Soviet government with respect to elementary human rights.

Another among the first to withdraw was Kenneth Paigen, of the Roswell Park Memorial Institute in Buffalo, New York. Paigen, who was to co-chair a session on genetic fine structure, wrote the chairman of the organizing committee to say, ". . . there are times when our actions as scientists affect the course of human life in controversial ways, and at such times we are compelled to follow our sense of moral principles. Reluctantly, for I believe deeply in the importance of scientific exchange, that moment has come for me. . . . I can only protest and hope that in some small measure my act will strengthen the commitment to human rights and open debate in both our countries."

Other prominent geneticists who can be counted among those who will stay away from the Moscow Congress are: William K. Baker of the University of Utah and Gerald R. Fink of Cornell University, respectively president-elect and secretary of the Genetics Society; Peter Geiduschek of the University of California at San Diego; Alfred Kundson of the Institute for Cancer Research in Philadelphia and president of the American Society of Human Genetics; E. B. Lewis of the California Institute of Technology; Mark Ptashne of Harvard Medical School; and Norton Zinder of Rockefeller University. They hope many of their colleagues will join them.

—BARBARA J. CULLITON

pressure through delusions of superior strength and endurance. Studies have shown that after a short period of use, however, a tolerance is developed, and the use of large doses is likely to become chronic. For example, Robert Balster of the Medical College of Virginia found in one study that monkeys who were able to self-administer PCP gradually increased their doses over a period of several weeks. Eventually, they administered such high doses, he reported, that "frequently the animals could be found lying on the floor of the cage in awkward positions, briefly raising themselves to press the lever only to fall back down to the floor after the subsequent injection."

As dosages are increased, the toxic effects become more severe; thus, the occasional user has become trapped in a hazardous spiral. One researcher told the Senate subcommittee that "chronic users reported persistent problems with memory and speech and difficulty with thinking processes." Several scientists have hypothesized that it is the amnesia that makes the drug's more unpleasant effects bearable. In about one-third of the PCP users, the effects are extended and particularly severe, which has suggested to some that certain personality types are more vulnerable to the toxic effects; PCP is known to exacerbate the problems of psychiatric patients to a greater degree even than LSD or other hallucinogens.

May Lead to Violence

In some, the psychosis is manifested in extreme paranoia and defensiveness, particularly during the period of emergence from the drug's effect. Tsavalas, testifying before the Senate, said that "You get some strange ideas about what reality is. For instance, I was definitely convinced once that someone had changed the steering wheel on my car, and I couldn't get convinced that that wasn't the case." Occasionally, the paranoia, combined with delusions of superhuman strength, breaks out into violence. The National Institute on Drug Abuse has advised physicians who treat PCP overdoses to ensure their own safety, when necessary, through the use of physical restraints and induced sensory deprivation with those who seem likely to feel threatened during emergence.

What remains a mystery is precisely why the effects of PCP vary so greatly from one user to the next. Additional research may determine whether the varying tolerances for it are physical or psychological.

—R. JEFFREY SMITH

0036-8075/78/0630-1466$00.50/0 Copyright © 1978 AAAS