## U.S. Agencies May Be Shut Out of Chernobyl Follow-Up

However, several have expressed an interest in cooperating in a privately organized medical study of persons exposed to radiation

т 8:30 a.m. on 26 June, a group of directors and high-level officials from the Departments of State and Energy, the Environmental Protection Agency, the Public Health Service, including the National Institutes of Health, the Centers for Disease Control, the Food and Drug Administration, and the Department of Agriculture, as well as the Office of Science and Technology Policy, the National Academy of Sciences, and the Institute of Medicine met to discuss a pressing problem. The U.S. government had made several offers to aid the Soviets in programs to follow the 100,000 to 200,000 Soviet citizens who were exposed to high levels of radiation following the Chernobyl accident. But the Soviets did not respond. They did, however, sign an agreement with a private citizen, Robert Peter Gale of the University of California at Los Angeles, to encourage international cooperation in a medical follow-up of the Soviet citizens.

On 6 June, Gale signed an agreement with Andrei Vorobyov, a corresponding member of the U.S.S.R. Academy of Medical Sciences, for a cooperative study by the United States and Russia on the medical and biological effects of the Chernobyl accident. The agencies met to decide what to do about the situation and how, if at all, the U.S. government could get involved.

The decision, according to a State Department press release, was that the agencies would work together with Gale under an existing framework for U.S.-U.S.S.R. cooperation in the field of medical science and public health. This agreement, which dates back to 1972, provides, "a bilateral framework for discussion," says a government official. The details are left vague. But Gale told Science that the idea is for him to coordinate the effort and, possibly, that Armand Hammer, head of Occidental Petroleum, will pay for it. Hammer has offered to fund follow-up studies, although government officials privately express skepticism that he would or could maintain a longterm level of funding that would be adequate. State Department officials, to whom all press inquiries are referred, neither confirm nor deny Gale's assessment of the situation.

In the meantime, Gale is setting up his own meeting, which will be held in Los Angeles. He has invited 20 scientists to develop a proposal for following the Chernobyl victims, in cooperation with the Soviets. "We want to formulate a strategy—how to help and what would be the incentive for the Soviets to allow us to participate. Then I will transmit the plan to Mikhail Gorbachev in the next 3 to 4 weeks," Gale says.

Gale, who is head of the bone marrow transplant unit at UCLA, led a medical team that performed 19 bone marrow transplants on Soviet citizens who were so heavily irradiated at Chernobyl that transplants were their only hope of survival. He dealt with

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the Soviet government through Armand Hammer, who has a long-standing personal and business association with them. Hammer paid to send the Gale group to Moscow (*Science*, 4 July 1986, p. 19).

The 26 June meeting of the agency directors followed U.S. government attempts to go through normal channels to deal with the Soviets. Immediately after the Chernobyl accident, President Ronald Reagan offered humanitarian aid, but his offer was refused. Several weeks ago, Frank Press, president of the National Academy of Sciences, sent a cable to Yevgeney Velikov, vice president of the U.S.S.R. Academy of Sciences, offering to explore ways for the two scientific bodies to work together. At about the same time, the Department of Energy sent a cable to the Soviets offering aid. Neither the NAS nor the DOE received any response.

But the U.S. government still had reason to believe that the Soviets would talk. They had agreed to meet with James B. Wyngaarden, director of the National Institutes of Health on 20 July in Moscow. Gale also was invited to attend the meeting. Then, early last week, the Soviets told Wyngaarden that they would have to postpone his meeting. Wyngaarden was unavailable to comment, but Gale told *Science* that Wyngaarden was told the meeting conflicted with vacation plans. Gale, however, was still invited to come and expects to attend.

The situation is unorthodox. Gale, whose only credential in this is as head of a UCLA department, seems to have put himself in the driver's seat. Alvin Trivelpiece, head of DOE, remarks, "We are confused by the nongovernmental relationship established by Gale. We're not clear what to do about it."

The reasons for the U.S. offers of aid, Trivelpiece notes, are that the government has experience in the sorts of studies that would be desirable. For example, the DOE follows natives of the Marshall Islands who were exposed to fallout in 1954 from a U.S. hydrogen bomb test.

In addition, the National Academy of Sciences, through the National Research Council, spends \$10 million a year to follow 110,000 Japanese survivors of the atomic bomb blasts at Hiroshima and Nagasaki, looking for specific causes of death that might be related to radiation. The NRC studies, which are funded by DOE, include annual health exams on 20,000 of these Japanese and the gathering and storing of blood samples for future genetic analyses. The studies of the Hiroshima and Nagasaki survivors began just after World War II and were, for many years, purely a U.S. undertaking. In the mid-1970's the Japanese began helping to fund the studies and Japanese investigators began participating.

But despite the U.S. experience in studying health effects of radiation, the Soviets obviously are not eager to jump into any official government-to-government agreements. Some observers say the Soviets were angered by stories published just after the Chernobyl accident that reported a large number of deaths.

The situation is clearly still in flux, and it is likely that no decisions will be reached at least until Gale's meeting with the Soviets on 20 July. "At this stage," says Samuel Thier, president of the Institute of Medicine, "the key thing is to maintain communication between the two countries and to see which way of follow-up makes sense."

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