
Bar Harbor Investigation Reveals No Fraud

A committee established by the Jackson Laboratory to look for evidence of possible fraud in collaborative research performed by Peter Hoppe of that facility and Karl Illmensee of the University of Geneva has completed its report. "The bottom line," says Barbara Sanford, the laboratory director, "is that the committee searched for evidence of possible fraud and none was found." However, because the experiments in question have not been verified by other investigators, the committee has recommended that Hoppe and Illmensee repeat them.

The Bar Harbor investigation was touched off by reports from Geneva of irregularities in the recording of experimental protocols by Illmensee (*Science*, 3 June, p. 1023). Although an investigation conducted internally by the University of Geneva did not find evidence of systematic fraud, the authorities there were sufficiently concerned to appoint an external committee of scientists to investigate further.

The Jackson Laboratory undertook its own investigation because Illmensee had collaborated with Hoppe, both in Bar Harbor and Geneva, on a number of experiments involving manipulation of embryos. In earlier work, Illmensee and Hoppe produced mice with a set of genes contributed by only one parent. More recently, they reported that mice would develop normally from eggs in which the original nuclei were replaced by nuclei from other sources, a development that would pave the way for the cloning of mammals. Neither type of experiment has been replicated by other investigators or by Hoppe himself.

In the collaborative work, Hoppe prepared the fertilized eggs, Illmensee performed the microsurgery on them, and Hoppe then implanted the manipulated eggs into foster mothers for development. Hoppe is convinced that all the experiments were completed as described, the committee report states, but he cannot rule out the possibility that the embryos were switched before implantation.

The failure to replicate does not necessarily mean that the results of the Illmensee-Hoppe experiments are

invalid. Illmensee's skill in the microsurgery is usually cited as a possible reason for the discrepancy. Nevertheless, because of the current uncertainties, the Bar Harbor committee recommends that Illmensee and Hoppe repeat the experiments. There is no word as to whether Illmensee has agreed to this.—JEAN L. MARX

Scientists Challenge Claims of Soviet Treaty Violations

The Reagan Administration's judgment that the Soviet Union has violated the Threshold Test Ban Treaty came under renewed attack at a recent meeting of the American Geophysical Union. A number of prominent seismologists, including Lynn Sykes of Columbia University and Charles Archambeau of the University of Colorado, presented studies to support their conclusion that the Soviets have not exceeded the 150-kiloton nuclear testing limit. "The Russians are essentially in compliance, as far as we can tell," Archambeau said.

Although no formal charge of cheating has been lodged with the Soviets, President Reagan has stated that "we have reason to believe that there have been numerous violations" of the treaty (*Science*, 13 May, p. 695). He might have changed his mind after hearing the speakers in Baltimore on 2 June. "Based on what I heard this morning, I think we have a hard time justifying statements that the Soviets are cheating," said Bernard Minster, a Defense Department seismological consultant. "After listening to the presentations . . . most people would agree that you cannot assert that the Soviets have violated the treaty," said Robert North, another consultant.

Support for Reagan's claim was expressed by Ralph Alewine, director of the geophysical sciences division at the Defense Advanced Research Projects Agency (DARPA), and Thomas Bache, a program manager who works for Alewine. They said that the Soviets have detonated nine bombs above the 150-kiloton threshold since the treaty was signed in 1976.

But Alewine conceded that six of these apparently fall between 150 and 200 kilotons and are therefore not of serious concern. "They could be due

to miscalculations on either side," he said. Two apparently fall between 200 and 250 kilotons, and one is apparently just over 300 kilotons.

Alewine described the latter detonations as being "egregiously above the limit." But he noted that the Soviets would be well within their rights "if they just said sorry we made a mistake." A provision of the treaty permits one or two accidental breaches of the threshold per year. Eugene Herrin, a seismologist at Southern Methodist University who chairs a DARPA advisory panel, has argued that all of the apparent Soviet violations could be due to such accidents, U.S. miscalculations, or both.

In any event, similar accidents occur at the U.S. test site, albeit less frequently. Alewine and Bache reported that in the same period two tests in Nevada have exceeded the treaty limit by 33 and 75 percent, respectively.

Milo Nordyke, who directs the verification program at Lawrence Livermore National Laboratory, where the bulk of the government's analysis is conducted, said after the AGU meeting that "DARPA, which takes the most conservative view, certainly seems to be in the minority. Of course, with the conservative view, you automatically get some evidence of Soviet violations. But you have to use the best estimate, not the most conservative one. This is a message that the politicians in Washington have a hard time understanding."

—R. JEFFREY SMITH

CDC Finds No Excess Illness at Love Canal

Persons who once lived close to the chemical dump at Love Canal have not shown an increased incidence of disease, genetic damage, or death when compared to their neighbors in other areas of Niagara Falls, New York, according to a recently completed study. Particular attention was given to reproductive abnormalities and to cancer in the study, which was conducted by 17 scientists from the Centers for Disease Control (CDC), Brookhaven National Laboratory, and Oak Ridge National Laboratory.

The study was undertaken, in part, as a "further, more complete test of