

Chemical Genocide in Iraq?

Seven times since 1984 the United Nations has looked into charges that Iraq or Iran used chemical weapons. Seven times it has found confirming evidence. Now another, more serious case has arisen, but the U.N. cannot investigate because it involves "civil strife."

After joining a truce with Iran in July, Iraq turned its troops against a local minority—the Kurds. Refugees say chemical weapons were used to obliterate scores of Kurdish villages, but, because the Kurds are not officially a nation, they cannot call on the U.N. for help.

Others have done so, however. The U.S. Secretary of State, George Shultz, said in September that he had evidence that Iraq had begun using chemical weapons on 25 August. No data were released, but a department spokesman insists, "We've got solid evidence," including photographs of the victims. The United States, Great Britain, West Germany, and Japan have formally asked the U.N. to investigate.

Iraqi officials have denied the charge, calling this "an internal issue," not open to inquiry. Iraq refused to admit the U.N. experts. Turkey, attuned to its neighbor's wishes, also declined to let the U.N. in.

Meanwhile, Iraqi defense minister Adnan Khairallah met with foreign reporters and told them that "it is legitimate for any people to defend themselves with whatever means is available." He said that Iraq's policy "is not to use [chemical warfare] and not to encourage others to use it."

The strongest public evidence against Iraq so far comes from the Senate Foreign Relations Committee. Two staffers, Peter Galbraith and Christopher Van Hollen, Jr., made a 6-day trip through Turkey in mid-September, interviewing over 200 Iraqi refugees. They estimate that as many as 65,000 people crossed into Turkey, fleeing a "major offensive." They think "hundreds of thousands" may have died.

Their evidence consists mainly of refugees' testimony. Thus, it suffers from a weakness that plagued the State Department's earlier "Yellow Rain" case against the Soviet Union: biased witnesses.

Galbraith and Van Hollen concede that they did not get hard medical evidence, but they claim to have seen 15 people with symptoms of mustard gas poisoning. They also collected dead bees, allegedly killed by the Iraqi gas attacks. The testimony is strong evidence, in their view, for several reasons:

- The accounts are reasonably consistent on time, place, and detail even though the victims were separated by many miles and had no way of communicating. The descriptions of the attacks and their effects are consistent with mustard gas.

- Although fighting deep inside Iraq produced a flood of refugees, the Senate investigators saw no bullet wounds. They found this suspicious. Two refugees had "skin discolorations" and one had a serious burn.

- The record shows that Iraq has built a chemical weapons plant with help from a West German firm and has used a nerve

agent (tabun) and mustard gas against soldiers and civilians. U.N. investigators have repeatedly found proof of this in environmental, medical, and munitions samples. In March, according to a U.N. investigator, troops hit the border village of Halabja with nerve agent and mustard gas, killing an unknown number of civilians. The Kurds claim that thousands were killed, and they blame Iraq.

Moved by reports of what some congressmen are calling "genocide," the U.S. Senate voted quickly on 9 September to impose a series of tough sanctions on Iraq. The law requires U.S. officials to vote against loans to Iraq from international agencies, to provide no direct military or economic assistance, and to stop oil imports and major exports. The sanctions may be waived if the President certifies that Iraq has ceased using chemical weapons. The House last week was expected to pass a similar bill.

■ ELIOT MARSHALL

Watson Will Head NIH Genome Office

James Watson, who shared the 1962 Nobel Prize for elucidating the double helical structure of DNA, will head the new Office for Human Genome Research at the National Institutes of Health (NIH), starting 1 October. The genome job will be part time, allowing Watson to continue as director of Cold Spring Harbor Laboratory in New York.

The announcement came as no surprise. Watson was offered the job in April and was obviously eager to take it, but delayed a decision while he finished fund-raising activities at Cold Spring Harbor. In the interim, however, Watson has been actively working with Congress as it considers legislation related to coordination of the genome project, the estimated \$3-billion effort to map and sequence the human genome. Both NIH and the Department of Energy (DOE) are pursuing the project. They are expected to sign a memorandum of cooperation soon (*Science*, 23 September, p. 1596).

As associate director of human genome research, Watson will advise NIH director James B. Wyngaarden on the direction and coordination of the NIH's new initiative, funded at \$28 million for fiscal year 1989. A program advisory committee of a dozen scientists is now being assembled.

Wyngaarden expects the budget to reach \$200 million a year within 4 or 5 years.

■ LESLIE ROBERTS

Academic Search for NCI Head

Last month Vincent T. DeVita, Jr., resigned as director of the National Cancer Institute to become physician-in-chief at Memorial Sloan-Kettering in New York. The White House wanted to select his successor. The NCI directorship is, after all, a presidential appointment. Researchers and others close to NCI wanted an open, "academic" search, not one based on partisan politics.

Much to everyone's surprise, the White House yielded. An academic search it will be, and only academic politics will be at play. According to informed sources, the turn-around came through the intercession of financier Benno Schmidt, a staunch New York Republican who was the first chairman of the President's Cancer Panel—an appointment made by former President Richard Nixon. Schmidt, who devoted more than half his time to NCI matters during his

years as panel chairman, has long since learned how anathema partisan politics is to science.

National Institutes of Health director James B. Wyngaarden is said to be chairman of the search and Schmidt is reported to be a member of the committee. Others identified to *Science* as committee members include long-time NCI scientist Maxine Singer, who is president of the Carnegie Institution of Washington, and Paul A. Marks, president of Memorial Sloan-Kettering and the man who lured DeVita from Bethesda to New York.

While DeVita's successor is sought, NCI is being run by Alan S. Rabson, who has been at NIH since 1955. For more than a decade, Rabson, a pathologist, has been director of NCI's division of cancer biology and diagnosis. ■ BARBARA J. CULLITON