

Program and to restrict global change and anti-pollution research conducted by EPA and the National Oceanic and Atmospheric Administration (NOAA).

The bill, Gore said, "would hurt American workers, jobs, and living standards now and well into the future." The Office of Management and Budget warned that agency heads would recommend Clinton veto the bill "because of its unacceptably deep reductions" in a host of programs. Brown complained that Republicans were targeting nonmedical civilian programs and favoring defense and medical research, calling the bill "a first step toward the most significant postwar reduction in science funding ever proposed."

Walker disputes Brown's analysis, saying that the GOP bill preserves basic research and cuts what he calls corporate welfare—joint industry-government research programs aimed at developing technologies likely to be critical for high-tech industry. He also dis-

misses the threat of a Clinton veto. "The White House is saying it will veto everything," he says. "I can't take these veto threats seriously."

Democrats had little success in altering Walker's plan on the House floor. Brown's alternative, which would have boosted spending for the seven agencies to \$25 billion, slightly above the president's 1996 request, was defeated, 229 to 177. "It's tough sledding," admits one Democratic staffer. At the same time, fiscally conservative Democrats, led by Representatives Tim Roemer (IN) and Bill Richardson (NM), failed to win support for cuts of up to 30% in DOE laboratory staffs. Freshmen Republicans fared no better with a proposal by Representative Scott Klug (R-WI) that would have forced Energy Secretary Hazel O'Leary to sell the department's civilian laboratories and consider privatizing Lawrence Livermore National Laboratory in California.

In the Senate, there is little support for an omnibus bill, and even individual authorizations are facing an uphill battle, with NASA's the most likely to succeed. But Senate passage of even one could lead to a conference between the House and Senate, giving Republicans a chance to send at least one science-related authorization to the president.

The real impact of the omnibus House bill may be the heightened visibility for federally funded research. And even though the Administration opposes the details, it sees merit in taking a broad look across federal science. "It's clearly a good thing," says one White House official, "because it allows you to make trades, to compare and contrast priorities." And at a time when issues like Medicare, welfare reform, and the budget deficit dominate political conversations, science advocates from both parties say they need all the publicity they can get.

—Andrew Lawler

NUCLEAR DISARMAMENT

Physicist Wins Nobel Peace Prize

A British physicist, campaigner for arms control, and the only person to quit the Manhattan Project on principle has been awarded the 1995 Nobel Peace Prize. Joseph Rotblat shares the honor with an anti-weapons group he founded 38 years ago, the Pugwash Conferences on Science and World Affairs. (For news of the scientific Nobelists, see p. 380.)

In awarding the \$1 million prize last week, the Norwegian Nobel Committee praised Rotblat and Pugwash for working to "diminish the part played by nuclear arms in international politics" and trying to eliminate such weapons. It also wanted to deliver a pointed protest against recent testing of nuclear weapons by China and France, said Nobel committee chair Francis Sejersted, professor of economic and social history at the University of Oslo in Norway. Although one French politician declared himself "scandalized," the French government sent Rotblat its congratulations.

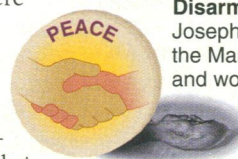
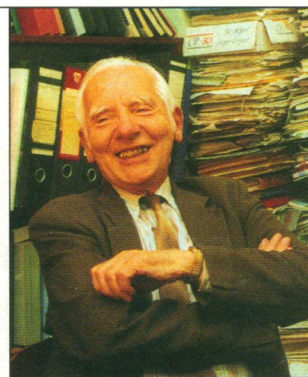
Rotblat began protesting the atom bomb even before the public knew it existed, according to a memoir he published of the event (*Bulletin of the Atomic Scientists*, August 1985, p. 16). In 1939, Rotblat, who had been studying the energy distribution of fission neutrons, was recruited to work on the Manhattan Project in Los Alamos, New Mexico. He says he participated only to deter the Germans, who had their own bomb project, from ever using such a weapon. In hindsight, he recognized that it was "folly" to imagine that this would have stopped Hitler.

One evening in 1944, according to Rotblat, the Manhattan Project's military commander, General Leslie Groves, casually mentioned that "the real purpose in making the bomb was to subdue the Soviets." This

remark, and evidence that Germany had abandoned its own bomb effort, persuaded Rotblat in late 1944 that "the whole purpose of my being in Los Alamos [had] ceased to be." Rotblat asked for permission to quit, and immediately found himself accused of spying for the Soviets. The allegations, he wrote, were "rubbish," although he had broken security during the project by meeting and helping—without Army approval—a disabled friend in Santa Fe, New Mexico. According to Rotblat, the U.S. military used this protocol violation to pressure him into silence. His colleagues didn't learn for decades that he had left the Manhattan Project in protest.

The experience "radically changed my scientific career," Rotblat wrote, for he realized that even the most esoteric research will find practical applications. In 1955, Rotblat drafted an appeal for peace addressed to all the world's scientists, signed by Albert Einstein, Bertrand Russell, and other intellectuals. It warned of the threat posed by thermonuclear weapons and urged scientists to find a way to prevent catastrophe.

This manifesto solidified into an institution after Rotblat organized a meeting of scientists and others in 1957 at the summer home of industrialist Cyrus Eaton, in Pugwash, Nova Scotia. "We tried to change the name," recalls William Epstein, a 30-year member of the Pugwash Conferences who later served as



Disarming winner. Joseph Rotblat quit the Manhattan Project and won a Nobel.

the United Nation's adviser on disarmament. "But people liked the sound of 'Pugwash,' and it stuck." In its Cold War heyday, Pugwash served as an unofficial channel for communication among weapons scientists and negotiators both in the Soviet Union and United States. In doing so, Pugwashers and Rotblat drew the ire of conservatives; the organization looked like a "vehicle for Soviet propaganda," as a Reagan Administration official said last week. Nonetheless, the or-

ganization supported technical talks that smoothed the way for a series of arms-control treaties, including most recently the 1992 Chemical Weapons Convention.

After quitting his job as a bomb designer, Rotblat conducted research in nuclear medicine. Colleagues cite his studies on autoradiography, the use of radioactive iodine as a diagnostic tool, and his debunking of a theory in the 1950s that nuclear fallout was responsible for rising infant mortality. But his greatest achievement, says physicist John Holdren, chair of Pugwash's executive council, has been "making it respectable" to believe that nuclear weapons can be abolished.

Now 86, Rotblat was "totally overwhelmed" by the announcement, says an aide, Thomas Milne of Pugwash's London headquarters, and Rotblat soon lost his voice from giving interviews. But he was able to communicate his intentions for the prize money: It will go into the Pugwash "peace chest" to further disarmament.

—Eliot Marshall