HISTORY OF SCIENCE

AAAS's Very Own Red Scare

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It would seem like a natural union: one of America's leading space technologists and the chief professional group for scientists in the United States, the American Association for the Advancement of Science (publisher of Science). But the U.S. Army didn't see it that way. Letters and a classified memorandum discovered among the papers of Wernher von Braun, the former German military researcher who had done most of his rocketry for Hitler, show that the Army warned the famous rocket scientist against joining the AAAS at the height of the cold war-because the organization was on the notorious "pink list" of supposedly Communist-influenced groups. Von Braun, then being held on a short leash by the Army, decided to give the AAAS a pass.

The former SS officer, who directed development of the V-2 missile and later became a luminary in the American space program, received an invitation to join the AAAS in June 1958. At the time, von Braun was head of technical operations at Redstone Arsenal in Huntsville, Alabama, where the Army was designing its first intermediaterange ballistic missiles; he was also an advocate of manned space exploration who appeared frequently in magazines and on television.

Despite his celebrity status, von Braun wasn't free to act on his own. Since being brought to the United States by the Army in 1945, his public persona had been carefully supervised by senior officers who understood the danger of too much light being shed on his past. Von Braun immediately queried his Army security chief about the AAAS invitation. "I trust this famous organization is not on the pink list," he wrote, using the term common in those days for groups suspected of being part of an "international Communist conspiracy.'

The security officer replied a week later with a confidential memo summarizing his conversation with an intelligence counterpart at Army headquarters in Washington. The memo called attention to the formation by the AAAS in 1948 of "a committee known as The Committee on Civil Liberties, AKA Committee for Civil Liberties for Scientists." The memo expressed concern that several "members of the Committee on Civil Liberties are reported to be under varying degrees of Communist influence and have belonged to such groups as the Committee of 1000 (a movement aimed at the abolition of the House Committee on Un-American Activities, or HUAC) and National Council of American-Soviet Friendship."

According to minutes of AAAS Council meetings in late 1947 and 1948, the Committee on Civil Liberties for Scientists was formed in response to the so-called Execu-

tive Loyalty Order of 1947under which federal employees could be fired for supposedly subversive associations and related probes of HUAC. The panel issued at least one report, excerpted in Science in August 1949, which discussed the constrictive effects of military secrecy on scientific research and the hazards of government loyalty oaths.

The Army's memo to von Risk averse. Von Braun. Braun didn't just describe sus-

pect AAAS organizations; it also named names. The memo concluded that Harlow Shapley, a president of the AAAS, "is a champion of many causes identified as Communist." For decades, Harvard astronomer Shapley had been well known in Washington circles as a liberal and pacifist. Yet despite the Army's McCarthyite phraseology, he "was never a [Communist] Party member," recalled his son, Willis, in a recent interview. A retired associate deputy administrator of National Aeronautics and Space Administration, Willis Shapley added that "all the Harvard profs were called



Reds in those days." Though a vocal opponent of Truman foreign policy, Harlow Shapley shared the podium with the president at the AAAS centennial meeting in September 1948, when Truman roundly denounced political smears of scientists.

The Army's message was crystal clear to Von Braun. "Of course, I shall not join," he wrote to an Army assistant who handled his correspondence. His letter to AAAS President Wallace Brode offered regrets that "because of my complex and heavily com-

mitted schedule, time would not permit me to devote enough time to the activities of the AAAS to justify my membership."

The AAAS was not alone in being singled out by Von Braun's handlers. His papers in the Library of Congress indicate that although he was allowed to speak before conservative business and religious groups, the Army cautioned him not to mix with the Academy of American Poets.

-Wayne Biddle

Wayne Biddle is writing a biography of von Braun.

INTELLECTUAL PROPERTY

PCR Enzyme Patent Challenged

 ${f T}$ he sparks have begun to fly in a legal battle that could affect the future cost of research programs that make use of the polymerase chain reaction (PCR)—the gene-amplifying technique that's one of the most important tools of modern molecular biology. Promega Corp. of Madison, Wisconsin, last week filed papers in a New Jersey court claiming that a patent held by the Swiss-based multinational Hoffmann-La Roche covering Taq polymerase—the enzyme that drives PCR—should be ruled invalid.

Promega is one of several companies selling Tag at prices that undercut by up to 60% those of Perkin-Elmer Corp., which markets Roche's Tag and is the only company licensed by Roche to sell the enzyme for PCR. Last fall, Roche sued Promega, alleging that the company was breaching a license agreement that allows Promega to sell Taq only for non-PCR uses such as genetic sequencing (Science, 4 December 1992, p. 1572). Now Promega is attempting to deliver a counterpunch that, if successful, would quash Roche's suit and potentially open the market to any company able to produce the enzyme.

In 1991, when Roche bought the rights to PCR from Cetus Corp. for more than \$300 million, its suite of PCR-related patents seemed secure: Cetus had just emerged victo-

rious from a battle with Du Pont over the validity of two patents covering the PCR process itself. (Promega is not challenging the two key patents.) But the enzyme patent now being targeted by Promega wasn't at issue in that case.

Randall Dimond, Promega's chief technical officer, says that his company intends to prove that Taq polymerase was discovered not by Cetus but by researchers at the Institute of General Genetics in Moscow, who in 1980 published a paper in the Russian journal Biokhimya describing the isolation and properties of a DNA polymerase from the bacterium Thermus aquaticus. The enzyme isolated subsequently by Cetus came from the same organism, but the U.S. Patent Office decided in 1989 that the two were different and granted Cetus a patent. Dimond claims that Promega scientists have replicated the Russian and Cetus teams' procedures and found that the two enzymes are in fact the same. But Agnieszka Junosza-Jankowski, PCR licensing manager at Roche's Basel headquarters, rejects that claim and accuses Promega of trying to divert attention from Roche's original suit. "We are very confident about the validity of the Taq patent," she says.

-Peter Aldhous