

## TECHNOLOGY POLICY

## The Academy Gives a Hard Push

When the Reagan Administration came to power a decade ago, it tried to establish a clear division of responsibilities for nondefense R&D: The federal government would take care of basic research, and industry would be responsible for the rest. As more and more high-tech industries have felt the heat of foreign competition, however, this simple formula has been increasingly hard to defend. Congress has tried to stuff money into a variety of efforts aimed at helping industry develop critical technologies, and recently the Bush Administration has begun to support joint industry-government applied research projects (*Science*, 20 March, p. 1500). Now comes the National Academy of Sciences with a report that attempts to nudge the government further away from the Reagan line.\*

Its most dramatic recommendation is that the government should invest \$5 billion in a Civilian Technology Corp. (CTC) to work with industry on the development of what the report calls "precommercial" technologies. These are defined to include applied R&D that stops short of product development. To strict constructionist Reaganites the idea might seem quite radical, but the panel that proposed it is distinctly middle-of-the-road. Chaired by Harold Brown, former Carter Administration Defense secretary, it was made up of representatives from industry, labor, and academia, with a fair sprinkling of former officials in both Democratic and Republican administrations.

Brown and his blue ribbon group envision the CTC as a quasi-government corporation, managed by a board appointed by the president and functioning a bit like a public investment bank. It would provide seed money for joint ventures, share costs with private industry, and invest in a broad array of technologies. The key to its success, says the report, would be for industry to choose the projects and for the federal government to stay out of the picture once it has provided the initial shot of funds.

Where would the initial funding come from? Brown's candidate is the \$23 billion a year that the federal government now spends on the national labs. It would be better spent on this activity, he says, than on futile attempts to transfer technology from the labs themselves to private industry. On that score, the panel says that "the laboratories' potential for technology commercialization has been overesti-

mated," and that efforts by Congress and the Administration to decree a role for every lab in technology transfer are misguided. "The one-size-fits-all approach is not the best way to do things," says Brown. The reason? "Most government laboratory R&D is not relevant to industrial technology commercialization activities," says the report. A better approach would be to designate just a handful of labs to work with industry, it argues. Of course, the heads of the labs that are left out would lose a key selling point when they defend their budget requests each year.

As for direct government involvement in precommercial technology, other than through the CTC, the panel makes a strong pitch for



Harold Brown

major research agencies to step up their investments. In particular, it says the role of the Defense Advanced Research Projects Agency (DARPA) in civilian technology development should be "affirmed." The reason for that suggestion is that DARPA's role is under challenge. Even as the academy report was on the presses, the Bush Administration was proposing to cut several DARPA technology programs that Congress has championed in recent years, including work on high-definition video and x-ray lithography.

This report, nearly 4 years in the making, has come at a critical time. Industrial competitiveness is likely to be a hot issue this election year, and both sides will be looking for proposals to float.

The academy hopes that, despite its radical aspects, the plan will have considerable appeal to both sides.

—Colin Norman

## THE GALLO PROBE

### The Richards Panel Tosses a Curve

Only weeks ago, it looked as though the long-running misconduct investigation of pioneer AIDS researcher Robert Gallo was at last inching toward a close and that Gallo was about to get off with a mild slap on the wrist. But a scientific panel created to keep an eye on the probe being conducted by the National Institutes of Health's (NIH) Office of Scientific Integrity (OSI) has injected an explosive note into the deliberations.

The *Chicago Tribune* reported last week that the eight researchers, chosen in 1990 from a list supplied by the National Academy of Sciences, had unanimously charged Gallo with "intellectual appropriation" of a French viral isolate in his quest to identify the cause of AIDS. In particular, the panel, known informally as the "Richards committee" after its chairman, Yale biochemist Frederic Richards, blamed Gallo for a "pattern of misrepresentation" in his description of how he isolated the AIDS virus in 1983 and 1984, especially his failure to acknowledge in a seminal 1984 paper in *Science* that his laboratory had previously grown and studied a French isolate of the AIDS virus. Gallo has long claimed that because he had several isolates of the AIDS virus of his own, his work with the French isolate was not critical.

Gallo isn't the only party under attack. Richards committee members also were sharply critical of OSI's handling of the case. Specifically, the committee was unhappy with the fact that OSI's preliminary final report accuses Gallo lab assistant Mikulas Popovic, but not Gallo himself, of misconduct for mis-

representations in the *Science* paper. According to the committee, this report fails to put its findings into a "larger context" that would have revealed "a pattern of behavior on Dr. Gallo's part that repeatedly misrepresents, suppresses, and distorts data and their interpretation in such a way as to enhance Dr. Gallo's claim to priority."

Gallo was unavailable for comment, and his lawyer, Joseph Onek, said he had not seen the report. But Onek complained that from what he'd read in the *Tribune*, the Richards panel's report is "blatantly unfair and inaccurate." Noting that Gallo had never been given a chance to respond to the panel's charges, Onek said, "If they were a court, they'd be a kangaroo court."

A source close to the OSI investigation also sharply criticized the Richards panel, saying that two of its members, whom the source declined to identify, "clearly expressed very negative views of Gallo as a person and as a scientist" from the panel's first meeting. The source also takes issue with the panel's criticism of OSI, arguing that the panel played a significant role in "narrowing" the OSI investigation to issues in the *Science* paper. "It was almost like there was a feeding frenzy," the source says. "Once they got the feeling there was blood in the *Science* paper, everything else could be forgotten." Members of the panel contacted by *Science* declined to discuss their report, privately expressing their frustration with a confidentiality agreement they were forced to sign by NIH.

—David P. Hamilton

\*The report was produced jointly by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. Entitled *The Government Role in Civilian Technology: Building a New Alliance*, it is available from the National Academy Press, tel. (202) 334 3313.