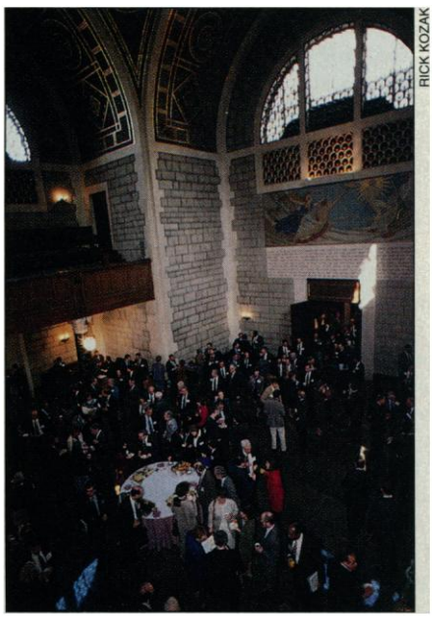
U.S. Research Forum Fails To Find a Common Front

Last week the Clinton Administration invited nearly 300 prominent scientists, administrators, and federal officials to a 2-day meeting in Washington as a first step in drawing up a policy statement on science—a statement the Administration hopes will demonstrate that basic research has not taken a back seat to technology in setting national priorities. What it heard was a divergent set of views on the state of research in the nation, including pleas not to change what's working.

The meeting was the latest sign that both researchers and their sponsors are engaged in a fundamental reexamination of the relationship between science and the federal government. The end of the Cold War has removed the military rationale for a 50-year-old policy of federal patronage, and researchers are being told to harness their work more directly to economic policy. Last fall, for example, Congress instructed the National Science Foundation (NSF) to carry out more "strategic research," and the weapons labs owned by the Department of Energy (DOE) have been falling over themselves in a rush to make their work more relevant to civilian needs. Even the title of last week's meeting at the National Academy of Sciences (NAS) reflected the pressure for relevance: "Science in the National Interest."

There's no doubt the political and economic environment has changed. New Ph.D.s in physics and mathematics don't have to be told how hard it is to find jobs or obtain federal funding. And last fall's vote by Congress to kill the Superconducting Super Collider demonstrated that entire fields of science can be laid low in a stroke. But while some participants feel a sea change is coming, many others see no need to alter the way the government supports science. Parts of the scientific enterprise—in particular, health research—are thriving, they say, and could be damaged by radical surgery.

"Our war isn't over," says Harold Varmus, director of the National Institutes of Health (NIH), which helped to sponsor the meeting. "NIH doesn't have the same problems that face NSF, DOE, and the Defense Department. We have not conquered our enemy, and our approach to understanding and curing diseases protects us [from demands to do more strategic research]."



RICK KOZAK

Food for thought? Forum participants grab a snack in the Great Hall of the National Academy of Sciences.

Varmus may be overstating the case a bit: Even though NIH has a broad mission, it is not exempt from narrow pressures to focus on specific therapies or diseases. But many of Varmus' colleagues also seemed to be looking for middle ground. "The system isn't broken, but it's under stress," says Robert White, president of the National Academy of Engineering. "We need a balance between a bottom-up and a top-down approach to managing science."

M.R.C. Greenwood, associate director for science at the Office of Science and Technology Policy (OSTP) and the architect of the meeting, says the Administration hopes to strike that balance in its science policy document, intended to complement the 36-page statement on technology policy issued 1 year ago. Vice President Al Gore echoed that sentiment in a 30-minute speech extolling the value of science. "There are those who have asked whether we even want an 'S' in the Office of Science and Technology Policy. Well, we do, passionately," Gore said. "We can't afford to take a narrow view of science. We have to cast our eyes ahead for decades, even centuries."

Gore's message was partly directed at members of his own Administration: Virtually the entire top echelon of the government's science agencies was represented. NSF Director Neal Lane led a contingent of 15 top NSF officials and five members of the National Science Board, which oversees the foundation, and Varmus brought with him a dozen NIH administrators; Daniel Goldin, administrator of the National Aeronautics and Space Administration, also brought his senior staff. Indeed, the best way to accomplish any science-related government business on those 2 days may have been to stand in the halls at NAS and wait until the right administrator walked by.

Four members of Congress with influence over federal science policy also showed up to offer words of support for basic research. But their message came with a big dose of reality: Existing caps on federal spending, coupled with additional cost-cutting proposals on the table, could mean bad news for research budgets, warned Senators Barbara Mikulski (D–MD), Jay Rockefeller (D–WV), and Tom Harkin (D–IA), and Representative George Brown (D–CA).

For their part, researchers tried to tell policy makers why basic research should remain a priority even in tight fiscal times. In one keynote address, biochemist Tom Cech of the University of Colorado illustrated the serendipitous process of scientific inquiry and the value of supporting investigator-driven research by describing his work on catalytic RNA that led to a 1989 Nobel Prize in chemistry. His message: Basic research is intellectually stimulating, and it's worth supporting because you don't know where it may lead.

Did anything come from all this conversation? "One thing I've learned is that we have failed miserably in communicating with our political system," says Stanford molecular biologist Lucy Shapiro. The problem, in her view, is not in the research enterprise itself but in the failure of scientists to explain what they do. "The things politicians are worried about are not so, and the things they want fixed are not broken," she says. "That's the message we need to get across."

Distilling these disparate thoughts into a 35-page report won't be easy. Officials from OSTP will now review statements from nine subpanels and brief position papers submitted by every participant. Next comes a draft report for the new White House coordinating committee on fundamental science, which meets next week. Varmus, who co-chairs the committee with NSF's Lane, offered a glimpse into his thinking in closing remarks to the forum. "My reaction as NIH director is that we've been told to streamline our management, improve peer review, and do better with less money," he said. "However, as a working scientist I heard very little about the joy of doing science, and I'd have liked to hear more rebellious thinking about potential sources of new funding."

However, rebellion seems far from the mind of the president's science adviser, Jack Gibbons. When reporters asked him whether he expected the meeting to yield any concrete proposals for managing federal science, he replied: "You don't solve these problems. You just work away at them."

–Jeffrey Mervis