pleted an ERATO project on a related theme, is assembling a fresh team for the new project, which will receive $9 million over 5 years to send a stream of researchers to Santa Barbara for visits of varying lengths. The National Science Foundation (NSF), which already gives QUEST $2.7 million a year as one of its 25 science and technology centers, is still evaluating a request from Merz for $1.1 million over 5 years to send U.S. scientists to Sakaki's lab. NSF has, however, endorsed the collaboration, and Merz is optimistic that, one way or another, he will find the money to send members of his team to Tokyo.

The collaboration will strengthen both research teams, says Merz. The Japanese will gain access to such U.S. facilities as the free-electron laser facilities at Santa Barbara, while U.S. researchers will be offered use of special semiconductor processing equipment and high magnetic field facilities available in Tokyo. And there is also the human element. "Once you have a collaborative project, you are forced to sit and talk for a long time," says Sakaki.

This project is the fifth international collaboration supported on the Japanese side by JRDC. Since 1990, JRDC has provided money for joint work with researchers at NSF's Center for Microbial Ecology at Michigan State University, a group of British universities working on atomic structures, a team at France's Louis Pasteur University working on supermolecules, and work on new radioassays to track subfemtomole biological processes with a group at Uppsala University in Sweden.

After participating in a ceremony on 9 February in Santa Barbara, JRDC officials will travel to Palo Alto to kick off the Yamamoto project officially. More foreign sites may be chosen, says ERATO administrator Hiroo Uchino, because of growing interest in the program from non-Japanese scientists. Chiba, a JRDC vice president, sees both programs as a product of global trends. "Things are getting more borderless," he says.

–Dennis Normile

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SCIENCE POLICY

A Strategic Message From Mikulski

Last fall, Senator Barbara Mikulski (D-MD) shook up the scientific community by telling the National Science Foundation (NSF), a bastion of support for academic research, that 60% of its budget should be spent on "strategic" research aimed at meeting national needs (*Science*, 17 September 1993, p. 1512). Researchers jumped to the conclusion that she wanted NSF to reallocate its $3 billion budget away from supporting the best fundamental research and into areas promising a swift and more certain payoff for society. On Monday, Mikulski, who chairs the appropriations subcommittee that funds NSF as well as space and environmental science, went some way toward soothing researchers' fears. She told 300 top scientists and research administrators that her vision of NSF isn't all that different from theirs. And she went on to describe two threats to academic science that she considers more worrisome: budget-cutting colleagues who see basic research as a tempting target, and a public that doesn't understand how research benefits the nation.

"I understand science, and I think we should continue to do what most delights scientists—the wonder of discovery," she said. "But the techno-cutters are out in force. And they can [cut basic research] with the full knowledge that they aren't taking any of the benefits of a single disabled veteran, or a single shelter for the homeless, or a single school lunch. To fight them, we need to articulate a vision for science and where it is going." But then she added the kind of statement that makes scientists nervous: "And that means a fundamental reevaluation of how NSF does business."

Mikulski was one of several speakers on the first of 2 days of a government-sponsored forum entitled "Science in the National Interest" (*Science*, 14 January, p. 165). The forum, held at the National Academy of Sciences, was organized by biologist M.R.C. Greenwood, the chief scientist in the White House Office of Science and Technology Policy (OSTP), to give those with a stake in federally funded research—from academia, industry, and government—a chance to comment on how to achieve the Clinton Administration's goal of achieving world leadership in science, mathematics, and engineering. Their comments will be passed along to top federal science officials, who will draft a white paper on science policy that parallels the Administration's statement on technology issued early last year (*Science*, 26 February 1993, p. 1244).


RICK KOZAK

Your goals are my goals. Senator Mikulski.

The phrase "strategic research" was never meant to be a straitjacket, Mikulski explained. Rather, it is intended to help legislators understand how science can help the country win the global economic war in the same way that national security provided a rationale for supporting science during the Cold War, Mikulski said. "It's like sailing on the Chesapeake [Bay]," she explained. "You zig and zag, of course, but you're always moving with respect to a navigational map."

Mikulski recommended one major new tack for NSF in this zig-zag course: She suggested that the foundation's top officials should consider an internal realignment to emphasize the link between what it funds and the national need being addressed. "NSF is organized like a university, with directorates for biology, geoscience, and mathematics and the physical sciences," she said. "Maybe it's time to reorganize into a series of institutes on manufacturing, global change, high-performance computing, and other strategic areas." The best model for strategic research is the National Institutes of Health (NIH), she said. "NIH is grouped around diseases—which are strategic opportunities that touch everybody's life—and it's no coincidence that we have the National Cancer Institute, not the National Institute of Molecular Biology." In response, NSF officials noted that the foundation has revised its structure several times over the years to meet new challenges but that the goal of funding the best people and the most promising research has not changed.

Reaction to Mikulski's comments from the participants was generally positive, with many welcoming her call for change. "She's telling us that we have to do a better job explaining ourselves," interprets NSF Director Neal Lane. "And she's right." But there was a pervasive feeling among most researchers at the meeting that the system is not broken and doesn't need to be fixed.

University of Michigan chancellor James Duderstadt, who chairs the National Science Board (NSB) that oversees NSF, says he would like to play a tape of Mikulski's speech to his faculty and others around the country. "I don't think it would reassure them, but I think they need to understand what people are thinking in Washington, and that it's no longer business as usual."

–Jeffrey Mervis