



Science in motion. The U.S. lab Destiny being moved into the payload bay of the shuttle.

Japanese labs, and the fretwork of metal outside the pressurized labs will provide real estate for astrophysics research. "We now will have more time on orbit, new technology, and a lab built to stay current," says Roger Crouch, chief scientist for the station. "This is an entirely new paradigm for research in space."

Researchers are withholding judgment. "Nobody knows how the station will operate—it's all been on paper for so many years," says Jay Buckey, a medical researcher at Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire, who serves on the National Research Council's (NRC's) space biology and medicine panel. "It's a great opportunity to do research, but it's going to be a challenge," says Peter Voorhees, chief of NRC's committee on microgravity research and a materials scientist at Northwestern University in Evanston, Illinois.

Each rack provides room for individual experiments. The station's crew already is performing some nominal research, including growing corn and soybean seeds, examining movement of structures in a microgravity environment, and photographing Earth. But the seed work is considered "education and outreach" rather than hard science, and the structures experiment has run into technical problems.

With crew time and cargo space devoted to construction, "research for now will be very limited," admits Olsen. And like in any Earth-bound lab, equipment is essential. In March, a Human Research Facility with devices to monitor astronauts will be added, followed a year later by a glove box for performing microgravity experiments, such as combustion research, and a freezer for storing tissue cultures. In the meantime, research will consist of growing crystals and measuring the space environment and its impact on the crew. The station's research future also

depends on leadership and money, and both are in doubt. Applications are due by 15 March for the job to head up the life and microgravity sciences office, leaderless since May, and researchers worry that the program is drifting (*Science*, 12 May 2000, p. 938). Last week, NASA informed principal investigators in the program of a 5% budget cut to accommodate pork projects imposed by Congress. "It's not the best message, but we had to come up with some strategy," says Olsen, who is advocating a bigger research budget and finding a seasoned and credible chief to put the program on track.

That credibility won't come easily. Many mainstream biologists and materials scientists remain skeptical of the high cost and low return of space research, noting that last year the NRC criticized NASA's crystallography and biotechnology programs for being too parochial. Voorhees's panel is about to begin a study examining other aspects of space station microgravity science—such as fluid and combustion research—and provide guidance for ground-based efforts, which traditionally have been underfunded.

Getting the lab off the ground could help boost support for station science, but it's only the start. "It will take a while for people to believe this is real," says Kathryn Clark, NASA's chief scientist for human exploration. "After all, it's been on the drawing board for so long."

—ANDREW LAWLER

TAIWAN

Political Spat Delays Funding for Academy

TOKYO—Lee Yuan-tseh, the Nobel Prize-winning president of Taiwan's Academia Sinica, is paying a price for his political activism. Opponents of Taiwan President Chen Shui-bian, to whom Lee gave a pivotal endorsement just before last spring's election, have taken out their unhappiness with Lee by withholding legislative approval of Academia Sinica's 2001 budget. The move followed an intense all-day grilling of Lee during what is normally a routine budget hearing and has



Costly friendship. Taiwanese legislators may be punishing Lee Yuan-tseh (left) for backing President Chen Shui-bian last year.

raised questions about whether partisan politics will hobble Taiwan's premier collection of research institutes.

Lee, a chemist who returned to Taiwan in 1994 after a long career in the United States, is credited with revitalizing the academy by attracting new talent and launching several research programs (*Science*, 19 May 2000, p. 1164). So great is his popularity that he was widely touted as a candidate for premier, and his endorsement of Chen, who was locked in a tight three-way race, was front-page news in Taipei. But his latest initiatives are now on hold after the imposition of what amounts to a budget freeze.

The drama played out through December during the annual budget review. As he has every year since taking the academy post, Lee appeared before the legislature, which is still controlled by an opposition coalition, to explain his request and take questions. This year the legislature was out for blood. "From 9 in the morning until 4:30, all they asked about was his politics," says Sunney Chan, the academy's vice president for academic affairs. The tension grew when Lee, out of the country for a conference, missed a second budget hearing. Miffed at a perceived snub, the legislature withheld \$200 million for the academy from a budget it passed on 4 January pending another appearance by Lee after it reconvenes in late February. But the academy is allowed to continue paying salaries and ongoing expenses.

Legislators say they are simply trying to be careful stewards of public money. But newspaper editorialists have characterized their decision as foolish retaliation for Lee's support of Chen. Observers expected the impasse to be resolved after Lee's return engagement. "I don't think [the legislators] will really withhold the budget; they just want some respect from Academia Sinica," says a spokesperson for Taiwan's Government Information Office.

In the meantime, academy officials have rallied behind Lee and are trying to make the best of things. "We are working and everybody's salary is being paid," says (Fred) K. Y. Lo, director of the Institute for Astronomy and Astrophysics. Large expenses have been deferred, however, and a dozen or so new research projects are stalled because of an inability to recruit technicians or postdocs. "It's going to mean a 6-month delay in starting these programs," says James Shen, director of the Institute for Molecular Biology.

Lo says the real worry is that the skirmish could undermine the "stability and continuity" of support for Academia Sinica and for scientific research in general. "If this goes on every year," he adds, "it could discourage [top researchers] from coming to Taiwan. I don't think the legislature has considered these consequences."

—DENNIS NORMILE