

Research Group Forswears Financial Ties to Firms Whose Drugs It Tests

Members of a team of researchers planning clinical trials on anti-cholesterol drugs have composed and signed a voluntary pledge—believed to be the first of its kind—that they will not have any financial ties in the companies that produce the drugs involved in the study.

The group, led by cardiologist Bernadine Healy of the Cleveland Clinic Foundation, has published a statement to that effect in the 6 April issue of the *New England Journal of Medicine*. They said they would not hold any stock in or serve as paid consultants for the companies involved during the entire course of the study. They also pledged to furnish annual reports on any other activities, such as occasional unpaid consulting on unrelated issues for the companies.

Similar guidelines have since been adopted by the team planning Phase III of a set of trials involving drug therapy for thrombolysis in myocardial infarctions (TIMI). According to principal investigator Eugene Braunwald of Harvard Medical School, that group has gone a step further. It will forswear financial ties with the companies involved for a year following termination of the study, which will test a variety of drugs and angioplasty on angina and heart attack patients.

Concern about conflicts of interest in trials of potentially high-profit drugs has grown with the increase in university-industry collaboration in government-sponsored clinical trials. The issue was made more visible last September in a hearing held by Representative Ted Weiss (D-NY), chairman of the human resources subcommittee of the Government Operations Committee. At the hearing, witnesses testified that some researchers involved in earlier (Phase II) TIMI trials held stock or stock options in Genentech, Inc., manufacturer of the genetically engineered drug TPA (tissue plasminogen activator).

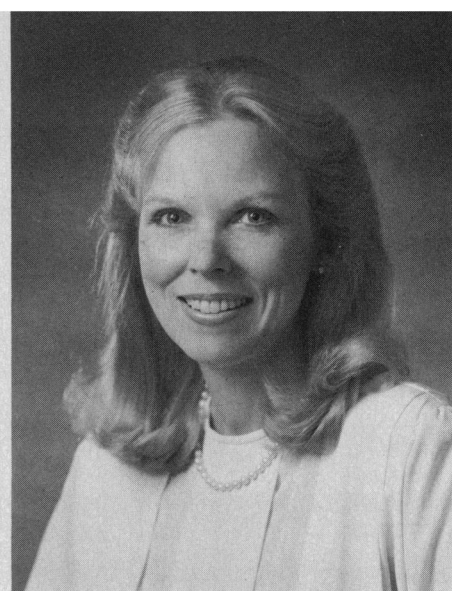
Braunwald told *Science* that he is unfamiliar with the criticisms voiced at the Weiss hearings, but that financial statements were collected from the investigators soon after the subjects were recruited for the Phase II trial. A report of that study, published this year in the 9 March issue of the *New England Journal*, noted that 8 of the 34 principal investigators held stock in or did consulting work for Genentech. He says none of those involved in data collection during the course of the study had financial interests in Genentech. Besides, he says, there was no question

of conflict of interest because that phase of the study focused on angioplasty, and all the patients got TPA.

Nonetheless, says Healy, "TIMI made everybody sensitive." Her group actually started discussing the conflict of interest issue last spring, at which time she says several of the investigators held stock in Merck or Du Pont, two of the companies supplying drugs for the research. "Everybody bought into the guidelines," she says. They affect about 30 investigators in the study, which is a 7-year, multicenter trial of lipid-lowering therapy on patients who have had coronary artery bypass surgery.

In the same issue of the *New England Journal*, editor Arnold Relman applauded the guidelines as an important step for dealing with "the growing entrepreneurship among clinical investigators." But, he said, "a broader and more institutionalized approach is needed."

At the Weiss hearing, officials from the National Institutes of Health (NIH) defended their policy, which requires investigators to comply with whatever safeguards are in effect at their institutions. But since then they have been talking about more specific guidelines. On 20 January, NIH issued a notice that it "expects" investigators



Bernadine Healy: "Everybody bought into the guidelines."

not to have financial interests in organizations whose products are the subject of study. A public meeting is planned on 27 and 28 June where researchers, lawyers, and representatives from industry will discuss various proposals. According to William Goldwater of the NIH extramural research division, some people think a flat ban on stockholding is going too far and that compromise measures, such as prohibiting the buying or selling of stock during the course of a trial, may be preferable.

Meanwhile, Weiss is planning another hearing on scientists and conflicts of interest to be held before the end of June.

■ CONSTANCE HOLDEN

National Academy Panel Rejects the Case for a Mini-Space Station

A mini-space station, the focus of a widely trumpeted Reagan initiative last year and a rival to the big international station planned by the National Aeronautics and Space Administration (NASA), has been hit broad-

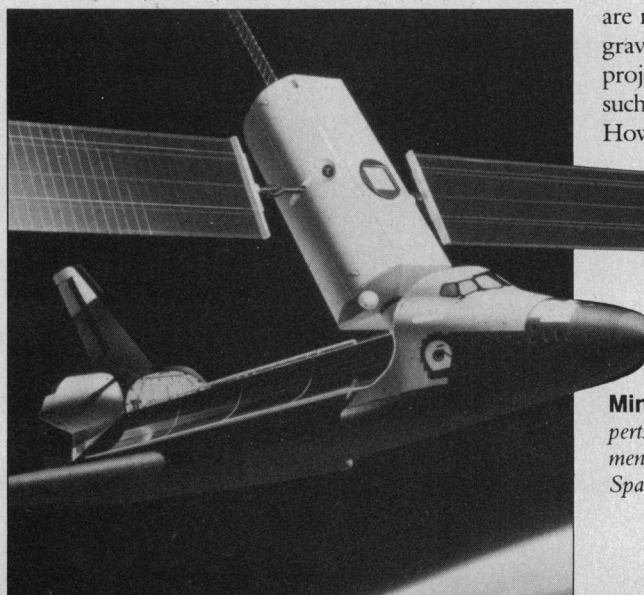
side by a negative expert review.

The review, run for NASA by the National Research Council, declared on 11 March that the mini-station will not be needed by 1993, when it was meant to go aloft. There

are not enough specialized low-gravity experiments or industrial projects waiting in line to justify such a vehicle, the reviewers find. However, the experts did not ex-

amine the justification for the big station with

similar rigor, nor did they examine the likelihood that the big proj-



Mini-Station: No need? Experts find no reason for the government to lease a research lab backed by Space Industries Inc. of Houston.

ect will meet its scheduled final assembly deadline of 1995–1996.

The mini-station proposal was meant to give a boost to commercial enterprise in space and provide an interim research lab pending the arrival of the big station on orbit. Certain experiments require an absolute minimum of jarring momentum. Delicate crystals, for example, can be shattered by vibrations from human or mechanical activity. The project had support from budget cutters in Congress and the White House who hoped it would serve as a cheap alternative to NASA's \$16- to \$30-billion station.

To clarify the government's choices, Congress last fall asked for two studies, one on space research needs and the other on costs. The cost study, conducted by the National Academy of Public Administration, also released on 11 March, finds that the direct and indirect federal expenditures for using the mini-station would be more than \$2 billion, not \$700 million, as its advocates indicated.

Meanwhile, the research needs panel, co-chaired by Joseph F. Shea, a vice president of the Raytheon Corporation, and H. Guyford Stever, former director of the National Science Foundation, finds that there are enough vehicles planned or in production to support microgravity research in space without the little station. "Microgravity science is at an immature stage," the panel writes, making it difficult to foresee whether a special facility like this will be needed. Nor is there any evidence that "microgravity research would lead to significant space-based manufacturing in the next 5 to 10 years."

The NRC panel notes that other facilities are already available or on the way, including the European-developed Spacelab that fits in the Shuttle payload bay; NASA's "extended duration" shuttle orbiter that will be able to remain in space for 28 days; the private U.S. Spacelab project that by 1991 will create extra workspace in the shuttle; and free-flying labs proposed by the Europeans, Japanese, Chinese, and Soviets.

The panel rejected several other arguments for the facility, including the case for using it as a test-bed for equipment to be put on the big station. There would not be enough time between the launch of the mini-station in 1993 and the assembly of the big station in 1995–1996 to take advantage of the experience, the panel concludes. These judgments weigh heavily against the private lab, which was promoted by the Commerce Department and opposed by NASA (*Science* 19 February 1988, p. 856).

The Commerce Department's plan was to have the government lease 70% of the space from the owners, who would use the promise of a lease to secure development loans

and market the remaining 30% of the space to other "tenants." The idea was originally proposed by Space Industries Inc. of Houston, which holds guaranteed launch commitments from NASA to carry a lab, if one exists, into space on the shuttle in 1993. After leaving the Commerce Department and getting an endorsement from the White House, the idea went to NASA for implementation, where it was converted into a standard procurement request, labeled the "Commercially Developed Space Facility" or CDSF.

Congress delayed funding it, asking instead that NASA commission the two studies in hand. NASA must now analyze them and send its own report to Congress by 15 May, laying out all the options.

"We were disappointed in their conclusions, but not surprised," says Joseph Allen,

spokesman for Space Industries. "We feel that they don't understand the realities of the timing involved, which are different from those stated."

Allen is referring to the widespread view that, even if funding for the big station is fully approved this spring, NASA will not be able to get the space station in operation by the time it has promised, in 1996. If the big station does not become operational until 2000, for example, or if NASA's funding request is trimmed, the main assumption of the needs study would no longer be valid.

Another question the study raises implicitly but does not address is whether the demand for microgravity research—too small to justify a \$2-billion facility in 1993—is large enough to justify a \$16-billion facility in 1996.

■ ELIOT MARSHALL

Bromley in Line for Science Adviser

The White House finally appears to have settled on a candidate to be science adviser to President George Bush: Yale University physicist David Allan Bromley. Administration spokesmen declined to confirm Bromley's selection as *Science* went to press, but sources said his nomination would be sent to the Senate shortly.

A decision by the White House has been eagerly awaited. During the election campaign, Bush promised to name a science adviser early in his Administration and to elevate the post to Assistant to the President. But as the weeks went by with no nominee apparently in sight, scientific, industrial, and university leaders have been clamoring for action. "Settling this matter is important," says Harold Hansen, staff director for the House Committee on Science, Space, and Technology. "The longer they delayed it, the less impact he was going to have."

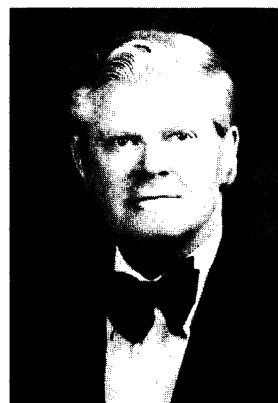
There have been rumors that Bromley at first turned the job down. In fact, one executive branch official speculates that Bromley wanted assurances that the science adviser would have a meaningful role in shaping policy and that the Office of Science and Technology Policy would be given an adequate operating budget and staff.

Although the White House was reportedly looking for a scientist from industry, Bromley has been seen as a front-runner because of his research ties with companies such as International Business Machines and American Telephone and Telegraph. He also has experience in the policy arena, having served on scientific advisory boards at the National Research Council, National Science Foundation, Department of Energy, and elsewhere. Bromley displayed his administrative skills when he served as vice chairman of the White House Science Council study on the health of U.S. colleges and universities. The report spotlighted the need for new research facilities and scholarships to encourage bright students to pursue careers in science.

A nuclear physicist by training, Bromley, 62, is the founder and director of Yale's A. W. Wright Nuclear Structure Laboratory. Since the beginning of his career Bromley has been an innovator in developing accelerators for studies on light and heavy nuclei, nuclear molecules, and related phenomena.

President Reagan's science adviser, William Graham, agreed to stay on until a successor was named. Now that the White House has apparently settled on a nominee, it remains to be seen whether the post will have the Cabinet status candidate Bush promised.

■ MARK CRAWFORD



D. Allan Bromley