

## NIH BUDGET

## A New Kind of Earmarking

As if the numbers in President Clinton's 1994 budget request for the National Institutes of Health (NIH) weren't bad enough, there's something new for biomedical researchers to complain about: Executive branch earmarking. NIH budget officer Leamon Lee told a science policy colloquium sponsored by the American Association for the Advancement of Science last week that the president has taken a page from Congress's book and for the first time is channeling some \$650 million in new funding to research on specific diseases and target groups, such as women and minorities. The reason for the complaints: NIH will have less flexibility in choosing the research it funds.

This wouldn't be so bad if the rest of the agency's budget were not so Spartan. But because Clinton's request would give NIH as a whole just a \$342 million (3.3%) increase, directing \$650 million to specific programs means that other programs will get cut. Indeed, nine of NIH's 16 institutes are slated for reductions in the 1994 request (*Science*, 2 April, p. 24).

Although the Administration has indicated its preferences for spending in categories such as AIDS and cancer in the past, the targeting "has never been as specific as this year," says NIH budget officer Francine Little. The earmarks include \$214 million in increases for tuberculosis, minority and

women's health, high-performance computing (including expanding Library of Medicine databases), health care reform, vaccines and immunization, and advanced ma-

Selected categories (millions of dollars)	1993 Estimated	1994 Request	Percent Change
Research grants	5665	5685	0.4
Research centers	912	950	4.2
R&D contracts	699	778	11.3
Intramural research	1167	1218	4.4
Library of Medicine	105	133	27.1
Office of director	190	235	23.7
Women's health study	41	61	48.8
Minority health study	41	56	36.6
Research training	349	355	1.7
Other research*	639	712	11.4

**Clear directions.** The increases are being channeled mainly to AIDS contracts and special programs rather than research grants, reflecting the Administration's efforts to set priorities.

terials. Breast cancer research is slated for a \$216 million rise, and NIH officials say the White House has directed them to reach a level of \$1.3 billion for AIDS research, or an increase of \$226 million.

It's not easy to say how this targeting will play in Congress. Looked at in one way, says David Moore, the Association of American Medical Colleges' assistant vice president for governmental relations, "the Administration is responding to what Congress has been saying for a long time: 'You can't have everything, so identify some priorities.'" The

problem, says Moore, is that groups backing such programs as cardiovascular, neurology, mental health, and aging research, which are "losers in this budget," will no doubt be lobbying Congress to get increases for their own programs. Such pressure raises the specter of duelling earmarks, as disease groups battle through Congress for NIH's limited funds.

Whether by Congress or the White House, says Moore, earmarking "really reduces the flexibility of the institutes, especially if they don't have an excess of funds." And even when institutes don't get their full requests, they nevertheless have to satisfy earmark language, notes Richard Fuller

of the American Federation for Clinical Research, which can result in "cannibalizing" other, less politically popular research that isn't earmarked.

—Christopher Anderson

## ASTRONOMY

## Mirror, Mirror, Which Is the Fairest?

On the surface, Gemini project leaders appeared to have every reason to celebrate last week. At a Washington, D.C., reception, they toasted a new set of foreign contributions, from Argentina, Brazil, and Chile, that may finally make possible the \$176 million twin telescopes, to be built over the next 7 years at Cerro Tololo, Chile, and Mauna Kea, Hawaii. But a dark cloud loomed over the festivities—a cloud of doubts about the design for the huge 8-meter mirrors. In recent weeks, that cloud has looked so ominous that American Astronomical Society (AAS) executive officer Peter Boyce, worried about how the doubts might affect the project's chances in Congress, took the unusual step of warning his colleagues not to air their dirty laundry in public.

Boyce's admonishment, in the AAS *Monthly Notices*, followed a report issued last month by a panel of high-ranking astronomers headed by Cornell University's James Houck. Departing from its mandate to examine the project's budget and its scientific goals, the panel took a hard swipe at the mirror

design. It reported that the relatively untried thin "meniscus" mirrors chosen for the project are likely to flex in the faint air currents within the telescope dome, spoiling the razor-sharp resolution that will make these telescopes worth all those millions. To avoid "significant additional risk of failure," the panelists urged the telescope designers to adopt an alternative design—a thicker mirror made from a honeycomb of glass.

But Gemini project manager Lawrence Randall says it's too late to change course. The National Science Foundation (NSF) and foreign funding agencies have committed funding based on the earlier choice, and Corning Glass has already cast the unpolished mirror blanks. And project leaders are convinced they can make the meniscus design live up to its billing.

The controversial mirror design emerged from planners' efforts to ensure that Gemini's resolution would surpass that of any other telescope. In particular, they wanted to improve upon the design used for the only mirror of comparable size, that of the 10-meter

Keck telescope on Mauna Kea, which is made up of many individual segments. To many astronomers, the obvious alternative was an innovative mirror design developed at the University of Arizona by Roger Angel, in which the mirror is backed by a strong, lightweight honeycomb of borosilicate glass. Says astronomer Donald Hall, who runs the University of Hawaii's Institute of Astronomy: "NSF and NOAO [the National Optical Astronomy Observatory] had funded the borosilicate development presumably in anticipation of using that technology."

It came as a surprise to many astronomers when Corning Glass won the bid for mirror construction last September with a dark-horse design. The company proposed a thin meniscus of glass, just 20 centimeters thick. Project scientists, with the advice of outside astronomers, chose the meniscus because it was cheaper, says Gemini director Sidney Wolff of NOAO. What's more, says Randall, Angel's university-run mirror lab couldn't agree to take on financial indemnity if something went wrong, while Corning could.

A rejection of that reasoning has now come from an unexpected quarter. The panel