

Budget Boost for Energy Science

Last year, scientific projects funded by the Department of Energy (DOE) got caught in a fratricidal fight brought on by prolonged budget negotiations between the White House and Congress. The consequences—\$175 million in cuts to the requests for magnetic fusion, the Superconducting Super Collider (SSC), and basic research in nuclear and high-energy physics—were severe. This year, however, much of last year's damage has been repaired, or at least minimized, in the programs that took the heaviest hits. In the energy and water bill, passed by Congress just before its summer recess and signed by President Bush on 17 August, DOE was awarded some \$4.48 billion for its scientific research programs in fiscal year 1992. Here's how individual programs fared:

■ Magnetic fusion scientists, who last year cried foul as they watched nearly 15% of their budget disappear, are this year counting their blessings. Not only did DOE's \$337-million budget request for magnetic fusion research more than make up for last year's shortfall, but Congress approved the entire amount. "This puts the program pretty much on the line recommended by [DOE's advisory fusion panel] in September 1990," says Dale Meade, deputy director of the Princeton Plasma Physics Laboratory. Included in the bill are a \$10-million increase for design activity for the Burning Plasma Experiment, a next-generation fusion machine with a total cost of \$1.4 billion, and \$18 million for deuterium-tritium experiments at the Princeton tokamak, Meade says.

■ DOE's accelerator physics programs also did well. In many respects, this was a make-or-break year for the SSC: The budget increase requested by DOE—a \$291-million hike, from \$242.9 million to \$533.7 million—is projected to be the biggest in the project's planned 8-year construction phase. Congress approved all but \$50 million of the request. The Continuous Electron Beam Accelerator Facility in Newport News, Virginia, did even better, receiving an extra \$12 million on top of DOE's \$31.8-million request. The Relativistic Heavy Ion Collider, now under construction at Brookhaven National Laboratory, will also be fully funded at \$49 million.

Fermilab received \$15 million to start a new main injector for its Tevatron accelerator. Although DOE had requested \$43 million, Fermilab officials are relieved to get \$15 million, since the House energy appropriations subcommittee last spring deleted all main injector funding. "The idea here is

to get the camel's nose under the tent," says one physicist.

There was one spot of bad news for high-energy physics—a \$10-million cut in operating expenses for the high-energy accelerators. "It's enough to be annoying, but not enough to be catastrophic," says Wilmut Hess, DOE's associate director for high-energy and nuclear physics.

■ Funding for renewable energy sources remained relatively flat with the exception of the budget for solar energy, which Congress boosted from \$131 million last year to \$176 million this year. And legislators maintained tradition by adding \$10 million to DOE's request for advanced nuclear reactor research and development.

But Congress was not universally generous. It sharply cut back DOE participation in

the Administration's Space Exploration Initiative, whose goal is a manned mission to Mars, from a \$30-million request to \$5 million. Accompanying report language restricts DOE's role to the development of "new power systems," a prohibition that many have interpreted as a slap at Lawrence Livermore Laboratory physicists who have proposed a Mars mission using inflatable spacecraft.

Similarly, while Congress gave DOE what it requested for its basic energy sciences program—the source for most DOE-funded "small science" programs at universities and national laboratories—it couldn't resist tacking on \$44 million in "earmarked" pork projects to universities favored by legislators on the appropriations committees. There is an analogous \$40.8-million addition in the biological and environmental research account, plus a handful of other projects scattered throughout the bill, for a rough total of \$88.8 million worth of earmarked appropriations. ■ DAVID P. HAMILTON

Trimming Research Flagship's Sails

Shortly after Bernadine Healy accepted the job as director of the National Institutes of Health, she insisted in an interview with *Science* that NIH's intramural research program "should be the flagship of biomedical research in this country." But she acknowledged a major problem in maintaining that exalted status: sagging morale among NIH's 4500 scientists, many of whom have been complaining bitterly about the deteriorating research environment on NIH's Bethesda campus (*Science*, 1 February, p. 508). While Healy has yet to announce any concrete proposals to improve the intramural program, she recently set in motion two new initiatives that should provide some policy options by early next year.

In early fall, Healy will host the first of what is intended to be a series of "town meetings" for NIH scientists. Along with several of the individual institute directors, Healy will invite intramural scientists to meet on the NIH campus and say what's on their minds. The idea is to give Healy a better sense of what is bothering them, and perhaps to hear some suggestions of how management of the intramural program might be improved.

These meetings are mostly to reassure NIH researchers that their concerns are being taken seriously. More substantive proposals for change will come from a committee of intramural scientists formed to make specific recommendations for changes necessary to improve the intramural program. This committee, now cochaired by Richard D. Klausner, chief of the cell biology and metabolism branch of the National Institute of Child

Health and Human Development (NICHD), and William E. Paul, chief of the laboratory of immunology at the National Institute of Allergy and Infectious Diseases, has existed informally for several years, but Healy recently gave it a formal role. Nobel laureate Michael Brown at the University of Texas will chair an external advisory committee. The Klausner committee will meet throughout the fall and will host a retreat in December for approximately 150 intramural scientists.

The committee has split into four working groups. One, chaired by Peter M. Howley, chief of the laboratory of tumor virus biology at the National Cancer Institute (NCI), will look into the chronic problem of recruitment and retention. Low salaries, poor benefit packages, and restrictive federal employee policies have made it hard to attract top scientists to the NIH campus and to prevent scientists already there from leaving. A second panel, headed by Igor B. Dawid, chief of the laboratory of molecular genetics at NICHD, will look into ways to give individual NIH scientists more autonomy over their research budgets. Arthur W. Nienhuis, chief of the clinical hematology branch at the National Heart, Lung and Blood Institute, will chair a group on the clinical program. And Claude Klee, chief of the laboratory of biochemistry at NCI, is chairing a group studying ways of raising the academic profile of the intramural program—including the possibility of forming a graduate program.

Klausner says he expects to conclude the committee's work and report to Healy next spring. ■ JOSEPH PALCA