

US budget bares bleak trends for biomedical science

The Bush administration confirmed US scientists' worst fears when it unveiled its proposal for the 2004 federal budget, even while congressional delays continued to hold the previous year's budget in legislative limbo.

The actual 2004 numbers may change considerably depending on the outcome of the 2003 budget negotiations, but the President's proposal highlights several trends that are likely to persist in coming years—skyrocketing deficits, defense spending and an abrupt end to a recent boom in basic biomedical research funding.

A budget of \$123 billion for research and development (R&D) is a 7% increase overall compared to the White House's 2003 request, says Marcus Peacock, associate director for natural resources programs at the White House Office of Management and Budget. Speaking in February at a seminar on federal research funding, Peacock said, "\$123 billion is a heck of a lot of money."

Peacock's figures, which include both basic and applied research, obscure some disturbing details. For example, a five-year campaign to double the budget of the National Institutes of Health (NIH) maintained, in recent years, an annual budget increase of about 15%. In the new proposal, that increase would slow dramatically to only 1.8%, just slightly ahead of the projected rate of inflation, for a total budget of \$27.9 billion in 2004.

In late January, the Federation of American Societies for Experimental Biology projected that the NIH would

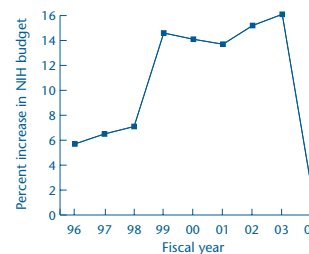
have to cut up to 1,200 individual investigator grants to balance its books if it received such a small increase. To avoid that pitfall, the new proposal instead cuts back on the construction of new facilities, allowing a slight increase in the number of funded grants. If the current trend continues, however, some worry the NIH could find itself back where it was before the budget doubling began.

Within the modest NIH increase, much of the growth will flow into applied bioterrorism defense work. The National Institute of Allergy and Infectious Diseases will receive an 8.9% boost, to \$4.3 billion, primarily because of that institute's lead role in the \$1.6 billion NIH bioterrorism research effort.

The NIH spends as much on R&D as all other civilian agencies combined, notes Kei Koizumi, director of the R&D Budget and Policy Program at the American Association for the Advancement of Science. "For other agencies, R&D funding has been pretty flat for the last decade, and that won't change much in 2004," he says.

The NIH's flush phase had an unintended consequence. "With the doubling of the NIH budget, we've had a lot of other agencies saying, 'we need to do that too,'" says Peacock. Since discretionary funding is a fixed proportion of the total budget, doubling one agency's accounts during tough economic times may mean shortchanging others in future years.

In December, the President endorsed a campaign to double the budget of the National Science Foundation, but that agency's 2004 budget proposal already



End of an era: NIH budget takes a tumble

falls about \$1 billion short of the authorized amount because of other demands on the available funds.

As part of its push for greater accountability, the administration is also implementing the Program Assessment Rating Tool (PART), a questionnaire intended to quantify the value of each government-funded program. White House officials will analyze the PART results for each item in the budget to determine its priority and funding levels.

The goal is to analyze all government programs this way by 2006, but some worry that the administration's analysis of research agencies will be ideologically driven. "There's a lot of subjectivity in this," says Robert Palmer, democratic staff director for the US House of Representatives' Committee on Science. One key PART criterion is whether the program "is an important government function?" Palmer points out. "That's a philosophical question," he says, "so the way one applies the criteria are quite subjective."

Alan Dove, Washington DC

US smallpox vaccination off to slow start

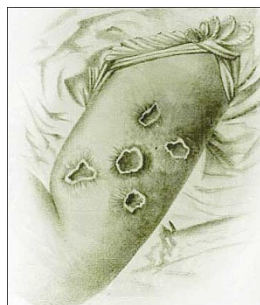
Smallpox vaccinations began at the end of January in 17 states, amid lingering health and financial concerns.

As *Nature Medicine* went to press, the Centers for Disease Control and Prevention (CDC) had shipped 204,600 doses of smallpox vaccine to 40 states and counties, with initial plans to offer the vaccine to 450,000 public health and health care workers. So far, only 687 people have volunteered to receive the vaccine, according to CDC director Julie Gerberding (see page 252).

The low number of volunteers may reflect a lack of confidence in a system that has not adequately planned for liability or compensation in the event of vaccine-related illnesses. The Depart-

ment of Health and Human Services is in the process of addressing these issues, although no specific details have been given. Local health agencies have also been reluctant to divert resources away from other public health programs when there is no immediate threat.

Smallpox vaccinations have not been routinely given in the United States since 1972. In past vaccination schemes, for every 1 million people vaccinated, approximately 1,000 showed serious side ef-



Smallpox vaccination scheme needs a shot in the arm

fects and up to 50 developed life-threatening illness. The live vaccinia virus used in the vaccine can also sicken or kill hospital patients, the elderly or very young, and other susceptible people who come into contact with those recently vaccinated.

Local public health officials and the CDC agree the vaccination program should move slowly so problems can be dealt with as they arise.

None of the people vaccinated thus far under the new program have suffered adverse effects.

Pierrette Lo, New York