sue.) "We recognize the federal government plays a very important role in researching cures for disease," Bush said in recommending the largest increase in NIH's history.

But Bush was mum on the subject that has much of the science community talking: the pain his proposal is expected to inflict on nonbiomedical science budgets (*Science*, 23 February, p. 1463). He was expected to request only a 1.3% increase for the National Science Foundation (NSF), whose budget now stands at $4.4 billion. Scientists are also bracing for grim news for science programs at NASA, the Department of Energy (DOE), the U.S. Geological Survey, and the Environmental Protection Agency.

Whether Congress will follow Bush's blueprint, however, is unclear. Congress traditionally increases the president's request for NIH, and already, Senators Arlen Specter (R–PA) and Tom Harkin (D–IA) have introduced legislation calling on the Senate to back a $3.4 billion increase. Dozens of House and Senate lawmakers have also signed an array of letters to Bush and congressional leaders asking for major science budget increases at NSF, DOE, and NASA.

The first real test, however, will come this spring, when congressional budget committees issue road maps to spending panels overseeing specific agencies. Researchers, says one House aide, "are going to know pretty early just how far they'll have to push the rock up the hill." **–DAVID MALAKOFF**

RESEARCH ETHICS

Query by Congress Halts New Policy

A complaint from a powerful member of Congress has at least temporarily scuppered a new federal requirement that institutions teach their biomedical researchers how to act responsibly. The Public Health Service, which issued the ethics education policy on 1 December, has put the requirement on hold while the Office of Research Integrity (ORI) reviews concerns voiced by the House Commerce Committee, which oversees the National Institutes of Health. The delay, part of a broader examination of actions taken by the outgoing Clinton Administration, marks the debut on research issues of the panel's new chair, Representative Billy Tauzin (R–LA), who is expected to be much more active than his predecessor.

The rules were the government's response to a growing consensus in the biomedical research community that prevention, through education, is the best way to reduce scientific misconduct. Accordingly, the new policy required institutions to develop a "basic program of instruction" on responsible research conduct covering topics such as data sharing, record keeping, and animal care. All staff members were supposed to have completed their training by 1 October 2003 or their institutions could lose federal funding. The training shouldn't take more than a few hours, estimates ORI, which is developing a 3-hour Web-based course as one option for schools.

Although biomedical and university advocacy groups support the idea, they have complained that the rules would be expensive to implement and cover too many people. The 1 December version contained a few changes from an earlier draft, giving institutions more time and allowing them to decide who should take the course. But "the most objectionable" sections were still there, says Howard Garrison, a spokesperson for the Federation of American Societies for Experimental Biology (FASEB).

Those complaints led the Commerce Committee to include the rules in a review of the Clinton Administration's last-minute regulations. A 5 February letter from Tauzin and James Greenwood (R–PA), chair designate of the oversight subcommittee, says that, although the committee "strongly support[s]" the ORI policy's intention, "we are troubled by ORI's process in implementing such efforts." The policy should have been issued as a formal rule, the letter explains, after steps such as a review by the White House, cost analysis, and publication of the entire text rather than simply a notice in the *Federal Register*. "There are procedures that have to be followed," says a committee staffer.

ORI doesn't believe the policy is equivalent to a formal rule, ORI Director Chris Pascal explained in a 14 February reply to Tauzin, because it gives institutes "considerable leeway" in how to implement it. ORI also notes that it reviewed more than 100

CREDIT: KENNETH LAMBERT/AP

Enforcer. House Commerce chair Billy Tauzin says NIH research ethics office broke the rules.

ScienceScope

SAGE Decision Russian researchers have lost a key court fight over the ownership of a hoard of precious metal, endangering a major international experiment. A Moscow court last week rejected the Baksan Neutrino Observatory's appeal of an earlier order to hand over 7 tons of gallium to the Russian Ministry of Fuel and Power Production. Scientists say the transfer would end the $60 million Soviet-American Gallium Experiment (SAGE), which uses an underground gallium-laced detector to study neutrinos streaming from the sun (*Science*, 23 February, p. 1470).

The ruling marks the latest twist in a 4-year struggle over the silvery-white metal. It began when the power ministry moved to acquire SAGE's gallium, presumably so the government could eventually sell the metal, which is used in semiconductors and brings up to $600 per kilogram.

The observatory, however, is in no hurry to comply with the latest court order. "There are many ways to delay," says Leonid Bezrukov, deputy director of the Institute for Nuclear Research. But he fears that opponents may use other tactics to seize the metal. Local police have already launched one investigation into alleged gallium "waste" by the researchers, and Bezrukov says "no one knows what could happen next."

Bad Break? Although some scientists complain that biomedical research is getting more than enough funding (see p. 1677), some lawmakers want the U.S. government to offer a new tax break to encourage greater giving to medical studies. The legislators introduced a bill this week that would give a deduction to science backers who donate stock options to universities and other nonprofits engaged in medical research.

"With stock options playing a larger role in employee compensation packages in the new economy, people should have the option of giving ... without having a portion siphoned off for Uncle Sam," says Representative Jennifer Dunn (D–WA), who is sponsoring the legislation with Representative Ben Cardin (D–MD) and Senators Bill Frist (R–TN) and Robert Torricelli (D–NJ). Dunn claims the change could bring $1 billion to medical charities over 5 years.

But a similar bill that Dunn introduced last year won only lukewarm support from many philanthropic and scientific groups. The problem, they say, is that singling biomedical science out for a tax benefit might lead to complaints from other disciplines. Says one lobbyist: "Why shouldn't ecology get the same treatment?"

State honors. Chinese President Jiang Zemin, center, awards top science prize to Wu Wenjun, left, and Yuan Longping.

annual prize. But the central government declined for the third straight year to pick a first-place winner in two other categories—natural sciences and technological innovation—because none of the nominees met the criteria for having achieved "at the world level."

Members of the selection committee said their decision reflects the fact that China's basic research enterprise still trails the rest of the world and that most projects lack the creative spark needed to achieve fundamental advances in science. Greater investment in large, cooperative basic research projects would help close the gap, says an official with the science and technology ministry.

The top prize for international collaboration went to U.S. physicist Wolfgang Panofsky, former director of the Stanford Linear Accelerator Center in California, and Indian plant geneticist Gurdev Khush of the International Rice Research Institute in the Philippines. Hundreds of Chinese scientists and technicians received awards in one of the five categories, which include scientific and technological advancement. **–DING YIMIN**

Ding Yimin writes for *China Features* in Beijing.

INDIA

Work Starts on First Science Satellite

NEW DELHI—Indian astronomers have begun to design the country's first satellite dedicated to basic space science after receiving the green light last month from the Indian government. If successful, the payload will be launched in the second half of the decade on a domestically built rocket.

The project, dubbed Astrosat, aims to orbit four instruments to make broadband observations and surveys in the x-ray and ultraviolet (UV) regions of the spectrum. It would be funded by the Indian Space Research Organization, overseeing work by scientists at ISRO's satellite center, the Indian Institute of Astrophysics in Bangalore, and the Tata Institute of Fundamental Research (TIFR) in Mumbai. No price tag has been put on the mission. "We have to develop the prototype instruments in this period and show that we can indeed successfully make them in India," says Prahlad Chandra Agrawal, an astrophysicist at TIFR.

The instruments include soft x-ray and UV imaging telescopes as well as a large-area xenon-filled proportional counter and a cadmium-zinc-telluride array for long-duration studies over a broad range of spectral bands. The proposed payload is an order of magnitude more complex than one Agrawal's team built for an Indian satellite launched in 1996 to study x-ray sources within binary stars, and scientists say the large-field images should shed light on formation rates for low-redshifted stars. However, it falls well short of the high-resolution imaging and capabilities of the current generation of orbiting x-ray facilities, including NASA's Chandra X-ray Observatory and the European Space Agency's XMM-Newton.

"It's not something that we or the Japanese would be interested in doing at this point," says Peter Serlemitsos of NASA's Goddard Space Flight Center in Greenbelt, Maryland, which in the 1980s developed the foil mirror that the Indians hope to deploy on one of the x-ray instruments. "But if you're going to start a program, this isn't a bad way to do it. It should let them get their foot in the door."

Indian scientists are confident that they can make the mirrors and related optical devices. But they plan to seek outside help in developing other portions of the payload, in particular the photon-counting detector for the UV telescope. ISRO officials say that they hope to have designs completed in 18 months and to launch the satellite in "about 5 years" on ISRO's existing polar satellite

Looking up. India hopes to launch its first basic science satellite on this domestic rocket.

CREDITS: (TOP TO BOTTOM) JU PENG/XINHUA NEWS AGENCY; P. BAGLA

ScienceScope

Abbey Hits the Road One of NASA's top dogs has been sent to the doghouse. Space agency chief Dan Goldin last week removed George Abbey (below) as head of the Johnson Space Center in Houston, Texas, and transferred him to an undefined job at NASA headquarters in Washington, D.C.

Abbey played a key role in choosing Goldin for NASA's top job while he worked at the White House under former President George Bush in the early 1990s. He then served as Goldin's right-hand man in Washington before becoming space center commander in 1996.

The surprise fall from grace comes as NASA is struggling with major space station cost overruns—estimates run as high as $4 billion—which will likely force Goldin to make major cuts in other programs. Abbey and his center play a key role in station development. Goldin says only that it was time "for a change" and "reform." Rumors swirled this week over whether Abbey's removal was approved—or ordered—by the White House. Meanwhile, Goldin is still waiting to hear who his own successor will be.

Egalitarian Elitism The U.K.'s Royal Society is looking to inject more diversity into its hallowed rolls. Society president Sir Robert May this week prepared to announce a change in the nominating process that he hopes will net the elite group more researchers from less prestigious labs outside the biology and physics mainstream.

The society funds select researchers, advises the government, and has recently sought to raise its profile as a communicator in explaining how science shapes society. But May believes the nominating process—which leads to the election of 42 new fellows each year—has favored researchers working in traditional disciplines at science bastions such as Cambridge and Oxford universities. As a result, May notes, the process has missed such worthy candidates as computer scientist Tim Berners-Lee, inventor of the Web.

To "make it easier for us to pick up scientists in newly emerging disciplines," May says, he drafted a letter this week to U.K. university vice chancellors announcing that, from now on, nominees will need endorsements from just two current fellows, not six. This should help the society, May says, "not to overlook the Tim Berners-Lees of tomorrow."

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