

Budget cut hits core US biomedical research

Scientists funded by the US National Institutes of Health (NIH) may have something other than alcohol to blame for their New Year's headache: their first budget cut in 36 years.

On 30 December, President George W. Bush finally signed the NIH's 2006 budget. The agency will get \$28.6 billion in funding, a \$35-million reduction from last year. This cut comes despite the government agreeing an increase of \$206 million for the year, close to the amount requested by the President last February (see *Nature* 433, 559; 2005). But that increase was erased by a later government bill for a 1% across-the-board cut in spending on all discretionary programmes (that is, in spending that is not being channelled into existing programmes), in part to help pay for the war in Iraq.

Biology research advocates are lobbying for better funding in 2007, but with the US budget crunch continuing for the foreseeable future, prospects are bleak.

Phoenician ports lurk under modern cities

The easing of political tension in Lebanon has allowed archaeologists to locate the sites of ancient Phoenician ports.

The cities of Tyre and Sidon on the Lebanese coast dominated Mediterranean trade thousands of years ago and still exist today. But although the cities' names have not changed, the coastline on which they sit has been reshaped by silting over the past three millennia.

Nick Marriner of the European Centre for Research and Teaching on the Geosciences of the Environment in Aix-en-Provence, France, and his colleagues drilled a total of 40 sediment cores in the two cities. They report in the January issue of *Geology* that the old harbours lie underneath today's urban centres. Marriner hopes that his findings will help efforts to protect the cultural heritage of the two cities.



Cores brought up from Sidon city have unearthed clues about the old harbour that still lies beneath.

Physicist's snowflake images land on US stamps

The next Christmas holiday season in the United States will bring a small flurry of stamps featuring science. In October, the US postal service will issue a set of four stamps showing snowflake images taken by Kenneth Libbrecht, a physicist at the California Institute of Technology in Pasadena.

Libbrecht, who by day works on the LIGO gravitational-wave project, has perfected a cold-weather camera rig for photographing snowflakes quickly, before they melt.

The four images were taken in chilly weather in Alaska, Michigan and Ontario. Libbrecht's home page, www.snowcrystals.com, features more shots of both real and synthetic snowflakes.



US bill outlaws political interference in science

The long-awaited budget bill that includes funding for the US National Institutes of Health (NIH) also contains a law banning political interference in scientific decisions.

Senator Richard Durbin (Democrat, Illinois) inserted the law in the annual appropriations bill for the Department of Health and Human Services (HHS), which includes the NIH and the Public Health Service. In 2004, the National Academy of Sciences found that candidates to federal scientific advisory panels were often subjected to political litmus tests.

The new law makes it illegal for nominees to HHS advisory panels to be questioned about their political affiliation or voting history, or for HHS officials to disseminate false or misleading scientific information. The measure, however, includes no penalties if broken.

Missouri team uncover record-breaking prime

Mathematicians have unveiled the largest prime number found to date, a 9.1-million-digit monster that, if printed, would fill about eight issues of *Nature*.

"There's almost no practical use for it," says Curtis Cooper, leader of the Central Missouri State University team that found it. "I just love the beauty of big primes."

Cooper's team is part of the Great Internet Mersenne Prime Search project, which discovered the previous four largest primes. This project uses the idle time of hundreds of Internet-linked computers to test all Mersenne numbers (two to the power of a prime, p , minus one, or $2^p - 1$) to

check if they are primes. The newest recordbreaker is $2^{24444443} - 1$.

One incentive for searchers is that whoever finds the first 10-million-digit prime number will win US\$100,000 from the San Francisco-based non-profit Electronic Frontier Foundation, whose aim is to promote cooperative computing.

Journal bans authors with secret ties to companies

A US medical journal has adopted a policy of temporarily blacklisting authors who fail to disclose conflicts of interest.

The *Journal of Thoracic and Cardiovascular Surgery* decided to act in December after learning that four of the authors on two papers published in the second half of last year did not declare their financial links to a company whose heart-surgery technology they had evaluated. The authors gave favourable reports of devices manufactured by AtriCure of Cincinnati, Ohio.

The journal plans to publish a correction and, in the future, will refuse to publish submissions from authors who are found to have withheld such conflicts. The ban will probably last one to two years, says Andrew Wechsler, the journal's editor and a surgeon at Drexel University College of Medicine in Philadelphia, Pennsylvania.

Correction
The Sidelines column in the 10 November 2005 issue (*Nature* 438, 136; 2005) incorrectly characterized a survey of intellectual-property issues by the American Association for the Advancement of Science (AAAS). The item should have said that 40% of survey participants, not 40% of all AAAS members, reported that their research was affected by difficulties in obtaining patented technology.