Fresh funding hike mooted for US biomedical research

Washington Fears that the recent rapid growth in US biomedical spending has reached its end could prove to be premature. A vote on 26 March saw senators endorse the idea of increasing next year's funding for the National Institutes of Health (NIH) to $29 billion, an 8.4% rise on its 2003 budget.

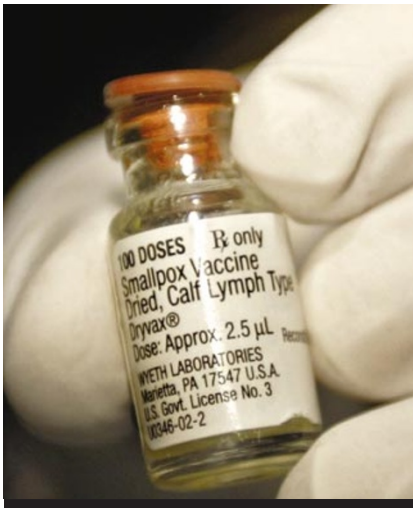
Research advocates have feared that the NIH may get short shrift next year, because President George W. Bush's February budget announcement included only a 2% increase (see *Nature* **421,** 565; 2003). Many advocates say that a bigger increase is needed to sustain the momentum generated by an effective doubling of the agency's funds since 1998.

The vote does not guarantee that the NIH will get its 8%. A final decision will come in autumn, when the Congress is scheduled to write an appropriations bill that will distribute money to all federal agencies.

Heart-attack deaths raise fears over smallpox jabs

Washington Three healthcare workers have died of heart attacks after receiving smallpox vaccinations, leading a government advisory committee to revise its recommendations on who should receive the shots.

The link between the deaths and the vaccine is unclear, but all three victims had a history of heart disease. The Advisory Committee of Immunization Practices said on 28 March that people with heart disease or those with three or more risk factors for it, such as diabetes, should not get the vaccination. Some 6% of healthcare workers could now be excluded. Healthcare professionals began to be vaccinated earlier this year after fears grew that smallpox could be used in a bioterror attack.



J. S. APPLEWHITE/AP PHOTO

Smallpox vaccine is being given to US healthcare workers to protect them from bioterror attacks.

The advisory committee considered excluding anyone aged over 50 from being vaccinated, but feared that it would cause too much damage to the programme. Some doctors recommended that the entire programme be put on hold until the link between the vaccine and the deaths could be cleared up.

Canada drives medical protein-structure hunt

Toronto The three-dimensional structures of more than 350 human proteins are to be deciphered over the next three years by an Anglo-Canadian partnership.

Four leading Canadian funding agencies, together with British biomedical charity the Wellcome Trust and pharmaceutical company GlaxoSmithKline, will make the first results of the £40-million (US$63-million) programme freely available at the end of this year. The work of the Structural Genomics Consortium will be carried out in laboratories at the universities of Oxford and Toronto. They will focus on proteins of medical relevance, such as those that are associated with cancer, neurological disorders and malaria. Aled Edwards, a proteomics researcher at the University of Toronto and director of the consortium, says that the results will enable scientists "to put the genome to practical use".

The initiative marks the first time that the four Canadian funding agencies, which include Genome Canada and the Canadian Institutes of Health Research, have worked together.

Columbia data hint at wing damage during launch

Washington Data from a sensor package tucked inside the doomed space shuttle Columbia has given credence to the theory that the vehicle was damaged even before it began its fateful entry into the atmosphere.

The readings, recovered from a tape found during a ground search on 19 March, show that the shuttle's left wing began to overheat more than a minute earlier than previous sensor data had suggested. The heating was probably due to plasma gases entering the wing. The data support the idea that part of the wing's insulation had already come loose, probably when the wing was struck by pieces of foam insulation that fell from the shuttle's fuel tank shortly after launch.

Some NASA managers say they hope to launch a shuttle as early as this autumn. But Guy Fogleman, acting director of the agency's Bioastronautics Research Division, told the National Academy of Sciences' Space Studies Board last week that "the most optimistic date we've heard is early next year".

Cash crisis forces US genetics lab to close

Denver Tough economic times have forced the closure of the independent Eleanor Roosevelt Institute, a key player in the sequencing of human chromosome 21 (see *Nature* **405,** 311–319; 2000).

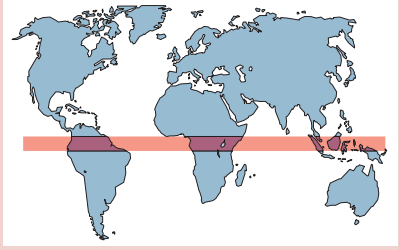
Operating costs for the institute, which is based in Denver, Colorado, and focuses on genetic research into conditions such as Down's syndrome, were around $4 million in 2001. Charitable donations provided one-third of the total, with federal grants providing most of the rest. But the economic downturn has limited philanthropic income over the past year and a half (see *Nature* **419,** 765; 2002).

"It's really hard for a small institute to maintain itself in this economy," said David Patterson, the institute's president. Patterson adds that he has searched for an alliance with a university or other large organization, but that the current economic climate has scared away potential partners.

Mind your heads!

Rome Residents of equatorial countries will be keeping a nervous eye on the sky later this month. BeppoSAX, an Italian X-ray satellite, is scheduled to re-enter the atmosphere, and pieces of debris as heavy as 120 kilograms could rain down on regions below its path.

The 40 or so pieces of BeppoSAX that are expected to survive the re-entry should pose little danger to people on the ground, according to the Italian Space Agency (ASI), which estimates that atmospheric drag will cause the satellite to plummet to Earth on 30 April. ASI officials estimate the risk of somebody being hit at less than 1 in 5,000, but have warned people within the re-entry zone that the satellite's fuel and battery chemicals could be toxic. Indonesia has the largest population in the zone — a band of more than 4° on either side of the Equator (red band on map above).



Ground controllers can't steer the satellite's re-entry, and won't even have a precise estimate of its final re-entry point until it begins to fall. On average, a large piece of space debris falls to Earth every 10 to 12 days, the agency points out.