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Fruitful work: sequencing the banana genome may lead to disease-resistant varieties.

International body aims to unpeel the banana genome

Rome The genome of the main ancestral species of banana could be sequenced within five years, according to plans announced last week by the International Plant Genetic Resources Institute.

Bananas are one of the developing world's most important crops, but because almost 90% are produced by small farmers and consumed locally, they have benefited little from advances in crop science. The genome data, which will be made available free of charge to non-commercial interests, will help to identify genes involved in disease and pest resistance, and delayed ripening.

The banana is also of interest because it has undergone between 6,000 and 8,000 years of celibacy since the original founder species were bred. Bananas reproduce asexually so, apart from random mutations, the fruit's genetic make-up has remained unchanged. By comparing wild and cultivated strains, geneticists hope to discover how these mutations have helped wild varieties to adapt to pests and diseases.

▶ <http://www.ipgri.cgiar.org>

Top senator pushes new stem-cell compromise

Washington President George W. Bush was offered a possible way out of his stem-cell research imbroglio last week, when an influential Republican senator laid out a set of possible conditions for government funding.

Bill Frist (Republican, Tennessee), the only physician in the Senate, said on 18 July that the research should be federally funded "within a carefully regulated, fully transparent framework [that ensures] the highest level of respect for ... the human embryo".

Frist added that research on embryonic stem cells had greater potential than studies on adult stem cells. But his ten-point plan for

the research would restrict it to an unspecified, finite number of embryonic stem-cell lines — an idea that many biologists oppose (see *Nature* 412, 107; 2001.)

Senate plan favours big-ticket projects

Washington The US National Science Foundation's funding suffered a reverse last week when a Senate committee voted to increase it by 5.6% in 2002. A more generous increase of 9.5% had been approved by a House of Representatives subcommittee panel only a week earlier (see *Nature* 412, 259; 2001).

A few programmes were singled out for large raises, however. A figure of \$296 million was suggested for information-technology projects, up 14% from last year. And the Atacama Large Millimeter Array in Chile would receive \$12.5 million to allow construction to begin — provided that the project will be tightly managed.

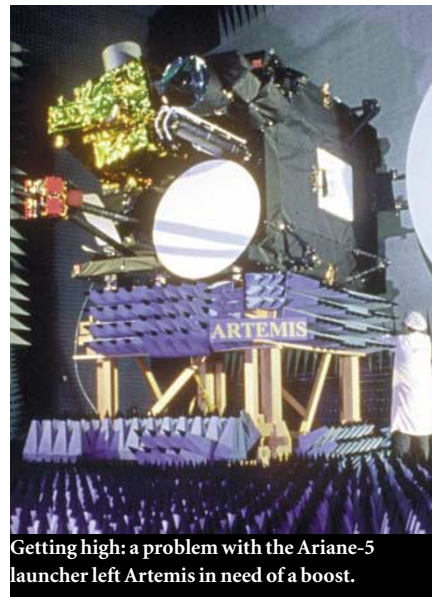
Members of the Senate and the House will meet to reconcile their spending plans before the end of September.

Stray satellite needs help in finding its true calling

Paris The European Space Agency (ESA) has begun attempts to reposition the Artemis telecommunications satellite, which was launched into the wrong orbit on 12 July.

Artemis is the most advanced telecommunications satellite yet developed by ESA. It should have been sent into a geostationary orbit 36,000 km above the Earth, but a problem with the upper stage of the Ariane 5 launcher left the satellite in a much lower orbit.

ESA scientists and engineers from



Getting high: a problem with the Ariane-5 launcher left Artemis in need of a boost.

Alenia Spazio, the Italian company that built the satellite, have already moved the satellite into another orbit much closer to the correct position. They plan to make the final move after allowing three months to check that the payload is functioning properly. This should leave the satellite with enough fuel to function normally — but ESA doesn't know for how long.

Beating surgical vCJD risk may prove costly

London Researchers at Imperial College, London, have identified a possible risk of transmission of the human form of BSE, variant Creutzfeldt–Jakob disease (vCJD), through surgical procedures on the rear of the eye and on the rectum (Wadsworth, J. D. F. *et al.* *Lancet* 358, 171–180; 2001).

By extending an existing prior test, the team were able to test peripheral body tissues for the prions that are thought to cause vCJD. The test confirmed previous studies which showed that the highest concentrations of prions outside the brain are found in the tonsils. But it also showed that low levels are present in the optical nerve, the retina and, in one case, rectal tissue.

Britain is currently introducing a policy of using disposable instruments in tonsil surgery, because of fears that infectious prions cannot be removed from surgical equipment. Operations on the rear of the eye are rare, but the use of disposable instruments in rectal biopsies, which are more common, could prove costly. The Department of Health said it would seek advice on the implications of the new study.

Tortoise passports could save US cattle herd

Washington Faced with a deadly threat to the nation's cattle, the US Department of Agriculture (USDA) had to act. The solution? Passports for tortoises.

Restrictions on the reptiles' right to roam were finalized last week, following fears that rare breeds of tortoise imported from Africa could be host to ticks carrying heartwater, a deadly cattle disease. African livestock have some resistance to the disease, but officials estimate that a US outbreak could kill 80% of its cattle.

Imports of the tortoises have been banned, but USDA officials fear that animals already in the country could spread the disease if their owners moved them around. An initial total ban on tortoise travel brought protests from pet owners, so the USDA now says that it will supply travel documents to tortoises that have been certified as tick-free.

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