

SEVEN DAYS

The news in brief

POLICY

US budget hopes

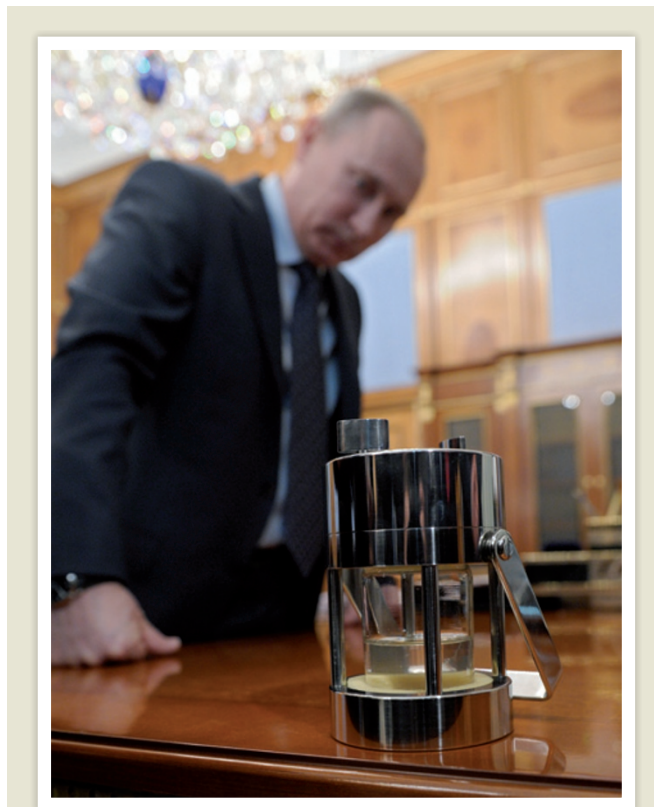
US President Barack Obama proposed slight increases for most major science agencies in his 2013 budget request, released on 13 February. The country's largest research agency, the National Institutes of Health, saw its budget held level. NASA, meanwhile, looks set to lose out, with cuts of 3.2% to its science budget and 21% to planetary science — leading the agency's administrator Charles Bolden to cancel plans for joint Mars missions with the European Space Agency. However, the forthcoming presidential election and existing agreements to trim government spending mean that next year's science budget remains very uncertain. See pages 283–285 for more.

Elsevier boycott

The number of researchers who have signed a public pledge not to support academic-publishing giant Elsevier, headquartered in Amsterdam, passed 5,000 last week. Mathematician Timothy Gowers at the University of Cambridge, UK, began the boycott with a 21 January blog opposing the company's practices, which he says hinder the dissemination of research. By 14 February, 5,847 had signed an online petition. A similar campaign in 2000–01, which attracted 30,000 signatories, was connected to the founding of the Public Library of Science publishing venture headquartered in San Francisco, California. See go.nature.com/uzkmay for more.

Nuclear clean-up

The Japanese government has threatened to withhold about ¥1 trillion (US\$12.8 billion) in rescue funds for the private



Putin's subglacial sample

Russia's Arctic and Antarctic Research Institute in St Petersburg confirmed on 8 February that scientists have managed to drill 3,769 metres through Antarctica's ice sheet to reach the subglacial Lake Vostok. The breakthrough was made on 5 February, the institute said. By 10 February, Russia's prime minister, Vladimir Putin, had acclaimed the discovery, and was presented on national television with a sample of yellowing water (pictured) — although the water was probably from melted ice at the bottom of the borehole, not from the lake itself. The Russian drilling team has now left the borehole until next summer (in December), when they will return to do further analysis. See page 287 for more.

company that runs the stricken Fukushima Daiichi nuclear power plant, unless it gets more say in the firm's operations. On 13 February, Japan's energy and trade minister, Yukio Edano, did approve ¥690 billion for the Tokyo Electric Power Company (TEPCO), which is currently struggling to pay compensation costs and clean

up the plant after it was hit by a tsunami last year. But, Edano said, the larger separate bailout would depend on TEPCO ceding partial control to the government.

US nuclear approval

The United States has given the green light to its first new nuclear reactors since 1978. On 9 February, the

US Nuclear Regulatory Commission (NRC) approved an application by utility giant Southern Company, based in Atlanta, Georgia, to build two pressurized-water nuclear reactors at its Vogtle station near Waynesboro. The company said the reactors could be operating by 2017. However, a US nuclear renaissance seems unlikely, because few other reactor proposals are in the pipeline. See go.nature.com/tws1oz for more.

RIA NOVOSTI

BUSINESS

Biosimilars rules

Drug-makers keen to sell generic forms of branded biological drugs — such as enzymes and antibodies — were excited to finally see draft guidance on the matter emerge from the US Food and Drug Administration (FDA) on 9 February. Proteins are large and complex, so it is much harder to copy drugs based on them than small-molecule drugs (see *Nature* **449**, 274–276; 2007). The FDA wants firms to prove their molecules' similarity to branded biologics before the generics can be approved — but the agency provided few concrete details, instead saying that it would judge on a case-by-case basis. See go.nature.com/nhbvik for more.

Illumina takeover

Illumina, the dominant developer of DNA-sequencing technology, has, as expected, rejected a US\$5.7-billion takeover bid by drug giant Roche, based in Basel, Switzerland. On 7 February, the board of directors of Illumina, which is headquartered in San Diego, California, said that the 25 January offer was “grossly inadequate”, undervaluing its

company's prospects. Roche replied that its bid was "full and fair". The firm is now expected to start wooing Illumina's major investors to accept a takeover — even though Illumina's share price is currently well above Roche's bid.

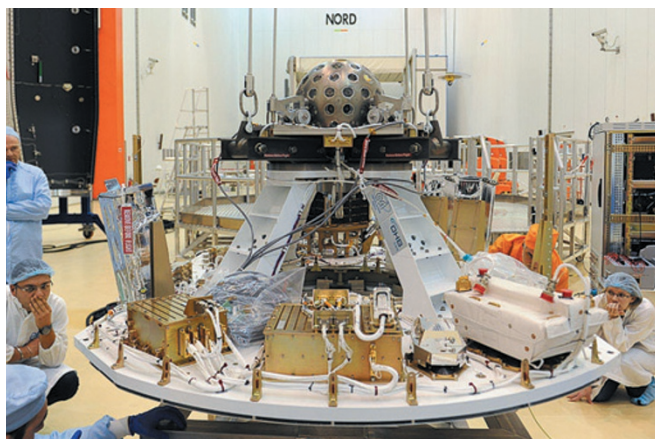
Synbio troubles

US synthetic-biology firm Amyris — which engineers microbes to process plant sugars into useful chemicals — saw its share price plunge by 28% on 10 February, after it admitted that it would not meet its production forecasts for a key chemical, farnesene. The firm, based in Emeryville, California, also said that it would not use its own microbe vats to produce synthetic fuels, leaving high-volume efforts to oil company Total, based in Paris, and biofuel firm Cosan in São Paulo, Brazil, with whom it has signed joint ventures.

RESEARCH

Vega launches

Europe's Vega rocket, a low-cost launcher intended to get small scientific satellites into low-Earth orbit, had a successful maiden flight on 13 February. The inaugural launch, from the European Space Agency's spaceport in Kourou, French Guiana, carried nine satellites; its main research payload was



the Italian Space Agency's Laser Relativity Satellite (LARES, pictured: sphere on top of the rocket's payload) which will study the Lense-Thirring effect, a distortion of space-time caused by Earth's gravity. The Vega rocket has cost more than €700 million (US\$924 million) to develop; five further flights are planned before 2016. See go.nature.com/srl2fb for more.

LHC schedule

On 13 February, operators of the world's most powerful particle accelerator announced their plan for its 2012 run, which starts in March. The new schedule calls for the Large Hadron Collider (LHC), located near Geneva, Switzerland, to smash protons together at an energy of 8 teraelectronvolts (TeV), an increase of 1 TeV

over the previous year, but still well short of the 14-TeV collision energy that the reactor was originally designed to reach. The team expects the LHC to produce around 1,600 trillion proton-proton collisions this year, a threefold increase over 2011. See go.nature.com/xivplh for more.

Denisovan genome

The complete genetic sequence of an extinct relative of humans — the Denisovan — was posted online (see go.nature.com/vvtcfi) on 6 February, allowing others to download the data while the work awaits formal journal publication. Researchers from the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, mapped every position in the genome an average of

COMING UP

16–17 FEBRUARY

In Geneva, Switzerland, the World Health Organization will gather experts to discuss 'urgent questions' about research censorship and public safety, relating to unpublished work on mutant, transmissible strains of the H5N1 influenza A virus. See page 289 for more on the flu-virus debate. go.nature.com/pf7bww

20–24 FEBRUARY

Marine scientists' responses to the Gulf of Mexico oil spill in 2010 are among topics discussed at the Ocean Sciences Meeting in Salt Lake City, Utah. www.sgmeet.com/osm2012

30 times, improving on the 1.9-fold coverage in their 2010 draft genome (D. Reich *et al. Nature* **468**, 1053–1060; 2010). A 30,000–50,000-year-old finger bone found in the Denisova Cave, southern Siberia, in 2008 yielded the genetic material. See go.nature.com/w3evow for more.

PEOPLE

China science prize

Chinese physicist Xie Jialin, who pioneered the building of China's first high-energy linear particle accelerator in 1964, and helped to develop its first free-electron laser in 1993, has won his nation's top science and technology award, worth 5 million renminbi (US\$794,000). The prize — which has been awarded by the country's president annually since 2000 — was presented on 14 February. Architect and town planner Wu Liangyong also won.

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TREND WATCH

Brazil has continued its rapid rise in planting of commercial genetically modified (GM) crops. The country, which is the world's second-largest adopter of such crops, grew 30.3 million hectares of GM soya, maize (corn) and cotton last year, a 19% increase on 2010. Argentina — which plants similar crops and is the third-largest adopter — crept up 3% to 23.7 million hectares. Both stay well behind the United States, which planted 69 million hectares in 2011. In total, 29 countries now plant GM crops.

BRAZIL DRIVES GM CROP GROWTH

Planting of genetically modified (GM) crops grew by 8% in 2011 to 160 million hectares worldwide.

