

# SEVEN DAYS

The news in brief

## FUNDING

### US budget boost

Some US science agencies will receive a modest funding boost under government spending plans worth US\$984 billion in total for 2013, as approved by Congress on 21 March. The budgets announced for the National Science Foundation, Food and Drug Administration and the National Institutes of Health provide follow-on finances from current spending plans that expire on 27 March. But the budget increases do not negate across-the-board funding cuts of 5.1% that began on 1 March. See [go.nature.com/pvoord](http://go.nature.com/pvoord) for more.

### French protest

French scientists went on strike on 21 March to protest against a bill to reform research and higher education. "French universities are being deliberately driven to bankruptcy by laws," campaigners said. Research minister Geneviève Fioraso acknowledged that budget deficits were limiting government spending on science. The bill was adopted by the French cabinet on 20 March and will be presented to parliament on 27 May. It should become law by the end of July. See [go.nature.com/xz7sl7](http://go.nature.com/xz7sl7) for more.

## NUMBER CRUNCH

# £4.4 m

The amount (US\$6.7 million) anonymously donated on 19 March to Britain's cash-strapped Royal Institution to save it from having to sell its 214-year-old London home to pay off debts.



BEZOS EXPEDITIONS

## Apollo engines rise from the deep

Parts of the Saturn V rocket engines that powered NASA's *Apollo* astronauts to the Moon have been recovered from the floor of the Atlantic Ocean. The recovery team — led by Jeff Bezos, founder of the online company Amazon.com — announced on 20 March that it had hauled up enough pieces to rebuild two F-1

engines, which lifted the rockets off the launch pad and then fell into the sea (pictured). NASA launched 13 Saturn Vs, each of which had five F-1 engines, between 1967 and 1973. "We found so much," says Bezos, "an incredible sculpture garden of twisted F-1 engines that tells the story of a fiery and violent end."

### Stem-cell grants

The California Institute for Regenerative Medicine (CIRM) in San Francisco has awarded US\$32 million in grants for research on human induced pluripotent stem (iPS) cell lines. Winners include seven California-based teams that will derive iPS cells from specific tissues to model disease in individual patients. The United States lacks a central iPS-cell bank like those proposed in Japan, but the California initiative will give US researchers access to well-characterized iPS lines for research, says the CIRM.

### Canadian budget

Canada's 2013 budget, published on 21 March, has been welcomed by

applied researchers but criticized by basic scientists. It includes Can\$383 million (US\$383 million) for research infrastructures, university research partnerships with industry and support for growing innovative businesses. But James Turk, executive director of the Canadian Association of University Teachers in Ottawa, notes that "there is a consistent pattern of steering money away from basic research". See [go.nature.com/5plxzb](http://go.nature.com/5plxzb) for more.

## POLICY

### DNA transplants

The United Kingdom has edged closer to being the first nation to legalize *in vitro* fertilization techniques

that prevent children from inheriting diseases caused by faulty maternal mitochondrial DNA. Legislators in London agreed on 20 March to provide the government with regulatory advice on technologies that transplant nuclear DNA from an egg with diseased mitochondria into a healthy donor cell. A consultation found that there was broad public support for the techniques if they are used to prevent serious diseases. The UK government will now decide whether to legalize the technology. See [go.nature.com/gxvwkv](http://go.nature.com/gxvwkv) for more.

### Misconduct rebuttal

The US Department of the Interior (DOI) has rejected allegations brought by

CLIFF MOORE Paul Houser, a former DOI scientific-integrity officer who claimed in 2012 that he was unfairly dismissed for identifying misconduct. The DOI rejected the claims in its first report on alleged misconduct since introducing a scientific-integrity policy in 2011. The report was sent on 19 March to Public Employees for Environmental Responsibility, a watchdog group in Washington DC. See [go.nature.com/1jcafh](http://go.nature.com/1jcafh) for more.

## AWARDS

**Physics prize**

The 2013 Fundamental Physics Prize was awarded to Alexander Polyakov of Princeton University in New Jersey for his work on the quantum mathematics that underpin the standard model of particle physics. The prize, announced on 20 March and worth US\$3 million, is an annual award established by Russian Internet entrepreneur Yuri Milner in 2012 to honour recent advances in physics. See [go.nature.com/a7u4hr](http://go.nature.com/a7u4hr) for more.

**Abel prize winner**

Belgian mathematician Pierre Deligne (pictured) has won the Abel Prize, one of the most prestigious awards in mathematics, worth 6 million Norwegian kroner



(US\$1 million). Deligne, who works at the Institute for Advanced Study in Princeton, New Jersey, was awarded the prize on 20 March for his research over the past 50 years connecting algebra and geometry, and for advancing number and representation theory. The prize is awarded annually by the Norwegian Academy of Science and Letters in Oslo and is named after the Norwegian mathematician Niels Henrik Abel. See [go.nature.com/psnyu2](http://go.nature.com/psnyu2) for more.

## RESEARCH

**Neanderthal genome**

The sequence of the entire Neanderthal genome has been completed from a toe bone found in a cave in central Siberia. Researchers at the Max Planck Institute for Evolutionary Anthropology in

Leipzig, Germany, announced on 19 March that they had generated a genome sequence 50 times the quality of a draft Neanderthal genome released in 2010 (R. E. Green *et al.* *Science* **328**, 710–722; 2010). The higher quality genome, which is available online (see [go.nature.com/o2kd5d](http://go.nature.com/o2kd5d)), could help researchers to chart the evolutionary histories of Neanderthals, their Denisovan relatives and modern humans more accurately.

**Big Bang pictures**

The Planck space telescope has produced the most detailed images yet of the residual glow from the Big Bang. Scientists from the European Space Agency unveiled the results, which give clues to the first moments of the Universe, on 21 March. See page 417 and [go.nature.com/utdcjm](http://go.nature.com/utdcjm) for more.

## BUSINESS

**Solar bankruptcy**

A Chinese subsidiary of the world's largest manufacturer of solar photovoltaic panels announced bankruptcy on 20 March after defaulting on US\$541 million in loans. Suntech Power Holdings was founded in Wuxi, China, in 2001, and led the solar market until fierce competition from 2008 onwards depressed prices. Eight Chinese banks

## COMING UP

**1 APRIL**

UK funding agencies introduce policies that require research to be published as open access. [go.nature.com/7lvzll](http://go.nature.com/7lvzll)

**2–5 APRIL**

In Seefeld, Austria, researchers meet to discuss how ecosystems respond to climate variability and extreme weather. [go.nature.com/m7jb9n](http://go.nature.com/m7jb9n)

asked a court to declare the subsidiary, Wuxi Suntech, as insolvent. The subsidiary did not object to the petition.

## PEOPLE

**Basic science chief**

The National Institute of General Medical Sciences at the US National Institutes of Health in Bethesda, Maryland, appointed a new director on 25 March. Jon Lorsch, a biochemist at Johns Hopkins University in Baltimore, Maryland, will head the US\$2.4-billion-a-year basic-research institute, which has been overseen by acting director Judith Greenberg since 2011.

**Australian tensions**

Australia has its fourth new cabinet minister for science and research in less than 16 months, after prime minister Julia Gillard appointed Craig Emerson to the post on 25 March. The worrying instability is the result of leadership tensions since Gillard deposed former prime minister Kevin Rudd in 2010. On 22 March, former science minister Chris Bowen (a Rudd supporter) resigned after a failed attempt to unseat Gillard. See [go.nature.com/jde9dw](http://go.nature.com/jde9dw) for more.

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## TREND WATCH

The amount of electricity generated from fossil fuels rose to 90% of Japan's total electricity output during 2012, according to the US Energy Information Administration (see chart). Only two nuclear reactors are operating two years after the March 2011 earthquake and tsunami that led to three reactor meltdowns at the Fukushima Daiichi nuclear power plant. Japan has imported liquid natural gas and has increased its consumption of crude oil and heavy fuel oil to meet demand.

**JAPAN'S FOSSIL-FUEL RELIANCE**

Nuclear-plant outages led to a 21% rise in the use of fossil fuels for electricity generation in Japan in 2012.

