

# SEVEN DAYS

The news in brief

## POLICY

### US open-access bill

A bill that requires free public access to academic articles resulting from federally funded research was introduced into the US Congress on 14 February. If passed, the bill would order research agencies to give free access to papers no later than six months after their publication. Currently the US National Institutes of Health requires its research to be publicly accessible after 12 months. This is the fourth such bill on open access to be introduced into Congress. None has yet made it to the voting stage. See [go.nature.com/wm4d77](http://go.nature.com/wm4d77) for more.

### Fusion support

The United States should continue to invest in research on inertial-confinement fusion, in which hydrogen isotopes are rapidly compressed until they fuse and produce energy, says a report released on 20 February by the US National Research Council. The document also

## SOUND BITE

“If Congress won’t act soon to protect future generations, I will.”

US President Barack Obama warns in his State of the Union speech on 12 February that he will move to tackle climate change and reduce pollution if Congress fails to agree on a plan of action.



MARINA PUSTOVA/ITAR-TASS

## Massive meteor strike

The Russian city of Chelyabinsk was rocked by the shock wave from a massive meteor that broke up high above the city on 15 February. More than 1,000 people were injured by flying glass as windows shattered throughout the city. Data from the Comprehensive Test Ban Treaty Organization show that the explosion was the

equivalent of around half a megatonne of TNT. That would correspond to a meteoroid around 17 metres across and weighing 10,000 tonnes. It is believed to be the largest object to strike Earth since a massive body broke up over the Tunguska river in Siberia in 1908. See [go.nature.com/yxeiwq](http://go.nature.com/yxeiwq) and page 281 for more.

calls for continued support for the National Ignition Facility at the Lawrence Livermore National Laboratory in Livermore, California, to help it to reach ignition — the point at which the isotopes produce more energy by fusing than is needed to bring them together.

### New nuclear reactor

The Hongyanhe nuclear reactor in the northeastern Liaoning province of China fired up on 17 February — the first new reactor to start up in the country since it imposed a ban on new nuclear facilities after the 2011 disaster at Fukushima, Japan. The ban ended in October last year. China now has 16 reactors and a generating capacity of 12 gigawatts. It plans to be producing 58 gigawatts of nuclear power by 2020.

### Gene-patent ruling

In a landmark court case, the Federal Court of Australia in Sydney ruled on 15 February that genes are patentable because the isolation of a human gene is the product of human intervention. The decision upholds Australian patent claims held by Myriad Genetics, a genetic diagnostics company based in a Salt Lake City, Utah, that is also facing patent challenges in the United States. The US case is likely to be heard before the Supreme Court later this year.

atomic structures of pathogens requiring level-3 biosafety containment, such as severe acute respiratory syndrome (SARS). The new lab, known as Crystal, is one of only two such synchrotron facilities in the world; the other is housed at the University of Chicago in Illinois. The lab opening was announced on 17 February and will aid the study of pathogens with a major global impact on human and animal health.

## FACILITIES

### Pathogen study

Britain's national synchrotron facility in Oxfordshire has opened Europe's first laboratory with facilities to study the molecular and

## RESEARCH

### CERN data boon

The computer banks at CERN, Europe's premier particle-physics laboratory near Geneva, Switzerland, have now recorded more than 100 petabytes (100 million gigabytes) of data. The data are held on 52,000

WILFRIED ROSENDAHL/REM  
tape cartridges and on more than 17,000 disks at the lab; equivalent to roughly 700 years of high-definition-quality film. Most of the data — 75 petabytes — came from the lab's massive Large Hadron Collider (LHC), which discovered the Higgs boson last July. The announcement about the data came on 14 February, just as the LHC shut down for a two-year technical stop.

## Childhood cancer

Research on childhood cancer should focus more on the needs of developing countries, say experts. In a series of papers published in *Lancet Oncology* on 20 February, the researchers say that deaths from childhood cancers have fallen in wealthy nations, with 94% of such deaths globally now occurring in low- and middle-income countries. They call on policy-makers to ease the way for clinical trials on innovative medicines for childhood cancers. See [go.nature.com/wvxom6](http://go.nature.com/wvxom6) for more.

## Medici skeleton

The first photographs of the skeleton of Anna Maria Luisa de' Medici, the last member of the powerful Florentine Medici family, who died in 1743, have been released. The skeleton of the princess, still adorned with her crown



(pictured), was exhumed in Florence, Italy, in October and is in better condition than researchers expected. DNA and isotope analysis of bone samples will try to uncover more about her lifestyle and cause of death. An exhibition on the Medici opened on 17 February at the Reiss Engelhorn Museum in Mannheim, Germany, which is collaborating with the University of Florence in the project. See [go.nature.com/gws6g3](http://go.nature.com/gws6g3) for more.

## Go-ahead for iPS

The world's first clinical study that puts induced pluripotent stem (iPS) cells into humans was given a conditional go-ahead on 13 February. A review board at the Institute for Biomedical Research and Innovation in Kobe, Japan, gave the green light to a study to treat age-related macular degeneration, a condition that affects the retina and

can lead to blindness. Study leader Masayo Takahashi of the RIKEN Center for Developmental Biology in Kobe now needs approval from the health ministry, which she is set to receive before the end of the next fiscal year in March 2014. See [go.nature.com/bkvonk](http://go.nature.com/bkvonk) for more.

## Hormones disrupted

Synthetic chemicals found in many household and industrial products can disrupt hormonal systems and could have significant health implications for people and wildlife, finds a report from the United Nations Environment Programme and the World Health Organization, published on 19 February. The study is the most comprehensive yet on endocrine-disrupting chemicals, which have been linked to reproductive abnormalities in young men and to breast cancer in women. It calls for more research on the chemicals' health impacts.

### PEOPLE

## Health survey

The head of a survey to measure the health effects of the 2011 Fukushima nuclear accident in Japan is stepping down. Shunichi Yamashita, a radiation health physicist from Nagasaki University, will leave his position as head of

## COMING UP

### 22 FEBRUARY

The United Nations Environment Programme concludes its annual meeting at its headquarters in Nairobi by announcing a centre to help transfer climate-related technology to developing nations. [www.unep.org/gc/gc27](http://www.unep.org/gc/gc27)

### 24–26 FEBRUARY

IAP (formerly the InterAcademy Panel), a global network of science academies based in Trieste, Italy, holds a conference on poverty eradication and sustainable development in Rio de Janeiro, Brazil. [go.nature.com/1cy96n](http://go.nature.com/1cy96n)

the health survey at the end of March 2013 when his contract expires. Yamashita had come under fire from local activists for claiming that the accident would cause few cancers. He will continue to work as a part-time consultant for Fukushima Medical University. A replacement has not been named. See [go.nature.com/hekw1d](http://go.nature.com/hekw1d) for more.

### EVENTS

## Chernobyl collapse

A massive section of the walls and roofing surrounding part of the ruined Chernobyl unit 4 nuclear reactor in Ukraine has collapsed. About 600 square metres of roofing and wall panels fell, probably as a result of a build-up of snow. No radiation leak was detected. The roofing was erected shortly after the accidental meltdown of the reactor in 1986. It will eventually be replaced by a large concrete arch, currently scheduled for completion around 2016.

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## TREND WATCH

SOURCE: GWEC  
The United States and China both installed around 13 gigawatts (GW) of new wind-energy capacity last year, according to provisional figures from the Global Wind Energy Council, the industry's trade association headquartered in Brussels. Of the world's total installed capacity of 282.4 GW, China has 75.6 GW, more than one-quarter (although not all turbines are connected to the grid). Worldwide, 5.4 GW (2% of total capacity) are offshore turbines, most of them in northern Europe.

### MORE POWER FROM THE WIND

Global wind-power capacity grew by 18% in 2012, with most expansion in China and the United States.

