

# SEVEN DAYS

The news in brief

## POLICY

### Animal drug trail

Drug companies that sell antibiotics to US livestock farmers may be required to track where their drugs are going. Under a new rule proposed by the US Food and Drug Administration on 19 May, drugmakers would have to collect data on how their drugs are being sold and used in different livestock. The agency plans to use the data to study how antibiotic usage in animals leads to the development of antibiotic-resistant bacteria. It is accepting comments on the rule until August.

## EVENTS

### LHC breaks record

The Large Hadron Collider (LHC) smashed protons together at a record energy of 13 teraelectronvolts on 20 May. After a two-year hiatus, researchers at CERN, Europe's particle-physics laboratory near Geneva, Switzerland, are gearing up to start taking data at this energy in early June. The latest collisions were designed to calibrate the systems that protect the machine and detectors from stray particles. Although the LHC's detectors were not fully operational during the tests, experiments including ALICE captured the first bursts of particles produced by collisions at this energy.

### Mystery mission

The US Air Force launched its uncrewed spaceplane, the X-37B, from Cape Canaveral, Florida, on 20 May for a secretive classified test. It is the fourth flight of the vehicle, which can remain in low-Earth orbit for more than a year — much longer than the space shuttle could. The vehicle's research purposes



DAVID MCNEW/GETTY

## California deals with massive oil spill

An oil spill from a broken pipeline near Refugio State Beach in California, which has contaminated 14 kilometres of coastline, led the state's governor to declare a state of emergency in Santa Barbara County on 20 May. Oiled birds and mammals have been recovered, some still alive, as government and

private workers try to determine the cause of the leak and contain the damage. According to Plains All American Pipeline, the company in Houston, Texas, that operates the pipeline, a maximum of 2,400 barrels have leaked. Around 500 barrels' worth had been recovered by the end of 24 May.

include testing the effects of the harsh space environment on various materials. The launch also sent ten miniature satellites into orbit, as well as a privately funded solar sail, 'LightSail'.

### Surgeon misconduct

Paolo Macchiarini, famed for transplanting artificial windpipes into patients, committed scientific misconduct in six papers concerning the procedure, according to an independent investigator. Bengt Gerdin at Uppsala University in Sweden found that Macchiarini's papers made the operation sound more successful than it was. The Karolinska Institute in Stockholm, where Macchiarini is a visiting professor, asked Gerdin to examine allegations of scientific misconduct

against Macchiarini after four physicians who had cared for three of the trachea recipients filed complaints. Macchiarini now has two weeks to formally respond to the report. See page 406 for more.

## RESEARCH

### Gibbon rescue plan

A plan to save the world's rarest primate, which resides on China's Hainan Island, has been produced by an international team led by the Zoological Society of London. The plan, released on 19 May, cites a need to limit human activity in the 20 square kilometres of forest that contain the last 25 Hainan gibbons (*Nomascus hainanus*), as well as increased monitoring and habitat improvements. If it becomes extinct, the gibbon

would be the first ape wiped out by human activity: much of its decline from numbers of around 2,000 in the 1950s has been driven by habitat loss from logging (see *Nature* 508, 163; 2014).

### Dolphin deaths

The deaths of more than 1,300 bottlenose dolphins beached in the northern Gulf of Mexico since early 2010 may be related to the massive Deepwater Horizon oil spill, according to a study published on 20 May (S. Venn-Watson *et al.* *PLoS ONE* 10, e0126538; 2015). The spike in dolphin deaths began shortly before the spill in April 2010, which has perplexed scientists. The study found that the dead animals had a much higher incidence of lung and adrenal lesions,

consistent with exposure to petroleum, compared with dolphins that were stranded before the spill or in different areas. See [go.nature.com/ibmbxr](http://go.nature.com/ibmbxr) for more.

## Imperilled EU birds

Loss and degradation of natural habitats such as grasslands and wetlands is threatening 32% of about 450 wild bird species common in Europe. The most extensive report yet in the series *The State of Nature in the European Union*, by the European Environment Agency, finds that species including once-common farmland birds such as the skylark (*Alauda arvensis*) are at risk of extinction or in critical decline. Over-grazing and widespread use of fertilizers and pesticides are among the main threats to bird habitats. However, thanks to targeted conservation, about half of wild bird species are deemed secure.

## Amazon railroad

Brazil and China agreed on 19 May to launch feasibility studies on a transcontinental railroad that would cut transportation costs for soya beans and other exports. China, Brazil and Peru signed a memorandum of agreement last year on the 5,300-kilometre railroad, which would cut through the Amazon and connect ports on the Atlantic and Pacific coasts.



Chinese Premier Li Keqiang (pictured, centre) made the 'Twin Ocean Railroad', estimated to cost around US\$10 billion, a cornerstone of his visit to Latin America. Activists are already raising concerns about impacts on the rainforest as well as on indigenous tribes.

## Retraction request

The senior author on a much-publicized *Science* paper on changing people's views about same-sex marriage asked for it to be retracted on 19 May. Donald Green at Columbia University, New York, made the request after other researchers spotted irregularities in data provided by his co-author Michael LaCour, a graduate student at the University of California, Los Angeles. The study found that short conversations with a canvasser who is gay could encourage people to support same-sex

marriage. *Science* posted an 'expression of concern' online on 20 May, noting that the request was made "because of the unavailability of raw data and other irregularities".

## PEOPLE

### Espionage arrests

Two professors are among six Chinese men who were charged with economic espionage by the US Department of Justice on 19 May. They are accused of stealing information from US companies about an acoustic chip that has consumer electronics and military applications. On 16 May, one of the accused, Zhang Hao, an engineering professor at Tianjin University in China, was arrested in Los Angeles, California, as he got off a flight to attend a conference. This follows other recent cases in which the United

## COMING UP

30 MAY – 2 JUNE

The latest microbial research is presented to about 8,000 researchers from around the world at the meeting of the American Society for Microbiology in New Orleans, Louisiana. Topics include biomedicine, food safety and environmental microbiology. [go.nature.com/bqdg4](http://go.nature.com/bqdg4)

1–5 JUNE

Physicists from a range of fields meet at the Kavli Institute for Theoretical Physics at the University of California, Santa Barbara, for the Closing the Entanglement Gap conference. It focuses on how entanglement can elucidate problems in quantum information, holography and condensed matter systems. [go.nature.com/nrk7xe](http://go.nature.com/nrk7xe)

States has levelled accusations of economic espionage at scientists for the benefit of China.

### John Nash dies

US mathematician John Nash and his wife Alicia were killed in New Jersey on 23 May when their taxi was involved in an accident. Nash won the 1994 Nobel economics prize for a breakthrough he had made in 1950 on game theory. In March, he was awarded an Abel Prize for his contributions to the theory of nonlinear partial differential equations and its applications to geometric analysis. For much of his life, Nash, who was 86, struggled with schizophrenia, an experience portrayed in the 2001, Oscar-winning film *A Beautiful Mind*.

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## TREND WATCH

More papers with huge lists of authors have appeared in the past few years, according to data from Thomson Reuters. Authorships of more than 1,000 were very rare in the early 2000s, but by 2011 more than 130 such papers had been published. The size of these multi-contributor lists has also increased, reaching the record-breaking figure of 5,154 this month for a paper in *Physical Review Letters* by two teams at Europe's particle physics lab, CERN (see *Nature* <http://doi.org/4sn; 2015>).

### MEGA-AUTHORSHIPS SOAR

The number of papers with vast contributor lists has climbed in recent years — as has the size of these gargantuan authorships.

