

SEVEN DAYS

The news in brief

RESEARCH

Embryo editing

The first ever report of genome editing in human embryos sparked debate on 22 April. Scientists in China used a technique called CRISPR/Cas9 to edit the gene responsible for the blood disorder β -thalassaemia (P. Liang *et al.* *Protein Cell* <http://doi.org/34q>; 2015). The work has split opinion over the ethics of such research. A team led by Junjiu Huang, a gene-function researcher at Sun Yat-sen University in Guangzhou, applied the technique to 86 embryos, but the faulty gene was replaced in only 4. Many embryos were found to have 'off-target', or unintended, mutations. The team used non-viable embryos, which could not have resulted in live births because they were produced by eggs fertilized by two sperm. See page 593 for more.

Malaria vaccine

A candidate malaria vaccine known as RTS,S/AS01, which has been in development for nearly 30 years, has failed to prevent deaths in a trial of more than 14,000 toddlers and infants. The results, reported on 24 April (RTS,S Clinical Trials Partnership *Lancet* <http://doi.org/34s>; 2015), showed that the vaccine cut the rate of uncomplicated malaria by 26% in babies aged 6–12 weeks who received a booster dose, and by 18% in those who did not. It had no effect on severe malaria. Regulators will now decide whether and how the vaccine should be used.

POLICY

Europe's GM plan

Individual member states of the European Union (EU) would be able to ban genetically modified (GM) crops otherwise approved for use



NAVESH CHITRAKAR/REUTERS

Death and destruction in Nepal

Widespread destruction and loss of life came to Nepal as a magnitude-7.8 earthquake hit just 80 kilometres northwest of the capital, Kathmandu, on 25 April. As *Nature* went to press, more than 4,000 people had been reported dead, although it is feared that the final death toll will be much higher. The quake happened along

one of the world's biggest geological collision zones, in the Himalayas. Many older buildings with unreinforced masonry collapsed; temples and cultural heritage sites, including those in Bhaktapur (pictured), have been destroyed, says the United Nations Educational, Scientific and Cultural Organization.

across the union, under plans by the European Commission. If adopted, legislation proposed on 22 April would allow countries to opt out of growing approved GM crops and to ban their importation for human food or animal feed. The EU pledged the reform in December 2014 (see *Nature* <http://doi.org/xmq>; 2014). Some researchers hope that it will allow such crops to be approved after years of stalling and debate between pro- and anti-GM nations.

Thai fishing notice

Fish imports from Thailand could be banned in much of Europe in a row over illegal fishing. The European

Commission issued a formal warning to Thailand on 21 April, saying that the country was not doing enough to stop illegal fishing. Thailand has six months to improve monitoring, control and sanctioning systems, or it risks a trade ban.

US energy review

The United States must increase investment in its ageing energy infrastructure to maintain safety, reduce greenhouse-gas emissions and prepare for global warming, the US Department of Energy urged in its Quadrennial Energy Review on 21 April. The report recommends ten-year investments of between

US\$2.5 billion and \$3.5 billion to replace and maintain oil and gas pipelines; \$3 billion to \$5 billion for programmes to ensure energy reliability; and \$3.5 billion to modernize the electricity grid. The White House also announced a new partnership with major energy suppliers, intended to bolster energy infrastructure against extreme weather and climate change.

EVENTS

Hawaiian protest

Protests over the Thirty Meter Telescope (TMT) escalated across Hawaii last week, as Native Hawaiian demonstrators spoke out

against the mega-telescope planned for construction on the sacred mountain of Mauna Kea. The project has legal authority to proceed, but has held off since early April because of the controversy. On 21 April, protestors marched to the offices of governor David Ige in Honolulu, asking for the TMT to be halted permanently. They say it is a desecration of native land. See go.nature.com/hcb6yy for more.

Transatlantic trek

The world's largest liquid-argon neutrino detector has found a new home at Fermilab near Chicago, Illinois, an international collaboration announced on 22 April. The ICARUS detector, which weighs 760 tonnes when full, will journey to the United States from the CERN particle-physics lab near Geneva, Switzerland, where it is being upgraded. Starting in 2018, ICARUS and two similar detectors will hunt for 'sterile' neutrinos, candidates for dark matter. Between 2010 and 2014, it was at the Gran Sasso underground lab in Italy, where it monitored a now-decommissioned beam of neutrinos shot through the Earth's crust from CERN.

Chilean volcano

The Calbuco volcano in southern Chile erupted on 22 April for the first time since



1972. The blast sent an ash plume towering more than 15 kilometres above the cities of Puerto Montt and Puerto Varas (pictured). Ash also fell across much of the neighbouring countryside. Calbuco is one of the most active volcanoes in the southern Andes, and in 1893–94 caused one of the biggest eruptions seen in Chile in recent history.

Head-injury ruling

A US judge has approved a 65-year settlement to resolve thousands of concussion-related lawsuits brought against the National Football League by retired American footballers. The 22 April decision is expected to cost the league about US\$1 billion in total, with awards averaging \$190,000 for conditions including neuromuscular diseases, cognitive impairment

and certain cases of chronic traumatic encephalopathy (CTE), a degenerative brain disorder diagnosed only at autopsy (see *Nature* **518**, 466–467; 2015). The settlement excludes mood disturbances sometimes attributed to CTE, because of the difficulty of ruling out other causes.

PEOPLE

Whistleblower win

The US Environmental Protection Agency (EPA) illegally retaliated against a chemist, Cate Jenkins, who exposed a cover-up of pollution dangers at the World Trade Center site after the terrorist attacks in 2001, said the non-profit organization Public Employees for Environmental Responsibility on 21 April. The statement follows a ruling

COMING UP

3–7 MAY

More than 2,000 space and Earth scientists present their findings at the American Geophysical Union's joint assembly in Montreal, Canada. Topics include craters, thunder, mining and wine production. go.nature.com/mlcmea

5–7 MAY

The Humans to Mars Summit takes place in Washington DC. The event explores the technical, scientific and policy hurdles involved in getting humans to the red planet. go.nature.com/pxvtgh

last month by a judge at the US Labor Department that the EPA deliberately sought to conceal information about the case. The EPA reinstated Jenkins in May 2012, more than a year on from her dismissal, after an appeals board ruled that the EPA did not properly document its case (see *Nature* <http://doi.org/34b>; 2012).

New NASA deputy

After nearly two years, NASA has filled its vacant deputy-administrator post. Dava Newman was confirmed for the position by the US Senate on 27 April. As an aeronautics and astronautics scientist at the Massachusetts Institute of Technology in Cambridge, her research has focused on human space exploration, and she is credited with developing lightweight spacesuits to give astronauts more mobility. The position as NASA's second-in-command had been vacant since Lori Garver stepped down in September 2013.

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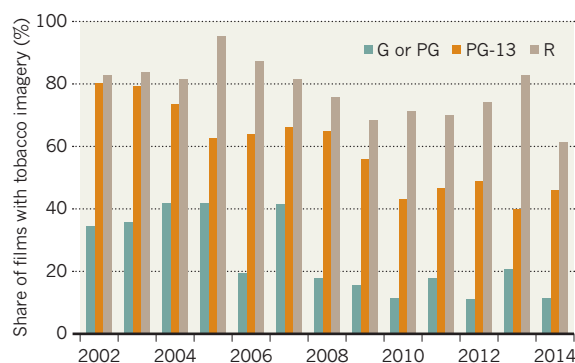
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TREND WATCH

Young film-goers are still viewing large amounts of smoking on screen, according to an analysis of 1,853 box-office hits released in the past 12 years. The report, by tobacco researcher Stanton Glantz at the University of California, San Francisco, and colleagues, shows that in 2014, 36% of films that can be viewed by children without an accompanying adult featured tobacco imagery. Although that was down from 68% in 2002, there was a greater frequency of tobacco incidents in films that did show smoking.

SMOKING ON FILM

The proportion of youth-rated blockbusters that contain tobacco imagery has fallen since 2002.



Ratings according to the Motion Picture Association of America. G, general audience; PG, parental guidance; PG-13, parents strongly cautioned; R, restricted.