SEVEN DAYS *The news in brief*

POLICY

New US travel ban

US President Donald Trump signed a revised version of his controversial travel ban on 6 March, barring citizens of six Muslim-majority nations from entering the United States for 90 days. Trump's previous order blocked people — including those with valid visas — from seven Muslim-majority nations (Iran, Iraq, Libya, Somalia, Sudan, Syria and Yemen) but was suspended by a federal judge. Scientists have been among those affected by the ban and by the uncertainty of US immigration rules. The policies have made it difficult for many foreign-born researchers to leave the country to attend conferences, and have disrupted collaborations. The new ban, which the White House again says is intended to protect the United States from terrorism, does not affect Iraq and people who already have valid visas. It comes into force on 16 March. See page 157 for more.

KEVIN FRAYER/GETTY

China's coal use drops for third year

Coal consumption in China has declined for a third straight year, according to government statistics released on 28 February. The 4.7% drop in coal use last year follows declines of 3.7% in 2015 and 2.9% in 2014. The fossil fuel still accounts for 62% of China's energy consumption, but renewables are on the rise. Solar and wind capacity increased by nearly 82% and 13% respectively, according to the data. Together, clean sources fulfil 20% of the country's energy needs. The report did not include data on greenhouse-gas emissions, but some researchers estimate that China's carbon emissions are falling because of the shift away from coal (see, for example, R. B. Jackson *et al. Nature Clim. Change* **6,** 7–10; 2016).

RESEARCH

Emissions toll

The excess emissions from diesel cars built by the Volkswagen Group that contained test-cheating software could cause 1,200 premature deaths in Europe, according to a 3 March study (G. P. Chossière *et al. Environ. Res. Lett.* **12,** 034014; 2017). In 2015, the German car maker admitted that it had sold 11 million diesel cars worldwide since 2008 that had been installed with software that lowered emissions during regulatory testing. The study looked at the effects of the excess nitrogen oxides emitted from the 2.6 million affected cars sold in Germany, and estimated the impact on mortality using historical emissions data and atmospheric models.

Pollution deaths

One-quarter of deaths of young children result from polluted environments, according to a pair of World Health Organization (WHO) reports released on 6 March. The reports found that factors such as indoor and outdoor air pollution, unsafe water and inadequate hygiene kill 1.7 million children under 5 every year — and many of the deaths are preventable, the WHO says. Of those, 570,000 deaths are from respiratory infections related to poor air quality, and 361,000 are from diarrhoea caused by unhygienic conditions. The reports also cite emerging hazards such as electronic and chemical waste and the effects of climate change.

AWARDS

Award for reward

Three UK-based neuroscientists have won this year's prestigious Brain Prize. Peter Dayan, Ray Dolan and Wolfram Schultz share the €1-million (US$1.1-million) prize for their analysis of how the brain recognizes and processes rewards, and for revealing the central role of the signalling chemical dopamine. The reward system is fundamental to survival: it allows humans and other animals to learn which environments are beneficial to them and which are dangerous. It is also central to many neurological and psychiatric disorders such as drug addiction and schizophrenia. The Brain Prize is awarded annually by Denmark's Lundbeck Foundation.

Open Science Prize

Researchers who created software for tracking pathogens as they evolve and spread have won US$230,000 to develop the tool further, three leading biomedical funders announced on 28 February. The Open Science Prize, founded by the US National Institutes of Health, the Howard Hughes Medical

Institute and Britain's Wellcome Trust, was awarded to the scientists behind Nextstrain — Trevor Bedford, Richard Neher and their team. Their website uses publicly available genetic sequences of emerging pathogens, such as the Ebola and Zika viruses, to chart their spread in real time.

EVENTS

Sentinels pair up

Europe launched its Sentinel-2B craft from Kourou in French Guiana on 6 March, completing a duo of the world's most advanced satellites for monitoring Earth's land, atmosphere and oceans. The satellite will fly in tandem with Sentinel-2A, a craft launched in 2015, to provide visible and infrared imagery of the entire planet every five days (and every two to three days for Earth's mid-latitudes). The pair is the second of six families of Sentinel satellites intended to provide land-cover data to Europe's multibillion-euro Copernicus environmental-monitoring system. The full constellation is planned to be in operational by 2020, with all its data openly accessible.

Mould money

A disc of mould that was part of the original culture of the fungus *Penicillium chrysogenum*, which led to the 1928 discovery of the antibiotic penicillin by Alexander Fleming and his colleagues, was sold at auction on 1 March for £11,875 (US$14,560) — almost three times its estimated price. The glass and plastic medallion was signed on the back by Fleming (**pictured**). He is thought to have made a number of the medallions to give as gifts. In 1996, drug firm Pfizer paid £23,000 for one sample.

BONHAMS

MAVEN manoeuvre

NASA's Mars Atmosphere and Volatile Evolution (MAVEN) spacecraft fired its engines briefly on 28 February to prevent it from smashing into the Martian moon Phobos. Navigation engineers spotted the problem about a week before the probable collision. Since 2014, MAVEN has been looping around Mars in an elliptical orbit on a mission to study the planet's tenuous atmosphere. The European Space Agency's Mars Express spacecraft has made close fly-bys of Phobos before; the probe came within 45 kilometres of the moon in December 2013, but that was an intentional close pass.

PEOPLE

Transplant pioneer

Transplant surgeon and researcher Thomas Starzl — known as the father of transplantation — died on 4 March, aged 90. Starzl performed the first successful liver transplant in 1967 in the United States, and pioneered the use of several immune-suppressing drugs to prevent organ rejection. He also transplanted livers and kidneys from baboons to humans. Starzl spent much of his career at the University of Pittsburgh in Pennsylvania.

CONSERVATION

Ecological areas

Two new oceanic Long-Term Ecological Research (LTER) sites are being funded on opposite coasts of North America by the US National Science Foundation (NSF). The NSF announced on 1 March that it was awarding US$11.2 million over 5 years to fund long-term research on food webs in the northern Gulf of Alaska and off the northeastern US coast, both important areas for fisheries. There are currently 25 LTER sites, most on the US mainland.

FACILITIES

Russian doping lab

Russia will establish an independent laboratory to monitor doping in sport, at Lomonosov Moscow State University, President Vladimir Putin said on 1 March. Last year, an investigation commissioned by the World Anti-Doping Agency found that the doping-control process in Russia has been systematically manipulated. Putin conceded that the existing monitoring system had not worked effectively, but he denied allegations that state authorities had officially supported doping.

COMING UP

9–12 MARCH
The use of engineered cells as tools for discovery is on the agenda at a meeting in Boston, Massachusetts.
go.nature.com/2mxz4sd

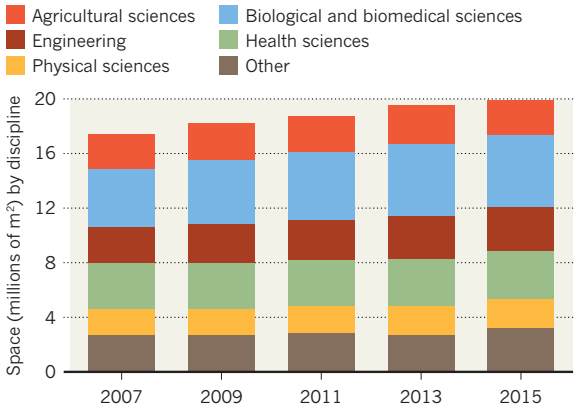
10 MARCH
The high-latitude magnetospheres of Earth, Jupiter and Saturn are discussed at the Royal Astronomical Society in London.
go.nature.com/2lwwlbg

13 MARCH
A symposium at the New York Academy of Sciences focuses on the targeting of tau protein in Alzheimer's disease.
go.nature.com/2mbkxuj

TREND WATCH

Research space dedicated to science in the United States rose by 1.4% from 2013 to 2015, according to the US National Science Foundation's biennial survey of research facilities — the lowest increase since the survey began in 1988. As in past years, biological sciences were allotted the largest share of research space, with 5.19 million square metres, a 2.3% decrease from previous years. Health sciences had the second largest amount of space with 3.64 million square metres.

PRECIOUS SPACE
Lab space at academic institutions in the United States has all but stopped growing.



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