

SEVEN DAYS

The news in brief

FUNDING

US science funding

A budget bill passed by the US House of Representatives on 18 December gave big spending boosts to several US science agencies for the 2016 fiscal year. The National Institutes of Health was widely hailed as the biggest winner, receiving a 6.6% increase over last year's budget, to US\$32.1 billion. NASA also fared well, with an extra \$1.3 billion, raising its total funding to \$19.3 billion. The National Science Foundation saw smaller gains: its budget of \$7.5 billion is just 1.6% more than last year's. See page 446 and go.nature.com/qxwnce for more.

EVENTS

Olive-tree disease

Nine scientists and an official in Italy are being investigated in connection with the outbreak of a bacterial disease that is ravaging the region's olive groves. On 18 December, public prosecutors announced the formal investigation, and halted a cull of 2,000 infected trees. Prosecutors cite concerns that the bacterium, *Xylella fastidiosa*, may have escaped into the environment after being imported from California for a workshop at

NUMBER CRUNCH

+1.3 °C

The average air temperature anomaly — difference from the historical average — over land in the Arctic from October 2014 to September 2015, the highest since 1900.

Source: Arctic Report Card, US National Oceanic and Atmospheric Administration



CHEN YE HUA/XINHUA/CORBIS

Postdoc dies in chemistry-lab fire

A postdoctoral researcher died following an explosion on 18 December in the chemistry department of Tsinghua University in Beijing. According to a notice on the university's official Weibo social-media account, which confirmed the researcher's death, the explosion occurred at 10.10 a.m. local time. The university stated

on Weibo that the fire had been extinguished, and that other personnel had been evacuated. Images shared on social media showed black smoke billowing out of a window of the red-brick Ho Tim building. The cause of the event is under investigation. See go.nature.com/x4myfb for more.

the Mediterranean Agronomic Institute of Bari in 2010. The scientists deny using the *X. fastidiosa* strain in question in the workshop. See go.nature.com/8ejnby for more.

Endocrine ruling

The European Commission acted unlawfully in failing to design scientific procedures to identify chemicals that may affect hormone levels in humans as part of 2012 legislation, the European Court of Justice ruled on 16 December. Sweden brought the case in 2014 after the commission failed to establish criteria for detecting suspected 'endocrine disrupter' chemicals such as bisphenol A — found widely in food, plastics and cleaning products — as

required by the legislation. Some scientists say that the chemicals harm health. The commission, which has two months to appeal the decision, will complete an ongoing impact assessment of endocrine disrupters in 2016 and will establish detection criteria thereafter.

Space success

The California-based space-flight company SpaceX has for the first time soft-landed a rocket booster after using it to propel a payload into orbit. The second stage of the Falcon 9 vehicle, which lifted off on 21 December from Cape Canaveral, Florida, deployed 11 satellites into orbit; the first stage returned to Earth at a landing site 10 kilometres

down the coast, using its boosters to slow its descent. The company had made two previous attempts at rocket retrieval earlier this year, both of which resulted in crashes.

BUSINESS

Viral cancer drug

The European Commission on 17 December approved a trail-blazing cancer-fighting virus called talimogene laherparepvec for the treatment of advanced melanoma. The virus — a modified live herpesvirus made by biotechnology giant Amgen of Thousand Oaks, California — destroys cancer cells directly while also triggering an immune response. The US Food and Drug Administration

approved the drug — the first of its kind to hit the market — on 27 October. See go.nature.com/wlyee for more.

PEOPLE

Harassment report

The University of California, Berkeley, has released its report on sexual-harassment complaints against astronomer Geoff Marcy, who in October stepped down from his faculty position after the accusations came to light. The university made the report and related documents available on 17 December, in response to public-records requests. The documents detail the university's investigation, which ultimately involved four harassment complaints from four individuals. Marcy has not publicly addressed the complaints specifically, and neither he nor his lawyer has responded to *Nature's* request for comment. See go.nature.com/iddc71 for more.

Fraud charges

A controversial pharmaceutical-company executive resigned from one of his posts on 18 December, after being indicted by the US justice department. Martin Shkreli (pictured, centre) stepped down from his role at the company he founded, Turing Pharmaceuticals of New York City, a day after he



was charged with securities fraud in connection with two hedge funds and a drug company he used to run. Shkreli gained notoriety earlier this year when Turing increased the price of an anti-parasite drug from US\$13.50 to \$750 per pill.

POLICY

EU catch limits

The European Union was criticized last week after setting limits for fish catches that were higher than those recommended by scientific advice. On 16 December, ministers from member states agreed on how much fish could be caught in the Atlantic Ocean, North Sea and Black Sea in 2016. But non-governmental organizations and some researchers say that the limits set on some fish stocks exceed levels recommended by independent scientists, and that this

threatens the EU's aim of fishing sustainably by 2020. See page 435 for more.

US climate vetoes

US President Barack Obama has blocked two bills, both approved by Congress, that would have voided regulations to limit greenhouse-gas emissions from power plants. "Climate change poses a profound threat to our future and future generations," Obama wrote in a 18 December letter to Congress announcing his veto of one of the bills. The president vetoed the second bill on 19 December, outlining the decision in a separate letter to Congress.

Lion protection

Lions in Africa and India will receive protections under the US Endangered Species Act, the US Fish and Wildlife Service said on 21 December. Populations in India and West

and Central Africa will be listed as endangered, and lions in southern and eastern Africa will be classed as threatened. Under the designation, US hunters will not be allowed to import lion trophies to the United States under most circumstances. The move comes five years after several conservation groups called on the US government to deem African lions endangered.

US chemical reform

On 17 December, the US Senate passed an update to the Toxic Substances Control Act, a 1976 law that gives the Environmental Protection Agency (EPA) authority to regulate chemicals used in consumer goods and industry. Unlike the existing law, the updated bill would not allow a new chemical to come to market unless the EPA found it likely to be safe. The House of Representatives passed a similar law in June, and the two houses will now attempt to resolve their differences before voting on a single bill and sending it to the president. See go.nature.com/sfuga4 for more.

Data exemptions

European Union politicians and officials agreed on 15 December to exempt scientific research from certain regulations in planned data-protection legislation. Among other laws, research will be exempted from a rule that all personal data remain anonymous indefinitely, which would make it hard for medical researchers to track long-term disease progression. Another rule would have required researchers to obtain fresh consent from donors every time their data or tissues were used in a different study. The compromise allows medical researchers to unmask data in special circumstances and to reuse data and samples for multiple studies in different diseases, as long as a general consent form is signed.

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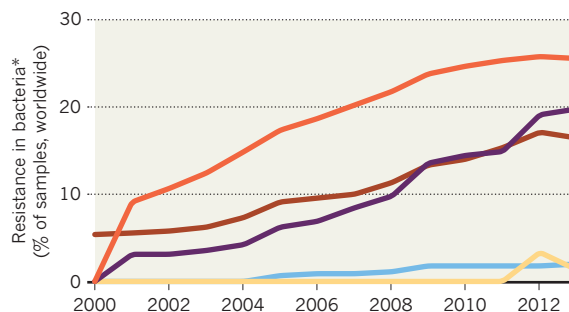
TREND WATCH

Researchers have found that bacteria worldwide share a gene that confers resistance to colistin, a 'last resort' antibiotic. Discovery of the gene was reported in China last month, and has been followed by findings of similar resistance in countries including Denmark, France and Thailand. Bacteria have been slow to develop resistance to colistin — a polymyxin antibiotic developed in the 1950s — compared with other antibiotics because it is little-used in humans. See go.nature.com/hbh2qe for more.

THE SPREAD OF ANTIBIOTIC RESISTANCE

An increasing proportion of bacteria display resistance to common antibiotics.

— Fluoroquinolones — Cephalosporins (3rd gen) — Aminoglycosides
— Carbapenems — Polymyxins



*Enterobacteriaceae, including *Escherichia coli*, *Klebsella pneumoniae*, *Enterobacter* and *Salmonella*