SEVEN DAYS *The news in brief*

FUNDING

UK science money

The UK government will invest £100 million (US$120 million) over 4 years into bringing scientific talent to the country, Chancellor of the Exchequer Philip Hammond announced in the annual budget, on 8 March. The cash includes £50 million for researchers from "emerging research powerhouses", such as India, China, Brazil and Mexico. Hammond also revealed how the government plans to apportion part of a previously pledged £4.7-billion boost for research and development (R&D) by 2021: £270 million will go towards developing batteries for electric vehicles, robots for hazardous environments and drug-manufacturing technologies in 2017–18. The budget also included plans to fund 1,000 extra PhD places and spend £160 million on new research fellowships over the next 4 years, and to reduce the administrative burden of R&D tax credits for companies.

AEI

Trump's pick for FDA is industry favourite

US President Donald Trump selected Scott Gottlieb — a conservative pundit, physician and venture capitalist — to head the US Food and Drug Administration (FDA) on 10 March. Gottlieb serves on the board of several pharmaceutical companies and was the FDA's deputy commissioner for medical and scientific affairs under former president George W. Bush. He has criticized the agency for standing in the way of innovation and slowing patient access to new drugs. Trump's choice for FDA commissioner has been closely watched by the drug industry; reducing regulation is one of the president's top priorities. The sector has broadly welcomed Gottlieb's selection. The Senate must confirm the nomination.

PEOPLE

Nobel winner dies

Chemist George Olah, who won the 1994 Nobel Prize in Chemistry, died on 8 March, aged 89. Olah, who was born in Hungary but later became a US citizen, is famous for his use of exceptionally strong 'superacids' to prolong the lifetime of reactive molecules formed fleetingly in chemical reactions. His 1960s work to stabilize and study these ephemeral 'carbocations' (positively charged carbon-based fragments) helped to transform chemists' understanding of how reactions occur. Later in life, he was a strong advocate of alternative energy sources, in particular the 'methanol economy' — the idea that methanol can replace oil and gas as the basis of an economy's means of energy storage and transport fuel.

LIGO pioneer dies

Scottish physicist Ronald Drever, a co-founder of the Laser Interferometer Gravitational-wave Observatory (LIGO), died on 7 March, aged 85. Drever was recruited by the California Institute of Technology in Pasadena in 1979 to help start LIGO. He introduced key improvements in interferometers that boosted their sensitivity to gravitational waves — helping to make possible the historic first detection of the phenomenon in 2015. But a controversy over the leadership of the experiment led to him being forced out in 1992. Drever spent his latter years with advanced dementia in Edinburgh, UK. Following the LIGO discovery, he shared several major awards, including the Breakthrough, Gruber, Kavli and Shaw prizes.

Cancer chief quits

Cancer researcher Ronald DePinho has resigned as president of the University of Texas MD Anderson Cancer Center in Houston, one of the United States' leading cancer centres. DePinho's resignation, announced on 8 March, ends a presidency plagued by scandals that started soon after he took the position in 2011. The centre, which does basic and clinical research, is also struggling financially, and reported a US$267-million operating loss at the end of the 2016 fiscal year.

RESEARCH

Last chimp study?

Researchers have created a seemingly effective oral Ebola vaccine for apes such as gorillas and chimpanzees — but the work is unlikely to be developed further because it results from what might have been the last biomedical study in captive chimpanzees in the United States. Ebola infects great apes as well as humans, and one study has estimated

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that a 2002–03 outbreak in the Congo killed at least 5,000 gorillas (M. Bermejo *et al. Science* **314,** 1564; 2006). The vaccine trial, published on 9 March (P. D. Walsh *et al. Sci. Rep.* **7,** 43339; 2017) was carried out before the US Endangered Species Act was extended in 2015 to protect captive chimpanzees, barring nearly all invasive research using the animals.

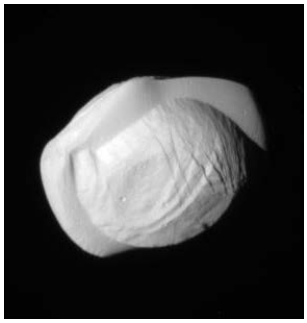
CRISPR in embryos

Scientists in China have for the first time performed CRISPR–Cas9 gene editing in viable human embryos, in a small study. Teams have previously edited human embryos with CRISPR, but used embryos that could not have developed into babies, and the technique has had a relatively low success rate at correcting mutations. In the latest work, Jianqiao Liu at the Guangzhou Medical University and his colleagues tried to fix faulty genes in six embryos that carried a hereditary disease. CRISPR had some success in three embryos: in one, it corrected the mutation in all cells; in two, only some of the cells were corrected (L. Tang *et al. Mol. Genet. Genomics* http://doi.org/b35x; 2017).

Space ravioli

Space walnut? Space ravioli? Neither is an official planetary designation, but Saturn's moon Pan seems to be in the running for both. On 7 March, NASA's Cassini spacecraft snapped a series of images of the unusually shaped moon — the closest ever taken of the satellite, from a distance of 24,572 kilometres. The skirt of material around Pan, one of Saturn's innermost moons (**pictured**), was probably accreted from surrounding dust. The satellite, which has an average diameter of about 28 kilometres, is a 'shepherd' moon that clears an area known as the Encke gap in Saturn's rings. Cassini is swooping through the Saturn system in the final months of a mission that began in 1997 and will end in September.

NASA/JPL-CALTECH/SPACE SCIENCE INSTITUTE



Patchy progress

Women are publishing more studies, being cited more often, and securing more first-author positions than they were in the mid-1990s — but overall progress towards gender parity varies widely by country and field, according to a comprehensive report published by Elsevier on 8 March. The report compared progress between two five-year periods, 1996–2000 and 2011–15, in 11 countries and the European Union. The proportion of female researchers increased in all 12 regions; women make up more than 40% of researchers in 9 regions, including the United States and the EU. But they still comprise less than 25% of researchers in the physical sciences in most regions. The proportion of women filing patent applications grew only from 10% to 14% between the two 5-year periods.

BUSINESS

Self-driving deal

US chip maker Intel announced on 13 March that it had agreed to pay US$15.3 billion for Mobileye, a Jerusalem-based company that develops driverless-car technology. The two companies were already working together with German carmaker BMW to bring self-driving cars to the road, and Intel says that the purchase will help it to dominate the market — which could be worth $70 billion per year by 2030. Electric-car maker Tesla has installed Mobileye technology on some of its cars, but the collaboration ended last year following a controversy over safety. Car-hailing company Uber and technology giants Google and Apple are also investing heavily in self-driving technology.

COMING UP

16–17 MARCH
The International Congress on Clinical Trials in Oncology and Hemato-Oncology takes place in London.
icto2017.com

17–20 MARCH
Tailored vaccines are discussed at the 2nd Personalized Medicine Conference, in Cancún, Mexico.
go.nature.com/2mthotq

20–23 MARCH
The 5th Quantum Gravity in Paris conference meets.
go.nature.com/2mt90tr

EVENTS

Bleaching is back

Mass coral bleaching is occurring again on the Great Barrier Reef, the Australian government confirmed on 10 March. Widespread bleaching — during which high water temperatures cause corals to expel their symbiotic algae, and sometimes to die — occurred last year on hundreds of kilometres of the reef, raising fears over the future of the natural wonder. In a statement, the Great Barrier Reef Marine Park Authority said that widespread bleaching had been observed on the reef for the fourth time in history, and that it was the first time that bleaching events have occurred in successive years.

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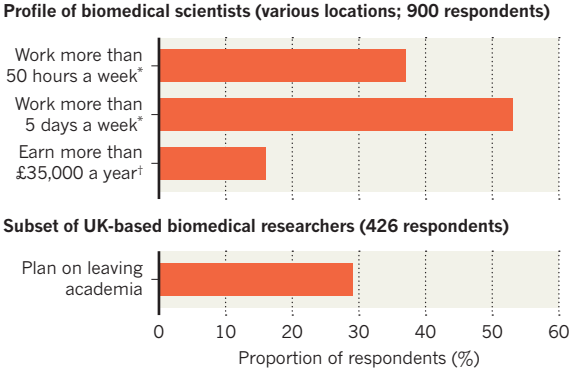
TREND WATCH

More than half of academic biomedical scientists work more than 5 days a week, according to a survey of 900 researchers on their working conditions (N. Riddiford *F1000Research* **6,** 229; 2017). About half of respondents were based in the United Kingdom, and most were PhD students or postdocs. Nearly 40% of respondents reported working more than 50 hours in the week preceding the survey, and just 16% earn more than £35,000 (US$42,000) per year. All but 2% were on short-term contracts.

HARD WORK AND LONG HOURS

A survey of biomedical researchers finds that many are disillusioned with academia owing to the long hours and relatively low reward.



* Week preceding survey; † US$42,000.

SOURCE: N. RIDDIFORD *F1000RESEARCH* **6,** 229 (2017)

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