

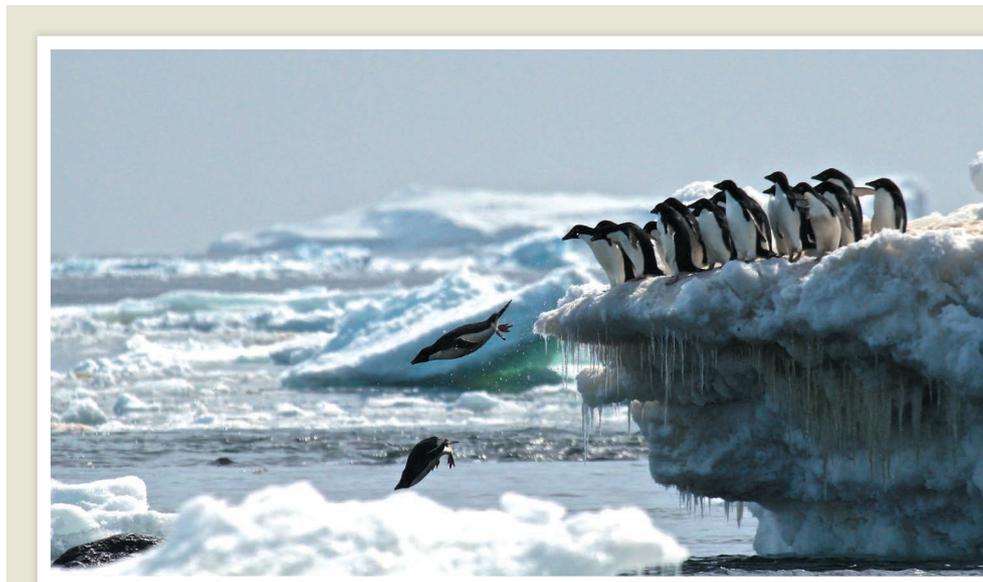
PEOPLE

Leadership change

The head of the National Natural Science Foundation of China has stepped down, the government announced on 27 February. Yang Wei, a materials scientist, had led the funding agency since 2013 and had become a crusader for research integrity in China. He will be replaced by chemical engineer Li Jinghai. Li is a former vice-president at the Chinese Academy of Sciences and a current vice-president at the International Council for Science. NSFC grants are the main source of funding for researchers in China. In 2017, 10.7 billion yuan (US\$1.69 billion) from the agency supported more than 18,000 research projects. Yang told *Nature* he plans to return to academic research in soft-matter physics.

Iranian scholar

Ahmadreza Djalali, a disaster-medicine researcher sentenced to death in Iran for spying, protested his innocence in a letter to the country's president, Hassan Rouhani, on 4 March. Djalali, an Iranian who lived in Sweden, was arrested in Tehran in 2016 and convicted for espionage last October. In February, he filed a libel complaint against the spokesperson of the Iranian foreign affairs ministry over statements that linked him to the deaths of two Iranian nuclear scientists. In the letter, Djalali says that he has been subjected to an unjust judicial process and has never confessed to being a spy or been involved in the assassination of Iranian scholars. He has twice unsuccessfully appealed against his death sentence, but he can still appeal to other branches of Iran's Supreme



RACHAEL HERMAN, LOUISIANA STATE UNIV./STONY BROOK UNIV.

Surprise Adélie penguin population

Using aerial drones together with field expeditions, scientists have confirmed that there are more than 1.5 million Adélie penguins (*Pygoscelis adeliae*) on the Danger Islands, a remote island chain off the western coast of Antarctica. The penguin group, one of the world's largest, has not suffered the population declines seen in other areas of the Antarctic

Peninsula, the researchers reported on 2 March (A. Borowicz *et al. Sci. Rep.* <http://doi.org/ck5j>; 2018). Scientists found the colony by combining drone surveys and field expeditions to validate satellite images. The animals might have gone undetected for decades because thick sea ice surrounding the islands made them difficult to reach, the scientists say.

Court. Sweden has granted Djalali citizenship as a sign of support.

German minister

In a surprise move, German Chancellor Angela Merkel has chosen little-known lawmaker Anja Karliczek as the country's next minister of education and research. Karliczek, a Christian Democrat who has been a member of the German parliament since 2013, has a background in banking and business but little experience in science and education policy. She succeeds Christian Democrat Johanna Wanka, who had served in the post since 2013. The selection must be approved by Germany's incoming government. On 4 March, the Social Democrats

voted in favour of forming a new government coalition with Merkel's Democratic Union, ending a five-month political impasse.

UNIVERSITIES

Harassment report

The University of California, Berkeley, mishandled reports of sexual misconduct by staff and students, the US Department of Education said on 28 February after a four-year investigation. The probe began after 31 students filed a complaint in 2014, alleging that the university had violated federal laws against sex discrimination. The government found that the institution had not always resolved complaints in a

timely manner or provided opportunities for formal investigations. The university will amend its policies, re-examine eight cases of alleged sexual misconduct and submit to government monitoring for two years. "We remain committed to doing more to improve our processes and ensure a safe and supportive environment," university chancellor Carol Christ said in a statement.

FUNDING

Budget boost

Hong Kong will invest more than 50 billion Hong Kong dollars (HK\$; US\$6.4 billion) in science, technology and innovation. This year's budget was announced on

28 February and builds on the HK\$10 billion invested in these areas last year. The government will allocate HK\$20 billion to the upcoming Hong Kong–Shenzhen Innovation and Technology Park, to promote ventures between Chinese and international companies. Another HK\$10 billion will fund new research centres specializing in artificial intelligence, robotics and health care. Technology companies can tap into a HK\$500-million-grant offering subsidies for hiring postgraduate students.

BUSINESS

Singapore deal

Chinese tech giant Alibaba will open its first research centre outside China at Singapore's Nanyang Technological University (NTU). The company announced on 28 February that the Alibaba–NTU Singapore Joint Research Institute will initially involve 50 researchers from both organizations, and it will focus on machine learning, cloud computing and natural-language-processing capabilities. Alibaba's backing for the five-year partnership is estimated to be worth more than 42.5 million Singapore dollars (US\$32 million), and is NTU's largest investment from a company so far. The funding

comes from Alibaba's US\$15-billion global research and development programme.

SPACE

Satellite launch

NASA launched the United States' latest weather satellite on 1 March. The Geostationary Operational Environmental Satellite-17 (GOES-17) will operate at 35,800 kilometres above the equatorial Pacific, and it is the most recent in a series of geostationary satellites operated by the National Oceanic and Atmospheric Administration. The craft will monitor phenomena including wildfires, snow cover, clouds and storms. Together with the identical GOES-16, which is already in position over the Atlantic, the satellites will provide weather forecasters with a view extending from the west coast of Africa to the United States and New Zealand. See page 154 for more.

Red rover

NASA has tested an alternative way for its Mars Curiosity rover (**pictured**) to collect samples on the red planet. The rover's drill stopped working in December 2016 because it could no longer be extended and retracted properly. Curiosity will now push its entire robotic arm forward to



press the drill bit against the rock, NASA announced on 28 February. Since landing in 2012, the rover has drilled and sampled only 15 times. It is currently exploring a region of Mars known as Vera Rubin Ridge.

EVENTS

Genetic predictions

The US National Institutes of Health will launch a two-year pilot project to study the effects of gene variants on various human traits. The Genomic Ascertainment Cohort project, announced on 1 March, will use genomic data from 10,000 individuals to make predictions about traits such as height and blood type. Investigators will then re-examine study participants

who have consented to be contacted again, to test those predictions. The project will be carried out in conjunction with Inova, a health-care organization headquartered in Falls Church, Virginia.

Italian boycott

Italy's National Institute of Health boycotted a national biology conference on 2 March over concerns that anti-vaccine ideas would be promoted. At the meeting — organized by the National Order of Biologists (ONB), a professional organization — Nobel-prizewinning virologist Luc Montagnier and ONB president Vincenzo D'Anna questioned the safety of some vaccines and criticized compulsory immunization programmes. The conference programme sparked uproar in Italy's scientific community when it was announced in January. Academics and scientific societies, including the Italian Society of Microbiology and the National Board of Physicians and Surgeons, had urged the ONB to revise the meeting agenda.

Integrity office

The CNRS, France's national research agency, will create a research-integrity office. Agency chief Antoine Petit said that the lack of such a body at the CNRS, which has 32,000 staff members and is Europe's largest basic-research agency, was significant. He said that he was keen to uphold due process in misconduct investigations, and that any disciplinary actions should be serious but proportional. Petit also emphasized that the agency must create a culture that discourages misconduct. A working group chaired by Olivier Le Gall, head of the French Office for Scientific Integrity, will propose details of the body's structure within three months. Petit announced the initiative on 1 March.

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TREND WATCH

A study in China shows that farming interventions such as applying fertilizer at specific times in the growing cycle can decrease the amount of fertilizer that must be used, increase crop yields and reduce greenhouse-gas emissions. The large study, carried out in 2005–15 and published on 7 March in *Nature*, aimed to improve the sustainability and efficiency of nearly 21 million smallholder farms. Small farms in China use nitrogen fertilizers at four times the global average. See page 141.

REDUCING FARM EMISSIONS

Managing fertilizer use on small farms in China reduced greenhouse-gas emissions.

