

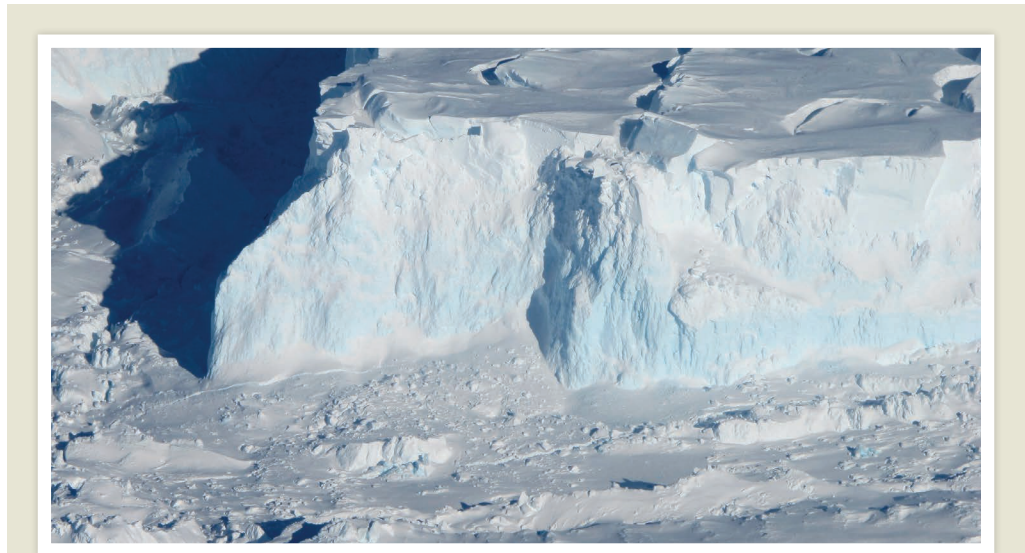
EVENTS

AI boost for Europe

The European Commission will increase its spending on artificial intelligence (AI) to €500 million (US\$604 million) per year for three years starting in 2018, up from about €300 million the previous year. The cash, announced on 25 April, is part of an initiative designed to boost Europe's standing in the field. Other plans include creating ethical guidelines for AI development and proposing legislation to increase the amount of publicly available data. Separately, a group of prominent European AI researchers signed an open letter on 24 April warning that the continent's AI laboratories, investments and companies are not keeping pace with rivals in North America and China. The statement calls on European governments to create an AI institute with sites in several countries, similar in scope to the European Molecular Biology Laboratory. Each location should have an initial investment of around €100 million, the letter says.

Facebook data

Facebook's tightening of third-party access to user data in the wake of the Cambridge Analytica controversy risks hampering research, a group of academics has argued. In an open letter published on 25 April, prominent data and Internet scientists said that restrictions on how third parties access social-media data were likely to diminish transparency and independent oversight of such platforms. They welcomed a Facebook initiative, announced on 9 April, to encourage peer-reviewed research on the role of social media in elections and democracy, but they said that the proposal's narrow terms of reference and use of a hand-picked panel of scholars



JAMES YUNGEL/NASA

Nations join to watch for glacier collapse

UK and US polar scientists are launching a £20-million (US\$27-million) effort to probe the Thwaites glacier in Antarctica. The five-year project, announced on 30 April, is the biggest joint Antarctic effort by the nations in more than seven decades. The programme will fund eight studies and is set to begin this October. Researchers will gather radar, seismic and other

data on the glacier to understand whether it is headed for collapse. The glacier's drainage basin covers an area roughly the size of Britain on the West Antarctic Ice Sheet, and it already accounts for about 4% of global sea-level rise. The programme is being funded by the UK Natural Environment Research Council and the US National Science Foundation.

to define the research agenda mean that it risks failing to support independent research.

Suspected killer

Law-enforcement officials in California used DNA data found on a genealogy website to track down a suspected serial rapist and murderer, raising widespread concerns about genetic privacy. *The Sacramento Bee* newspaper broke the story on 26 April, reporting that investigators had used the free database, called GEDmatch, to find relatives of the suspected 'Golden State Killer', whose alleged crimes date back to the 1970s. In a statement, GEDmatch said that it had not been consulted about this use of its data, and noted that it had always warned users that the database could be used for

other purposes. The suspect, who is 72, has so far been charged with 8 murders. See page 5 for more.

POLICY

Letter to Trump

Nearly 700 members of the US National Academy of Sciences (NAS) have signed a public letter that denounces the administration of US President Donald Trump for its hostility to science. The statement, published on 23 April, admonishes Trump for withdrawing the United States from the Paris climate accord, and warns of the consequences of disregarding scientific evidence. The letter encourages the administration to maintain scientific content on publicly available websites, to appoint qualified people to posts

requiring scientific knowledge, to stop intimidating government researchers and to rejoin the Paris Agreement. The members signed as individuals, and not on behalf of the NAS.

Insecticide ban

The European Union has voted to ban the use of certain controversial neonicotinoid insecticides on all outdoor crops. The vote, which took place on 27 April, ends years of bitter wrangling between those supporting a ban, including environmentalists and many scientists, and opponents. An influential scientific review concluded in February that the insecticides pose a high risk to wild bees and honeybees. The three neonicotinoids of greatest concern for bee health — clothianidin,

imidacloprid and thiamethoxam — will not be allowed to be used outdoors, but can be used in permanent greenhouses. The ban is binding for all EU member states, and it will enter into force by the end of 2018.

SPACE

Mars-rock return

NASA and the European Space Agency (ESA) are considering a joint mission to bring soil samples from Mars to Earth, a statement announced on 26 April. The venture, which would help to illuminate Mars's potential to harbour life, is no small feat. It would require both agencies' future Mars rovers, which are set to land on the red planet in 2021, to collect soil samples from the Martian surface and just beneath. A third rover would pick up the samples and place them in a rocket to be launched into a Martian orbit, where it would rendezvous with a spacecraft that would fetch the specimens and bring them to Earth. Plans for the rover and spacecraft are yet to be approved.

Moon mission

NASA has apparently cancelled a future lunar-rover mission, despite a directive from US President Donald Trump to focus on returning to the Moon. The Resource Prospector spacecraft was

scheduled to launch in 2022 to mine substances such as hydrogen and water. Results from that mission would have been used to inform human exploration of the Solar System. On 27 April, NASA head Jim Bridenstine tweeted that Resource Prospector's instruments would still be used, presumably separately from the rover, in missions to the surface of the Moon. One influential group of lunar scientists, the Lunar Exploration Analysis Group, criticized the move and argued that the rover should be a key component of NASA's renewed focus on lunar landings.

POLITICS

Nuclear site

North Korea's mountain nuclear test site (pictured) partially collapsed after the most recent nuclear detonation in September 2017, say Chinese researchers. A 4.1-magnitude earthquake occurred 8.5 minutes after the blast at Punggye-ri in the country's north, followed by several smaller earthquakes 20 days later; the authors say these tremors indicate rock falling in from above the blast cavity and note that the mountain should be monitored for potential radioactive leakage. The findings were published on 27 April (D. Tian *et al. Geophys. Res. Lett.* <http://doi.org/cn3t>; 2018), the same



day that North Korean leader Kim Jong-un met South Korea's President Moon Jae-in and pledged to close the nuclear test site in May.

Record wait

The US National Oceanic and Atmospheric Administration (NOAA) has been without a permanent administrator for more than 15 months — a record for the agency. US President Donald Trump nominated AccuWeather chief executive Barry Myers to head NOAA in October 2017, pending Myers's confirmation by the Senate. But the Senate vote has been held up over concerns about potential conflicts of interest. AccuWeather uses NOAA data to provide a host of weather-related services, and is owned and operated by Myers and his two brothers, Joel and Evan. Myers has said he will step down and divest himself of interests in the company

if he is confirmed, but critics are sceptical that he can disentangle himself from the business.

BUSINESS

CRISPR arguments

A US appeals court heard oral arguments in the ongoing dispute over rights to key CRISPR-Cas9 genome-editing patents on 30 April. The University of California and its collaborators are appealing against a 2017 decision by the US Patent and Trademark Office to recognize a competing patent filed by a group led by the Broad Institute in Cambridge, Massachusetts. In the appeal, the California team argued that the patent office erred in deciding that the Broad's CRISPR patent represented a significant invention beyond that covered by the University of California's patent. If either party is not satisfied by the appeals court's decision, expected later this year, they could then appeal to the US Supreme Court.

ENVIRONMENT

Reef rescue

Australia's government will spend around Aus\$500 million (US\$377 million) to help the beleaguered Great Barrier Reef, it said on 29 April. Aus\$444 million will go to the Great Barrier Reef Foundation to tackle threats such as water pollution and invasion by crown-of-thorns starfish, and to support restoration efforts. Another Aus\$56 million will be given to the Great Barrier Reef Marine Park Authority to expand its management of the reef. Critics pointed out that the funding ignores the reef's biggest threat — climate change. A study last month found that global warming was a factor in the 2016 coral-bleaching events that damaged around one-third of the reef's corals (T. P. Hughes *et al. Nature* **556**, 492–496; 2018).

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TREND WATCH

Scientists have reason to hope that North Korea will soon open up to more collaborations after historic peace talks last week with South Korea. North Korea publishes little research, but its output is growing. Its scientists published about 80 articles in international journals last year, more than 4 times their 2014 output, according to the Web of Science database. Some 60% of North Korean papers since 2015 name Chinese co-authors. Main topic areas include geosciences, engineering and materials science.

NORTH KOREA'S SCIENCE

The isolated nation publishes just tens of articles in international journals each year. Its researchers' main collaborators are in neighbouring China.

