

POLITICS

Scotland's research

The Scottish government and seven bodies representing the nation's research and higher-education sectors — including Universities Scotland and the Royal Society of Edinburgh — have agreed to work together to protect Scottish research from Brexit. The alliance released a joint statement on 22 November, coinciding with a summit at the University of Glasgow that attracted research leaders from across Scotland. The group aims to use its influence to press the UK government for clarifications and firmer guarantees on research, as well as to give Scotland a visa system that allows overseas students and postgraduates to stay on and work after their studies. Around 27% of its full-time researchers and 10% of its university students are nationals of other European Union countries. Once Britain leaves the EU, it is likely to be harder for them to come to the United Kingdom to work.

Brexit framework

European Union leaders meeting in Brussels on 25 November approved a declaration on the EU's future relationship with the United Kingdom. Billed as a framework that will form the basis of a trade deal beyond the end of a transition period in December 2020, the 26-page document confirms Britain's intention to end free movement across its borders. It includes a pledge by both parties to consider arrangements "for entry and stay for purposes such as research, study, training and youth exchanges". The document reiterates the United Kingdom's intention to pay to participate in EU programmes in areas including science and innovation. And it says that the country aims to remain a



JOSH EDLSON/AFP/GETTY

Dire US climate-change forecast

Climate change is already affecting life in the United States, and its impacts are set to become more dramatic in the coming decades, according to the US government's fourth national climate assessment. The analysis, produced by 13 federal agencies and required by law every 4 years, was released on 23 November. Among other things, the report finds that higher temperatures and drier conditions have led to more large fires in the western United

States (pictured), and the combination of rising seas and extreme precipitation has boosted flood risks along the east coast. The core message of the document contradicts positions taken by US President Donald Trump's administration, which released the report on Black Friday, the day after the US Thanksgiving holiday. Some scientists and environmentalists have suggested that this timing was part of an attempt to downplay the report's findings.

part of the European Research Infrastructure Consortium of research networks, two of which it currently hosts, and of the European Defence Fund, a scheme established last year whose research budget could rise to around €500 million (US\$570 million) a year from 2021. At the same meeting, the EU leaders endorsed a withdrawal agreement, published on 14 November, which lays out the terms of Britain's exit from the EU.

FACILITIES

China's mega 'LHC'

Beijing's Institute of High Energy Physics (IHEP) is designing the world's

biggest particle smasher. The 100-kilometre-circumference facility would dwarf the 27-kilometre Large Hadron Collider (LHC) at CERN, Europe's particle-physics laboratory near Geneva, Switzerland. The ambitious 30-billion-yuan (US\$4.3-billion) facility, known as the Circular Electron-Positron Collider, is the brainchild of IHEP's director, Wang Yifang. The collider will produce Higgs bosons by smashing together electrons and their antimatter counterparts, positrons. Because these are fundamental particles, their collisions are cleaner and easier to decipher than the LHC's proton-proton

collisions, so once the Chinese facility opens, in about 2030, it will allow physicists to study the mysterious particle and its decay in exquisite detail. Initial funding has come from the Chinese government, but the design is the work of an international collaboration of physicists that hopes to garner international funding. The blueprints published on 14 November reveal that the collider would run in a circle 100 metres underground, at a location yet to be decided, and would host two detectors.

Science in a cloud

A preliminary version of the European Open Science Cloud online portal launched

GERARD JULIEN/AFP/GETTY on 23 November. Scheduled to become available in full in 2020, the portal is intended to make it easier for European researchers to store, analyse, share and reuse data. The launch of www.eosc-portal.eu — which will eventually provide a single entry point to existing data repositories, as well as cloud-computing facilities and analysis tools — comes after two years of consultation and development. At the launch in Vienna, the European Commission also announced the make-up of the initiative's executive board, which will comprise representatives of university associations, data infrastructures and research institutes, as well as three independent experts. The commission plans to allocate €600 million (US\$680 million) to the initiative by 2020.

African artefacts

Tens of thousands of African artefacts in French museums should be returned, concludes a 23 November report commissioned by the country's president, Emmanuel Macron. The report — by economist Felwine Sarr at Gaston Berger University in Saint-Louis, Senegal, and historian Bénédicte Savoy of the Collège de France in Paris — calls on France to amend its laws to



allow for the repatriation of cultural artefacts acquired during the French colonial period in Africa (pictured), if African countries request their return. This includes artefacts from the late nineteenth century until 1960 and those later acquired illicitly. The Quai Branly Museum in Paris holds some 70,000 objects from sub-Saharan Africa.

POLICY

Salk settlement

The prestigious Salk Institute for Biological Studies in La Jolla, California, has settled the final one of three high-profile gender-discrimination lawsuits filed last year. The agreement was announced on 21 November. Molecular biologist Beverly Emerson filed

the suit in July 2017, arguing that discrimination against women at the Salk had limited her wages, laboratory space and research funding. Two other senior female scientists brought similar suits against the institute, and settled their cases out of court in August 2018. Emerson had worked at the Salk for more than three decades, but in December last year, the institute declined to renew her contract. She is now at Oregon Health and Science University in Portland. “Salk recognizes Dr. Emerson's more than thirty years of service to the Institute and looks forward to her continued contributions to the scientific community,” says a joint statement from Emerson and the institute, e-mailed to *Nature*. The statement does not provide any further information on the settlement. Alreen Haeggquist, Emerson's lawyer, says that neither she nor Emerson has further comment.

Plan S detailed

A group of 16 science funders have detailed their ambitious plan to ensure that, by 2020, the results of the research they support is immediately free to read. Since the September launch of the initiative, known as Plan S, scientists have speculated as to how it could affect their research.

Many publishers have also expressed serious concerns about the proposal and have questioned its rationale for excluding ‘hybrid journals’ — journals that allow researchers to make their work free to read if they pay a fee, but that keep other studies behind a paywall. Now, documents released on 26 November clarify that researchers will be allowed to publish in hybrid journals if they can post the accepted manuscript or final article in an approved open-access repository at the time of publication — but in these cases, the funder will not pay for publishing. The plan's documents also list three ways in which researchers can publish work that is compliant with the plan: publish in an open-access journal or platform approved by the funders; immediately put a copy of the manuscript accepted by the journal, or the final published article, in an approved open-access repository; or use a hybrid journal that intends to become a full open-access venue. Under all three routes, the papers must be published with a liberal CC BY licence, which allows commercial reuse of the papers' findings. The posting of an article to a preprint server is not, alone, sufficient to comply with these rules.

TREND WATCH

Biomedical research is becoming more open and transparent by providing increasing amounts of information about funding, conflicts of interest and data sharing in its publications, according to a survey of recent papers. John Ioannidis at Stanford University in California and colleagues examined 149 papers published between 2015 and 2017 to see how many included information on indicators of transparency, such as who funded the work, potential conflicts of interest, and the availability of the raw data and complete research protocols. They found that the majority of

papers contained statements on funding and conflicts of interest (69% and 65%, respectively), and almost one in five mentioned publicly available data — although only one paper included a link to a full study protocol (J. D. Wallach *et al.* *PLoS Biol.* <http://doi.org/cxd6>; 2018).

The survey results were a big improvement on those of a previous study by some of the same researchers. This found that, in a sample of 441 articles published between 2000 and 2014, most contained almost no information on funding, conflicts of interest or data sharing.

OPENING UP

The proportion of biomedical journal articles that provide information on their funding, conflicts of interests and data is on the rise.

