News in brief

RESEARCH CONCERNS MOUNT AS BREXIT DRAMA UNFOLDS

Brexit uncertainty is paralysing UK politics. It is also taking a toll on the nation's science by making researchers unsure about their future role in European research, according to the Royal Society in London.

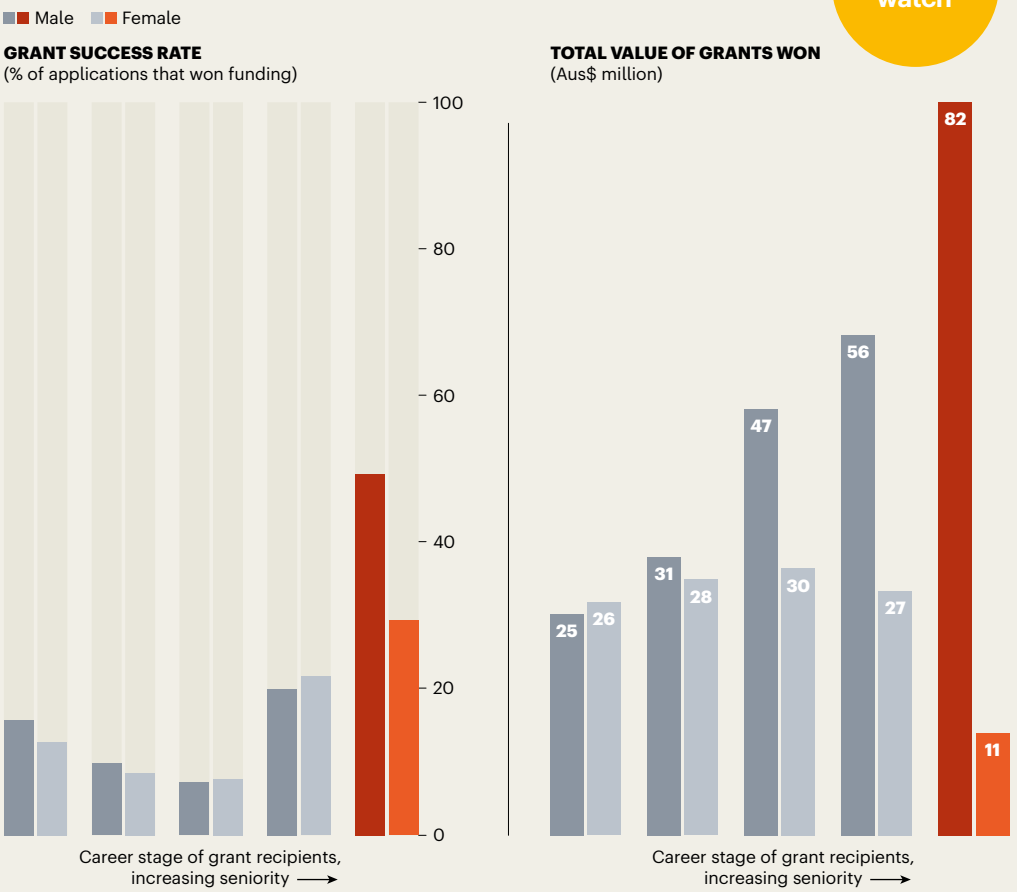
The society says that the United Kingdom's annual share of research funding from the European Union's flagship Horizon 2020 programme fell by almost one-third between 2015 and 2018. This is because UK applications for Horizon 2020 grants dropped by 39% owing to a lack of confidence over the country's future participation in European research, the society says in a report released on 16 October.

As a result, Horizon 2020 funding for UK science dropped by around €500 million (US$560 million), said Royal Society president Venki Ramakrishnan in a statement. He added that there had also been a large drop in the number of leading researchers who want to come to the United Kingdom. "People do not want to gamble with their careers, when they have no sense of whether the UK will be willing and able to maintain its global scientific leadership."

The report shows that last year, the number of non-UK scientists coming to British institutions through the prestigious Marie Skłodowska Curie fellowship scheme, which is part of Horizon 2020, was 35% lower than in 2015.

As *Nature* went to press, the UK government, which is pushing to leave the EU on 31 October, had agreed a deal on the terms of its withdrawal, but still lacked approval from Parliament to proceed.

Trend watch



SOURCE: AUSTRALIAN NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL

Women sidelined in medical science funding

Female scientists in Australia were less likely than their male counterparts to win a major new type of medical-research grant, despite an overhaul that was supposed to address gender inequity in the country's science funding. The imbalance occurred in the National Health and Medical Research Council (NHMRC) 'investigator grants', which were awarded for the first time this August. It was particularly severe at the senior-leadership level. Only 29.4% of senior women (5 of 17) who applied were successful, compared with 49.3% of men (37 of 75). "It's a poor message," says Marguerite Evans-Galea, a co-founder of the non-profit association Women in STEMM Australia. Success rates, which were released on the NHMRC's website, were more closely matched at the early- and mid-career stages, but were higher overall for men than for women (14.9% versus 11.3%). Men also received more money overall, partly because they won more grants than women. An NHMRC spokesperson says that extra funding was allocated to several female-led applications that weren't earmarked to receive money, which reduced the gender difference.

CANADIAN SCIENCE TAKES BACK SEAT IN ELECTION

Canada's Liberal party, led by Justin Trudeau, has won the most seats in the country's general election but not an overall majority in the House of Commons, according to projections available as *Nature* went to press. What the result means for research is unclear.

In the lead-up to the election on 21 October, as the Liberals were running neck and neck with the Conservative Party, researchers had worried that government support would fall by the wayside regardless of which party won.

With the exception of climate change — one of the top issues for voters in recent polls — research was largely absent from the election campaign.

That contrasts with the general election in 2015, when the Trudeau-led Liberal Party campaigned on a promise to reverse policies by the previous government that were widely seen as anti-science — and won.

Since then, the Liberal government has boosted research funding, freed government researchers to speak to the public without first getting permission from the administration, and raised the profile of environmental concerns such as climate change and ocean conservation.

But many researchers felt that the government had begun to rest on its laurels when it came to science. "There is some concern that the government feels like they're done. They've checked the box and they're moving on," says Katie Gibbs, executive director of the campaign group Evidence for Democracy in Ottawa.

The Liberals are now expected to form a coalition government.

L TO R: NASA; ANNE WESTON, EM STP, THE FRANCIS CRICK INSTITUTE/SPL; J. C. WENGA/ANADOLU/GETTY

US PAIR COMPLETES HISTORIC ALL-FEMALE SPACEWALK

NASA astronauts Christina Koch and Jessica Meir performed the first all-female spacewalk on 18 October, to repair a faulty battery unit on the International Space Station. The roughly seven-hour spacewalk was the fourth for Koch (above right), an electrical engineer who is on track to set a record for the longest single spaceflight by a woman; if all goes to plan, she will spend 328 days in space before returning to Earth in February. Meir (above left), a biologist, had never before attempted a spacewalk.

"This is really just us doing our jobs," Meir said during the walk, which NASA broadcasted live on the Internet.

During the event, the astronauts received a call from US President Donald Trump. "The job that you do is incredible," he told Koch and Meir. "I'm thrilled to be speaking with two brave American astronauts making history."

The two US astronauts are the 14th and 15th women to walk in space. Russian cosmonaut Svetlana Savitskaya was the first, in 1984, followed by 14 Americans.

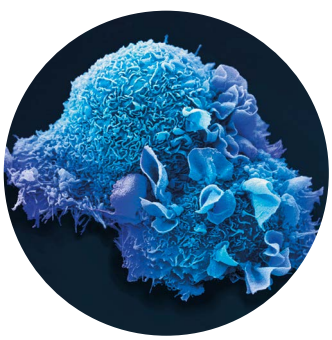
DETECT CANCER WHEN IT'S SMALL AND TREATABLE

Catching cancer early is the focus of a new transatlantic research collaboration.

The International Alliance for Cancer Early Detection, announced on 21 October, will receive up to £40 million (US$52 million) over five years from the charity Cancer Research UK, with the possibility of an additional £15 million from Stanford University in California and the Oregon Health & Science University Knight Cancer Institute in Portland.

The collaborators hope to take advantage of recent advances in cancer genetics and imaging. Databases are swelling with tumour DNA sequences, and researchers have begun to turn their sights to sequencing precancerous growths in an effort to learn which mutations tip some of them over into malignancy. Clinicians can now detect ever-smaller tumours, and metabolic changes that can be hallmarks of cancer, without surgery or removing tissue.

Early detection could improve cancer treatment: five-year survival rates for six types of cancer are more than three times higher when the cancer is diagnosed at its earliest stage, compared with survival if the cancer is caught only after it has become more advanced and has started to spread to other locations in the body.



EBOLA OUTBREAK IN AFRICA SLOWS DOWN

The Ebola outbreak in the eastern Democratic Republic of the Congo (DRC) is finally waning, the World Health Organization (WHO) said on 18 October. Fifty people were diagnosed with Ebola in the DRC between 25 September and 15 October, the WHO said. At the outbreak's peak in April, roughly 300 new infections were reported in three weeks. Almost 3,250 people have been infected since the outbreak began in August 2018, and more than 2,150 have died.

The drop in infections is not a reason to relax efforts to contain the virus, WHO director-general Tedros Adhanom Ghebreyesus told reporters. "We must treat every case as if it is the first since every case has the potential to spark a new outbreak," he said.

There was more good news on 18 October, when the European Medicines Agency (EMA) recommended that the European Commission (EC) approve an Ebola vaccine produced by the pharmaceutical company Merck. About 240,000 people considered to be at risk from Ebola have been given this vaccine during the outbreak, but it is still considered to be an experimental product by regulators worldwide and cannot be marketed. The EC will make a decision within 10 weeks on whether to approve the vaccine for sale.