

RESEARCH

Study stopped

The US National Institutes of Health (NIH) has cancelled plans for a multi-decade study of children's health, agency director Francis Collins announced on 12 December. Commissioned by the US Congress in 2000, the National Children's Study was to assess how physical, chemical, biological and psychosocial factors affected 100,000 children from birth to the age of 21. The NIH has spent US\$1.2 billion on the effort and enrolled roughly 5,700 children in a pilot study at 40 centres. But the project has been delayed by scientific disagreements and management problems. See go.nature.com/i8xwyy for more.

Collider comeback

CERN, Europe's particle-physics laboratory near Geneva, Switzerland, confirmed on 12 December that the Large Hadron Collider is on track to restart in March 2015. The planned reboot follows a two-year shutdown, during which the accelerator and detectors have been upgraded to work at a record collision energy of 13 trillion electronvolts. The machine is now close to being cooled to its operating temperature of 1.9 kelvin, and on 9 December, the magnets of one sector were successfully powered to operating levels.

Microbial menace

Left unchecked, antimicrobial resistance could cost the world up to US\$100 trillion by 2050 and cause 10 million deaths per year, according to a panel commissioned by the UK government. The panel, chaired by economist Jim O'Neill, released its first report on 11 December. The projections show how predicted rises in resistance are likely to affect health, the



RODRIGO ABD/AP

Greenpeace harms archaeological relic

Peruvian government officials said on 9 December that they will pursue legal action against Greenpeace activists who damaged the site of the country's famous Nazca lines by installing a campaign message next to the ancient etched figure of a hummingbird (pictured). Members of the environmental group had sought to promote renewable energy with large cloth letters visible from the air during the latest round of United

Nations climate negotiations in the capital, Lima. But deputy culture minister Luis Jaime Castillo said that the activists had entered a strictly prohibited area of the UNESCO World Heritage Site, and had irreparably disturbed patterns in the dirt. The government is seeking to detain the activists in Peru, said Castillo, and charge them with attacking archaeological monuments — punishable by up to six years in prison.

labour force and economic production. They probably underestimate the threat, the authors say, because the study examined only drug-resistant bacteria and public-health issues for which data were readily available.

PubPeer fights back

The team behind PubPeer, a website for discussing scientific articles, filed a legal motion on 10 December to quash a subpoena by cancer researcher Fazlul Sarkar at Wayne State University in Detroit, Michigan. Sarkar says that anonymous comments about his work on PubPeer are defamatory; the University of Mississippi in Oxford withdrew a job offer to him after seeing

the comments. Sarkar has subpoenaed PubPeer to reveal identifying information about the commenters (see *Nature* <http://doi.org/w68>; 2014). PubPeer's motion argues that the comments are not defamatory, and that the subpoena jeopardizes the free speech needed for scientific progress.

POLICY

US budget

The US Senate passed a US\$1.1-trillion spending bill on 13 December, which would boost funding for NASA and the National Science Foundation in fiscal year 2015. It would also give \$5.4 billion in aid and research

funds for the Ebola epidemic in West Africa, but would raise overall funding for the National Institutes of Health by only about 0.5%. President Barack Obama is expected to sign the bill into law, finalizing the budget for US agencies until 30 September 2015. See go.nature.com/tkm71a for more.

Nuclear power

Russian President Vladimir Putin and Indian Prime Minister Narendra Modi announced on 11 December a raft of oil, defence and nuclear agreements, including a plan for Russia's state-owned nuclear energy corporation to supply at least 12 new nuclear reactors to India over the next



20 years. India's government has pushed to expand its nuclear-power capacity, despite deep public opposition (see *Nature* <http://doi.org/ckcr86>; 2011). Six of the new reactors will be at the Kudankulam power plant (pictured) near India's southern tip, which already hosts two Russian-built reactors (see *Nature* 499, 258–259; 2013).

Climate deal

Two weeks of climate talks in Lima have produced a road map for an international climate treaty to be negotiated in Paris next year. The deal, announced on 14 December, lays out basic rules for how countries should formulate and submit pledges to reduce greenhouse-gas emissions. Those pledges are expected in the first half of next year. Faced with opposition from nations including China, negotiators abandoned language that

would have established formal reviews for climate pledges and would have required countries to submit technical data to help to evaluate those pledges. See go.nature.com/bcxgna for more.

EU budget

On 8 December, European Union (EU) governments reached a last-minute provisional deal with members of the European Parliament on a €141.2-billion (US\$176-billion) budget for 2015. Parliamentarians secured an extra €430 million on top of a budget proposal that lawmakers had rejected last month (see *Nature* <http://doi.org/xqf>; 2014), including €45 million more next year for the Horizon 2020 research programme. Governments have committed to provide an additional €4.8 billion to reduce the €23.4-billion backlog of unpaid bills. The

deal is expected to be signed by the 28 member governments and to pass a full Parliament vote next week.

Research fund

Australia's government has abandoned plans to finance a Aus\$20-billion (US\$16.5-million) medical-research fund by charging people to visit their family doctors. After opposition from the public and medical professionals, Prime Minister Tony Abbott said on 9 December that the Medical Research Future Fund would go ahead, but the compulsory Aus\$7 charge would not. Instead, the research funding will come from savings in the health-care budget, such as a reduction in payments to doctors for patient visits — a cost that doctors could choose to impose on patients, although pensioners, children and some others are exempt from the charge.

FUNDING

Faster funding

The California Institute for Regenerative Medicine (CIRM) in San Francisco on 11 December approved a US\$50-million plan to overhaul its research funding mechanisms. Starting on 1 January 2015, 'CIRM 2.0' will aim to fund successful applications within four

months of submission — a process that in the past could take up to two years. The plan, which would also give researchers more chances each year to apply for funds, is designed to attract clinical-stage research that is ready to start within 45 days of approval.

Ebola vaccines

Gavi, the vaccine alliance based in Geneva, Switzerland, announced on 11 December that it will pledge up to US\$300 million to buy up to 12 million courses of Ebola vaccines to immunize at-risk populations. Gavi is awaiting recommendations on a safe and effective vaccine from the World Health Organization. Clinical trials are currently under way, including one of a vaccine developed by Merck and NewLink that researchers announced they had suspended on 11 December after four patients complained of joint pains. In addition to funds for vaccine procurement, Gavi committed up to an additional \$90 million to help to introduce vaccines and to rebuild health systems in countries affected by Ebola.

BUSINESS

Pharma leader

Beginning in early 2015, geneticist David Altshuler will join Vertex Pharmaceuticals in Boston, Massachusetts, as chief scientific officer and executive vice-president for global research, the company announced on 15 December. Altshuler, who was a founding member of the Broad Institute in Cambridge, Massachusetts, will lead the company's drug-discovery efforts and oversee research at five sites in the United States, Canada and Europe. He currently holds faculty positions at Harvard Medical School and the Massachusetts Institute of Technology, and practises medicine at Massachusetts General Hospital in Boston.

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TREND WATCH

The number of people receiving PhDs in the United States, especially those in engineering and the biomedical sciences, has outpaced job opportunities outside academia in recent years, according to a report by the US National Academies in Washington DC. Fewer graduates have job commitments than in the past, and more are taking postdoc positions (see chart). The report recommends the creation of fixed-term postdoc positions to help prevent graduates from working for long periods on low salaries.

POSTDOC PROLIFERATION

Since 1988, the number of new PhD recipients in the United States reporting post-graduation employment has stagnated, while increasing numbers are taking postdoctoral positions.

