

SEVEN DAYS

The news in brief

POLICY

Postdoc-pay law

A federal judge in Texas has blocked an effort by the administration of US President Barack Obama to extend overtime pay to millions of US workers. The regulation sought to double to US\$47,500 the salary cut-off below which workers would be eligible for mandatory overtime pay. Set to come into force on 1 December, it would have raised pay for many US postdocs, whose average salary is around \$45,000, with many earning substantially less. On 22 November, the judge agreed with 21 states and a coalition of business groups that the rule is unlawful, and issued a nationwide injunction.

PHARMACEUTICALS

Alzheimer's drug

A drug that was a leading hope in the fight to treat Alzheimer's disease has failed in phase III clinical trials, its developer announced on 23 November. Solanezumab, made by Eli Lilly of Indianapolis, Indiana, did not slow cognitive decline in people with Alzheimer's compared with those who took a placebo. The drug is an antibody-based treatment that targets amyloid protein in the brain. The trial was seen as a major test of the 'amyloid hypothesis', which posits that a build-up of the protein triggers Alzheimer's. The news sent stock in Eli Lilly, which invested heavily in the therapy, tumbling. See page 15 for more.

Cancer-trial deaths

A promising but risky cancer therapy has again led to patient deaths, prompting the treatment developer Juno Therapeutics to halt a key clinical trial. The company,

located in Seattle, Washington, announced on 23 November that two patients had died of severe brain swelling during a clinical trial of an immune therapy. The treatment involves removing a person's T cells, engineering them to recognize leukaemia cells, and reinjecting them. The death of three other patients this year led to a hold on the trial, which was lifted in July after the study protocol was changed.

HIV-vaccine trials

A large-scale clinical trial of two promising HIV vaccines has begun in South Africa, health officials announced on 27 November. The study

is a long-awaited follow-up to a trial of a vaccine in Thailand that started in 2003 and reduced the risk of HIV infection by 31%. It will test two experimental vaccines similar to the one used in the Thai trial, and will aim to enrol 5,400 people at 15 sites in South Africa. Results on the effectiveness of the vaccines are expected in 2020.

PUBLISHING

Boycott threat

More than 2,100 people have signed a petition coordinated by Finnish scientists calling on major scientific publishers to make

for Reconstruction and Development, the project's main funder. The US\$1.6-billion shield, called the New Safe Confinement, should secure the reactor unit for 100 years and contains remotely controllable cranes and machinery to dismantle the ageing concrete shelter that it replaces. Installation was completed on 29 November.



SERGEY DOLZHENKO/EPA

Huge safety shield erected at Chernobyl

A massive radiation shield has been installed over the number four nuclear reactor in Chernobyl, Ukraine, the site of the catastrophic 1986 nuclear accident. The steel-and-concrete structure is 275 metres wide, 108 metres high and weighs 36,000 tonnes, and is the largest movable land-based structure ever built, according to the European Bank

subscription prices "more reasonable" and to increase open access to research content. The researchers are supporting demands made by FinElib, a consortium of Finnish libraries, which is negotiating contracts for 2017 subscriptions with several large publishers. Two-thirds of signatories have said that they would be willing to boycott the journals involved and abstain from peer-review duties if the demands are not met. Last year, Finnish research organizations paid €27 million (US\$28.6 million) for journal subscriptions, says FinElib, but flat or falling budgets cannot support rising expenditure.

LEON NEAL/GETTY

The petition follows a stand-off last year between universities in the Netherlands and the Dutch publisher Elsevier, which ended in a deal to make some papers by Dutch scientists open access.

EVENTS

Women of science

More than 10,500 female scientists have signed an open letter that pledges to combat the “divisive and destructive rhetoric” and anti-science sentiment that has followed the US election. A group of scientists initially wanted to build a network of 500 women to start a positive conversation at a time when they felt that science and their social values were under attack — but within days, thousands had signed up. The group now hopes to develop into a global network for research support and to inspire young women to pursue science.

Top-price dodo

A rare, near-complete skeleton of a dodo (**pictured**) sold at auction in Britain for £280,000 (US\$350,000) on 22 November. The bones — which come from a number of specimens but together form a 95%-complete skeleton — were compiled by an enthusiast over four decades. Few traces remain of dodos (*Raphus cucullatus*), flightless



birds that were found on Mauritius and were driven rapidly to extinction in the seventeenth century. There are reportedly only 12 similarly complete skeletons in the world, as well as a few other head and foot bones.

CLIMATE

EU climate target

The European Union will probably fail to reach its target of spending one-fifth of its €1-trillion (US\$1-trillion) budget on climate action in 2014–20, the European Court of Auditors in Luxembourg said on 22 November. According to the European Commission, the proportion spent on climate action averaged 17.6% in 2014–16. The EU would need to increase its spending to 22% for 2017–20, which the auditors think is unlikely — they found no shift towards higher spending on climate action in agricultural, rural-development or fisheries policies. The Horizon 2020

research-funding programme is also falling behind on its target, having allocated only 24% instead of 35% of its budget to climate research for 2014–17.

Worst reef die-off

Surveys of Australia's Great Barrier Reef in the wake of this year's huge 'bleaching' event have confirmed that 67% of shallow-water corals have died in a 700-kilometre stretch of the reef's northern region. When water is too warm, corals expel symbiotic algae and turn white. High water temperatures also caused 26% of corals to die in a region farther north, but the central and southern regions were less affected. This bleaching event — the third in the reef's recorded history — is the worst yet, say researchers from the Australian Research Council Centre of Excellence for Coral Reef Studies at James Cook University in Townsville.

SPACE

Negative altitude

The European Space Agency on 23 November revealed more details from its investigation into why its lander Schiaparelli crashed on Mars in October. The probe was part of the ExoMars mission and was designed to test landing technology. The latest information

COMING UP

3–6 DECEMBER

The American Society of Hematology holds its annual meeting in San Diego, California.
go.nature.com/2goxht8

4–17 DECEMBER

The 13th conference of the parties to the Convention on Biological Diversity meets in Cancun, Mexico.
www.cbd.int/cop

suggests that there was a glitch in its rotation sensors — and confirms a previous suggestion that Schiaparelli ran into trouble when the sensor data were fed into its navigation system. The issue caused the lander to think it was at a lower altitude than it really was, and to jettison its parachute too early. The new twist: Schiaparelli not only thought it was lower than it was — it thought it was below ground level.

Star names

The International Astronomical Union (IAU) has established a new catalogue of star names in an effort to formalize the colloquial names often given to stars. Astronomers tend to use alphanumeric designations for stars, but many traditional names do not have official spellings, and sometimes the same name may be used for different stars. On 24 November, the IAU announced that it had approved a set of 227 designations, decided by its Working Group on Star Names, which it established in May. Among them are Fomalhaut, Sirius and Rigel Kentaurus, the ancient name for Alpha Centauri, our closest star system.

NATURE.COM

For daily news updates see:
www.nature.com/news

SOURCE: US NATIONAL SNOW AND ICE DATA CENTER

TREND WATCH

Scientists have again raised the alarm about the increasingly fragile state of the Arctic. The *Arctic Resilience Report*, published on 25 November, highlights how ongoing changes, such as shrinking sea ice and melting permafrost, could interact in ways that further harm ecosystems and the people who depend on them. The report comes as Arctic sea-ice cover is lower than usual during the winter freeze-up (see chart). This October's sea-ice extent was the lowest for any October average in the satellite record.

LOW ARCTIC SEA ICE WORRIES SCIENTISTS

Warm sea and air temperatures in the Arctic have contributed to the lowest extent of sea ice ever recorded for the time of year.

