

# SEVEN DAYS

The news in brief

## POLICY

### One of the gang

Poland signed an agreement on 28 October to join the European Southern Observatory (ESO). The country is set to become the ESO's 14th European member state once its parliament ratifies the agreement. Membership of the organization will give Polish astronomers access to the ESO's ground-based telescopes. It will also allow companies in Poland to bid for contracts to build the 39-metre European Extremely Large Telescope, which is being constructed in Cerro Armazones in Chile. Brazil, the ESO's only non-European member, has yet to ratify an accession agreement that it signed in 2010.

### Climate warning

The Intergovernmental Panel on Climate Change (IPCC) has warned of "severe, pervasive and irreversible impacts for people and ecosystems" if greenhouse-gas emissions are not substantially reduced over the next few decades. The warning, addressed to policy-makers, is included in the summary of the IPCC's fifth assessment report of climate risks, released on 2 November in Copenhagen. The summary distills the latest contributions by the IPCC's three working groups to the fifth assessment, as well as two special reports.

### Vaccine approval

US regulators on 29 October approved a vaccine against a deadly strain of a bacterium that causes meningitis. Trumenba, produced by a subsidiary of Pfizer of New York, fends off infection by *Neisseria meningitidis* serogroup B — a class of bacterium known for



USGS/GETTY

## Lava invades Hawaiian town

A creeping lava flow from the volcano Kilauea on Hawaii is threatening a community of almost 1,000 people. The flow (pictured), which began on 27 June, has travelled roughly 20 kilometres and reached the town of Pahoa, where it has overrun pastures, a cemetery and private property on a course that is heading for the town's main road. The US National Guard was

deployed last week to help to erect a roadblock, and about 20 families were told to evacuate their homes. By 30 October, the leading edge had stalled 155 metres from the road, but on 2 November, the US Geological Survey reported active lava breakouts from parts of the flow. Kilauea is the most active volcano on Hawaii; its current eruption began in 1983.

causing outbreaks among university students. Last December, the Food and Drug Administration allowed the use of a different meningitis vaccine that is not approved in the United States — but is available in Europe — at universities where outbreaks had occurred.

### Polar talks fail

The Commission for the Conservation of Antarctic Marine Living Resources concluded its annual meeting in Hobart, Australia, on 31 October, without agreeing on a plan to create a massive marine reserve in the Ross Sea. The commission, made up of representatives from 24 countries and the European

Union, has failed 3 times before to agree on similar plans to ban fishing in what some researchers say is the most endangered area of the polar region (see *Nature* <http://doi.org/wtt;2014>).

### Emissions fines

The US Environmental Protection Agency announced on 3 November that car makers Hyundai and Kia will pay the largest settlement ever for alleged violations of the US Clean Air Act. The companies are said to have sold nearly 1.2 million vehicles that will collectively emit about 4.75 million tonnes of greenhouse gases above the amount that the companies certified to the agency. In

addition to a US\$100-million penalty, they will also forfeit 4.75 million previously claimed greenhouse-gas emissions credits, estimated to be worth more than \$200 million.

## EVENTS

### Spaceflight crashes

US government investigators are probing the 31 October crash of Virgin Galactic rocketplane *SpaceShipTwo*, which killed one of the craft's two pilots. The plane was on a test flight for commercial space travel. Three days earlier, a crewless Antares rocket exploded seconds after being launched from Wallops Island, Virginia, destroying scientific equipment and experiments

headed for the International Space Station. Orbital Sciences in Dulles, Virginia, which operated the Antares, is one of only two private companies with a NASA contract to fly cargo to the space station. See page 15 and *Nature* <http://doi.org/ws5> (2014) for more.

## RESEARCH

## Political research

On 28 October, the presidents of Stanford University in California and Dartmouth College in Hanover, New Hampshire, issued a public apology for a controversial political-science experiment in Montana. The study aimed to test whether voters' decisions would be affected by pre-election flyers that characterized the political attitudes of state Supreme Court candidates. Roughly 100,000 people received the flyer, which appeared to be an official government document because it bore the state's seal. Stanford said that the research had not been submitted for approval by its institutional review board; both universities are investigating other possible violations.

## Lunar loop

China successfully completed its first robotic mission to the Moon and back on 1 November. Launched on 23 October, the probe



flew around the Moon and survived re-entry into Earth's atmosphere to land safely in Inner Mongolia (**pictured**). The vehicle, nicknamed Xiaofei, or little flyer, had no scientific goals, but was intended to test technology for Chang'e-5, a mission to return lunar samples to Earth planned for 2017. The success makes China the first country to fly a probe around the Moon and back since the Soviet Union in the 1970s.

## Falsified data

The US Office of Research Integrity on 29 October reported findings that a former laboratory director at the US National Institute of Arthritis and Musculoskeletal and Skin Diseases in Bethesda, Maryland, had committed research misconduct. An investigation concluded that Bijan Ahvazi, previously the head of the Laboratory

of X-ray Crystallography, had falsified data related to three publications. As part of a settlement, Ahvazi has agreed to have his research supervised and to be excluded from peer-review committees for agencies such as the US National Institutes of Health for two years.

## FUNDING

## Funding boon

Germany's universities and large science organizations have been promised a boost to help them to cope with rising student enrolment and the increasing costs of research. At their meeting on 30 October, science ministers from the federal government and Germany's 16 state governments pledged €25.3 billion (US\$31.6 billion) over the next six years to continue special programmes for science and higher

## COMING UP

### 8–9 NOVEMBER

On the 25th anniversary of the fall of the Berlin Wall, the city holds the sixth Falling Walls Conference. Scientists from around the world discuss impending breakthroughs in areas including cancer care, neuroengineering and global energy.

[go.nature.com/beyrwm](http://go.nature.com/beyrwm)

### 12 NOVEMBER

The European Space Agency's Rosetta craft attempts to land a washing-machine-sized probe on the surface of comet 67P/C-G.

### 12–19 NOVEMBER

The World Parks Congress takes place in Sydney, Australia, featuring sessions on the use of mobile technology in conservation, successes and challenges in rhino conservation and the future of privately protected areas.

[go.nature.com/c51ghb](http://go.nature.com/c51ghb)

education. See [go.nature.com/6qsa5n](http://go.nature.com/6qsa5n) and page 17 for more.

## Money for malaria

The Bill & Melinda Gates Foundation announced on 2 November a US\$156-million contribution to the PATH Malaria Vaccine Initiative. The donation will support two lines of development: vaccines that prevent people from becoming infected after being bitten by infected mosquitoes, and transmission-blocking vaccines that prevent mosquitoes from becoming infected when they bite people with malaria — with special attention to vaccines that combine both features.

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## TREND WATCH

A global analysis suggests that human infectious-disease outbreaks are becoming more frequent and more diverse (K. Smith *et al.* *J. R. Soc. Interface* **11**, 20140950; 2014). A team led by Katherine Smith of Brown University in Providence, Rhode Island, found that the trends were significant even after correcting for changes in surveillance and reporting (for example, using indirect measures such as Internet use). However, the number of cases per person is falling, they find.

## DISEASE OUTBREAKS ON THE RISE

Both the number and diversity of outbreaks of human infectious diseases have risen since 1980.

