

SEVEN DAYS

The news in brief

RESEARCH

Ebola drug stutters

Results from a clinical trial to test experimental Ebola treatment ZMapp failed to show statistically significant results. The drug, developed by Mapp Biopharmaceutical, based in San Diego, California, contains three antibodies and had shown promise in animal studies. According to results presented on 23 February at the Conference on Retroviruses and Opportunistic Infections in Boston, Massachusetts, of 36 people given ZMapp, 78% survived, compared with 61% of 35 patients who did not receive the drug. Mapp was forced to end the clinical trial in January without achieving its goal of enrolling 200 patients because of the waning of the Ebola outbreak.

Tetraquark addition

Scientists reported findings of a new tetraquark on 24 February. Elementary particles known as quarks usually bind together in groups of two or three, but physicists have observed some composed of four quarks. The new family member, called X(5568), emerged in data from the DZero experiment at the now-inactive Tevatron particle accelerator at Fermilab in

NUMBER CRUNCH

947,000

The drop in Japan's population since 2010, according to the latest census. The population has fallen by 0.7%, to 127.1 million. The decline is the first since records began.



CYRIL RUOSO/MINDEN PICTURES/GETTY

Pollinators star in biodiversity report

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) announced the findings of its first report on 26 February. The review warns that an ongoing decline in the number of pollinating insects (**pictured**) and animals threatens global crop production, which depends on pollinators

and, as an industry, is worth up to US\$577 billion annually. According to the report, the decrease is fuelled by a multitude of factors, including climate change, disease and pesticide use. The IPBES, established in 2012, is modelled roughly on the Intergovernmental Panel on Climate Change.

Batavia, Illinois. Unlike other examples of tetraquarks, all of which contain at least two quarks of the same type, or 'flavour', each of the quarks in X(5568) is different. Studying the particle could help physicists to understand more about the strong force, which holds atomic nuclei together.

Gas leak quantified

Some 97,100 tonnes of methane leaked out of an underground storage facility run by the Southern California Gas Company in Aliso Canyon, California, researchers reported on 25 February. A team led by Stephen Conley, president of Scientific Aviation in Boulder, Colorado, measured methane concentrations above

the site during 13 aircraft flights between 7 November and 13 February. The team calculated that the methane release was equivalent to the annual greenhouse-gas emissions from 572,000 cars. The leak began on 23 October and lasted nearly four months.

BUSINESS

Sequencing suit

Genome-sequencing giant Illumina said on 23 February that it has filed a lawsuit against UK-based Oxford Nanopore Technologies, the first company to commercialize nanopore sequencing. The technology reads single bases of genetic material as they pass through a nanoscale pore. The suit, by Illumina of San Diego,

California, alleges that Oxford Nanopore has infringed on Illumina patents that describe aspects of using pores to read DNA. Oxford Nanopore has its own suite of patents related to the technology. See go.nature.com/7hydeg for more.

Chagas scoop

KaloBios Pharmaceuticals of San Francisco, California, is poised to acquire sole distribution rights for a version of benznidazole, one of only two drugs that can treat the insect-borne parasite that causes Chagas disease, after a bankruptcy court ruled in its favour on 26 February. In December, the then chief executive Martin Shkreli announced that the company would price the drug on a level

with hepatitis C antivirals, which cost up to US\$100,000 per treatment.

PRIZES

Memory work wins

Three British neuroscientists share this year's Brain Prize for their work on how memories are formed and lost in the brain. Using different approaches, Timothy Bliss, visiting worker at the Francis Crick Institute in London, Richard Morris at the University of Edinburgh, UK, and Graham Collingridge at the University of Bristol, UK, have shown over the past four decades how a brain mechanism called long-term potentiation underpins the ability to learn and remember by strengthening connections between particular neurons. The €1-million (US\$1.1-million) prize was awarded on 1 March by the Grete Lundbeck European Brain Research Foundation in Denmark.

EVENTS

Out of deep water

A US jury has acquitted a BP site manager who was in charge of the Deepwater Horizon drilling platform during the disastrous spill in 2010, which led to 11 deaths and leaked huge amounts of oil into the Gulf of Mexico



(pictured). According to US media reports, Robert Kaluza faced a criminal charge related to the ensuing pollution, but was acquitted by a jury in New Orleans, Louisiana, on 25 February. Kaluza was one of the last BP defendants to face charges over the incident, although the company still has to pay billions in fines.

Chemistry petition

Chemists are petitioning the chancellor of the University of California, Berkeley, to secure the future of the institution's College of Chemistry. More than 3,000 people had signed the petition as *Nature* went to press. Berkeley chancellor Nicholas Dirks announced a "strategic planning process" on 10 February, to try to find solutions to the university's "substantial and growing structural deficit". A spokesperson for the university told *Nature*

that although the College of Chemistry could be dissolved as a result of this, no decisions have yet been taken and Berkeley is committed to chemistry research and teaching.

Italian protests

Researchers held a protest at the Sapienza University of Rome on 25 February, calling the Italian government's support for research insufficient and erratic. The protest followed a 4 February Correspondence in *Nature* by Sapienza physicist Giorgio Parisi (G. Parisi *Nature* 530, 33; 2016) that was supported by 69 researchers. A petition to the Italian government and the European Union started by Parisi had almost 55,000 signatures as of 1 March. Italy spends 1.25% of its gross domestic product on research, but the petition says that the EU should

COMING UP

7–11 MARCH

The United Nations and Costa Rica Workshop on Human Space Technology convenes in San Jose, Costa Rica.
go.nature.com/swmviz

8–10 MARCH

Seattle, Washington, hosts the Climate Leadership Conference, to discuss US climate policy and innovation in the wake of the Paris agreement.
go.nature.com/pwplig

10 MARCH

The US Patent and Trademark Office starts proceedings over who holds the rights to commercialize CRISPR–Cas9 gene-editing technology.
go.nature.com/qvnsn8

require governments to set a minimum of 3%, as the EU Council of Ministers has advocated in the past.

FUNDING

India funds science

In its annual budget released on 29 February, the Indian government increased funding for the Department of Science and Technology (DST) by 17% from last year, to 44.7 billion rupees (US\$650 million). The DST is India's main funding agency and will use the money to initiate research programmes on energy, water and biomedical devices. The Department of Biotechnology received 18.2 billion rupees, a 12% rise. But news was mixed for other divisions: the Department of Health Research's budget represented a 12% rise compared to 2015–16, whereas the Department of Space got an increase of less than 2%.

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TREND WATCH

The first global survey of women's representation at the highest level of academia shows that just 12% of members of 69 academies surveyed in 2013–14 are female. The Cuban Academy of Sciences had the highest proportion (27%), whereas the Tanzania Academy of Sciences and the Polish Academy of Sciences had the lowest levels, at 4%. Only 40% of the academies had policies that explicitly mention the need for increased participation of women in the academy's activities. See go.nature.com/cwigqv for more.

WOMEN IN SCIENCE ACADEMIES

Most science academies across the world have more than 80% male membership.

