

SEVEN DAYS

The news in brief

EVENTS

China's Moon shot

China launched an uncrewed lunar orbiter on 24 October, from the Xichang launch center in Sichuan province. The probe will slingshot around the Moon and is scheduled to land in northern China after an eight-day journey, becoming the nation's first round-trip lunar mission. The mission aims to demonstrate heat-shield and guidance technologies for a planned 2017 lander, which will be China's first to bring samples back to Earth.

Ebola transported

Health officials in Mali reported on 24 October that the nation's first confirmed person with Ebola — a two-year-old girl who had recently arrived from Guinea — had died. The girl began showing symptoms such as nosebleeds while still in Guinea, and started out for Mali with her grandmother on 19 October. Many opportunities for high-risk exposures occurred while the child travelled extensively by public transport, says the World Health Organization, which called the situation an emergency. An initial investigation has identified 43 close, unprotected contacts, including 10 health-care workers.

Hunt fraudsters

The US government has charged two South Africans with conspiracy to sell places on illegal rhinoceros hunts by misleading US hunters. According to an indictment released on 23 October, brothers Dawie and Janneman Groenewald travelled throughout the United States between 2005 and 2010, charging people between US\$3,500 and \$15,000 to hunt 'problem' rhinos in South Africa that they claimed



PARAGON SPACE DEVELOPMENT CORPORATION

Skydiving hits new heights

Alan Eustace, a senior vice-president at Google in Mountain View, California, broke the sound barrier and a world skydiving record on 24 October, when he jumped from a reported altitude of 41.4 kilometres over Roswell, New Mexico. Eustace began his roughly 2.5-hour ascent into the upper stratosphere around dawn, being dragged skyward by a helium-filled scientific balloon. A pressurized space

suit (pictured) designed by Paragon Space Development in Tuscon, Arizona, helped Eustace to breathe at high altitude and prevented fluids in his body from boiling. On his way down, Eustace reached an estimated peak speed of around 1,320 kilometres per hour. In October 2012, Austrian parachutist Felix Baumgartner set the previous record-high skydive, jumping from an altitude of 39 kilometres.

needed to be euthanized. The two were also charged with secretly trafficking rhino horns, and laundering their profits through bank accounts that they had set up for their business in Autauga County, Alabama.

FUNDING

Funding reform

China's government on 21 October announced the passage of a reform plan to overhaul the funding of research in the country. Under the plan, the main competitive government grant schemes will be eliminated by 2017, including two core programmes that supported China's science and technology

development in recent decades. Funding will be reorganized into five programmes managed by a new science and technology agency. The move is part of an effort to reduce wastefulness and to consolidate grant management, currently distributed across various government departments. See pages 535 and 547 and go.nature.com/pzzvf5 for more.

POLICY

Full text for free

More than half of all peer-reviewed research articles published between 2007 and 2012 are now free to download from the Internet, according to a 22 October report produced

for the European Commission. By comparison, last year's assessment found that papers from only one year (2011) had reached 50% free access. See go.nature.com/dbw76k for more.

Diversity grants

The US National Institutes of Health (NIH) has awarded US\$31 million in grants aimed at encouraging minorities and under-represented groups to pursue careers in biomedical fields, the agency announced on 22 October. The grants target institutions that receive relatively little NIH funding and enrol a high proportion of students from low-income backgrounds. The funds will support

ways to improve access to research opportunities for undergraduates, build a national mentoring network, and assess the results of the initiatives themselves to understand which strategies bring lasting change.

EU climate goals

European Union (EU) member states have agreed to reduce the region's greenhouse-gas emissions by at least 40% by 2030, relative to 1990 levels. The EU's new climate and energy policy framework, released on 24 October, includes a politically binding target of getting 27% of energy from renewable sources by 2030; and a goal of improving overall energy efficiency by 27%, to be reviewed in 2020 with the hope of increasing the latter target to 30%. See *Nature* <http://doi.org/wmb> (2014) for more.

Commission vote

The European Parliament approved a new European Commission on 22 October, which will begin a five-year term on 1 November. Portuguese economist Carlos Moedas will serve as commissioner for research, science and innovation, while Spain's Miguel Arias Cañete, a lawyer, will be commissioner for energy and climate change. See go.nature.com/t73tfi for more.

RESEARCH



Comet close-up

NASA's Mars Reconnaissance Orbiter snapped comet C/2013 A1 Siding Spring (pictured) as it buzzed past the red planet on 19 October. The image, released last week, is the first ever taken of the nucleus of a comet from the Oort Cloud, the reservoir of icy bodies that lies far beyond Pluto. The nucleus of Siding Spring turned out to be smaller than expected, measuring less than 500 metres across. Siding Spring passed just 138,000 kilometres from the Martian surface. See go.nature.com/psvju9 for more.

Ebola vaccines

On 24 October, the World Health Organization (WHO) announced plans to produce millions of doses of experimental Ebola vaccines by the end of 2015, with hundreds of thousands of doses available by June. The outbreak has infected more than 10,000 people and killed around 5,000, the WHO estimates. Phase I trials of two

candidate vaccines have begun, and the first phase II trials are set to start in Liberia in December and in Sierra Leone in January. See go.nature.com/pj71hi for more.

First light

The National Synchrotron Light Source II, a high-energy photon source at Brookhaven National Laboratory in Upton, New York, produced its first photons on 23 October — a major milestone towards achieving full research capabilities. Thirty beamlines are under development around the 792-metre electron-storage ring, where specialized magnets coax the electrons into producing intense beams of X-rays. These can be guided into experimental stations and used to probe matter. The first experiments are expected before the end of this year.

FACILITIES

Cancer centre

The University of Oxford, UK, announced plans on 23 October to establish the Precision Cancer Medicine Institute, a £110-million (US\$177-million) research facility funded by charitable and commercial partners and a £35-million government grant. The institute will test precision treatments such as proton-beam therapy for patients with early-stage

COMING UP

5–8 NOVEMBER

The annual meeting of the Society of Vertebrate Paleontology takes place in Berlin, where scientists will discuss vertebrate origins, evolution and functional morphology. go.nature.com/hmmzkm

6–9 NOVEMBER

At the International Conference of Crisis Mappers in New York City, aid workers, technologists and policy-makers will discuss best practices and recent innovations in humanitarian technology. go.nature.com/j19byw

cancers that currently have a poor prognosis. The centre is also expected to house a new research partnership with the non-profit Chan Soon-Shiong Institute of Molecular Medicine in Culver City, California, which is intended to target treatments more precisely using large amounts of genetic, molecular and clinical data.

AWARDS

Maddox prize

The John Maddox Prize for Standing up for Science was awarded on 27 October to physicist David Robert Grimes, a postdoc and journalist at the University of Oxford, UK, and US freelance journalist Emily Willingham. The award honours people who promote science in the public interest, often despite obstacles. Named after a former editor of *Nature*, the prize is jointly awarded by *Nature*, the Kohn Foundation in London and the UK campaign group Sense About Science. See go.nature.com/rbjzsg for more.

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TREND WATCH

An estimated 9 million people developed tuberculosis (TB) last year, the World Health Organization (WHO) said in a 22 October annual update (see go.nature.com/rohvhp). Although rates of new cases and deaths are thought to be falling, this figure is 400,000 more than that estimated for the previous year, because improved measurements enable the WHO to be more confident in its figures. The agency said that annual funding for TB prevention needs to rise by some US\$2 billion, to \$8 billion.

TUBERCULOSIS TOLL REVISED UPWARDS

The World Health Organization estimates that 9 million people developed tuberculosis (TB) last year.

