

POLICY

Scientific integrity

The US defence department has joined President Barack Obama's drive on scientific integrity, introducing a policy that bans its employees from asking scientists or engineers to alter or suppress their professional findings. Details of the policy, dated 26 July, were obtained under the US Freedom of Information Act by the watchdog group Public Employees for Environmental Responsibility (PEER) in Washington DC, and were released by PEER on 21 August. Twenty-two US government agencies have now released draft or final policies on scientific integrity. Four agencies have yet to release anything publicly, including the White House Office of Science and Technology Policy, which is responsible for leading the initiative.

India's nuclear gap

A federal auditing agency has sharply criticized India's nuclear-regulation system, in a report made public on 22 August which may bolster anti-nuclear campaigns in the country. The current regulator — the Atomic Energy Regulatory Board — is merely a subordinate office of central government, with no powers to make rules, enforce compliance or impose effective penalties for safety violations, the report from the Comptroller and Auditor General said. At a time when India is hoping to expand its nuclear-power system, it needs a truly independent regulator, the report urged. See go.nature.com/d4guvd for more.

Stem-cell funding

The US National Institutes of Health is legally allowed to fund research using human



Passing of a lunar pioneer

Neil Armstrong, the first man to walk on the Moon, died on 25 August, aged 82. Commemorations poured in last weekend for the modest astronaut, who largely shunned publicity — apart from his recent criticisms of US plans to cut NASA's budget. The landing achieved by Armstrong and his fellow Apollo astronauts in July 1969 (pictured, with Armstrong's shadow) inspired a generation of students to take up scientific research (see *Nature* **460**, 314–315; 2009). For more on the landings, see *Nature's* Apollo special at nature.com/apollo.

embryonic stem cells, a senior US appeals court ruled on 24 August. Two scientists who work on adult stem cells, James Sherley of the Boston Biomedical Research Institute in Watertown, Massachusetts, and Theresa Deisher, chief executive of AVM Biotechnology in Seattle, Washington, had sought to block US government funding for such research and appealed after their lawsuit was thrown out in July 2011 (see *Nature* **476**, 14–15; 2011). Lawyers for the plaintiffs said that they might ask the US Supreme Court, their last

recourse, to hear the case. See go.nature.com/mvugzr for more.

Chimp breeding

The US National Institutes of Health (NIH) has concluded that a major chimpanzee research centre did not violate the agency's breeding moratorium, even though 130 infants were born at the centre to NIH-owned parents between 2000 and 2010 (see *Nature* **479**, 453–454; 2011). The assessment was revealed by *Nature* on 24 August after a freedom-of-information request. The New Iberia

Research Center (part of the University of Louisiana at Lafayette) did not charge the NIH for the infants' care, it notes, and the centre's total census decreased in line with other NIH-supported centres. See go.nature.com/1bgbjw for more.

Circumcision boost

The American Academy of Pediatrics (AAP) said on 27 August that boys in the United States should be circumcised because health benefits outweigh the risks. The policy recommendation is a first from the influential group of physicians, and could boost US circumcision rates (which are already higher than in much of the developed world). But the choice is up to parents, the AAP added. See page 568 for more.

RESEARCH

Autism stem cells

The first clinical trial approved by the US Food and Drug Administration to use an experimental stem-cell therapy for autism began recruiting subjects on 21 August. The double-blind study, launched by the Cord Blood Registry in San Bruno, California, and the Sutter Neuroscience Institute in Sacramento, California, aims to enrol 30 children with autism aged 2–7 years. The trial will test whether an infusion of the children's umbilical-cord stem cells can improve their language ability and behavioural symptoms compared with infusions of a saline placebo.

China looks south

Chinese astronomers announced ambitious plans for the country's Antarctic observatory at Dome A — one of the coldest places in the continent — at the International Astronomical

NASA

JPL-CALTECH/NASA
 Union's 28th General Assembly in Beijing last week. The observatory will include two large telescopes with a combined budget of more than 1 billion yuan (US\$157 million). One, KDUST, will search for dark matter and look for Earth-like planets outside the Solar System, and the other, DATE-5, will examine the dust clouds where stars form. See go.nature.com/ftwyqn for more.

PEOPLE

Mathematician dies

American mathematician William Thurston, who won the Fields medal in 1982, died on 21 August, aged 65. Thurston's numerous breakthroughs in the fields of geometry and topology influenced cosmologists' theories about the shape of the Universe. His work also laid the basis for the 2003 solution to the Poincaré conjecture by Russian mathematician Grigory Perelman.

Jailed physicist

Omid Kokabee, an Iranian doctoral student who has been in prison in Iran for 18 months, has lost his appeal against his 10-year jail sentence, it emerged last week. Kokabee, who had been studying laser physics at the University of Texas at Austin, was arrested on

charges of conspiring against Iran in February 2011 while leaving Tehran after visiting his family. He was sentenced in May 2012. He has denied all charges, and several science organizations have asserted his innocence and asked for a fair trial. See go.nature.com/7bthm9 for more.

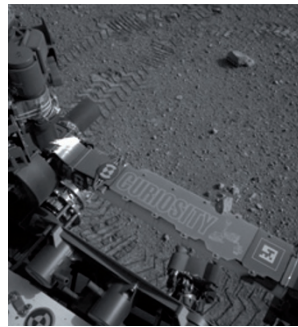
EVENTS

Swine-fever warning

The first-ever detection of African swine fever in Ukraine shows that the disease poses an ongoing risk to the Caucasus and neighbouring areas, the Food and Agriculture Organization of the United Nations warned on 21 August. The disease, caused by an infectious virus, does not affect humans, but can cause large numbers of pig deaths. See page 565 for more on African swine fever's spread across the Caucasus.

Tracks on Mars

NASA's Mars rover Curiosity made its first test drive on 22 August, going forwards, rotating and reversing (tracks, **pictured**) to end up about six metres from its landing site, which has been named 'Bradbury Landing' in honour of the late author Ray Bradbury. Beyond damage to a wind sensor, the mission has been a total success so far, NASA officials said. Curiosity



will now take a few weeks to drive the 400 metres to Glenelg, a spot where three kinds of terrain meet.

Arctic sea-ice low

With a few weeks of the melt season still to go, Arctic sea ice has broken the record for its minimum summer extent. Satellites registered 4.1 million square kilometres of sea ice on 26 August, edging out the record of 4.17 million square kilometres set on 18 September 2007, according to scientists at the US National Snow & Ice Data Center in Boulder, Colorado. Including 2012, all six of the lowest sea-ice minima on record have occurred in the past six years. See go.nature.com/waurw1 for more.

BUSINESS

Alzheimer's setback

A drug aimed at slowing cognitive and behavioural decline in patients with Alzheimer's disease failed

to meet those targets in two late-stage clinical trials, the pharmaceutical firm Eli Lilly announced on 24 August. But the antibody, solanezumab, did slow cognitive decline in a subset of patients with milder forms of the condition, the company added.

Bapineuzumab, a similar drug being developed by Pfizer and Johnson & Johnson, also failed two large-scale trials recently, and its development has been halted (see *Nature* **488**, 135; 2012). See go.nature.com/nhfbmu for more.

Hepatitis C halt

Bristol-Myers Squibb (BMS) announced on 23 August that it was stopping development of an experimental hepatitis C drug, after nine patients were hospitalized and one died in a clinical trial. The company, based in New York city, had only recently acquired the new drug; it was the main asset of Inhibitex, a firm in Alpharetta, Georgia, for which BMS paid US\$2.5 billion in January. The drug was supposed to inhibit a viral RNA polymerase protein and so prevent the hepatitis C virus from copying its genome; other firms have drugs in clinical trials with similar mechanisms of action. See go.nature.com/vet89t for more.

HIV combination

The US Food and Drug Administration on 27 August approved a once-daily pill that combines four drugs in one to treat HIV. The drug was developed by Gilead Sciences of Foster City, California, which hopes that the pill will enable it to maintain profits after a key component of its 3-in-1 pill Atripla comes off patent next year, reducing that therapy to at least 40% of the current price (see *Nature* **488**, 267; 2012). The new pill, called Stribild, contains two previously approved drugs (emtricitabine, tenofovir) and two new ones (elvitegravir, cobicistat).

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TREND WATCH

Orphan drugs treat rare diseases in a small number of patients, yet still offer good opportunities for pharmaceutical companies to make money, with a global market rising to more than US\$50 billion, according to a 22 August report by Thomson Reuters. Such drugs can be priced highly and require smaller clinical trials. They also attract government incentives, enjoy extended exclusivity rights and have high rates of regulatory approval — explaining industry's new interest in the sector, the report notes.

RISE OF ORPHAN DRUGS

Consumer spending on orphan drugs neared 6% of the global pharmaceuticals market by the end of 2011.

