

POLICY

Gene patent boost

For the second time, the US legal system has upheld the biotechnology industry's ability to patent genes. A lawsuit against Myriad Genetics of Salt Lake City, Utah, asserted that some of the firm's patents for genes (associated with breast cancer) should be invalidated because they refer to DNA that is a product of nature, and so not patentable under US law. But in a 2:1 decision on 16 August, a US appeals court ruled that Myriad's isolated DNA sequences represented a "nonnaturally occurring composition of matter", and so could be patented. The decision was similar to an earlier ruling in July 2011, before the case was reopened. See go.nature.com/cvhl for more.

Tobacco control

The Australian government's world-first plan to strip logos and branding from cigarette packets has survived a legal fight from tobacco companies, which claimed the law would breach Australia's constitution. The nation's highest court dismissed that challenge on 15 August. From 1 December, tobacco products will be sold in plain olive-green packets with large graphic health warnings. The World Health Organization urged other countries to follow Australia, stating that with the legal victory, "public health enters a brave new world of tobacco control".

Telescope sale

A panel of astronomers has advised the US National Science Foundation (NSF) to divest itself of six telescopes by 2017 so that the agency can pay for future facilities, such as the planned Large



EVARISTO SA/AFP/GETTY

Amazon's giant dam halted again

A federal court in Brasilia ordered the suspension of work on Brazil's enormous Belo Monte dam on 13 August, citing the need for further consultation with indigenous people in the region. At an estimated cost of US\$13 billion, the 11-gigawatt hydroelectric project (pictured, under construction) would be the world's third

largest in terms of capacity. It is one of a series of dams planned for the Xingu River, a tributary of the Amazon in the state of Pará. The latest court order — which halts work pending a hearing for indigenous groups to voice their opposition — follows several lawsuits, rulings and appeals that have seen work on the dam stop and start.

Synoptic Survey Telescope in Chile. Responding to the report, released on 16 August, NSF astronomy division director James Ulvestad said that he would try to find new operators for the telescopes in the next 18 months, before the agency begins to consider closing the facilities. See page 440 for more.

Online disclosure

US president Barack Obama on 16 August approved a month's delay to a financial disclosure bill that some US government scientists are fiercely resisting. The STOCK Act requires senior government officials to post financial information online in order to make transparent

any conflicts of interest. It was to come into force from 31 August, but has attracted widespread criticism from some federal employees who argued that making details so readily available would be a threat to national security. The legislation is now to be implemented from 30 September, although federal employees, including researchers at the National Institutes of Health, launched a lawsuit on 2 August to try to stop it taking effect.

Heliophysics plan

The next decade of US solar-physics research should concentrate on small- and medium-scale research missions, including examining

the effects of space weather on Earth activities, says a report released on 15 August by the US National Academies in Washington DC. "We're bringing this a lot closer to home, with a lot more focus on the near-Earth end," explains Dan Baker, head of the Laboratory for Atmospheric and Space Physics at the University of Colorado Boulder, who chaired the heliophysics decadal survey. See go.nature.com/vtioeg for more.

Materials 2022

The US National Science Foundation (NSF) should expand its investment in innovative instrumentation that could serve a large

number of researchers, such as advanced nuclear magnetic resonance spectrometers and electron microscopes, according to an advisory report on materials science released on 16 August. The report was written by the Materials 2022 panel, which was convened last year after a separate NSF report raised concerns about investment in medium-sized (US\$0.1 million to \$10 million) facilities. See go.nature.com/t6ayqu for more.

EVENTS

West Nile virus

The city of Dallas, Texas, declared a state of emergency on 15 August, following ten deaths from West Nile virus in Dallas County over the past month. By that date, 693 cases of the disease, and 26 deaths, had been reported in the United States this year. The country is hit by West Nile virus every year, but this year's cases represent the highest number reported by mid-August since the virus was first detected in the country in 1999, according to the US Centers for Disease Control and Prevention in Atlanta, Georgia.

Mars laser

NASA's Mars Curiosity rover tested out the laser on its ChemCam instrument on 19 August, firing 30 pulses



in 10 seconds at a fist-sized rock nicknamed Coronation (pictured), and recording the spectra of the induced sparks. It was one of the final instrument checks before the rover takes its first drive, in which it will head about 400 metres east-southeast to an intriguing spot where three kinds of terrain meet. The target area, dubbed Glenelg, was picked on 17 August. See go.nature.com/qeuxhl for more.

Hypersonic flight

An experimental aircraft designed to fly at six times the speed of sound (Mach 6) broke apart in the air before it could begin a five-minute test flight on 15 August. The X-51A Waverider, a hypersonic jet, failed because of a faulty control fin about 15 seconds into its flight, the US Air Force said. Four X-51 aircraft have been built — one reaching Mach 5 for three minutes in 2010 — but the Air Force now has only one left.

RESEARCH

Forest emissions

As a result of Brazil's crackdown on deforestation, annual carbon dioxide emissions from forest clearance in the Brazilian Amazon dropped by roughly 57%, from 986 million to 420 million tonnes between 2004 and 2011, according to an analysis released on 13 August by Brazil's National Institute for Space Research. Emissions have not fallen as fast as deforestation (which plummeted by 77% over the same period), because carbon does not instantly move from soils and plants to the atmosphere, and because remaining deforestation is moving to denser forest that stores more carbon.

Next Mars mission

NASA will be landing on Mars again. On 20 August, the agency announced that it had given the go-ahead to a mission that in 2016 would land near the equator of Mars to listen to the tremors rumbling through the planet's interior. The US\$425-million mission, called InSight (Interior Exploration using Seismic Investigations, Geodesy and Heat Transport) could expect to hear quakes as large as magnitude 5 in its two-year mission. It was chosen over two other mission

COMING UP

27 AUGUST

The US Food and Drug Administration decides whether to approve Quad, a pill that combines four drugs in one to treat HIV. The pill was developed by Gilead Sciences of Foster City, California, which hopes to maintain income after a key component of its 3-in-1 pill Atripla comes off patent next year (see *Nature* 488, 267; 2012).

30 AUGUST

The twin spacecraft in NASA's Moon-mapping GRAIL mission, which powered down in May, switch on again for an extended science mission. They will halve their distance to the Moon's surface to examine its gravity field (at an average altitude of 23 kilometres).

candidates: one to float on a hydrocarbon sea of Saturn's moon Titan, and the other to land on a comet. See go.nature.com/fhkyvg for more.

NASA contract

Hot on the heels of the Curiosity rover's landing on Mars, NASA announced on 17 August that the California Institute of Technology (Caltech) in Pasadena will continue to run the Jet Propulsion Laboratory (JPL), where the rover was built, for the next five years. The contract to manage the JPL is worth US\$8.5 billion; the current deal was set to expire on 30 September. US federal contracting rules require that contracts are put up for open competition every five years, although the JPL has been run for NASA by Caltech consistently since 1958.

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TREND WATCH

An outbreak of cholera that started in Haiti in October 2010 lay behind the surge in worldwide cholera cases in 2011. The reported total of some 600,000 cases — thought to greatly under-represent the true number — was a two-decade high (see chart). By mid-August this year, Haiti's outbreak had calmed to fewer than 100 new cases a day. But Sierra Leone is seeing its biggest outbreak since 1996, with more than 10,000 cases and 180 deaths by 15 August. Its government has declared a state of emergency.

WORLDWIDE CHOLERA CASES SURGE

Haiti's cholera crisis saw cases in 2011 rise 85% above the year before.

