

RESEARCH

Coronavirus clues

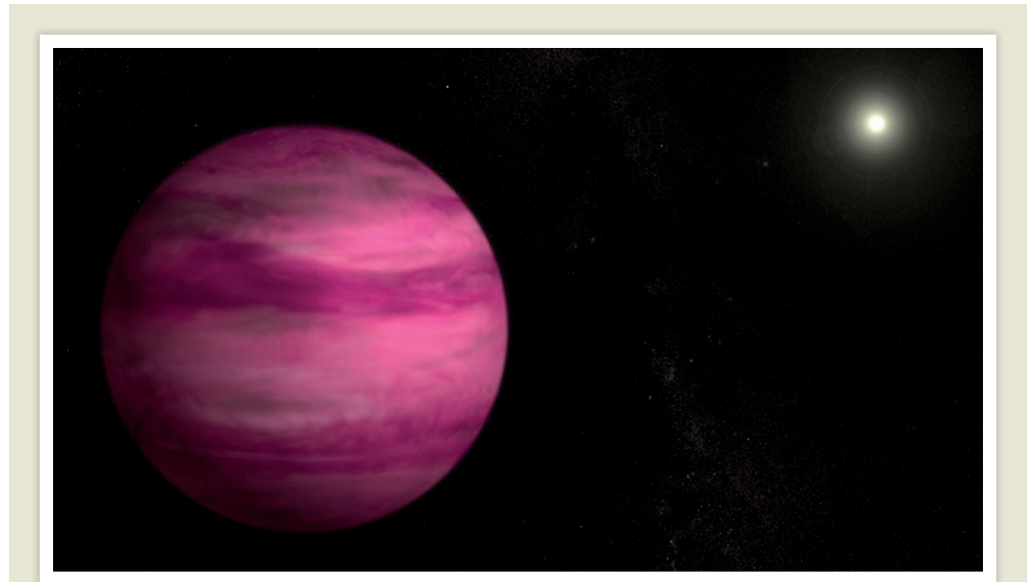
Scientists have an early lead in the search for animal sources of the Middle East respiratory syndrome coronavirus (MERS-CoV), which has killed 46 people since last September. The virus is thought to have originated in bats, but could have spread to humans through one or more intermediate hosts. Researchers reported on 9 August that of 50 Omani camels sampled, all showed evidence of previous infection with MERS-CoV or a closely related virus (C. B. E. M. Reusken *et al.* *Lancet Infect. Dis.* <http://doi.org/nfb;2013>). Further work is needed to verify whether camels could be a source of human infections.

Stormy Atlantic

The current Atlantic hurricane season, which began on 1 June, could be unusually active, said the US National Oceanic and Atmospheric Administration in an updated forecast on 8 August. There have been four named storms so far this year. The agency calculates a 70% chance that a total of 13–19 named storms, including 3–5 major hurricanes, will develop before the Atlantic season ends on 30 November. These projections would exceed the 30-year seasonal average of 12 named storms, including 3 major hurricanes.

GM rice row

Protesters uprooted a field of genetically modified (GM) 'golden rice' at a Philippines Department of Agriculture compound in Camarines Sur on 8 August, citing concerns over future marketing and potential health effects. The crop is engineered to contain β -carotene and helps to



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Astronomers image pink exoplanet

A magenta exoplanet 17.5 parsecs from Earth is the lowest-mass planet that has ever been directly imaged orbiting a Sun-like star outside the Solar System, NASA announced last week. The Subaru Telescope on Mauna Kea, Hawaii, took pictures of the exoplanet GJ 504b at near-infrared wavelengths with the help of adaptive optics. GJ 504b is four times more massive than Jupiter and, with a surface temperature

of 237 °C, still glows pink from its fiery birth 160 million years ago. The rosy planet (pictured in an artist's impression) orbits the star GJ 504, which can be seen with the naked eye, in the constellation Virgo. With an orbiting radius 43.5 times Earth's distance from the Sun, GJ 504b challenges current theories of how far away from stars large planets form. The findings will be published in *The Astrophysical Journal*.

mitigate vitamin A deficiency — which causes malnutrition and affects 1.7 million children in the Philippines. The non-profit International Rice Research Institute, which was helping to conduct safety trials on the rice, vowed to continue its experiments.

Landsat woes

The future of Landsat, the world's longest-running series of Earth-observing satellites, is in jeopardy, according to a report released on 8 August by the US National Research Council. Current methods of management and funding cannot sustain the land-imaging programme over the long term, the report warns. NASA launched the

US\$855-million Landsat 8 probe in February (see *Nature* **494**, 13–14; 2013), but the space agency has not yet outlined clear mission objectives or secured sufficient funding for a successor. Landsat satellites have monitored Earth's surface continuously since 1972.

H7N9 virus persists

China reported on 11 August its first new case of the H7N9 avian influenza virus in three weeks: a 51-year-old woman from Huizhou in Guangdong province, who fell ill on 27 July. Since the start of June, only three cases have been confirmed in China; 132 cases were confirmed from March to May. There have been

44 deaths, but no evidence of sustained human-to-human transmission, says the World Health Organization.

BUSINESS

Brain-implant trial

A deep-brain stimulation (DBS) device that not only delivers electrical pulses, but also records brain activity simultaneously, has been implanted in a person for the first time. Until now, there has been a lack of data on how the brain responds to DBS, which is used to treat motor disorders such as Parkinson's disease, and is being tested for some psychiatric conditions. On 7 August, the device maker — Medtronic in Minneapolis,

Minnesota — announced the start of clinical trials for the system, with the first implantation in a person with Parkinson's in Germany.

Genetics lawsuit

Ambry Genetics in Aliso Viejo, California, has countersued its competitor Myriad Genetics. Myriad, a medical diagnostics company in Salt Lake City, Utah, sued Ambry in July for infringing patents that Myriad holds on tests for cancer-associated mutations in the *BRCA1* and *BRCA2* genes. Last week, Ambry replied that Myriad's patent claims were invalid in light of a June ruling by the US Supreme Court that human genes cannot be patented (see *Nature* **498**, 281–282; 2013), and countersued Myriad for suppressing competition to maintain a monopoly on the tests.

PEOPLE

NASA deputy out

NASA deputy administrator Lori Garver (pictured) is resigning after four years, the agency announced on 6 August. As second in command to NASA chief Charles Bolden, Garver had a major role in developing initiatives such as commercial space transportation and a mission to capture an



asteroid. She has also advised US President Barack Obama on space policy during his campaign and presidency. Garver will become general manager at the Air Line Pilots Association, based in Washington DC.

Misconduct finding

A dermatology researcher at Case Western Reserve University in Cleveland, Ohio, has been sanctioned for misconduct by the US Office of Research Integrity (ORI). Pratima Karnik admitted submitting a grant application to the US National Institutes of Health that contained text plagiarized from a grant application she had reviewed, as well as from eight research articles and a patent application. The ORI, in Rockville, Maryland, noted on 6 August that Karnik has agreed to have her research

supervised, and to exclude herself from any peer-reviewing or advising for US public-health services for two years.

POLICY

US biofuel quotas

In a long-awaited decision, on 6 August the US Environmental Protection Agency (EPA) announced the nation's biofuel quotas for 2013. Biofuels — mostly those based on ethanol from maize (corn) — must account for at least 9.74% of the total US fuel supply this year, up from 9.23% in 2012. However, the percentage of cellulosic biofuels — those made from inedible plant fibres such as wood — was reduced from last year's target of 0.006% to 0.004% after a federal court ruled in January that the fledgling industry would not be able to meet the EPA's demands.

Food safety concern

Additives that help to colour, flavour and preserve food are often officially deemed safe by experts with financial ties to the manufacturers, according to data published on 7 August (T. G. Neltner *et al. JAMA Intern. Med.* <http://doi.org/nd5>; 2013). The study, led by researchers at the Pew Charitable Trusts in Washington DC, found that

COMING UP

20 AUGUST

A US presidential bioethics commission discusses the ethical implications of neuroscience and its applications at a public meeting in Philadelphia, Pennsylvania (see page 261).
go.nature.com/zrthim

22 AUGUST

US federal agencies reach the deadline to file their proposals for increasing public access to federally funded research, set by the Office of Science and Technology Policy in Washington DC (see *Nature* **494**, 414–415; 2013).

employees or hired consultants of food companies made 35% of the 451 determinations classifying food additives as safe in the United States between 1997 and 2012. The authors have called on the US Food and Drug Administration to bar the practice. See go.nature.com/jqccur and page 253 for more.

Space fence down

Citing the US federal budget cuts known as sequestration, the US Air Force Space Command announced on 12 August that it will shut down a key component of a network that monitors orbital debris and space objects. The Air Force Space Surveillance System, dubbed the space fence, will close by 1 October. Two of the system's nine radar stations were deactivated in April. Losing the rest will make it harder to track break-ups of space junk, which can endanger satellites, says Brian Weeden, technical adviser at the Secure World Foundation in Washington DC.

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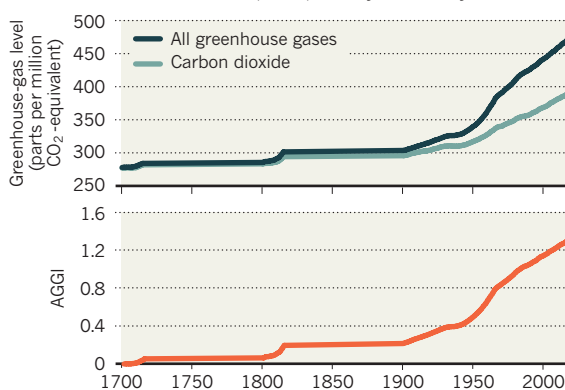
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TREND WATCH

Increased emissions of carbon dioxide, nitrous oxide and methane drove atmospheric greenhouse gases to their highest recorded levels in 2012, according to the US National Oceanic and Atmospheric Administration (NOAA). CO₂ now accounts for about 80% of the increase in global-warming potential since 1990, the agency says. In May, atmospheric concentrations of the gas surpassed 400 parts per million at NOAA's Mauna Loa Observatory in Hawaii (see *Nature* **497**, 13–14; 2013).

RECORD MEASUREMENT OF GREENHOUSE GASES

The US National Oceanic and Atmospheric Administration's Annual Greenhouse Gas Index (AGGI*) rose by 1.5% last year.



*The AGGI, a measure of global-warming potential, is gauged relative to baseline levels in 1990.