

## EVENTS

### Space silence

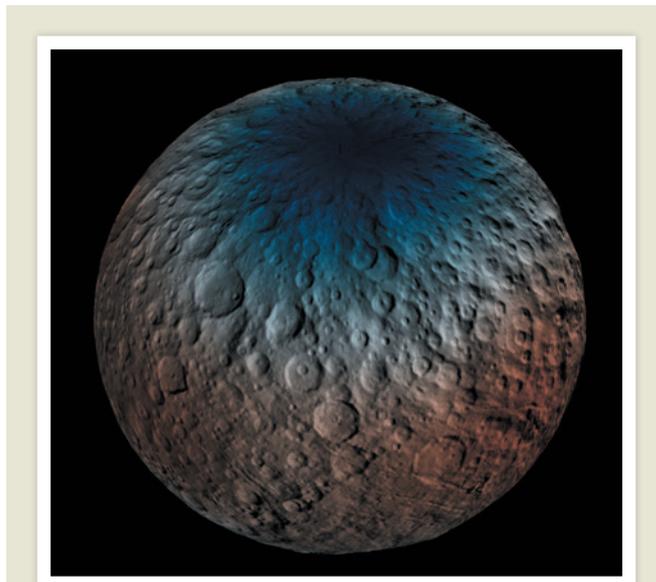
The Japan Aerospace Exploration Agency (JAXA) lost contact with its flagship X-ray astronomical satellite, Hitomi — previously known as ASTRO-H — on 26 March. Launched on 17 February, it had been going through initial tests and calibrations. Hitomi's status remains unknown, but JAXA engineers are working to regain communication. The US Joint Space Operations Center, which tracks space debris, reported five objects near the spacecraft around the time that it went silent, which it characterized as pieces of a “break-up”. On 28 March, unconfirmed reports said that telescopes had seen the satellite tumbling. See [go.nature.com/jlkxhg](http://go.nature.com/jlkxhg) for more.

### Japan's whaling

Japan's Institute for Cetacean Research has confirmed that 333 minke whales were killed by the country's controversial ‘scientific’ whaling initiative in the Antarctic, which started last year. In a 24 March statement, the institute said that 103 males and 230 females — many of which were pregnant — were caught between December last year and March. In 2014, an international court declared that Japan's whaling programme was not scientific, and the country has struggled to convince the International Whaling Commission to approve a revised programme (see A. S. Brierley and P. J. Clapham *Nature* **529**, 283; 2016; J. Morishita *Nature* **531**, 35; 2016).

### Philippines satellite

The Philippines's first micro-satellite was successfully launched on 22 March from Cape Canaveral, Florida. The craft, Diwata-1 — a collaboration between the



## Hydrogen on Ceres

The northern polar region of the dwarf planet Ceres contains lots of hydrogen and probably water, as revealed in an image taken by NASA's Dawn spacecraft and released on 22 March. Dawn scientists compiled this false-colour map using data from the spacecraft's neutron-counting instrument, which scans the uppermost metre of Ceres's surface material. Red indicates high neutron counts, and blue shows low counts. Fewer neutrons near the north pole indicate the presence of hydrogen there, probably in the form of water ice.

University of the Philippines Diliman, the Philippine Department of Science and Technology and Japan's Tohoku and Hokkaido universities — is part of a resupply mission to the International Space Station, from where it will be placed into orbit. The satellite will beam back images of weather patterns and land and water resources, and represents “a giant leap for Philippine science and technology”, said Jose Cuisia, the country's US ambassador.

## FUNDING

### Frontier science

Microsoft co-founder Paul Allen has pledged US\$100 million over 10 years

to transformative bioscience projects and investigators. The first grants from the Paul G. Allen Frontiers Group in Seattle, Washington, were announced on 23 March. Four scientists will receive \$1.5 million each: Ethan Bier at the University of California, San Diego; James Collins at the Massachusetts Institute of Technology, Cambridge; Jennifer Doudna at the University of California, Berkeley; and Bassem Hassan at the Brain and Spine Institute, Paris. Two universities, Stanford in California and Tufts in Medford, Massachusetts, will each receive \$30 million, from the Allen group and partners, over 8 years. Competitions for additional investigators and

research centres will be held periodically.

### Russian funding

Concerns have been raised over future support for civilian basic research under a science and technology strategy that the Russian government plans to launch this year. Despite mounting budget pressure, the government's overall spending on military and civilian science is to remain stable, deputy prime minister Arkady Dvorkovich told the Russian Academy of Sciences last week. But scientists told *Nature* that they fear that priority research programmes set to be introduced by the end of the year will favour commercial research over fundamental science. Recipients of Russian grants have already lost substantial purchasing power owing to the rapid decline of the rouble.

### Fetal research

A US Congress committee is preparing to subpoena 17 universities and research institutions for data on their use of human tissue from aborted fetuses, according to media reports on 24 March. This is the second round of subpoenas from the House Select Investigative Panel on Infant Lives, which was created in October 2015 to investigate allegations that reproductive health-care provider Planned Parenthood was illegally selling fetal tissue to researchers — charges that the non-profit group denies. The committee's chair, Representative Marsha Blackburn (Republican, Tennessee), is seeking the names of researchers who work with fetal cells and tissue.

### Canadian science

Canada's government will boost funding for science and technology, finance minister Bill Morneau announced on

NASA/JPL-CALTECH/UCLA/ASI/INAF

INTEL 22 March. Science-granting agencies will receive an extra Can\$76 million (US\$58 million) annually from the 2016–17 fiscal year, plus Can\$19 million for indirect costs at academic institutions that undertake federally sponsored research. The government also plans to spend up to Can\$2 billion over 3 years on a new science infrastructure, and Can\$800 million over 4 years on a series of “innovation networks and clusters” that aim to foster research and development ties with the private sector.

## PEOPLE

**Macchiarini affair**

The Karolinska Institute announced on 23 March that it has rescinded its contract with controversial surgeon Paolo Macchiarini. Macchiarini, formerly a visiting professor at the institute in Stockholm, had been internationally fêted for his pioneering transplants of artificial windpipes — but allegations of scientific and ethical misconduct began to emerge almost two years ago. The institute’s disciplinary board now says that he “engaged in conduct and research that is incompatible with a position of employment”. Macchiarini says that he rejects the board’s findings. See [go.nature.com/qqe1qk](http://go.nature.com/qqe1qk) for more.

**Intel icon dies**

Andrew Grove, the legendary chairman and chief executive of semiconductor giant Intel, died on 21 March aged 79, the company has announced. Grove (pictured) was the first engineer to be hired by Intel’s founders in 1968. He later had a crucial role in management as the company, based in Santa Clara, California, drove down the cost of computer chips and boosted their power, both at an exponential rate. Born into a Jewish family in Hungary, Grove survived the Holocaust; in the mid-1950s, he escaped through the Iron Curtain and emigrated to the United States.

## FACILITIES

**Solo observatories**

Two US radioastronomy observatories will branch out on their own following a funding crunch, the National Radio Astronomy Observatory (NRAO) in

Charlottesville, Virginia, announced on 24 March. The Green Bank Telescope in West Virginia will become the independent Green Bank Observatory, and the Very Long Baseline Array — a set of ten dishes stretching from Hawaii to the US Virgin Islands — will be the Long Baseline Observatory. The changes come as the US National Science Foundation, which funds the NRAO, looks to save money by offloading some of its astronomy facilities.

## RESEARCH

**Asymmetry pegged**

The LHCb experiment at CERN’s Large Hadron Collider near Geneva, Switzerland, has improved the accuracy of a crucial measurement of the difference in behaviour between matter and antimatter. At a meeting in La Thuile, Italy, physicist Matthew Kenzie of CERN, Europe’s particle-physics lab, reported on 23 March that one indicator of asymmetry — called  $\gamma$  and measured through the decay of  $B$  mesons and their antiparticles — in the behaviour of quarks had been determined with a precision of about 10%, twice that of previous experiments. One of three angles of a triangle,  $\gamma$  encodes the asymmetries

## COMING UP

**31 MARCH–1 APRIL**

US President Barack Obama hosts the last of four summits on nuclear security in Washington DC. [go.nature.com/4fq3gj](http://go.nature.com/4fq3gj)

**1–2 APRIL**

Robotics experts gather in Coral Gables, Florida, to wrestle with the legal and policy questions surrounding robots. [go.nature.com/sc4fuc](http://go.nature.com/sc4fuc)

**6–7 APRIL**

The Astroparticle Physics European Consortium holds a meeting in Paris to discuss updating its global-initiatives road map. [app2016.in2p3.fr](http://app2016.in2p3.fr)

in quark behaviour; LHCb physicists hope to measure all three angles with a precision that is better than 1%.

## POLICY

**Call for drug reform**

Drug policy needs to be shorn of ideological bias and based on better science, according to the Johns Hopkins–Lancet Commission on Public Health and International Drug Policy. In a 24 March report, the group calls for decriminalization of minor drug offences including use and possession, regulated drug markets and a focus on harm reduction rather than prevention of use (J. Csete *et al.* *Lancet* <http://doi.org/bdp2>; 2016). The commission also says that current global policies are causing huge health problems, and that a more diverse source of funders is needed to provide “non-ideological” science on drug policy and reform.

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## TREND WATCH

Global investments in renewable energy rose to a record US\$286 billion in 2015, more than double the investment in coal and gas-fired power generation, the United Nations Environment Programme (UNEP) announced on 24 March. The world added 134 gigawatts of renewable-energy capacity in 2015 — up 26% from 2014. Most investment went into solar and wind power. For the first time, UNEP reported, investments by developing countries surpassed those of developed countries.

**RENEWABLES INVESTMENTS RISE**

Solar and wind power are the main beneficiaries of increased global investment in renewables, which rose to record levels in 2015.

