

## RESEARCH

### Faster than light?

Physicists were this week rushing to pore over the details of an Italian experiment suggesting that neutrinos can travel faster than light. The experiment, OPERA, is a neutrino detector under the Gran Sasso National Laboratory near L'Aquila. It saw a beam of neutrinos travelling 730 kilometres from CERN, Europe's particle-physics laboratory in Geneva, Switzerland, arrive 60 nanoseconds earlier than light would if travelling in a vacuum. The results were unveiled on 22 September. See page 520 for more.

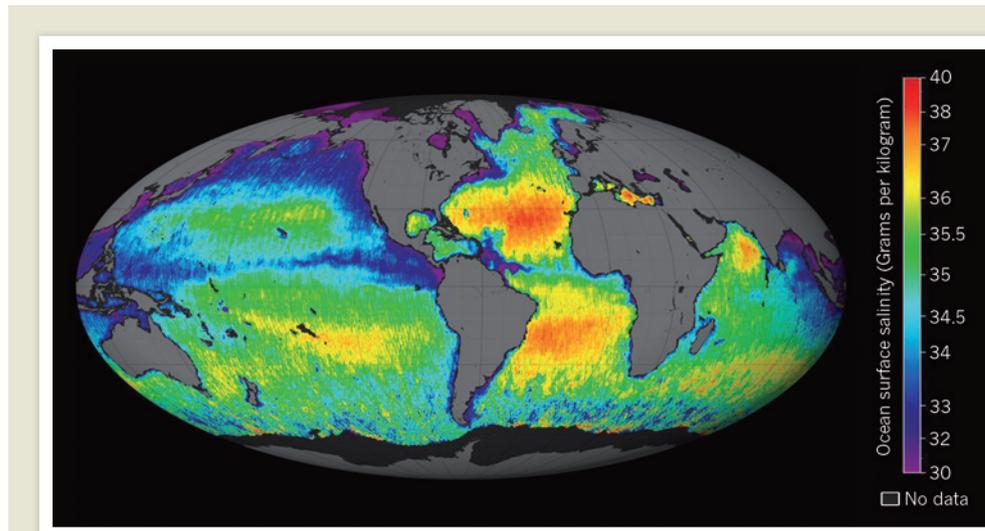
### RIP XMRV

Researchers have partially retracted a controversial study reporting the discovery of a virus called XMRV in blood from patients with chronic fatigue syndrome (V. C. Lombardi *et al.* *Science* **326**, 585–589; 2009). The findings came under attack when other laboratories were unable to reproduce them (see *Nature* **471**, 282–285; 2011). On 22 September, *Science* published the retraction together with the findings of a working group that had distributed patient samples to nine independent laboratories. Only two could find XMRV or related viruses, and even those labs did not reproduce their findings when given replicate samples. See [go.nature.com/olxles](http://go.nature.com/olxles) for more.

## POLICY

### Nuclear reaction

The International Atomic Energy Agency (IAEA) will be obliged to speak out in times of crisis, under an action plan approved by member states on 22 September. The agency was widely criticized



SOURCE: NASA/GSFC/JPL-CALTECH

## Measuring the ocean's saltiness

This map showing variations in saltiness in the world's oceans is the first produced by NASA's Aquarius satellite, which launched in June. The probe is a collaboration with Argentina's space agency, CONAE, and picks up weak microwave radiation emitted naturally by the ocean. The radiation varies according to the electrical conductivity of the water, which in turn is tied to salinity. Because salinity is linked to water

density and evaporation, the data could help to confirm theories about the global water cycle and its response to climate change. Most of the features apparent in the map are well known — such as the greater salinity of subtropical regions that experience more evaporation from sunlight. The results, released on 22 September, will be combined with data from the European Space Agency's Soil Moisture and Ocean Salinity (SMOS) mission.

for failing to give clear and independent assessments of the nuclear accident at the Fukushima Daiichi power plant in Japan in March. The new plan calls on the IAEA to provide “timely, clear, factually correct, objective and easily understandable information during a nuclear emergency”. The agency will also consider reforming its seven-point nuclear-emergency scale. See [go.nature.com/c7ecgr](http://go.nature.com/c7ecgr) for more.

### Disease summit

Without committing themselves to specific targets, world leaders pledged action on non-communicable disease at a United Nations summit in New York last week. The meeting emphasized the toll of conditions such as heart

attack, cancer and diabetes (see *Nature* **477**, 260–261; 2011), and discussed actions such as controls on salt and tobacco consumption. It will be up to individual nations to put such controls into place.

### UK science cuts

The Royal Society in London has written to Britain's physical sciences funding agency, telling it to “pause” controversial changes to its funding strategy. The letter, released on 22 September and co-signed by other UK learned societies, came after months of discontent from scientists at how the Engineering and Physical Sciences Research Council was passing on government budget cuts. Researchers complain that the agency has not consulted

widely enough, and that it has not used rigorous evidence to decide on measures such as reducing support for synthetic organic chemistry. The agency's council meets in October to consider the criticisms.

### Working balance

The US National Science Foundation, one of the country's main sources of research funding, has announced a plan to encourage more flexible workplace policies. The changes include allowing scientists to delay or suspend grants for up to a year to care for new children or fulfil other family obligations, the agency says. It asked universities and research institutes to adopt similar policies.

## PEOPLE

THE HUNTSVILLE TIMES/LANDOV



## Murder plea

Amy Bishop, the biologist who shot and killed three colleagues, and injured three others, at the University of Alabama in Huntsville last year (see *Nature* 465, 150–155; 2010) entered a plea of not guilty “by reason of mental disease or defect”, in an Alabama courtroom on 22 September (pictured). Bishop’s trial will begin on 19 March 2012.

## Federal fraud

The head of a US biotechnology company that received federal funds to research vaccines has been indicted for fraud. Jian-Yun Dong, president of GenPhar in Mount Pleasant, South Carolina, and an immunologist at the Medical University of South Carolina in Charleston, is charged (along with an unnamed vice-president)

with making “false, fictitious and fraudulent” statements in 2004–11 in order to get research grants from the National Institutes of Health, among other agencies. The indictment — filed at the US district court in Charleston in April and publicly released on 19 September — says that Dong obtained at least US\$3.6 million as a result of his offenses.

## Green leader dies

Inspirational environmental campaigner Wangari Maathai died in Nairobi on 25 September, at the age of 71. Maathai was the founder of the African tree-planting initiative the Green Belt Movement, which aims to empower women and improve the quality of their lives by providing better access to clean water and firewood while conserving the environment. A veterinary scientist, Maathai won the Nobel Peace Prize in 2004 for her work in supporting democracy, human rights and the environment.

## BUSINESS

## Sequencing sags

DNA-sequencing firm Pacific Biosciences is laying off 130 employees, or 28% of its staff, the company said on 20 September. Based in Menlo Park, California, the

firm started to ship its first commercial machines for real-time, single-molecule DNA sequencing in April. But demand has not climbed as rapidly as hoped. Some other sequencing companies, such as Life Technologies in Carlsbad, California, also announced lay-offs this year, as the sequencing market reaches saturation ahead of what analysts expect to be a few difficult years for the budgets of research funders such as the US National Institutes of Health.

## Shadows on solar

Republican politicians have ramped up criticism of the US government’s clean-energy loan-guarantee programme, which has come under fire since the bankruptcy of solar-energy company Solyndra, based in Fremont, California, early this month. A House of Representatives subcommittee is asking whether the Department of Energy was too hasty in granting the firm a US\$535-million loan guarantee in March 2009. On 23 September, two Solyndra executives refused to give testimonies at the subcommittee hearing. Meanwhile, US solar firms First Solar, based in Tempe, Arizona, and SolarCity, of San Mateo, California, have blamed red tape for their failures to secure

## COMING UP

### 30 SEPT–2 OCT

The fourth annual meeting on personal genomes, at Cold Spring Harbor, New York, looks at the issue of incorporating genome data into routine clinical practice.

[go.nature.com/hozwbo](http://go.nature.com/hozwbo)

### 3–5 OCTOBER

The winners of the 2011 Nobel prizes for physiology or medicine, physics and chemistry are announced in Stockholm.

[www.nobelprize.org](http://www.nobelprize.org)

### 3–5 OCTOBER

The world stem-cell summit in Pasadena, California, focuses on progress in translating stem-cell research for the clinic.

[go.nature.com/kov6xu](http://go.nature.com/kov6xu)

loan guarantees before the end of this fiscal year on 30 September.

## Stem-cell trials

The biotechnology firm Advanced Cell Technology has been given the go ahead to conduct a trial that makes use of human embryonic stem (ES) cells in the United Kingdom — the first such approval outside the United States. The company, which is headquartered in Santa Monica, California, is already conducting US trials; the UK trial will be a repeat version, using retinal cells derived from human ES cells to treat people with Stargardt’s disease, an inherited form of progressive blindness. The company says it is in late-stage talks with regulators and clinicians in France, China and elsewhere to launch further global trials. See [go.nature.com/ogdjgt](http://go.nature.com/ogdjgt) for more.

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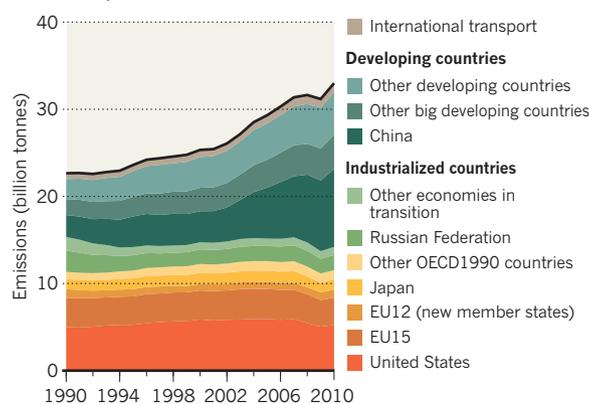
[www.nature.com/news](http://www.nature.com/news)

## TREND WATCH

Global greenhouse-gas emissions increased by 5.8% in 2010 to hit an all-time high of 33 billion tonnes, as continued growth in developing countries swamped both greater use of renewable power and gains in energy efficiency, according to an analysis by the European Commission’s Joint Research Centre and the PBL Netherlands Environmental Assessment Agency. Emissions in China and India increased by 10% and 9%, respectively, compared with 3% in the United States.

## LONG-TERM TRENDS IN CO<sub>2</sub> EMISSIONS

Growth in developing nations is swamping any cuts in greenhouse-gas emissions by industrialized countries.



SOURCE: JRC/PBL