

Seven days: 18–24 November 2011

The week in science: Europe appoints first chief scientific adviser; Gilead spends US\$11 billion on hepatitis-C hope; and those neutrinos are still going faster than light.

23 November 2011

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POLICY

US budget cuts Congressional legislators have managed to pass a portion of the US government 2012 budget, including allocations for NASA, the National Science Foundation and the Food and Drug Administration, among other science-related agencies. The 17 November settlement was not entirely bad for those bracing for deep cuts — with the exception of the White House Office of Science and Technology Policy, whose budget was slashed by one-third. But all science agencies face greater pain from January 2013, after legislators couldn't agree by 23 November on how to trim the federal deficit by \$1.2 trillion, a failure that triggers across-the-board budget cuts. See page 455 for details.

Avastin revoked The US Food and Drug Administration has withdrawn its approval of the drug Avastin (bevacizumab) to treat advanced breast cancer. The agency announced almost a year ago that it would revoke approval because the drug's risks outweigh its benefits. Avastin's maker, Genentech in San Francisco, California, challenged that verdict, but the agency finalized its decision on 18 November. See go.nature.com/46m7w5 for more.

Italian shake-up Electrical engineer Francesco Profumo will be minister for education, universities and research in Italy's emergency administration, which was announced on 16 November by Prime Minister Mario Monti. Profumo was rector of the Polytechnic of Turin until August, when he was made president of Italy's National Research Council funding agency. That appointment was part of a broader initiative to make the Italian research system more transparent and meritocratic (see *Nature* **476**, 386; 2011); Profumo will now oversee these reforms. There are no politicians in Monti's cabinet, which is intended to govern until elections in 2013.

Antibiotic alert The European Commission has unveiled a five-year strategy to tackle the growing problem of antibiotic resistance, urging greater prudence in the use of antimicrobials in human and veterinary medicine. The action plan, which recommends strengthening surveillance systems to better

track and report cases of resistance, was published on 17 November. On the same day, the European Centre for Disease Prevention and Control in Solna, Sweden, published statistics showing how bacteria resistant to the carbapenems, a key last-line-of-defence class of antibiotic, are spreading through Europe. See go.nature.com/zn3csi for more.

BUSINESS

Gilead spends big Gilead Sciences in Foster City, California, is spending US\$11 billion to acquire small biotechnology firm Pharmasset, it announced on 21 November. Pharmasset, of Princeton, New Jersey, has three treatments for hepatitis C in clinical trials; Gilead also has interests in this area. At \$137 per share, the agreed price was an 89% premium on Pharmasset's closing price at the end of the previous week.

RESEARCH

Scanning whales in the desert In Chile's Atacama desert, a team of researchers from institutions in Chile, Brazil and the United States has uncovered a trove of at least 80 exquisitely preserved whale fossils. Last week, scientists from the Smithsonian Institution in Washington DC completed an effort to scan the fossils using lasers, allowing the creation of a three-dimensional replica of the site. (Vincent Rossi from the Smithsonian's 3D digitization programme is pictured.) The team had to finish by December because the area will soon become a highway; the fossils were first spotted by a road-building firm working on the site in 2010. See go.nature.com/kd24pr for more.



N. D. PYENSON

Faster than light 2 The OPERA experiment, which made headlines in September for saying that neutrinos could travel faster than light, released further data supporting its claim on 17 November. The experiment measures the speed of a pulsed beam of neutrinos sent about 730 kilometres from CERN, Europe's particle-physics lab near Geneva, Switzerland, to Gran Sasso National Laboratory near L'Aquila, Italy.

In the latest run, the pulses were shorter and more precisely timed, ruling out some sources of systematic error. But physicists are likely to remain doubtful until an independent experiment replicates the finding. MINOS at Fermilab in Batavia, Illinois, hopes to weigh in early in 2012. See go.nature.com/3f8fpr for more.

Higgs hunting Data from experiments at the Large Hadron Collider have further restricted the range of possible masses for the elusive Higgs boson — the particle thought to give other fundamental particles their mass. On 18 November, research teams from the particle accelerator at CERN, Europe's particle-physics laboratory near Geneva, Switzerland, revealed the latest results, which restrict the Higgs to a mass of 114–141 gigaelectronvolts. Data analysis scouring this final hiding place should be complete by the end of this year. See page 456 for more.

Extreme weather Climate change will make extremes of hot weather more frequent and severe in coming decades, the Intergovernmental Panel on Climate Change warned in a report released on 18 November. But the effect on patterns of rainfall, flood risk and tropical storms is uncertain, said the report. It is not clear, for example, what will happen to the frequency of localized weather events such as last year's catastrophic floods in Pakistan (**pictured**). Last week's report was a summary for policy-makers; the full version is scheduled for release early next year. See go.nature.com/nxyavf for more.



R. TABASSUM/AFP/GETTY IMAGES

PEOPLE

Europe's adviser Europe's first chief scientific adviser (CSA) will be Anne Glover, a molecular and cell biologist who is currently CSA to the Scottish government, sources told *Nature* on 21 November. Glover's appointment comes more than two years after José Manuel Barroso, the president of the European Commission, pledged on 15 September 2009 to create the post. But the details of her role are still unclear, including how much power and freedom she will have in providing advice and influencing policy-making. See go.nature.com/kvmwya for more.

NASA science head John Grunsfeld, an astrophysicist and astronaut who fixed the Hubble Space Telescope, has been chosen as associate administrator of NASA's science mission directorate, according to sources with knowledge of the selection. Grunsfeld is currently deputy director of the Space Telescope Science Institute in Baltimore, Maryland, which operates Hubble. He would replace Ed Weiler, who resigned in September. See go.nature.com/u929zt for more.

Stolen data? The scientist behind a partially retracted paper that linked chronic fatigue syndrome to a virus, XMRV, has been arrested and jailed in relation to a lawsuit brought by her former employer. Judy Mikovits had been research director at the Whittemore Peterson Institute for Neuro-Immune Disease in Reno, Nevada, but was fired barely two months ago. On 18 November she was arrested by police in

Ventura County, California; the lawsuit claims she absconded with laboratory notebooks and proprietary information. See go.nature.com/uwlzph for more.

WHO retains chief Margaret Chan, who has been director-general of the World Health Organization for the past five years, looks set to retain her post for another five-year term. The agency said on 21 November that Chan was the only candidate nominated for the position by member states. Its executive board meets in January 2012 to vote on proposing Chan for re-election: an appointment will be formally decided in May by the World Health Assembly.

TREND WATCH

Slow demand for solar panels, oversupply of products and materials, and subsidy cuts are biting into the industry's profits. Last week, Germany's biggest solar-panel maker, SolarWorld in Bonn, reported its first quarterly net loss in two years, and the chief financial officer of panel maker Q-Cells in Bitterfeld-Wolfen resigned after a second quarterly loss. Even Chinese panel maker JinkoSolar in Shanghai and polysilicon manufacturer Daqo in Chongqing City said they had missed sales targets this quarter.

SOLAR STOCKS KEEP FALLING

Solar-panel makers and materials suppliers continue to struggle in 2011 as cheap photovoltaic modules oversupply the market.



SOURCE: BLOOMBERG

COMING UP

26 November

NASA's Mars Science Laboratory is scheduled to launch.

go.nature.com/gmbdai

28 Nov–9 Dec

International climate negotiations continue in Durban, South Africa, with the 17th meeting of parties to the United Nations Framework Convention on Climate Change. A key debate will be the future of the Kyoto Protocol, which expires next year (see page 454).

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30 November

Patent protection runs out on Pfizer's cholesterol-lowering drug Lipitor (atorvastatin), the world's top-selling prescription medicine.