

POLICY

US–India ties

On a state visit to India, US President Barack Obama announced on 8 November that his administration would ease restrictions on the export of technologies to India's defence and space-related agencies. He added that reforms to export controls would promote a greater partnership between the two nations. India has been subject to US sanctions on high-tech exports since its nuclear-weapons tests in 1998.

Oil-spill faults

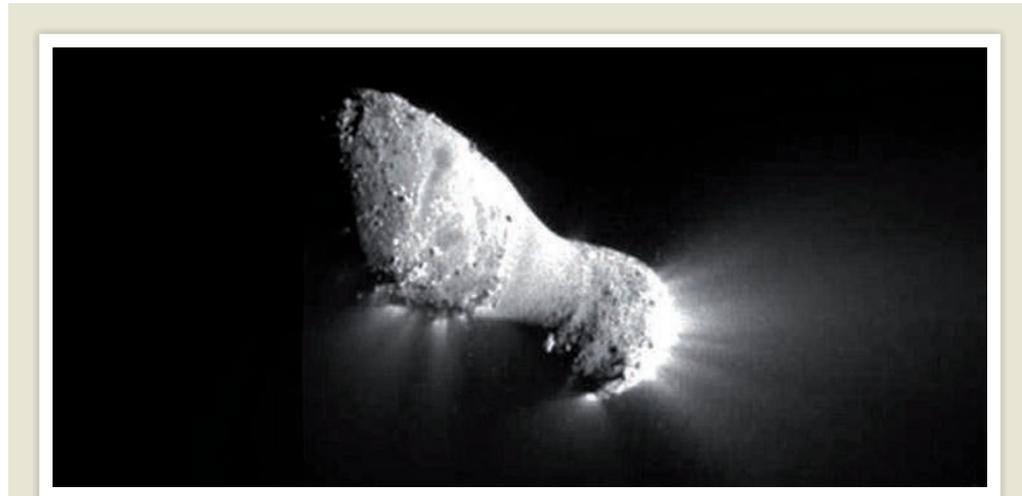
A White House-appointed commission investigating the explosion at BP's Deepwater Horizon oil rig in the Gulf of Mexico published preliminary findings and held public hearings in Washington DC on 8 and 9 November. The findings laid out a list of faults leading up to the blowout, including human error and technical failures, but said that there was "no evidence at this time to suggest that there was a conscious decision to sacrifice safety concerns to save money". The commission's report is scheduled to be released in January 2011.

Election fallout

After Republican success in the US midterm elections last week, a divided Congress — coupled with public concern over government spending — could herald a period of budget-cutting for US research. See page 146 for more.

Education costs

Higher education in science and medicine looks set to become much more expensive in England. On 3 November, the UK government announced that universities will be able to charge students fees of up to £6,000 (US\$9,700)



NASA/JPL-CALTECH/UMD

Cometary close encounter

Bright jets of carbon dioxide exploding from a rough surface featured in most images of comet Hartley 2 taken by NASA's EPOXI spacecraft during its 4 November flyby (see *Nature* 467, 1013–1014; 2010). But the midsection of the comet's oddly shaped 2.2-kilometre-long nucleus

is mysteriously smooth. The probe — which in 2005 visited and shot a projectile into comet Tempel 1 as part of the Deep Impact mission — came within 700 kilometres of Hartley's nucleus, the fifth to be photographed since an armada of probes flew past comet Halley in 1986.

a year, and in some cases up to £9,000. Those taking degrees in laboratory-based subjects are likely to face the biggest hikes. The move is a key part of the government's plan to overhaul university funding after it decided in October to cut the higher-education budget by £2.9 billion over four years. The current cap on student fees is £3,290.

Polar-bear status

The US Department of the Interior has until 23 December to explain its 2008 decision during the administration of president George W. Bush to list the polar bear as a 'threatened' — but not 'endangered' — species, a federal judge ruled on 4 November. The order follows a lawsuit challenging the 'threatened' listing, brought by environmental campaigners including the Center for Biological Diversity, based

in Tucson, Arizona. They hope that a change of listing to 'endangered' may mean that the Endangered Species Act can be used to protect the bears' sea-ice habitats by enforcing the regulation of greenhouse-gas emissions.

PEOPLE

Detention protest

Nineteen physicists have written to the French Physical Society to protest against the detention of Adlène Hicheur, a 33-year-old French-Algerian researcher who has been held on suspicion of terrorism for more than a year without a trial. Hicheur was a postdoc at the Swiss Federal Institute of Technology in Lausanne (EPFL) before his arrest in France on 8 October 2009 for alleged ties to Al-Qaeda in the Islamic Maghreb — the North African branch of the terrorist organization. The physicists

warn that the "length and the arbitrariness of the procedure" could damage Hicheur's career. See go.nature.com/xakh8r for more.

BUSINESS

Biotech squeeze

Biogen Idec — a prominent US biotechnology firm that is one of the few first-generation biotech firms not to have been consumed by big pharma — said on 3 November that it would make major cuts to save some US\$300 million a year. The company, based in Weston, Massachusetts, will lay off around 650 employees, or 13% of its workforce, and close three facilities — two in Massachusetts and one in San Diego, California. To sharpen its focus, Biogen will jettison 11 research programmes, including its cardiovascular and oncology projects, in favour of its core area,

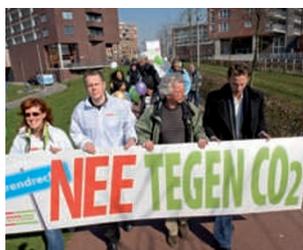
neurology. The firm has seven drugs in or near late-stage clinical trials, including four for treating multiple sclerosis.

Arthritis drug

A new class of treatment for the autoimmune condition rheumatoid arthritis has passed a phase III clinical trial of 611 patients, announced its developer, multinational drug giant Pfizer, this week. The oral pill, tasocitinib, inhibits a kinase protein involved in stimulating immune cells. It is one of the farthest advanced of several kinase inhibitors jockeying to replace current biological drugs against rheumatoid arthritis, which must be injected. Pfizer will not seek marketing approval until trials pitting tasocitinib against other medicines are completed next year.

Carbon burial

The Dutch government has cancelled a plan by oil company Shell to inject 400,000 tonnes of compressed carbon dioxide annually into ageing natural-gas beds below Barendrecht, the Netherlands. The much-delayed project was stopped owing partly to a “complete lack of local support”, minister of economic affairs Maxime Verhagen told parliamentarians on 4 November. The decision was not surprising, as Barendrecht residents have opposed the scheme for years;



their protests (pictured) made the project an emblem for opposition to carbon capture and storage (see *Nature* **463**, 871–873; 2010).

Fertilizer bid block

Canada's government said on 3 November that it would not approve a US\$39-billion bid by mining giant BHP Billiton for the fertilizer company PotashCorp, based in Saskatoon, Canada. The bid was driven by an anticipated growth in demand for — and thus profits from — phosphates, nitrogen and potash. But industry minister Tony Clement said that the deal would not provide net benefit to Canada. BHP, which is based in Melbourne, Australia, has 30 days to revise its offer and change government minds.

Biotech tax credits

A complete list of the 2,923 small US biotechnology companies sharing more than 4,600 awards from a \$1-billion tax-credits programme was released last week. The Therapeutic Discovery Project

programme, established by the health-care reform bill passed earlier this year, awards credits and grants to firms with no more than 250 employees (see *Nature* **465**, 854–855; 2010). Big winners include Theravance, based in South San Francisco, which received nearly \$2.7 million for 11 projects, and Arisaph in Boston, Massachusetts, with almost \$2.8 million for 12 projects. See go.nature.com/tyd2ef for more.

RESEARCH

Collider concludes

The Large Hadron Collider (LHC) has finished smashing protons for the year. The particle accelerator at CERN, Europe's premier high-energy physics laboratory near Geneva, Switzerland, ended its 2010 run on 4 November. It collided particles at 7 teraelectronvolts: a power seven times greater than that of its closest rival, the Tevatron at Fermilab in Batavia, Illinois. But in terms of collision numbers, the amount of data gathered this year matched what the Tevatron can do in only a week. The LHC is now focusing on colliding lead ions.

Nuclear sharing

As part of a major defence-sharing agreement, the United Kingdom and France have agreed to build a joint test

COMING UP

11–12 NOVEMBER

Discussions on how to stabilize the world's supply of rare-earth elements have been urged for the G20 meeting in Seoul. www.g20.org/index.aspx

13–17 NOVEMBER

Treating depression with deep-brain stimulation and a campaign for more money for brain research are on the agenda for the Society for Neuroscience's meeting in San Diego. go.nature.com/lysp8t

16 NOVEMBER

The Royal Society in London releases a report mapping how science is practised around the world, and how the patterns are changing. go.nature.com/iv3bqu

17–18 NOVEMBER

In Cadarache, France, ITER's council will discuss measures to cut costs at the international fusion project. go.nature.com/bokzva

facility for nuclear weapons research. Called EPURE, the facility will X-ray dummy bombs as they explode to understand the effects of ageing on nuclear warheads. EPURE will be located at the Valduc Centre for Nuclear Studies near Dijon, the main French weapons lab, and will be developed with the UK Atomic Weapons Establishment at Aldermaston. Neither side gave a cost estimate, although money-saving was said to be the motivation for the facility, which is expected to be operational from 2015. See go.nature.com/womdnf for more.

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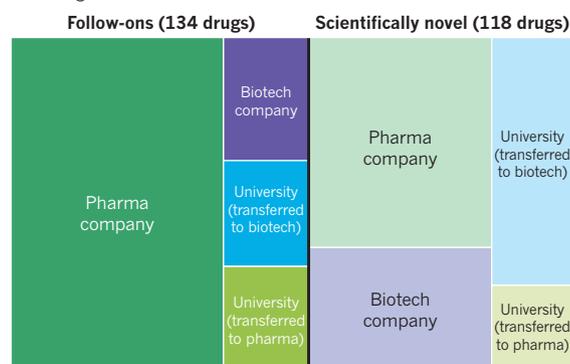
For daily news updates see: www.nature.com/news

BUSINESS WATCH

Pharmaceutical companies discovered 58% of 252 drugs approved by the US Food and Drug Administration during 1998–2007 (see chart). But two-thirds of pharma drugs approved were follow-on compounds. The industry produced a smaller proportion of innovative drugs — universities and biotech firms made 56% of such discoveries. The analysis is from a study by Robert Kneller at the University of Tokyo, published on 29 October (R. Kneller *Nature Rev. Drug Discov.* **9**, 867–882; 2010).

ORIGINS OF NEW DRUGS

Universities and biotech companies accounted for more than half of the scientifically innovative drugs* approved by the US Food and Drug Administration from 1998 to 2007.



*Those with new mechanisms of action, or that were first-in-class