

NEWS BRIEFING

● POLICY

Stem-cell lines: Two of the most popular lines of human embryonic stem cells, H9 and H7, are now eligible for use by US-government-funded researchers. The lines were approved under the George W. Bush administration, but have spent months waiting for the green light (see *Nature* 464, 967; 2010) under a liberalized policy announced by President Barack Obama in March 2009. The National Institutes of Health in Bethesda, Maryland, added them, along with 11 other newcomers, to its registry of federally fundable stem-cell lines on 27 April.

HIV ban lifted: The State Council of China has announced that it will no longer bar people with HIV from entering the country. In a statement on 27 April, it said that the ban had a very limited effect in controlling diseases, and was inconvenient for those visiting major events. China joins South Korea and the United States in repealing HIV entry bans this year. The United Nations lists 51 countries, territories and areas with restrictions on the travel of HIV-positive individuals.

Review panel: The InterAcademy Council has picked the 12-member committee that will conduct an independent review of the procedures and processes of the Intergovernmental Panel on Climate Change. The council — an international organization based in Amsterdam that represents national science academies worldwide — chose economist Harold Shapiro, a former president of Princeton University and the University of Michigan to head the team (see go.nature.com/d9wy6A), which also includes ozone chemist and Nobel laureate Mario Molina. Its first meeting will be on 14–15 May, and it plans to deliver a peer-reviewed report to the United Nations, who requested the review, by 30 August.

OIL SPILL LOOMS LARGE

US ecologists and coastal residents are preparing for an environmental catastrophe to unfold over the coming months as oil flowing from a ruptured pipeline into the Gulf of Mexico starts to lap at the Louisiana shore. As *Nature* went to press, an oil slick and oily sheen covering thousands of square kilometres (white swirl pictured) was being blown towards the fragile marshlands of the Mississippi delta, while the oil spewing into the ocean after the explosion and sinking of the Deepwater Horizon oil rig on 20 April showed no signs of abating or being brought under control by frantic engineers, with at least 800,000 litres erupting from the well every day. See go.nature.com/qzXUGX for more.

Biodiversity gloom:

International efforts to significantly reduce the rate of biodiversity loss by 2010 have failed, a comprehensive study published on 29 April confirmed (*Science*, doi: 10.1126/science.1187512). The Convention on Biological Diversity set the target in 2002. The study tracked 31 indicators of ecosystem health, such as population trends and habitat conditions, from 1970 to the present; most showed no notable decreases in the rate of biodiversity loss.

Royal Institution dispute:

Britain's Royal Institution has settled its legal dispute with former director Susan Greenfield, who claimed sexual discrimination after she was sacked in January (see *Nature* 463, 140; 2010). A statement on 28 April said that the institution had reached full agreement on the terms of Greenfield's departure; neither the institution nor Greenfield would comment on those terms. Greenfield's supporters recently failed in an attempt to oust the council of the institution, which is facing



NUMBER CRUNCH 5,113

The number of nuclear warheads maintained in the US stockpile, declared for the first time on the opening day of the United Nations nuclear non-proliferation conference in New York.

Source: Financial Times, 3 May

severe financial difficulties. New council members are due for election at the institution's annual general meeting on 17 May.

Overseas universities: India's government introduced a bill to its parliament on 3 May that would enable foreign universities to set up campuses in the country, in an effort to raise the quality of higher education. Overseas institutions would have to guarantee and maintain a fund of 500 million rupees (US\$11 million), and plough all profits back into their Indian branch. The legislation is thought to be unlikely to pass until the next parliamentary session of India's lower house starts at the end of July.

● BUSINESS

Offshore wind: The United States' first offshore wind farm was finally approved by Ken Salazar, Secretary of the Interior, on 28 April. The controversial US\$1-billion project has been mired in regulatory review for nine years. Cape Wind Associates, headquartered in

NASA/EARTH OBSERVATORY/J. ALLEN

J. BRIERTY/NEWSPIX/NEWS.LTD

Boston, Massachusetts, plans to install 130 turbines off the coast of Cape Cod in Massachusetts, which will generate a maximum capacity of 468 megawatts. Opponents are vowing to fight the project in the courts.

Cancer vaccine approved: A treatment for prostate cancer has become the first therapeutic cancer vaccine to receive regulatory approval in the United States. On 29 April, the US Food and Drug Administration (FDA) approved Provenge (sipuleucel-T) to treat advanced hormone-resistant prostate cancer. Stock in Dendreon, the vaccine's Seattle, Washington-based manufacturer, rose 27% on the announcement. Provenge seemed on the cusp of approval three years ago, but the FDA demanded additional clinical trial data (see *Nature* 464, 1110–1111; 2010). The vaccine is tailor-made from a patient's own immune cells, and will cost about \$93,000 per patient, the company said.

Stem-cell patents: The US Patent and Trademark Office last week ruled that a contested patent for growing embryonic stem cells, held by the Wisconsin Alumni Research Foundation (WARF), is invalid. The patent covers work done by stem-cell researcher James Thomson at the University of Wisconsin in the 1990s. The 28 April decision reverses the office's March 2008 ruling to uphold the patent in the face of challenges from the Public Patent Foundation, based in New York (see *Nature* 452, 265; 2008). Two similar patents upheld in

NEWS MAKER



Telescope wreck

The Nuclear Compton Telescope, a NASA-funded gamma-ray probe, crashed on its 29 April balloon launch in Alice Springs, Australia. See go.nature.com/1x4xJn for more.

2008 were not eligible for appeal; all three expire in 2015. WARF says that it will appeal against the decision. See go.nature.com/VdjqmA for more.

Off-label marketing: The drug giant AstraZeneca has agreed to pay US\$520 million to settle US government allegations that it illegally promoted the anti-psychotic drug Seroquel (quetiapine fumarate) as

a treatment for medical conditions for which it had not received approval — such as Alzheimer's disease, depression and sleeplessness. Under the terms of the agreement, disclosed last year but finalized on 27 April, the company continues to deny the allegations, which were first raised by the whistleblower James Wetta in 2004. AstraZeneca's total sales of Seroquel reached \$4.87 billion last year.

RESEARCH

Nuclear fusion: Russia and Italy plan to build an experimental nuclear-fusion reactor, called IGNITOR, according to an intra-governmental memorandum signed on 26 April in Milan. The 1.3-metre radius doughnut-shaped device (a tokamak) would heat and squeeze hydrogen isotopes to a self-sustaining plasma state. IGNITOR would be smaller and its magnetic fields stronger than Iter, the international fusion project under construction in St-Paul-lez-Durance, France, and would be built at the Troitsk Institute of Innovative and Thermonuclear Research near Moscow. See go.nature.com/tCSAwr for more.

Fund-raising success: The James Martin 21st Century School at the University of Oxford, UK, said on 28 April that it had secured US\$100 million for new research in just one year. The institute met the challenge of its main benefactor, philanthropist and computer scientist James Martin, to find

THE WEEK AHEAD

7-12 MAY

The Vision Sciences Society's 10th annual meeting in Naples, Florida, brings together biologists, neuroscientists, computer scientists and cognitive psychologists to discuss vision and its relation to the brain.

<http://www.visionosciences.org>

10-11 MAY

London's Royal Society hosts a meeting on research into ageing, and how to prevent ageing-related diseases.

go.nature.com/N6P4RV

11-15 MAY

Large-scale genomic studies and the implications of genome research are on the agenda of The Biology of Genomes meeting in Cold Spring Harbor, New York.

go.nature.com/zMuMD3

12-15 MAY

Basic research and the clinical applications of stem-cell research are to be discussed at a European Molecular Biology Laboratory conference in Heidelberg, Germany.

go.nature.com/4jMNTI

donors to match his \$50-million conditional pledge. The money will be used for 19 research projects into 'global problems facing humanity', such as the future of cities and vaccine design. Martin gave \$100 million to establish the institute in 2005.

BUSINESS WATCH

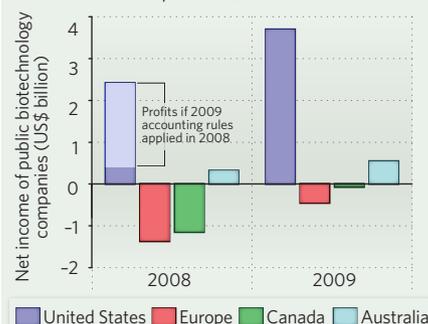
Biotech companies in the established markets of the United States, Canada, Australia and Europe reacted to a cash-constrained 2009 by cutting research and development costs and increasing efficiencies. The industry's belt-tightening efforts helped to dramatically increase its year-on-year profits (see chart), according to a 27 April review from analysts Ernst and Young. The United States saw an impressive upsurge in profitability despite the acquisition of biotech company Genentech by Roche, thus removing Genentech's billions of dollars of profit from the analysts' statistics.

"Much of the cost-cutting in 2009 was precipitated by short-term thinking and the very real need to survive," the report notes. A

greater number of public biotech companies survived the year than industry observers had anticipated: 622 existed in established markets as of December 2009 compared with 700 in 2008, and those that remain have built up greater reserves of cash this year. But, the report adds, "in seeking short-term survival, some companies may be hurting their long-term prospects". For example, the industry's research and development expenditures dropped 21%, from US\$28.7 billion in 2008 to \$22.6 billion in 2009. Meanwhile, biotech prospects in emerging markets such as China and India continued to blossom, although the report did not make quantitative comparisons.

BIOTECH GAINS FROM EFFICIENCY DRIVE

Biotech companies in established markets boosted net profits in 2009.



SOURCE: ERNST & YOUNG