

SEVEN DAYS

The news in brief

BUSINESS

Industry R&D drop

Global investment in commercial research and development (R&D) by the world's biggest research spenders dropped by just 1.9% in 2009, according to the European Union's annual investment scoreboard, released on 26 October. That ends four consecutive years of growth in R&D, but the 1,400 companies in the survey experienced, on average, a 10.1% drop in sales and a 21% fall in profits in 2009. See go.nature.com/mv63xe for more.

Gene patent twist

The US government has weighed in on the court battle over patents on the genes *BRCA1* and *BRCA2*, which are the target of a proprietary test to assess the risk of breast cancer. A New York district court ruled in March that some aspects of the cancer-gene patents are invalid, and the case is now under appeal. The government argues that although modified DNA sequences should be patentable, unmodified DNA should not. This contradicts current practice at the US Patent and Trademark Office. See go.nature.com/q7xi1t for more.

Drug settlement

London-based pharmaceutical giant GlaxoSmithKline has agreed to plead guilty and pay \$750 million in criminal and civil fines for producing adulterated drugs, the US Department of Justice announced on 26 October. The fines cover offences committed at a plant in Puerto Rico that closed in 2009. They include failure to ensure that an anti-nausea drug was free of microbial contamination; the production of a diabetes drug that contained too much



REUTERS/E. QUEIROZ/A. CRITICA

Brazil's drought worsens

The Amazon basin is facing its worst drought since 2005. Water levels in the Rio Negro, a primary tributary, are at historic lows and parts of the river are unnavigable. The river was at its highest levels in June 2009, owing to heavy rains.

It is hard to pinpoint a culprit, but both the 2005 and the 2010 droughts align well with longer-term projections by some climate modellers for a drying out of the Amazon due to global warming. See go.nature.com/mhffyl for more.

or too little active ingredient; and the manufacture of two-layer tablets of the antidepressant paroxetine that split, leaving some without therapeutic effect.

Sequence squabble

Pacific Biosciences, a DNA-sequencing company based in Menlo Park, California, completed its initial public offering on 26 October, raising US\$200 million after emerging onto the market with 12.5 million shares sold for \$16 each. Meanwhile, Helicos BioSciences of Cambridge, Massachusetts, expanded its patent infringement lawsuit against Pacific Biosciences to include Life Technologies in Carlsbad and Illumina in San Diego, two other California-based sequencing firms. Helicos, which is threatened

with delisting from the NASDAQ market, claims that it was the first to invent single-molecule sequencing, on which many new technologies in development now rely.

POLICY

Biodiversity deal

Last week's negotiations on the Convention on Biological Diversity in Nagoya, Japan, delivered a new set of conservation targets for 2020, and an additional treaty that lays down rules for sharing the commercial benefits of products derived from the world's flora and fauna. See page 14 for more.

Nuclear storage

A European Commission directive expected to be published this week proposes

that nuclear waste should be stored deep underground. The draft law says that it is "the safest and most sustainable" way of storing spent fuel and other waste over the long term. France, Finland and Sweden are already planning to open underground nuclear-waste repositories within the next 20 years (see *Nature* 466, 804–805; 2010).

NIH rules rankle

Scientists at the US National Institutes of Health (NIH) work less with industry as a result of a 2005 crackdown that barred employees from consulting for pharmaceutical companies and other businesses. A survey of 566 agency scientists, published in the November issue of *Academic Medicine*, finds that just 33% maintain ties with industry, compared

with 52% before the rules were implemented, even though they are publishing just as many papers. Three-quarters say that the rules have impeded the NIH's scientific mission. See go.nature.com/qwssjn for more.

Stem-cell funding

The US Court of Appeals for the District of Columbia Circuit has set 6 December as the date it will hear oral arguments in a lawsuit challenging the legality of the US government funding human embryonic stem-cell research. The government is appealing against an injunction issued in August by a lower court, which shut down National Institutes of Health funding for the controversial research on the grounds that it contravenes an existing law that bans federal funding for research in which embryos are destroyed. See www.nature.com/stemcellfunding for more.

Not so NICE

Uncertainty emerged last week over the future of Britain's National Institute for Health and Clinical Excellence (NICE), which assesses whether drugs are sufficiently cost-effective to be made available through the country's National Health Service. The government plans to introduce a value-based pricing scheme

in 2013, negotiating fees with manufacturers on the basis of a drug's clinical value. NICE will have an advisory role in the process. Analysts disagree on whether the pricing mechanism will help or hinder pharmaceutical research and development. See go.nature.com/vsguxm for more.

Brazilian election

Dilma Rousseff was elected as Brazil's new president on 31 October. Nominated by incumbent President Luiz Inácio Lula da Silva as his successor, she is widely expected to continue his policy of increasing investment in science (see *Nature* 467, 511; 2010).

FUNDING

Rouble roll-out

The Russian Federation has chosen 40 scientists to receive 'megagrants' worth up to US\$4.9 million each, as part of efforts to build up government-supported science (see *Nature* 467, 251; 2010). More than 500 researchers applied, including many non-Russians who agreed to spend four months a year working in a Russian lab to qualify. Winners include Ferid Murad, a biochemist at the University of Texas in Houston and co-recipient of the 1998 Nobel Prize in Physiology or Medicine, and Stanislav Smirnov, a mathematician

at the University of Geneva, Switzerland, who won the Fields Medal this year. A second funding round will select another 40 recipients in spring 2011.

RESEARCH

Space station

China announced official plans for a manned space station on 27 October. The first section, an 8.5-tonne unmanned module, will go into orbit in early 2011, and will dock with another unmanned space vehicle scheduled for launch later that year (**pictured**). The first astronauts will arrive a year later, bringing additional components, and a space laboratory is scheduled to be in place by 2016. The station should be finished by 2020, two years ahead of earlier projections.



Fraud claim wrong

An investigation by *Nature* has found no sign of fraud in a stem-cell paper from Konrad Hochedlinger's group at the Harvard Stem Cell Institute (J. Utikal *et al. Nature*

COMING UP

8-9 NOVEMBER

The Royal Society holds a meeting in London on the status of geoenvironmental engineering. go.nature.com/hhtf3f

8-12 NOVEMBER

Delegates to the Montreal Protocol for curbing ozone-depleting substances meet in Bangkok. They may decide to regulate hydrofluorocarbons — refrigerants that are ozone-friendly but are potent greenhouse gases. go.nature.com/a9s1wl

9 NOVEMBER

The International Energy Agency releases *World Energy Outlook 2010* in London, with recommendations on how to meet the 2009 Copenhagen Accord, which outlined aspirational goals for tackling climate change. go.nature.com/orprbp

460, 1145-1148; 2009). In October, an anonymous group calling itself Stem Cell Watch accused the paper's authors of inappropriately manipulating an image in the paper (see *Nature* 467, 1020; 2010).

Biobank planned

Scientists from Qatar and Britain last week announced plans to launch what they say is the first large population-based biomedical study in an Arabic-speaking nation. The Qatar Biobank will collect DNA, blood and other biological samples from up to 100,000 volunteers. Scientists will use the biobank to uncover markers linked to conditions such as diabetes and heart disease, which are on the rise among Qataris.

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BUSINESS WATCH

The US solar-power industry got a boost in October with six plant approvals from the Department of the Interior — including one last week for a 1 GW solar thermal project in southern California, currently the largest planned globally. Nat Bullard, an analyst at Bloomberg New Energy Finance in San Francisco, California, expects that about 6 GW of solar thermal capacity should be installed worldwide by 2013, although this is still dwarfed by booming photovoltaic capacity (see chart).

SOLAR PROSPECTS

At current growth rates, Germany will dominate the world's photovoltaic capacity in the coming decade.

