

# NEWS BRIEFING

## ● POLICY

**Fusion first:** Construction of ITER, the multibillion-dollar fusion experiment in St Paul-lez-Durance, France, is poised to kick into high gear.

On 13 April, Fusion for Energy (F4E), the European Union's organization administering the project from Barcelona, Spain, announced that it had signed a €150-million (US\$202-million) contract for architecture and engineering. A consortium of four contractors from France, Spain and the United Kingdom will be responsible for the detailed designs of the reactor's buildings. Excavation work for the main reactor building will start in May or June, with completion tentatively scheduled for late 2019.

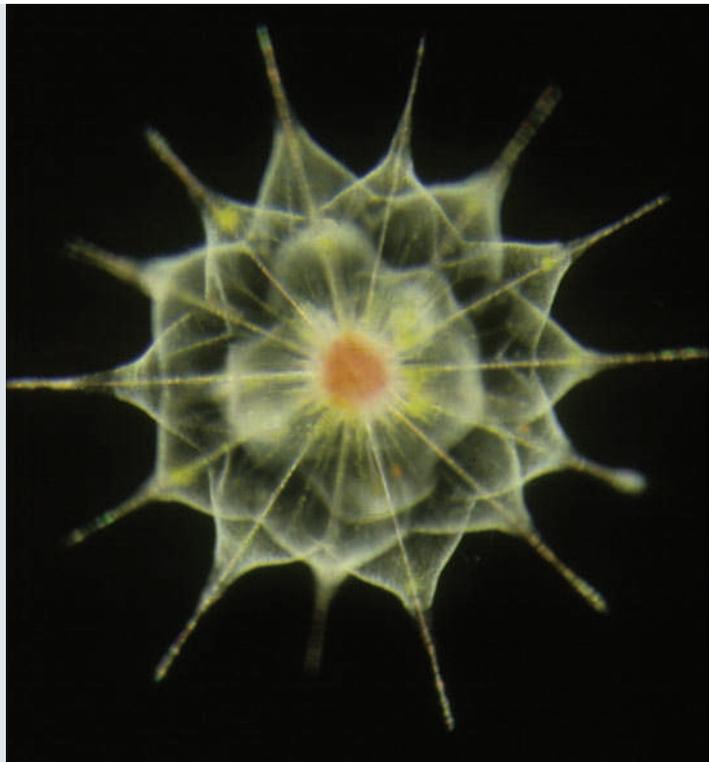
**Case closed:** The British Chiropractic Association (BCA) ended its libel claim against the science writer Simon Singh on 15 April, for a piece he had written for *The Guardian* newspaper. The news came two weeks after a court ruling went in Singh's favour (see [go.nature.com/EQFfg3](http://go.nature.com/EQFfg3)), overturning a previous decision on Singh's April 2008 article. The recent ruling meant that Singh would have been able to use a defence commonly referred to as 'fair comment' if the BCA had continued with the case. See [go.nature.com/oV7qku](http://go.nature.com/oV7qku) for more.

**Climatologists cleared:** An inquiry has upheld the integrity of research by the 'climategate' scientists at the University of East Anglia, UK. Headed by geologist Ron Oxburgh, former rector of Imperial College London, the inquiry was one of a number established after e-mails sent by scientists at the university's Climatic Research Unit were leaked. This inquiry, set up by the university, considered several allegations, including that data in research papers had been manipulated to support predetermined conclusions on climate change. It cleared the scientists of any malpractice,

## A MICROBIAL WORLD

Estimates for the number of microbial species in the world's oceans have jumped massively.

When the International Census of Marine Microbes (ICoMM) kicked off in 2003, microbiologists had identified 6,000 kinds of microbe and predicted that they might find as many as 600,000. But the latest analyses indicate that the oceans are home to at least 20 million types, including acantharians (pictured) — protists with skeletons made of strontium sulphate crystals. "The results just blow the wheels off all estimates of microbial diversity," says ICoMM leader Mitch Sogin of the Marine Biological Laboratory at Woods Hole, Massachusetts. See [go.nature.com/Pnstez](http://go.nature.com/Pnstez) for more.



L. AMARAL ZETTLER

but expressed surprise that few professional statisticians were involved in the work. See [go.nature.com/XNggKb](http://go.nature.com/XNggKb) for more.

**Arctic-impact study:** The US Department of the Interior has requested a scientific review of the possible ecological impact of drilling for oil and gas in the Beaufort and Chukchi seas in the Arctic. Environmentalists raised concerns last year that drilling could affect wildlife in the region, including walrus and beluga whales. The review, by scientists at the US Geological Survey, will be completed by 1 October 2010.

## ● BUSINESS

**Synthetic hopes:** Amyris Biotechnologies, one of the leading start-up firms deploying the tools of synthetic biology in the biofuels field, filed plans to go public with the US Securities and Exchange Commission on 16 April. Based in Emeryville, California, and co-founded by Jay Keasling, a bioengineer at the University of California, Berkeley,

the firm has engineered strains of yeast to produce hydrocarbon fuels and other chemicals from sugarcane feedstocks. It plans to seek US\$100 million in its initial public offering; no date for this has been set.

**Chemical safety:** US chemical regulation looks set for an overhaul with the introduction of the draft Safe Chemicals Act. If passed, the new legislation will require health-and-safety information to be provided for all chemicals, and will pass the burden of proof of safety to the manufacturers rather than the regulators, in a similar way to the European Union's REACH legislation. The act, introduced in both houses of Congress on 15 April, will replace the ageing Toxic Substances Control Act (see *Nature* 463, 599; 2010).

## ● RESEARCH

**Data torrents:** Scientists at the University of California, Davis, last week unveiled BioTorrents, a website that enables people to share scientific data,

## NUMBER CRUNCH

# 4%

The proportion of global anthropogenic greenhouse-gas emissions emitted by dairy cows, according to a new report.

Source: FAO

including genome sequences that are currently held in large repositories such as GenBank. The website ([www.biotorrents.net](http://www.biotorrents.net)) uses BitTorrent's peer-to-peer file-sharing technology, which can distribute large data sets to multiple users by splitting the data into small chunks. Although data piracy could be a concern, the authors argue in their paper (*PLoS ONE* 5, e10071; 2010) that BioTorrents could speed data sharing between large international collaborations. See [go.nature.com/ubozh8](http://go.nature.com/ubozh8) for more.

**Network failure:** A 55-year-old clinical-trials network needs a major overhaul, according to a report by the Institute of Medicine, the Washington DC-based health arm of the National Academies. The Clinical Trials Cooperative Group Program, funded by the National Cancer Institute, enrolls 25,000 patients in cancer trials run by 14,000 researchers at 3,100 institutions each year. Trials typically take at least two years to get off the ground, the report says, and funding only covers about half the costs, leaving investigators to seek out the difference from other sources.

**Satellite setback:** Indian space agency ISRO's first test flight of a home-made cryogenic engine — powered by fuels that are liquid at very low temperatures — ended in failure on 15 April, dumping its GSAT-4 communications satellite into the Indian Ocean. The failure is likely to push back the planned 2012–13 launch of India's unmanned Chandrayaan-2

## SOUND BITES

**“I just have to say pretty bluntly here: we’ve been there before.”**

US President Barack Obama tells Florida's Kennedy Space Center on 15 April that sending astronauts to the Moon is so last century (see [go.nature.com/zWdf2W](http://go.nature.com/zWdf2W) for more).

lunar mission and further communications satellites.

**Ancient upgrade:** Around four tonnes of Roman lead were transferred on 14 April from a museum on the island of Sardinia to Italy's particle-physics laboratory at Gran Sasso on the mainland. Once intended to become ammunition for Roman soldiers' slingshots, the ingots, discovered by a diver in 1988 (see picture below), will now be used to shield the CUORE (Cryogenic Underground Observatory for Rare Events) detector, which seeks to nail down the mass of neutrinos. See [go.nature.com/FtvAhs](http://go.nature.com/FtvAhs) for more.



## EVENTS

**Volcano delays:** The Icelandic volcano Eyjafjallajökull, which has been erupting since 21 March, has spewed vast amounts of ash up to 5 kilometres into the atmosphere. Magma from the eruption has found a route to the surface from under a glacier. Flights across Europe have been grounded because of fears over potential engine damage caused by the silica ash cloud issuing from the fissure. Meteorologists are modelling where the cloud will move, using satellite and wind-speed data. The emissions

# THE WEEK AHEAD

**24 APRIL**  
**The Hubble Space Telescope was launched 20 years ago on this day. See Nature's online special for a retrospective, slideshow and stories from our archive.**  
[www.nature.com/hubble](http://www.nature.com/hubble)

**24-28 APRIL**  
**About 13,000 scientists are expected at Experimental Biology 2010 in Anaheim, California. The conference includes lectures and posters from fields such as anatomy, biochemistry and pharmacology.**  
[go.nature.com/ErrFZe](http://go.nature.com/ErrFZe)

**27-29 APRIL**  
**The Cambridge Healthtech Institute's Drug Discovery Chemistry conference is held in San Diego, California, with programmes on antibacterial drug development and protein-protein interactions as drug targets.**  
[www.drugdiscoverychemistry.com](http://www.drugdiscoverychemistry.com)

**28-29 APRIL**  
**A symposium hosted by the Zoological Society of London examines the link between the conservation of biodiversity and reductions in poverty.**  
[go.nature.com/jr2rLC](http://go.nature.com/jr2rLC)

are so small, however, that climate experts don't anticipate any climate effects.

IL NUOVO SAGGIATORE/SOCIETÀ ITALIANA DI FISICA DI BOLOGNA

## BUSINESS WATCH

Genetically engineered crops offer significant environmental and economic advantages over non-transgenic varieties, according to a report published on 13 April by the US National Research Council.

Introduced in 1996, transgenic crops now make up more than 80% of soya bean, maize (corn) and cotton grown in the United States — or about half the nation's cropland. According to the report, farmers who grow Bt crops, which are engineered to produce pest-killing toxins from the bacterium *Bacillus thuringiensis*, use less insecticide. Increased planting of herbicide-tolerant crops may also have reduced the use of many herbicides that linger in soil

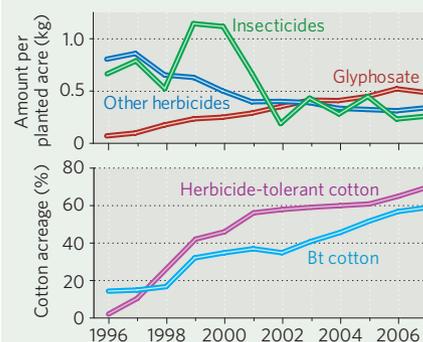
and waterways, while increasing the use of glyphosate, a herbicide thought to be less harmful to the environment (see graphic).

Farmers growing transgenic crops are more likely to practise 'conservation' tillage, which reduces soil erosion. They have also seen economic benefits, with lower production costs due to decreased insecticide and pesticide use and higher yields in some cases.

But the report warns that the risks of genetic engineering may multiply as the technology is applied to more crops and calls for further research — including on the growing resistance of weeds to glyphosate. See [go.nature.com/ddcpba](http://go.nature.com/ddcpba) for more.

### GENETIC BENEFITS

More planting of genetically engineered crops in the United States has coincided with reduced use of most pesticides and herbicides.



SOURCE: [HTTP://PURL.UMN.EDU/49271](http://PURL.UMN.EDU/49271)