

SEVEN DAYS

The news in brief

EVENTS

Gene patent invalid

The High Court of Australia has ruled a key gene patent invalid, casting doubt on the status of other gene patents worldwide. On 7 October, the court determined that isolated DNA corresponding to a cancer-associated gene called *BRCA1* was not “a manner of manufacture”, and thus could not be patented under Australian law. The decision puts an end to a five-year legal battle. The US Supreme Court ruled a similar patent invalid in 2013.

Start-up lab

The venture-capital firm Y Combinator (YC) in Mountain View, California, is establishing a non-profit arm devoted to basic research in fields ranging from information technology to biology. YC Research will employ its own scientists and will initially consist of just one lab. YC president Sam Altman says that he is contributing US\$10 million of his own money to the enterprise, but that most details are still confidential.

Orca breeding ban

The California Coastal Commission has banned the breeding of killer whales (*Orcinus orca*) at the SeaWorld theme park in San Diego. SeaWorld was granted permission to expand its orca tanks in the park, but said that it was “disappointed” by the commission’s conditions, which company president Joel Manby said would be “inhumane” in depriving the animals of “the natural and fundamental right to reproduce”. SeaWorld has been increasingly targeted by campaigners who say that keeping killer whales in captivity is cruel; the company



XL CATLIN SEAVIEW SURVEY

Sea warming triggers coral bleaching

The US National Oceanographic and Atmospheric Administration (NOAA) stated on 8 October that Earth’s oceans are experiencing a mass coral-reef bleaching (pictured here in fire coral in Bermuda). Sea surface temperatures have risen enough to bleach reefs in three major coral-containing basins — the Pacific,

Indian and Atlantic oceans. It is the third global bleaching event in recorded history, after those in 1998 and 2010; as in the previous events, the El Niño weather pattern is helping to keep ocean temperatures high. By the end of 2015, 38% of the world’s coral reefs could be affected, NOAA says. See go.nature.com/1h3bmx for more.

denies these claims. The ruling does not affect SeaWorld sites outside California.

system, which explains how cells use enzymes to repair damage caused by ultraviolet light. See page 307 for more.

Washington DC to undertake the survey. See go.nature.com/ddo2bz for more.

AWARDS

DNA-repair Nobel

The 2015 Nobel Prize in Chemistry was awarded to three scientists who mapped how cells repair damaged DNA. Tomas Lindahl, Paul Modrich and Aziz Sancar shared the prize, announced on 7 October. Each discovered a different molecular process. Lindahl described how enzymes seek, cut out and patch up sections of damaged DNA, a mechanism called base-excision repair. Modrich worked on mismatch repair, which sorts out errors that are introduced when DNA is copied. And Sancar contributed research on the nucleotide-excision repair

RESEARCH

Cell lines unchecked

More than half of biomedical researchers do not authenticate the cell lines that they use in their experiments, a survey published on 12 October shows (L. P. Freedman *et al.* *BioTechniques* **59**, 189–192; 2015). Of the 446 scientists surveyed, 52% said that they do not do checks for species, tissue type and sex, with many citing cost and time constraints as the reason. Concern about reproducibility of results and wasted research funds because of misidentified cells led the non-profit Global Biological Standards Institute in

FACILITIES

Telescope start

Construction began on 9 October of a 23-metre telescope at Roque de los Muchachos Observatory on La Palma, in Spain’s Canary Islands. The prototype could become part of what is planned to be the world’s largest γ -ray observatory, the Cherenkov Telescope Array, an international project expected to cost more than US\$300 million, with its Southern Hemisphere counterpart in Paranal, Chile. The dish will detect faint flashes of Cherenkov radiation — blue light emitted by the showers of electrons that

γ -ray photons unleash when they hit the atmosphere. The telescope is expected to start operating by late 2017.

Community lasers

A powerful laser facility near Prague is due to open officially on 19 October. The €250-million (US\$284-million) centre in the Czech Republic marks the first installation of the three-pronged Extreme Light Infrastructure (ELI), an experiment by the European Union to build large research facilities in countries that could not ordinarily afford them (see *Nature* **500**, 264–265; 2013). The ELI will largely be paid for by European structural funds, which typically finance civic projects such as road repair and waste clean-up. It is set to include two other laser facilities in Hungary and Romania.

PEOPLE

Richard Heck dies

Nobel-prizewinning chemist Richard Heck (**pictured**) died on 9 October, aged 84. Heck was a professor emeritus at the University of Delaware in Newark, and lived in Manila. He shared the 2010 Nobel Prize in Chemistry with Ei-ichi Negishi and Akira Suzuki for work he did in the 1960s and 1970s on reactions that link two carbon atoms together using a palladium catalyst. His palladium cross-coupling



reaction, known as the Heck reaction, opened up a way for chemists in fields from pharmaceuticals to electronics to make myriad molecules more easily.

Sexual harassment

Geoff Marcy, an astronomer at the University of California, Berkeley, renowned for his work on exoplanets, has been found to have violated campus sexual-harassment policy. BuzzFeed News revealed the findings, which were confirmed to *Nature* by a university spokesperson, on 9 October. The investigation was triggered by formal complaints, and found that Marcy had violated policies in a number of incidents involving students between 2001 and 2010. Marcy will face consequences — “sanctions that could include suspension or dismissal”, according to the university — only if he continues to harass students.

Marcy apologized in an open letter to the astronomy community. On 12 October members of the university’s astronomy department released a statement advocating that Marcy be removed from the faculty. See go.nature.com/wqv2ng for more.

BUSINESS

CRISPR alliance

Genome-editing company Caribou Biosciences of Berkeley, California, and industrial chemicals giant DuPont of Wilmington, Delaware, announced on 8 October that they would join forces to exploit CRISPR/Cas9, a system used to make targeted changes to genomes. DuPont will gain exclusive rights to use Caribou’s patented CRISPR/Cas9 technology in certain crops, and plans to bring genome-edited crops to market within the next decade.

Heart drug halted

Drug company Eli Lilly announced on 12 October that it was prematurely halting the phase III trial of its heart-disease drug evacetrapib. The drug, developed to treat people with a high risk of their arteries hardening and narrowing, is part of a family of cholesterylester transfer protein inhibitors, which increase fat-removing particles called high-density

COMING UP

14–16 OCTOBER

The European Food Safety Authority holds its second scientific meeting as part of the World Expo 2015 in Milan, Italy.

go.nature.com/zbihwt

14–17 OCTOBER

Dallas, Texas, hosts the Society of Vertebrate Paleontology’s 75th anniversary meeting.

go.nature.com/hmmzkm

20–22 OCTOBER

The 11th World Conference on Bioethics, Medical Ethics and Medical Law takes place in Turin, Italy.

go.nature.com/ammaum

lipoproteins. The company stopped the trial after a review found that evacetrapib was ineffective; there were no safety concerns about the drug. The news triggered an 8% drop in Lilly’s share price on the day of the announcement.

Toxic water

A US federal jury has found industrial chemicals giant DuPont in Wilmington, Delaware, liable for contaminating drinking water with C-8, an ingredient used in the manufacture of Teflon. Carla Bartlett, who developed kidney cancer after drinking the water, was awarded US\$1.6 million in damages. Her lawsuit — the first of some 3,500 similar ones to go to trial — claimed that the water caused the cancer. The 7 October ruling found no malice on the part of DuPont, which used the chemical at its plant in Parkersburg, West Virginia. A DuPont spin-off company, Wilmington-based Chemours, will bear the liability.

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TREND WATCH

The summary findings of the Intergovernmental Panel on Climate Change (IPCC) are becoming increasingly unreadable, a study shows (R. Barkemeyer *et al.* *Nature Clim. Change* <http://doi.org/79f>; 2015). The IPCC’s first assessment report, from 1990, scored highest in the Flesch reading ease test, which analyses word complexity and sentence structure. Its 2014 report scored lowest. By contrast, news stories about the IPCC are becoming easier to read. See go.nature.com/4ithkr for more.

COMPLEX CLIMATE REPORTS

The IPCC’s summaries for policymakers (SPMs) are getting harder to read, although media stories about the reports are written more clearly.

