

SEVEN DAYS

The news in brief

POLICY

Union rights

A US national labour board has ruled that graduate students in the United States who work as teaching and research assistants at private universities must be recognized as employees, and therefore have a right to unionize. Graduate-student unions are already common at public institutions. The 23 August ruling relates to a case involving a group of students at Columbia University in New York City who have struggled to get their union recognized. There has been debate in recent years over the rights of graduate students, many of whom teach courses while completing their degrees.

Zika blood scans

The US Food and Drug Administration (FDA) advised US blood banks on 26 August to test all blood donations for Zika virus, in light of the virus's spread in the United States (see page 7). Thousands of US travellers have been infected with Zika virus, but since July, 29 people in south Florida have contracted it locally through mosquitoes, and the virus is expected to spread

NUMBER CRUNCH

US\$2 bn

The latest estimate of the clean-up cost of a 2014 accident at a New Mexico underground nuclear-waste repository. The sum would make the nuclear accident, in which a drum containing radioactive waste blew up, the costliest in US history.

Source: *Los Angeles Times*



JAMES WATT/PNNM

Obama creates largest marine park

US President Barack Obama announced the creation of the world's largest marine protected area on 26 August, with a huge expansion of the Papahānaumokuākea park in the northwest of the Hawaiian Islands. The move will take the park from its current

size of around 360,000 square kilometres to 1.5 million square kilometres. The area is home to wildlife including whales, corals, millions of seabirds and the endangered Hawaiian monk seal (*Neomonachus schauinslandi*, pictured).

to other states. Previously, the FDA recommended Zika blood screening only in states affected by the virus. Separately, Singapore has reported its first small cluster of locally transmitted cases. It joins Vietnam, Thailand and the Philippines as countries in southeast Asia that have also reported their first sporadic transmissions of the virus this year.

PEOPLE

Child-health chief

Medical geneticist Diana Bianchi will be the new head of the US National Institute of Child Health and Development (NICHD), the National Institutes of Health (NIH) announced on 25 August. She replaces Alan Guttmacher, who retired in

September 2015. As director, Bianchi will oversee the NICHD's US\$1.3-billion annual budget, which includes the Human Placenta Project and participation in a new NIH longitudinal study called Environmental Influences on Child Health Outcomes. Bianchi, who studies prenatal diagnostics, will take the helm on 31 October.

Iranian physicist

Omid Kokabee, a physicist who has been imprisoned in Iran for five years on an espionage conviction, has been granted freedom on parole, his lawyer said on 29 August. Kokabee, 34, was working on his PhD when he was jailed in Tehran in 2011. In April this year, he was moved to hospital to have kidney-cancer

surgery. He was then granted temporary medical leave and released after his friends posted bail. Kokabee has maintained his innocence and said that he was persecuted for refusing to work on a military nuclear programme in Iran. See go.nature.com/2cb5ab0 for more.

Physicist dies

US particle physicist James Cronin died on 25 August, aged 84. In 1964, with colleague Val Fitch and their collaborators, Cronin discovered anomalies in the decay of kaon particles in an accelerator experiment at the Brookhaven National Laboratory in New York. The anomalies revealed a subtle asymmetry between matter and antimatter known as CP violation. Cronin and Fitch

SBNA received a Nobel prize for their discovery in 1980. In the 1990s, Cronin became a driving force behind the Pierre Auger Observatory in Malargüe, Argentina, the largest cosmic-ray facility in the world, completed in 2004. Cronin was in the faculty of the University of Chicago in Illinois.

EVENTS

Italy earthquake

A 6.2-magnitude earthquake struck central Italy in the early hours of 24 August, killing some 290 people and devastating towns in the Apennine mountains. The quake struck 40 kilometres from L'Aquila, where a similar event killed around 300 people in 2009. The region is tectonically complex, and seismologists had expected a rupture to occur there at any time. More than 900 aftershocks occurred, impeding recovery efforts. See page 15 for more.

Airlander nosedive

The world's largest aircraft, which had a successful maiden flight in mid-August, has crash-landed on its second attempt. The 92-metre-long *Airlander 10*, which combines aeroplane and airship technology, nosedived on landing after the 100-minute test flight in Bedfordshire,



UK, on 24 August (pictured). The cockpit of the craft was damaged, but nobody was injured, said the Airlander's developer Hybrid Air Vehicles of Bedford. *Airlander 10* is intended for use in surveillance, communication, aid delivery and even passenger travel.

'No Planet B'

More than 150 Australian scientists sent an open letter on 24 August to the country's prime minister, Malcolm Turnbull, urging action on global warming. The 2015 Paris climate agreement remains unbinding, and the world's governments are "presiding over a large-scale demise of the planetary ecosystems", the scientists wrote. Citing Turnbull's 2010 statement that humanity has an obligation to the planet, the scientists called on the Australian government to do

what is required to reduce carbon emissions and coal exports. "There is no Planet B," the scientists wrote.

RESEARCH

Leprosy vaccine

India is to begin testing the world's first vaccine that exclusively targets leprosy. The disease, which is caused by the bacterium *Mycobacterium leprae*, newly affects 125,000 people in India each year — 60% of global new cases. The vaccine, developed in India, has been approved by the country's drug-regulation agency as well as the US Food and Drug Administration. According to media reports, tests will begin in a few weeks in five districts in Bihar and Gujarat, treating people who live in close contact with infected individuals. Trials have shown that infections could be reduced by 60% in 3 years.

COMING UP

4-7 SEPTEMBER
Researchers gather at the 10th Vaccine Congress in Amsterdam.
www.vaccinecongress.com

6-9 SEPTEMBER
Enthusiasts head to the British Science Festival for activities and talks.
britishsciencefestival.org

China set for Mars

The China National Space Administration is moving ahead with plans to send a rover to Mars in 2020. On 23 August, officials unveiled details of the lander, which will explore a low-latitude area in Mars's northern hemisphere. The six-wheeled probe, to be named by a public contest, is designed to operate for at least 6 months; its 13 payloads will include a ground-penetrating radar to study rock layers. Other agencies aiming to send rovers to Mars during the 2020 launch opportunity include NASA and the European Space Agency.

Robo-taxi trial

Technology company nuTonomy said on 25 August that it will start trials of self-driving taxis in Singapore, in which customers will be able to request a ride using a smartphone app. Engineers from the company, which is based in Cambridge, Massachusetts, and Singapore, will ride in the car, ready to take the wheel as needed. The joint project with the Singapore Land Transport Authority aims to launch a fully autonomous taxi service by 2018. US ride-hailing company Uber and carmaker Volvo have said that they are starting similar trials in Pittsburgh, Pennsylvania.

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TREND WATCH

By 2085, most cities will be too hot to host the summer Olympics, according to an analysis in *The Lancet* (K. R. Smith et al. *Lancet* 388, 642-644; 2016). Using climate modelling and a measure of heat stress, researchers judged the suitability of cities on the basis of whether conditions would be safe to run a marathon. Looking at the Northern Hemisphere, they found 25 cities in western Europe — and just 8 elsewhere — where temperatures were likely to be less than 26°C in the shade, defined as low risk for marathon running.

CLIMATE CHANGE VERSUS THE SUMMER OLYMPICS

Most cities might be too hot to host a summer Games after 2085; western European cities may be the most suitable.



SOURCE: K. R. SMITH ET AL. LANCET 388, 642-644 (2016)