

SEVEN DAYS

The news in brief

RESEARCH

Epic stellar clash

Researchers announced on 16 October that they had for the first time witnessed the collision of two neutron stars — and perhaps the subsequent formation of a black hole. The event was first spotted on 17 August by gravitational-wave detectors in the United States and Italy and by a NASA γ -ray probe. More than 70 observatories rushed to observe the collision's aftermath; their discoveries are detailed in dozens of papers and solve several cosmic mysteries. See page 309 for more.

EVENTS

Journal editors quit

Five German scientists said on 12 October that they have resigned their editorial positions at journals published by Elsevier, after negotiations over a national licensing agreement for German institutes ground to a halt. For more than a year, a consortium of German science organizations called Projekt DEAL has been pushing for a new type of nationwide licence with Elsevier that would include open-access options and replace the need for individual institutional subscriptions. About 200 German universities and research institutes have cancelled their individual contracts with the Dutch publisher.

Asteroid buzz

A house-sized asteroid whizzed by Earth on 12 October, passing within 44,000 kilometres of the planet — just above the orbits of geostationary satellites — and providing a test of international planetary defences. Telescopes around



JUSTIN SULLIVAN/GETTY

Flames devastate northern California

Wildfires have scorched about 890 square kilometres in Northern California, leaving at least 41 people dead as of 17 October, making them the deadliest fires in the state's history. Nearly 100,000 residents of Napa and Sonoma Counties had been evacuated from their homes, although this week officials have started to let people return. At least 88 of the many hundreds of people who were reported missing are

still unaccounted for. The exact cause of the flames is unknown, but the area was primed for a conflagration. Vegetation flourished in the region after record rainfall last winter, and heatwaves this summer dried everything out, turning it into kindling. Winds gusting at more than 100 kilometres per hour hindered the efforts of firefighters to bring the blazes under control.

the globe swivelled to track the body, which is estimated to be 15–30 metres wide and is known as 2012 TC4. NASA, the European Space Agency and other asteroid-hunting groups gathered data to fine-tune orbital calculations and establish its future path. The asteroid's next close pass will be in 2050, when it will safely fly by Earth. Future Earth impacts after that date have not been ruled out.

PEOPLE

Trump nominations

Barry Myers, the chief executive of weather-forecasting firm AccuWeather, is US President

Donald Trump's pick to lead the National Oceanic and Atmospheric Administration (NOAA), the White House said on 11 October. Myers, an attorney by training, has led AccuWeather — based in State College, Pennsylvania — since 2007. Some scientists worry that his ties to the company could lead to conflicts of interest, and note that he has no direct experience with NOAA's broader research portfolio, which includes the climate, oceans and fisheries. Two days later, the White House announced that Trump had nominated Kathleen Hartnett White, a former Texas environmental regulator and

prominent climate sceptic, for its top environmental post. If confirmed as chair of the Council on Environmental Quality, White would advise the president and coordinate federal policies on energy and the environment. White is a fellow at the Texas Public Policy Foundation, a conservative think tank based in Austin. She has called efforts to shift away from fossil fuels “environmental lunacy”.

New Pasteur chief

Stewart Cole was appointed on 13 October as the next president of the Pasteur Institute in Paris, replacing Christian Bréchet, who

CHINA DAILY/REUTERS

had reached the institute's mandated retirement age. Many of the Pasteur's researchers had wanted Bréchet to stay on, but a campaign to change the age-limit rule was unsuccessful. Cole, a microbial-pathogenesis specialist, has held several posts at the biomedical research institute and will begin his four-year term in January. Last month, Bréchet was appointed president of the Global Virus Network, an international coalition of virologists based in Baltimore, Maryland.

FACILITIES

FAST's first pulsars

The world's largest single-dish telescope has observed its first two pulsars. The Five-hundred-meter Aperture Spherical Telescope (FAST, **pictured**) in southern China's Guizhou province detected the neutron stars in August. Researchers at the National Astronomical Observatories of China reported the results on 10 October after they were confirmed by an Australian telescope. The observations suggest FAST is working well, despite its radical design: the dish consists of thousands of panels that move to track radio signals, requiring elaborate coordination. Signals from the two pulsars were captured a year into an estimated three-year debugging phase. FAST,



which is expected to find hundreds, possibly thousands, of pulsars, is looking for clues to how the Universe formed, as well as for signs of extraterrestrial life.

POLICY

Climate-rule repeal

On 10 October, the US Environmental Protection Agency moved to repeal former president Barack Obama's landmark regulations to reduce greenhouse-gas emissions from power plants. Agency administrator Scott Pruitt signed a measure to begin the process of rescinding the Obama policy, a move that is expected to spark lawsuits by environmental groups and some states. The power-plant rule would reduce greenhouse-gas emissions to 32% below 2005 levels by 2030. In 2016, the Supreme Court blocked the policy from taking effect; legal challenges from 27 state governments are still pending,

although a federal appeals court has put the case on hold while the administration of President Donald Trump reviews the rule. See page 311 for more.

Measuring impact

UK science minister Jo Johnson has announced plans to assess universities on their economic impact and engagement with wider society. Higher-education bodies will consult on creating a Knowledge Exchange Framework, an evaluation system designed to incentivize activities such as transferring technology into industry, spinning off companies and conducting contract research, training and consultancy, Johnson said on 12 October. If implemented, the framework would become a third strand of UK university assessment, alongside the Teaching Excellence Framework and Research Excellence Framework.

AWARDS

MacArthur grants

The philanthropic MacArthur Foundation in Chicago, Illinois, announced its 2017 award recipients on 11 October. Six of the 24 winners — often referred to as MacArthur geniuses — are scientists. They include anthropologist Jason De León of the University of Michigan in Ann Arbor, who uses methods including archaeology and forensic science to study undocumented migrants on the US–Mexican border; computational linguist Regina Barzilay of the Massachusetts Institute of Technology in Cambridge, who deciphers ancient languages using machine learning; and immunologist Gabriel Victora of the Rockefeller University in New York City, who observes how antibodies evolve in the immune system in real time. Each winner gets US\$625,000 over 5 years, with no restrictions on how they can spend the money.

FUNDING

Research boost

Online shopping giant Alibaba will set up seven international research laboratories as part of its plan to spend US\$15 billion on research and development over the next three years. The company, based in Hangzhou, China, announced the Alibaba DAMO Academy on 11 October. The seven labs will be established in China, the United States, Russia, Israel and Singapore. Research topics will include data intelligence, the 'Internet of things', quantum computing and human–machine interfaces. Recruitment of the first 100 researchers is under way. The advisory board of the academy includes prominent scientists from outside China, including geneticist George Church of Harvard University in Cambridge, Massachusetts.

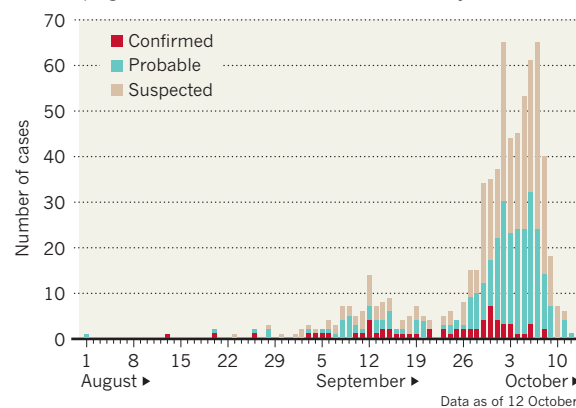
SOURCE: WHO

TREND WATCH

Madagascar is battling an outbreak of plague, with more than 600 cases and at least 57 deaths since 1 August. Plague is endemic to the island and surfaces almost annually. But the current outbreak is unusually large, and cases are mostly of pneumonic plague, which is deadlier and more transmissible than the more usual bubonic form. Untreated, pneumonic plague can kill within 24 hours. On 10 October, the World Health Organization reported a linked case of plague in the Seychelles.

PLAGUE OUTBREAK HITS MADAGASCAR

Madagascar has recorded more than 600 confirmed and possible cases of plague in its worst outbreak of the disease for years.



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