

HEALTH

Dengue vaccine

The sole approved vaccine for dengue fever must be given only to people who have had a past infection of the disease confirmed by a laboratory test, a World Health Organization advisory group recommended on 19 April. The move follows the finding that although Dengvaxia, manufactured by drug firm Sanofi, is effective in populations with high levels of dengue when viewed as a whole, it can cause severe dengue fever in individuals who have never been infected by the mosquito-borne virus. Lab testing for past infections could complicate, if not stall, routine vaccination efforts because the available tests for dengue are poor. The advisory group says that developing better tests should be a priority. It estimates that there are 50 million to 100 million cases of dengue per year, mainly in Asia.

PUBLISHING

Copyright deal

Academic publishers Springer Nature, Cambridge University Press and Thieme have reached an agreement with ResearchGate, the world's largest scholarly social network, on the responsible sharing of journal articles. (*Nature's* news team is editorially independent of its publisher, Springer Nature.) The agreement, announced on 19 April, allows the three publishers to track and record user-uploaded content on the platform. ResearchGate will also ensure that when it is alerted to articles that infringe copyright rules, the content is promptly removed. In recent months, the site has disabled access to more than 1 million papers in response to take-down requests from publishers. But many worry that large numbers of



PAUL HENNESSY/ALAMY

Planet hunter sets off for distant worlds

NASA's Transiting Exoplanet Survey Satellite (TESS) launched (pictured) from Cape Canaveral, Florida, on 18 April on a two-year mission to discover planets beyond the Solar System. TESS is meant to build on the work

of the Kepler spacecraft — which has found thousands of exoplanets since 2009 — by hunting worlds that lie within about 90 parsecs (300 light years) of Earth. The planets TESS discovers will form the basis for decades of astronomical study.

copyright-infringing articles are still freely accessible on the platform. Publishers Elsevier and the American Chemical Society have taken the Berlin-based company to court to clarify copyright responsibilities. The first hearing was held on 18 April in Munich, Germany.

Regional research

A citation database that promises to cover many more regional journals than other existing databases do launched on 24 April. Called 1findr and run by information-systems company 1Science in Montreal, Canada, the service is free for users, but a subscription version will offer extra features, such as allowing users to download up to 50 articles with a single click. The database so far contains records of 90 million peer-reviewed journal articles. The platform's

creators aim to eventually index all of the world's peer-reviewed papers — regardless of where and in what language they are published. The database is aimed mostly at librarians, academic institutions, and researchers conducting data-mining projects.

POLICY

Therapy-ban review

Singapore's bioethics advisory committee announced on 19 April that it is reviewing its research ban on mitochondrial replacement — a controversial technique that creates embryos using DNA from three people. The method seeks to allow women who carry disease-causing mutations in their mitochondrial DNA to have healthy babies. It works by moving nuclear genetic material from an egg with faulty mitochondria into a

healthy donor egg that has had its nuclear DNA removed. Although such research is currently banned in Singapore, it has been conducted in Mexico, the Ukraine and China, and is approved in the United Kingdom. The Singaporean committee is inviting public feedback until 15 June.

UK genomic report

The UK House of Commons Science and Technology Committee tackled genomics and gene editing in a report released on 20 April. The report notes that budget cuts to the country's health-care system could endanger efforts to incorporate genomics into patient care and recommends raising public awareness of genomic medicine. The committee also argues that government-collected genomic data should be better integrated

JOEL KOWSKY/NASA

with other health-care data held by the public and private sectors. The government should also monitor genome-editing efforts for obstacles to the technology's development, it says.

Epilepsy drug

A drug containing marijuana components has, for the first time, been recommended for approval by an advisory panel to the US Food and Drug Administration (FDA). On 19 April, the panel voted unanimously to approve Epidiolex, an anti-epilepsy drug made from cannabidiol, which is a chemical in marijuana that does not cause psychoactive effects. The drug is made by GW Pharmaceuticals in Cambridge, UK, and it could be approved to treat two epilepsy disorders, Lennox–Gastaut syndrome and Dravet syndrome. In clinical trials, Epidiolex reduced the number of seizures in some people by more than 50%. However, the panel's recommendations are not binding, and the FDA is expected to make a final decision by the end of June.

PEOPLE

New NASA chief

NASA's new leader is James Bridenstine, a Republican member of Congress from Oklahoma with a strong



interest in commercial spaceflight. The US Senate confirmed him on 19 April, almost 8 months after US President Donald Trump nominated him for the job, and 15 months after the departure of NASA's previous chief, former astronaut Charles Bolden. Bridenstine's confirmation was held up partly by political infighting, but also over questions about whether he supports climate-change research. Bridenstine (pictured) takes over an agency newly tasked with returning astronauts to the Moon but with few financial resources towards that goal.

Salk investigation

On 21 April, the Salk Institute for Biological Sciences in La Jolla, California, put cancer researcher Inder Verma on administrative leave while it investigates unspecified allegations against him.

The institute has enlisted an outside party to look into the claims, some of which were raised by a reporter from *Science*, according to a statement by Dan Lewis, chair of the institute's board of trustees. Through his lawyer, Verma has denied acting inappropriately. "I have never used my position at the Salk Institute to take advantage of others," he said in a statement to *Nature*. "I have also never engaged in any sort of intimate relationship with anyone affiliated with the Salk Institute. I have never inappropriately touched, nor have I made any sexually charged comments, to anyone affiliated with the Salk Institute. I have never allowed any offensive or sexually charged conversations, jokes, material, etc. to occur at the Salk Institute."

Sentenced scientist

Ahmadreza Djalali, an emergency-medicine researcher who was sentenced to death in Iran in October last year for spying, has sent an open letter to the scientists who have supported him. Djalali was working at the Karolinska Institute in Stockholm when he was detained during a trip to Iran on 26 April 2016. He was convicted of espionage following a trial in Iran's revolutionary court. Djalali

says he was asked to spy by both Iranian and European intelligence services, but he maintains that he never accepted. In the letter, which marks the two-year anniversary of his arrest, he thanks the scholars who helped him but says that he is having serious health problems in prison. Djalali has appealed against his sentence at Iran's supreme court, and Nobel laureates sent a letter to the Iranian government about the case last November; neither action has yet received a response.

FUNDING

Biomedicine boost

Singapore will increase spending on health and biomedical research, it was announced on 17 April. The country's National Medical Research Council awarded 60 million Singapore dollars (US\$45.6 million) over five years to projects that will study three diseases common in Singapore and southeast Asia: lung cancer, virus-induced cancers and age-related macular degeneration. Another scheme will provide clinicians with up to 100,000 Singapore dollars in seed funding to develop new medical technologies and devices. The latest measures support research translation, a key focus of Singapore's five-year Research, Innovation and Enterprise 2020 Plan.

SPACE

Methane on Mars

A Russian–European Mars probe that is poised to solve one of the most controversial mysteries in Martian science began making scientific observations on 21 April. Researchers hope that the Trace Gas Orbiter (TGO) will resolve a debate over the origins of methane on the red planet, which could be a signature of life. See page 419 for more.

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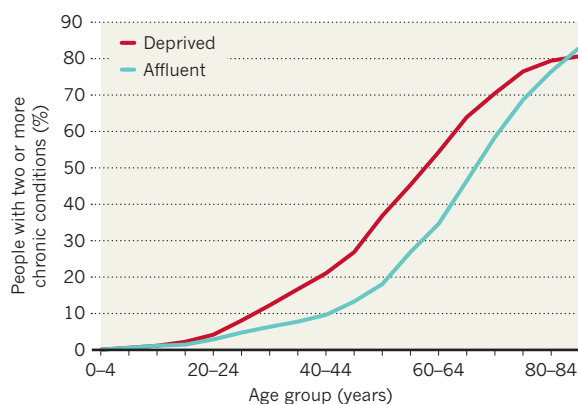
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TREND WATCH

The number of adults living with two or more chronic mental or physical conditions is increasing worldwide. An analysis of existing research compiled by the UK Academy of Medical Sciences found that 'multimorbidity' is most common in older people, but evidence on the extent and causes of the problem is fragmented. For instance, some studies reveal a clear association between multimorbidity and poverty. But some research suggests that certain chronic conditions are more common in wealthy people.

CHRONIC-ILLNESS BURDEN

Age is strongly associated with multimorbidity — having two or more chronic illnesses — but economic status is also a factor.



SOURCE: THE ACADEMY OF MEDICAL SCIENCES