



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Friday 20190614

Nipah

47 taken off Nipah surveillance list (The Hindu: 20190614)

<https://www.thehindu.com/news/national/kerala/47-taken-off-nipah-surveillance-list/article27902643.ece>



Nipah-free declaration after all contacts of lone patient are free of infection threat

Forty-seven of the 330 people who have had direct/ indirect contact with the Nipah patient and were under home quarantine have been removed from the surveillance list.

For the rest, the incubation period for any viral fever will be ending in the coming days and they will be released from home quarantine depending on their health status.

The government will take a decision on declaring the district free of Nipah in the coming days after all the people who had come in contact with the Nipah-positive person are free of the threat, said District Collector Mohammed Y. Safirulla at a briefing to the media on Thursday.

Monitoring to continue

On the progress of Nipah-prevention activities, Mr. Safirulla said it was the last meeting of the inter-departmental core committee that was reviewing the activities in the past eleven days since the Nipah scare hit the district. However, the Health Department under the District Medical Officer and the District Surveillance Officer would continue to review the situation

for Nipah or other communicable disease such as H1N1, said Mr. Safirulla. “The big threat of Nipah is not felt now,” he said.

Medical experts who have reached here from various States and agencies had analysed 1,798 deaths in the month of May. No connection to Nipah virus was obtained in these analysis, Mr. Safirulla said.

Experts from research organisations, which include virologists, epidemiologists, and researchers in zoonotic diseases and other animal studies, are collecting bat and pig samples from localities to trace the source of the Nipah infection.

Acute medicine shortage

Telangana: Government hospitals face acute medicine shortage (The Hindu: 20190614)

<https://indianexpress.com/article/india/telangana-government-hospitals-face-acute-medicine-shortage-5779739/>

The crisis is so acute that patients are being asked by doctors to bring dressing bandages or surgical suture apart from medicines.

Telangana: Class 9 student dies after falling off school building in Nagole

Telangana HC issues notice to 12 Congress MLAs who merged with TRS

Senior Maoist leaders Narmada, her husband Kiran arrested in Gadchiroli IED blast case

Telangana, Telangana hospitals, Telangana hospital medicine shortage, Telangana drug shortage, Government hospitals in Telangana, availability of medicines in Telangana, Indian Express

Telangana Health Minister Etela Rajender said the shortage was temporary.

A series of measures initiated by the Telangana Health Department to regulate and track supply and storage of essential medicines has resulted in an acute shortage of life-saving medicines and injections at government hospitals.

The shortage at some of the biggest hospitals in Hyderabad, like Osmania General Hospital, Nilofer Children’s Hospital, Gandhi Hospital and Mahatma Gandhi Medical College and Hospital at Warangal, is so acute that patients are being asked by doctors to bring dressing bandages or surgical suture apart from medicines.

The medicines are supposed to be provided free at government hospitals. However, a scrutiny of books at Osmania General Hospital and Gandhi Hospital showed that out of every 10 medicines requested by doctors, eight were not available or not supplied by the government. The shortage was even worse at rural primary health centres and community health centres.

Telangana Health Minister Etela Rajender said the shortage was temporary. “We are in the midst of working out a new system of supplying and stocking medicines at government hospitals,” he told The Indian Express.

“We initiated this after two children, who were given Tramadol tablets at urban health centres after they were given pentavalent vaccine, died due to complications in March. Tramadol tablets should not have been given. We want to regulate the storage and issuance of medicines which may cause harm if not given under proper supervision,” Rajender said.

“Many life-savings drugs have short shelf life of 3-4 months. We found that procurement, transportation and distribution to hospitals and PHCs was taking a minimum of three months, by which time the expiry date was due. So we are procuring limited medicines and supplying them to hospitals, hence the shortage. We are trying to put in place a system through which we can take stock of medicines at all government hospitals without having to worry about expiry dates.”

But in the meantime, patients are bearing the brunt. Those who are covered under Telangana government’s Arogyasri healthcare scheme are purchasing medicines, IV fluids and dressing bandages from private shops and bringing them to doctors treating them at government hospitals.

The Healthcare Reforms Doctors Association, an organisation of government doctors working in Telangana, has written to the Principal Secretary, Telangana Health, Medical and Family Welfare A Shanti Kumari. In a letter submitted on June 12, the association said that many “basic emergency drugs and antibiotics are unavailable in tertiary care institutes for last couple of months, due to which patients who can afford are forced to buy basic medicines from private pharmacies while those who cannot afford are left without treatment, due to which many patients have died”.

Modi in Bishkek: PM, Imran sit across dinner table, don’t talk to each other

Joint Secys from outside: How Govt found way to duck quota

First time in 22 years, Employees' State Insurance contribution slashed from 6.5% to 4%

Dr K Mahesh Kumar, president of Healthcare Reforms Doctors Association, an organisation of government medical practitioners, said that government hospitals should be keeping a stock of life-saving and essential drugs for 3-4 months. “Instead, we are in a situation where we don’t have medicine stocks at government hospitals at all. Health Department officials say we should make do with alternative medicines that are available, but that is not always possible,” he said.

Mamidi Suresh, whose wife Saroja was admitted at Gandhi Hospital for suspected dengue, had to buy medicines worth Rs 1,990 as they were not available at the hospital. “Now they are saying we should shift her to a private hospital for further tests as they do not have necessary equipment. I cannot afford a private hospital,” he said.

Blood pressure

Being overweight doubles blood pressure risk in kids (The Tribune: 20190614)

<https://www.tribuneindia.com/news/health/being-overweight-doubles-blood-pressure-risk-in-kids/787342.html>

Life expectancy in India down by 2.6 yrs due to air pollution: Study

Researchers led by Indian-American scientist test vaccine they hope for Alzheimer's

Compounds from scorpion venom may help treat bacterial infections

Obesity ups risk of being bullying victim, perpetrator

Junk food consumption ups allergy risk in kids

Being overweight doubles blood pressure risk in kids

Photo for representation only.

Researchers have found that overweight kids have a doubled risk of high blood pressure, raising the risk of future heart attacks and strokes.

Published in the European Journal of Preventive Cardiology, the study shows that obese four-year-old kids have a doubled risk of high blood pressure by age six.

"Parents need to be more physically active with young children and provide a healthy diet. Women should shed extra pounds before becoming pregnant, avoid gaining excess weight during pregnancy and quit smoking, as these are all established risk factors for childhood obesity," said study lead author Inaki Galan from Carlos III Health Institute in Spain.

For the study, the research team examined the link between excess weight and high blood pressure in 1,796 kids who were followed up two years later. Blood pressure was measured at both points, as Body Mass Index (BMI) and Waist Circumference (WC).

Compared to children maintaining a healthy weight between ages four and six, those with new or persistent excess weight according to BMI had 2.49 and 2.54 higher risk of high blood pressure, respectively.

In those with new or persistent abdominal obesity, the risks for high blood pressure were 2.81 and 3.42 greater, respectively.

"There is a chain of risk, whereby overweight and obesity lead to high blood pressure, which heightens the chance of cardiovascular disease if allowed to track into adulthood, but the results show that children who return to a normal weight also regain a healthy blood pressure," said Galan.

According to Galan, the best way to maintain a healthy weight and lose excess kilos is to exercise and eat a healthy diet. In addition to the central role of parents, the school curriculum needs to include three to four hours of physical activity every week.

Galan noted that overweight in children is most accurately assessed using both BMI and WC.
— IANS

Alzheimer's

Researchers led by Indian-American scientist test vaccine they hope for Alzheimer's (The Tribune: 20190614)

<https://www.tribuneindia.com/news/health/researchers-led-by-indian-american-scientist-test-vaccine-they-hope-for-alzheimer-s/786843.html>

A team of researchers led by an Indian-American scientist are working on a vaccine they hope could prevent Alzheimer's disease by targeting a specific protein commonly found in the brains of patients affected by the neurodegenerative disorder, according to a media report.

Alzheimer's disease is a progressive disorder that causes brain cells to degenerate and die. Alzheimer's disease is the most common cause of dementia—a continuous decline in thinking, behavioral and social skills that disrupts a person's ability to function independently.

Researchers at the University of New Mexico led by Dr Kiran Bhaskar, associate professor in the university's Department of Molecular Genetics & Microbiology, have started to test the vaccine on mice. It has not yet been shown if it works in people, CBS News reported.

Bhaskar, who's been passionate about studying the disease for the last decade, says the work started with an idea in 2013.

"I would say it took about five years or so to get from where the idea generated and get the fully functioning working vaccine," he said.

"We used a group of mice that have Alzheimer's disease, and we injected them over a series of injections," said PhD student Nicole Maphis.

She said the vaccine targets a specific protein known as tau that's commonly found in the brains of Alzheimer's patients.

"These antibodies seem to have cleared (out) pathological tau. Pathological tau is one of the components of these tangles that we find in the brains of patients with Alzheimers disease," she explained. The response lasted for months, according to UNM.

Those long tangles "disrupt the ability of neurons to communicate with one another", the school points out, adding that tau is "normally a stabilizing structure inside of neurons".

The mice were then given a series of maze-like tests. The mice that received the vaccine performed a lot better than those that hadn't.

However, drugs that seem to work in mice do not always have the same effect in humans. A clinical trial involving people will be required to see if the drug helps in real life, and that's a difficult and expensive undertaking—with no guarantee of success.

"We have to make sure that we have a clinical version of the vaccine so that we can test in people," Bhaskar said.

Testing just a small group would cost the UNM Health Sciences Department \$2 million. Right now, Maphis and Bhaskar are looking for partnerships to help them toward a clinical-grade vaccine.

Alzheimer's affects almost a third of senior citizens and "is on the rise, currently affecting 43 million people worldwide," the university said. PTI

Life expectancy

Life expectancy in India down by 2.6 yrs due to air pollution: Study (The Tribune: 20190614)

<https://www.tribuneindia.com/news/health/life-expectancy-in-india-down-by-2-6-yrs-due-to-air-pollution-study/786391.html>

People wear pollution masks during a demonstration rally for cleaner air, in Kolkata. PTI

Life expectancy in India has gone down by 2.6 years due to deadly diseases caused by air pollution, according to a recent report by an environment think tank.

The report by the environment organisation Centre for Science and Environment (CSE) revealed that outdoor and household air pollution together are causing deadly diseases.

"Air pollution is now the third highest cause of death among all health risks ranking just above smoking in India. This is a combined effect of outdoor particulate matter (PM) 2.5, ozone and household air pollution.

"Due to this combined exposure, South Asians, including Indians are dying early -- their life expectancy has reduced by over 2.6 years. This is much higher than the global tally of reduced life expectancy by an average of 20 months. While globally a child born today will die 20 months sooner on an average than would be expected without air pollution in India they would die 2.6 years earlier," the report released by the CSE said.

While exposure to outdoor particulate matter (PM) accounted for a loss of nearly one year and six months in life expectancy, exposure to household air pollution accounted for a loss of nearly one year and two months, according to the CSE

"Thus, together Indians lose 2.6 years," it said.

The report said household air pollution contributes about a quarter of the outdoor air pollution in the country.

"The deadly tally broken up by diseases shows that chronic obstructive pulmonary disease (COPD) due to air pollution at 49 per cent is responsible for close to half of deaths, followed by lung cancer deaths at 33 per cent, diabetes and ischaemic heart disease at 22 per cent each and stroke at 15 per cent. It is disturbing how COPD, lung cancer and ischaemic heart disease dominate the dubious tally," it said.

The report referred to two review papers by scientists from the Forum of International Respiratory Societies and said air pollution can harm acutely as well as chronically, potentially affecting every organ in the body.

"According to the study, ultra-fine particles pass through lungs are taken up by cells and carried via the bloodstream to expose virtually all cells in the body. Air pollution may be damaging every organ and virtually every cell in the human body, according to a comprehensive new global review recently reported," the CSE said.

The research shows head-to-toe harm, from heart and lung disease to diabetes and dementia, and from liver problems, brain, intelligence, abdominal organs, reproduction, and bladder cancer to brittle bones and damaged skin. Fertility, foetuses and children are also affected by toxic air, it said.

None of the officials from government authorities was available for comment.

Recently, on World Environment Day, Union Environment Minister Prakash Javadekar said the number of 'poor' air quality days have come down from 300 in 2014 to 206 this year.

Previous environment minister Harsh Vardhan earlier rejected a global report on air pollution as per which 1.2 million people died in the country due to air pollution. He had said such studies were only aimed at "causing panic". — PTI

Junk Food (The Asian Age: 20190614)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=13186116>

Junk food declines brain health faster

Damage done is irreversible once midlife is reached

Melbourne: The average person eats many more calories than they did 50 years ago — equivalent to an extra fast-food burger meal every day — which is causing brain health to decline much faster, a study has found.

The research, published in *Frontiers in Neuroendocrinology*, reports about 30 per cent of the world's adult population is either overweight or obese, and more than 10 per cent of all adults will suffer from type 2 diabetes by 2030.

“People are eating away at their brain with a really bad fast-food diet and little-to-no exercise,” said Nicolas Cherbuin, a professor at Australian National University.

“We’ve found strong evidence that people’s unhealthy eating habits

▶ A standard fast-food meal of burger, fries and soft drink is 650 kilocalories — roughly the extra amount that people consume every-day compared to what they ate in the 1970s

▶ Link between type 2 diabetes and brain deterioration is already established

▶ About 30% of the world's adult population is either overweight or obese, and more than 10 per cent of all adults will suffer from type 2 diabetes by 2030

▶ To avoid preventable brain problems, one must eat well and exercise

and lack of exercise for sustained periods of time puts them at serious risk of developing type 2 diabetes and significant declines in brain function, such as dementia and brain shrinkage,” said Cherbuin.

“The link between type 2 diabetes and the rapid deterioration of brain function is already well established,” he said.

“But our work shows that neurodegeneration, or the loss and function of neurons, sets in much,

much earlier — we’ve found a clear association between this brain deterioration and unhealthy lifestyle choices,” he added.

“The damage done is pretty much irreversible once a person reaches midlife, so we urge everyone to eat healthy and get in shape swiftly, preferably in childhood but certainly by early adulthood,” he said. A standard fast-food meal of burger, fries and soft drink is 650 kilocalories. — PTI

Drug addiction

In a decade, 10-fold increase in drug addiction cases at PGIMS (The Tribune: 20190614)

<https://www.tribuneindia.com/news/nation/in-a-decade-10-fold-increase-in-drug-addiction-cases-at-pgims/787458.html>

The sharp increase in the number of persons addicted to drugs visiting the State Drug-Dependence Treatment Centre (SDDTC), located on the premises of PGIMS, indicates that Haryana is fast sinking in the quicksand of drugs and alcohol.

Data reveals that the number of persons visiting the centre for alcohol and drug de-addiction has recorded a 10-fold increase during the last 10 years.

While 573 patients visited the centre in 2009, the number went up to 5,824 by the end of 2018. As many as 3,641 patients have visited between January 1 and May 31 this year itself.

“It is an alarming trend as it not only spreads infections like HIV and Hepatitis, but also leads to criminal activities,” observes Dr Rajiv Gupta, Director-cum-CEO of the Institute of Mental Health, Rohtak.

The rise in the use of semi-synthetic opioid drugs like smack and heroin, especially by youngsters, is also a major cause for concern.

“A majority of cases pertain to use of smack and heroin, mainly used by those in the age group of 15 to 35,” point out Dr Vinay and Dr Sunila, consultants at the SDDTC.

The number of patients addicted to opioids visiting the centre has increased from 105 in 2009 to 1,712 in 2018; the number has already touched 1,468 this year.

Doctors maintain that drugs like smack and heroin, which were consumed by chasing (inhaling the fumes), are now being taken in the form of injections, which is even more harmful.

“Certain injectable drugs used for relieving pain and inducing sleep in terminally- ill patients are also being abused by an increasing number of patients,” they reveal.

As per experts, the inability to cope with stress and challenging situations, apart from increased paying capacity and easy drug availability, has led to the unhealthy trend.

Encephalitis

Encephalitis kills 7 more children, toll reaches 50(Hindustan Times: 20190614)

<http://paper.hindustantimes.com/epaper/viewer.aspx>

34 undergoing treatment; central team recommends research on disease

MUZAFFARPUR: Seven more children died of acute encephalitis syndrome in Bihar’s Muzaffarpur district on Thursday, taking the death toll from the vectorborne disease to 50, officials at the government-run Sri Krishna Medical College Hospital (SKMCH) said.

Although Bihar’s principal secretary, health, Sanjay Kumar, put the death toll at 47 [till 10 am], SKMCH medical superintendent Dr Sunil Kumar Shahi said three more deaths were reported in the afternoon. Of the 145 patients of AES admitted at the hospital this year, 34 are still undergoing treatment, Dr Shahi added.

Encephalitis is a viral infection which causes mild flu-like symptoms such as fever and headache.

Of the 50 deaths, 48 have been reported in June, prompting the Centre to dispatch a seven-member team to the state. The team on Thursday held a meeting with SKMCH officials after examining patients, scrutinising treatment protocol and collecting serum samples, doctors said.

“The central team is of the opinion that maximum cases reported are due to ‘encephalopathy’. It approved our treatment protocol,” said Dr Sunil Kumar Shahi, SKMCH superintendent.

The team asked SKMCH authorities to set up a separate research wing under the departments of microbiology and pathology to study the disease. “The team advised us to preserve serum samples of patients and examine them after 15 days, and do a follow-up,” added Dr Shahi.

It also proposed to increase the bed strength of paediatric intensive care unit at the SKMCH, from existing 14 to 100, the superintendent said.

The team has been asked to submit a report to director-general health services.

Over 154 cases of AES have been reported from 11 districts of the state.

Health Care Services

In nationwide call, doctors put OPDs and surgeries on hold (The Times of India: 20190614)

Read more at:

http://timesofindia.indiatimes.com/articleshow/69782068.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

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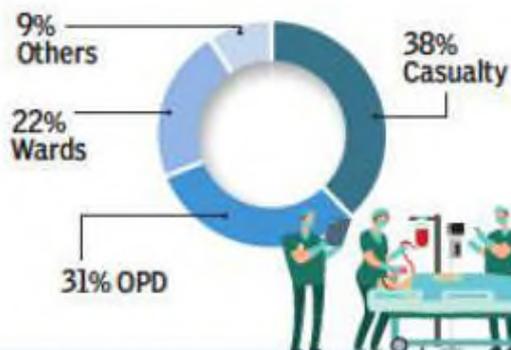
DOCTORS VS PATIENTS: WHO'S TO BLAME?

1 In 2 years (2013 and 2014) for which data are available, there were **32 cases** of workplace violence at AIIMS

2 Nurses were at the receiving end of the violence in most cases



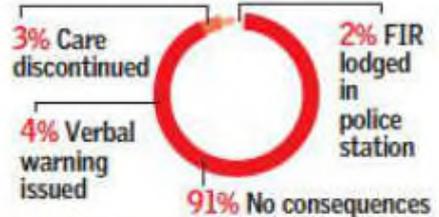
3 With emotions running high, casualty ward witnessed maximum such cases,



4 Perceived injustice was one of the key reasons of violence

Other reasons: Delay in patient care | Overcrowding | Long wait for appointment and investigations | Shortage of security guards | Lack of soft skills among healthcare workers

5 In a majority of cases, the violence went unpunished



6 There is an urgent need to take steps to check such incidents

Carry out triage in casualty

Increase no. of security guards

Install CCTVs at high-risk places like casualty

Allow only one attendant with a patient

Conduct stress management classes and meditation sessions for staff

Health Care

One in three healthcare staff at AIIMS faces violence (The Times of India: 20190614)

Read more at:

http://timesofindia.indiatimes.com/articleshow/69779390.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Breastfeeding

What is making so many Indian mothers give up breastfeeding? (The Times of India: 20190614)

<https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/what-is-making-so-many-indian-mothers-give-up-breastfeeding/articleshow/63280904.cms>

4-year-old Snigdha Malik was exclusively breastfeeding her new born, until a visit to the pediatrician revealed that the baby wasn't gaining enough weight. Panicked, she immediately introduced formula milk in her baby's diet. And why wouldn't she – when her doctor gave her a compelling reason to do so. This is not a standalone case. An increasing number of new mothers are giving their newborns formula milk, some even abandoning breastfeeding completely.

Isn't it ironical how despite aggressive marketing for exclusive breastfeeding the first six months, the reality is far from it? Breastfeeding is supposed to be a normal process but women are suffering because of ignorance – both from caregivers According to Dr Vijaya Krishnan, who is a certified professional midwife, USA, LCCE, FACCE, DPF, Healthy Mother Wellness & Care, “The new born should be breastfed as much as possible in the first 48 hours (and the golden hour). That's the most crucial period for both mother and her child. I actually know of nurses cleaning mother's nipples with spirit-soaked cotton. Little do they realize that by doing so, they remove the familiar smell and make it even more challenging for the new born to latch on to her mother's breast.”

Dr Mahima Bakshi, women and child wellness consultant at Delhi's Madhukar Rainbow Children's Multispecialty feels enough is not being done to support new mothers to breastfeed. “Even the nursing staff doesn't encourage the mother and provide enough support to make her feed frequently- instead they give formula feed to the baby if the mother is not feeling up to it. This is a common practice, especially in case of caesarean births.” The reality is that regular breastfeeding stimulates the breast glands and help produce milk.

She also emphasizes on the importance of co-sleeping. “A baby should spend the maximum time next to the mother. In fact I encourage mothers to make the baby lie next to their breast. This way the baby will get familiar to the breast smell. This bond goes a long way in ensuring healthy breastfeeding.”

In addition, mothers have to be prepared beforehand. Around 32 weeks, they should start massaging their breasts with olive oil. Lactation dolls are also extremely useful in the process – they all send signals to the brain and mentally stimulate the breast glands. Also, they should enrich their diet with lots of fluid, coconut, flaxseed and nuts.

When a mother sees a fussy baby even after feeding her too often, or sees the baby struggle to latch on to her breast, it is natural for her to worry about her breast milk production. But preparing herself beforehand with support and encouragement from the caregiver can go a long way in ensuring a healthy mother-baby bond.

Don't give up yet, mom – remember, breastfeeding is best!

End of the article and hospital staff.

'Jumping genes'

Jump around: How 'jumping genes' could transform gene editing (The Times of India: 20190614)

<https://news.yahoo.com/jump-around-jumping-genes-could-transform-gene-editing-170209347.html>

Tokyo (AFP) - For years, scientists have used a tool akin to a pair of scissors for the complex task of gene-editing, but a newly discovered technique using "jumping genes" could offer a seamless, safer alternative.

Gene-editing is the process of altering a part of DNA -- the code that governs much about how an organism develops and behaves. It can correct or delete parts of that code, or insert sections, for reasons that include preventing disease.

A key tool for editing is the CRISPR-Cas9 process, which uses CRISPRs -- a part of the immune defence system in bacteria -- to locate a target in the DNA, and the protein Cas9 to "snip" the DNA strand.

The DNA then repairs itself, sometimes guided by a template that is inserted during the editing process.

But the process is not always effective -- sometimes the repairs are incomplete, or incorrect, and the damage response prompted by the cutting can have negative side effects.

Last year, a study found the technique was "frequently" causing "extensive" unintended gene mutations.

But new research published Thursday in the journal Nature offers a totally novel way to edit genes in DNA: "jumping genes", also known as transposons, can effectively slide into the DNA without cuts.

- 'Incredible precision' -

The jumping gene "possesses all the necessary chemical properties to directly insert, or integrate... without a DNA double-strand break," lead author Samuel Sternberg told AFP.

"You essentially sidestep all that complexity, and you obviate the need for a DNA break," added Sternberg, an assistant professor at Columbia University's department of biochemistry and molecular biophysics.

The research was inspired by the discovery in 2017 that some types of jumping genes contain the CRISPR-Cas9 system.

Sternberg and his team decided to focus on the jumping gene in the bacterium *Vibrio cholerae* and see whether it could be used for editing.

While the properties of jumping genes have been known for some time, in the past scientists struggled with their tendency to land "just about anywhere in the genome, without rhyme or reason," said Sternberg.

But they found that the jumping gene could effectively be programmed with a guide "so it can insert itself with incredible precision into user-defined sites in the genome".

That means scientists can ensure the edits are made in the correct place and the correct way, and frees them from relying on the DNA's own repair mechanism.

The researchers found the jumping gene was capable of depositing "genetic cargoes into the genome," delivering sequences up to 10,000 bases long.

Researchers checked their work by sequencing the edited genome and found the additions were inserted precisely with no extra copies created elsewhere -- a problem that can occur with CRISPR gene-editing.

The study was published just days after another US team presented similar work in the journal *Science*, which reportedly offers more efficiency than Sternberg's technique, but less precision.

"I think both studies really highlight how pervasive the link between CRISPR and jumping genes really is, and there's undoubtedly more still to be discovered," Sternberg said.

- Editing controversy -

The new technique holds "really exciting" potential -- including for treating people, said Sternberg.

"This approach could allow for therapeutic genes to be inserted into the genome in a potentially safer way than is currently possible," he said.

And it could be a game-changer for certain types of cells, like neurons, which stubbornly resist gene-editing using the "cutting" process.

The technique may also open up new editing options, Sternberg said, in industrial biotechnology and complex bacterial communities, like those in the gut.

Gene-editing is often heralded for its potential to treat illness. It has been used to restore hearing in mice and repair disease-causing mutations in human embryos.

But its use in human embryos has come under the spotlight in recent months, after a Chinese researcher altered the DNA of twin girls to insert a gene mutation making them immune to the HIV virus.

The controversy prompted calls from experts for a moratorium on so-called germline editing, where the heritable DNA in sperm, eggs or embryos is altered.

But Sternberg said while his research offers a new tool for gene-editing, it doesn't change the debate about germline editing.

"The issue, at least right now, isn't really the way that a change is made, but whether to make the change in the first place," he said.