

Single-strength drugs are the need of the hour to avert pediatric drug overdose: Experts

Hyderabad: Coming across a medicine with multiple strengths and formulations is a common sight these days. What if ill-informed parents unwittingly administer the right medicine but of wrong strength, leading to overdose in their toddler?

With little awareness about medicines and formulations, there is every possibility that a common medicine like paracetamol, available in multiple variations and strengths, can cause major health complications, especially among children. "In our country where the understanding about giving the right dose of medicine is very poor, there is a need for regulatory authorities to stick to one strength of medicine in the entire country. At least, for medicines that are most commonly in use," says vocal public health advocate from Hyderabad, Dr Sivaranjani Santosh.

A few days ago, Dr Sivaranjani Santosh, a senior pediatrician from Hyderabad reached out to the Indian drug regulatory authority Central Drugs Standard Control Organisation (CDSCO), urging it to ensure there is one strength of paracetamol in India.

We as pediatricians see many children landing up in ICUs because of overdosing with paracetamol, because of the confusion that exists due to multiple strengths being available (1ml containing 100mg, 5ml containing 120mg, 125mg, 250mg, 240mg, and 500mg), Dr Santosh said.

Though the dosage as per the weight is mentioned on the label, many parents do not follow the instructions and



Paediatricians in Hyderabad have urged CDSCO to mandate single-strength formulations for commonly used drugs like paracetamol, warning that multiple strengths confuse parents and lead to accidental overdosing in children. They emphasised adopting uniform strengths to prevent avoidable ICU admissions.

end up giving toxic doses of paracetamol to their children, thus endangering their lives. If we have a single strength of Paracetamol available like in most western countries, these dangerous mistakes can be prevented. It is extremely important that CDSCO takes cognizance of this fact and enforces only one strength of paracetamol suspension to be available in India, Dr Santosh pointed out.

In India, many medicines like paracetamol, cough and cold medicines, vomiting medicines etc are available in various concentrations, but have the same name. So, the parents end up giving incorrect doses. "Please ensure you understand the doctor's prescription properly including the name of the medicine, the composition, and the dose, the doctor said.

Inspector who booked case against Ponguleti's son among those transferred in Cyberabad

Hyderabad: Gachibowli Inspector Mohd Habibullah Khan, who had booked a land grabbing case against Revenue Minister Ponguleti Srinivas Reddy's son Harsha and his company, was among the Station House Officers who were transferred.

Cyberabad Police Commissioner Avinash Mohanty issued orders transferring nine inspectors on administrative grounds in the Commissionerate on Monday.

Accordingly, Habibullah Khan was posted to VR, Cyberabad, K Balaraju was posted as SHO Gachibowli, B Sanjeevulu was posted as SHO RGI PS, and B Satyanarayana was posted as SHO Mailardevpally.

Similarly, P Narender was posted to EOW, Cyberabad, M Muthu Yadav was posted as SHO Rajendranagar, G Thimmappa was posted to Traffic PS, Kukatpally, K Veera Babu was posted as DI Alwal, and B Nagendra Babu was posted to Traffic PS, Madhapur.

The inspectors shall report at their new place of posting immediately and submit compliance, the order said.

Recently, the Gachibowli police had booked a case against Srinivas Reddy's son Harsha and his company and others after a complaint alleged that people from Raghava Constructions entered land in Vattinagulapally on November 30 and destroyed a cowshed.

The complaint said that several people entered the land and caused damage.

Captain SKY, coach Gambhir and others visit Shri Jagannath Temple ahead of first T20I

Puri: India T20I captain Suryakumar Yadav, along with head coach Gautam Gambhir and other members of the team and support staff, on Tuesday visited the Shri Jagannath Temple in Puri to seek blessings ahead of the opening T20I of the five-match series against South Africa.

Apart from captain Suryakumar Yadav, who was accompanied by his wife Devisha Shetty, and head coach Gambhir, batter Tilak Varma, fielding coach T. Dilip, batting coach Sitanshu Kotak and other members of the support staff were among those who joined the temple visit.

"It's really wonderful that the team received god's blessings. Team India will surely succeed. The team manager, the coach, the captain, and the other players seek blessings here," said Rabi Sankar Pratihari, secretary of the Puri District Athletic Association. The members of the team and support staff entered the temple premises amid tight security arrangements as a large crowd of fans gathered to catch a glimpse of the players. "Today, the captain, coach, and other members of Team India visited. We made all the necessary arrangements for them from our side. Based on

their movement plan, we had alerted all the police stations along the route. Additional security was also deployed at the temple. A ring-round protection team was formed for them, as there are many fans who try to get close to the players," said Puri SP Prateek Geeta Singh.

The first T20I will be played on Tuesday at the Barabati Stadium, Cuttack, marking the first T20I meeting between India and South Africa since the thrilling 2024 T20 World Cup final, where men in Blue secured a dramatic seven-run win. The series against South Africa begins India's final leg of preparations for their title defence in next



year's T20 World Cup. The likes of Suryakumar, Sanju Samson, Abhishek Sharma and Shivam Dube are coming into the series after having a productive time with their respective state teams in the ongoing Syed Mushtaq Ali Trophy.



Collector Jitesh V Patil reviews TPM practices at ITC unit

Bhadrachalam: District Collector Jitesh V Patil on Monday visited the ITC PSPD Bhadrachalam unit and reviewed the operational systems, safety mechanisms, and productivity enhancement measures being implemented in the plant.

During the visit, the unit management gave a detailed presentation on the implementation of Total Productive Maintenance (TPM)—a system adopted to improve machinery efficiency, minimise breakdowns, and enhance overall productivity.

Officials explained the advanced safety standards, energy-efficiency initiatives, and performance-optimisation practices currently in place at the unit.

Congress holds strategy meet on panchayat polls

Gatuppal (Nalgonda): As part of the run-up to the upcoming Panchayat elections, a key preparatory meeting of Congress party was held in Gattuppal mandal on Monday.

Congress-backed Sarpanch candidates, ward members, party leaders and cadre attended the session to review ground conditions and streamline coordination.

Munugode MLA Komatireddy Rajgopal Reddy joined the meeting and addressed the participants. He said the newly formed Gattuppal mandal has many areas that still need focused development, and the upcoming elections will play an important role in shaping that progress.

He urged local leaders and workers to work together with clear coordination and put in collective effort to ensure the victory of Congress-supported Sarpanch and ward member candidates.

Winning these posts, he said, is essential for strengthening the party at the village level and ensuring steady development.

Rajgopal Reddy told the cadre that electing the Sarpanch candidates is their responsibility.

He added that his goal is to develop Munugode constituency in every sector and turn it into a model region.

The event concluded with party workers expressing confidence that the Congress will perform strongly in the upcoming polls.

DC urges electoral staff not to miss voting

Khanapur: Adilabad District Collector Rajarshi Shah on Monday stated that staff engaged in election duties must compulsorily exercise their voting right through postal ballots.

He inspected the arrangements at postal ballot assistance centres and polling material distribution centres in Utnoor and Indravelli mandals, and gave several instructions to officials.

The Collector emphasised that staff involved in Gram Panchayat election duties must necessarily cast their votes through postal ballots. He reviewed the distribution center arrangements, and instructing officials to set up adequate counters and deploy sufficient staff to avoid any inconvenience. He also enquired about food facilities and ballot box details.

Later, at the Indravelli MPDO office, he examined the polling process at the postal ballot assistance centre and inspected the polling material distribution



center at the Indravelli Market Yard. He asked officials for details and reviewed the advance arrangements at the distribution center.

He advised them to seek the help of master trainers to clarify any doubts.

Collector Abhilasha Abhinav reviews preps for conduct of panchayat elections

While holding a review meeting with concerned officials, she instructed them to promptly complete all necessary arrangements at every polling station. She emphasised that there should be no shortcomings in the election process. Tahsildars and MPDOs, who joined the meeting online, were once again given guidance on the procedures for conducting elections.

She advised officials to exercise caution in managing the elections and ensure that no difficulties arise at the election material distribution centres. She directed that sufficient vehicles should be kept ready for the transportation of election staff and materials.

Additional Collectors Faizan Ahmed and Kishore Kumar, ASP Upendra Reddy, DPO Srinivas, DEO Bhojanna, and other officials attended the meeting.



Khanapur: Nirmal district Collector Abhilasha Abhinav stated that comprehensive arrangements are being made for the conduct of Gram Panchayat elections.

Kothagudem: Disabled urged to obtain ID cards

Kothagudem: The International Day of Persons with Disabilities was celebrated at the Collectorate under the chairmanship of District Welfare Officer Swarnalatha Lenina on Monday.

Addressing the gathering, the Additional Collector urged all eligible persons with disabilities in the district to obtain their UDID (Unique Disability ID) cards and explained the procedures involved.

She noted that any corrections to previously issued UDID cards can be made online through the portal. She encouraged persons with disabilities to form DWCR self-help groups, engage in savings, and avail themselves of bank loans. She also advised them to benefit from the insurance schemes provided by both Central and State governments.

She assured that if any issues are brought to her notice, she will escalate them to the District Collector and ensure appropriate action is taken.

Speaking on the occasion, the ZP CEO Nagalaxmi who is also in charge of the district education department—said that Bhavitha Centres have been established in every mandal.

These centres offer physiotherapy, speech



therapy, and skill development support to children with special needs.

She urged parents to make full use of these services, which have been equipped with all necessary facilities. She added that IED coordinators are working across mandals to support these children.

District Welfare Officer Swarnalatha Lenina highlighted several welfare schemes available for persons with disabilities, including the marriage incentive, under which ₹1 lakh is provided when a person with disability marries either a non-disabled or another disabled person.

206 election staff issued show-cause notices

Nagarkurnool: District Collector and district Election Officer Bhadavath Santosh has initiated disciplinary action against polling personnel who were absent for the first phase and second-round training sessions conducted for the upcoming Gram Panchayat elections.

A total of 206 polling staff—appointed as POs, APOs, and OPOs from various departments—did not attend the mandatory election training despite having



received official duty orders. Expressing strong displeasure over this negligence, the Collector stated that attending training sessions is compulsory and critical for the smooth conduct of elections.

The Collector confirmed through a press statement that show-cause notices have been issued to all employees who remained absent without permission.



18 sarpanches elected unanimously

BHUPALAPALLY: MLA Gandra Satyanarayana Rao said that the sarpanches and ward members contesting the Gram Panchayat elections in Bhupalpally district should be elected unanimously.

At his camp office the MLA felicitated 18 newly-elected sarpanches who were elected unanimously.

On the occasion, MLA Gandra Satyanarayana Rao and DCC president Battu Karnakar said that holding Gram Panchayat elections by consensus would create a friendly and peaceful atmosphere in villages and would also reduce candidates' campaign and election-related expenses. He urged sarpanches, deputy sarpanches and ward members across the constituency and throughout the district to be elected unanimously without succumbing to any inducements, and added that he is making special efforts for the development of villages that have been elected unanimously.

Police seize over Rs 1 crore worth ganja in Bhadrachalam

Bhadrachalam: In a major crackdown on narcotics trafficking, the Bhadrachalam Police on Sunday evening intercepted an Ashok Leyland vehicle and seized 110 packets of prohibited ganja weighing 222.966 kilograms, valued at Rs 1.11 crore

According to police, the incident occurred around 7:20 pm on Sunday when the officers noticed an Ashok Leyland vehicle approaching at high speed from the Kunavaram side. On spotting the police, the vehicle's occupants attempted to flee by reversing, but were chased down, intercepted, and brought to the RTO office for a thorough inspection. The contraband was found concealed between coconut fibre bundles.

Police said the four accused were transporting the ganja from Sukumamidi near Motugudem in Chintoor mandal of Andhra Pradesh and were enroute to Solapur, Maharashtra.

Police have also booked the suppliers and intended receivers of the consignment in connection



with the case.

Superintendent of Police Rohith Raju on Monday, said that the district police have seized over 6,000 kilograms of ganja worth nearly Rs 30 crore this year alone. Two persons involved in these narcotics cases have already been detained under the Preventive Detention (PD) Act, while properties belonging to three others have been seized. More suspects are being identified, and further PD Act action is underway.

DHO conducts inspection of PHC, sub-centres

Gudur(Mahabubabad): District Medical and Health Officer (DMHO) Dr B. Ravi Rathod conducted a surprise inspection of the Bollapalli and Thigalaveni sub-centres under the Thigalaveni Primary Health Centre on Monday.

Dr Rathod instructed staff to ensure that all pregnant women are registered within 12 weeks, with the first two check-ups conducted at the PHC and the next check-ups at the Government General Hospital. He advised promoting normal deliveries and reducing unnecessary C-sections.

He also directed staff to screen all individuals above 30 years for BP, diabetes and cancer and provide necessary medicines.



The DMHO reviewed sub-centre records, verified the implementation of national health programmes and instructed timely updating of data on online portals.

Training prog conducted for stage-2 returning officers

ADILABAD: District Collector Rajarshi Shah chaired the training programme conducted for stage-2 Returning Officers of the second and third phases of Gram Panchayat elections at the Zilla Parishad on

Speaking on the occasion, the Collector emphasised that the role of stage-2 Returning Officers is crucial in the conduct of elections and directed officials to strictly implement the Model Code of Conduct.

As part of the Gram Panchayat elections, stage-2 returning officers were instructed to closely monitor every aspect of the process.

The Collector stated that election staff must complete the conduct of postal ballots and deputy sarpanch elections, and record the results in the T-Poll portal.

He clarified that it is the responsibility of Re-

turning Officers to complete the process as per prescribed proformas and hand over the documents at the reception centre

He further explained that Returning Officers are responsible for inspecting polling stations, monitoring adherence to the Model Code of Conduct by candidates, recording expenditure details, and supervising polling materials, ballots, and other related aspects.

Polling for the second phase will be held on December 14, and for the third phase on December 17. The Collector instructed officials to take precautions during counting, assign numbering to polling stations, and set up help desks at centers with more wards to provide information to voters. He advised visiting polling stations a day in advance to check basic facilities such as electricity, toilets, and drinking water.



MITS deemed to be university hosts Alumni meet

Madanapalle: MITS Deemed to Be University, near Madanapalle, successfully organized an Alumni Meet in Hyderabad on Sunday.



The event was inaugurated by chief guest and renowned industrialist Kaudinya Peketi along with Vice-Chancellor Dr C Yuvaraj and Executive Member TG Ravi Kumar.

Addressing the gathering, Peketi highlighted the role of MITS in imparting quality education and strong values. Dr C Yuvaraj stated that the institution, established in 1998, has grown into a reputed university with alumni serving in top positions across the country.

Alumni from 1998 to 2025 shared their experiences. Principal Dr P Ramanathan, faculty members, students, and alumni officials were present. Dr Yuvaraj expressed gratitude to Founder and Chancellor Dr N Vijaya Bhaskar Choudary for his continuous support.

BRS celebrates Vijay Diwas at Telangana Bhavan, hails KCR's role in State formation

Hyderabad: Celebrating Vijay Diwas, the 16th anniversary of the Centre's historic December 9, 2009 announcement to create Telangana, BRS leaders gathered at Telangana Bhavan and declared an all-out political war against the Congress government while hailing party supremo K. Chandrashekhara Rao as the sole architect of the State. They accused Chief Minister Revanth Reddy of "systematically destroying" Telangana in just two years. Senior leader G. Deviprasad openly called upon the party cadre to treat Vijay Diwas as the launchpad to make Chandrashekhara Rao the Chief Minister of Telangana again and "rescue the State from Congress misrule". Attributing the Centre's decision to Chandrashekhara Rao's historic fast-unto-death, he said the Centre relented and announced the formation of Telangana due to his resolve. He lauded BRS president's decade-long tenure, stating that he transformed Telangana into a role model for the country across all sectors with the spirit of the movement. He accused Revanth Reddy of "destruction in the name of development" over the past two years, emphasizing the need for a comeback of BRS leadership to steer the state back toward progress. "We must take Vijay Diwas as inspiration to work towards making K. Chandrashekhara Rao the Chief Minister again and rescue Telangana from ruin," he urged party workers.

Technical Training on AI at PVKK IT

Anantapur: The IBM SkillBuild Programme on Artificial Intelligence was successfully conducted under the auspices of the Training & Placement Department of PVKK Institute of Technology, Anantapur.

The programme, jointly implemented by IBM and ICT Academy, aims to improve the technical skills of students and make them industry-ready in emerging technology sectors including Artificial Intelligence.

Mobile medical service camp held at Ullindakonda

Ullindakonda (Kurnool district): A mobile medical service camp being operated in Konganapadu village under Ullindakonda Primary Health Centre limits received an unexpected inspection on Monday by nodal officer Dr Raghu. He personally verified the healthcare services and screening processes underway as part of the ongoing outreach programme, interacting with medical staff and reviewing on-ground implementation.

During his visit, Dr Raghu stressed that the Non-Communicable Diseases (NCD) survey must be carried out in a transparent and systematic manner, ensuring scientific accuracy in diagnosing early-stage conditions. He pointed out that timely detection of hypertension, diabetes and cancer is vital for effective treatment and prevention. He in-



structed the teams to intensify field-level surveillance and collect complete household-level medical data without any discrepancies.

The nodal officer also underlined the importance of raising awareness among the public regarding lifestyle disorders and unhealthy food habits that are contributing to

the increased burden of chronic illness in rural communities. He stated that preventive healthcare and community education should be prioritised to improve long-term public health outcomes.

Doctors and medical staff including Dr Naveen Kumar, community health officer Swetha,

village secretariat health worker Bharathi, ASHA workers and projectionist Khaleel actively participated in delivering services to villagers. Appreciating their coordinated efforts, Dr Raghu encouraged the team to continue providing accessible health services across remote areas with dedication and responsibility.

Govt committed to strengthening child welfare systems: Sailaja

Kurnool: The government is committed to strengthening child welfare systems and improving educational standards across the State, said Andhra Pradesh State Women's Commission Chairperson Dr. Rayapati Sailaja.

She visited the Damodaram Sanjeevaiah Bala Sadan at Peddapadu on Monday, where she was warmly received by the children and staff. As part of the visit, a short play on the prevention of child marriages presented by the students drew special attention.

Appreciating the children's talent, Dr Sailaja emphasised that such awareness programmes contribute significantly to positive social transformation.

She inspected the dining hall, kitchen, store-room and dormitories, and interacted with the children to understand their opinions regarding facilities, food, education and the overall learning environment.



ment.

Speaking on the occasion, Dr Sailaja stated that along with education, priority is being given to ensure safety and overall welfare of children living in residential care. She said awareness was being created on topics such as good touch and bad touch, safety in public spaces, and how children should respond during emergency situations.

She assured that efforts would be made to enhance facilities at the

Bala Sadan and encouraged children to make the best use of government opportunities, study well and lead confident lives. She also instructed officials to ensure proper management of the hostel and give utmost importance to the wellbeing of every child.

Panyam MLA Gowru Charitha, who participated in the programme, said that 48 children are currently residing in the facility, and there is a need to provide

them with improved amenities. She assured that the issue will be brought to the notice of the government and stressed the importance of creating awareness among parents and children to prevent child marriages. She called for empowering girls to grow with confidence and courage.

Women & Child Welfare Regional Director Rohini, ICDS Project Director Vijaya and other officials took part in the programme.

Police gear up for Vaikuntha Ekadashi celebrations

Tirupati: Ahead of the Vaikuntha Ekadashi and Dwadashi celebrations at Tirumala temple, the district police have intensified their preparations to handle the expected surge in pilgrim crowds.

District SP L Subbarayudu, led a high-level review meeting with senior officials at the Command Control Conference Hall here on Monday. The discussion centered on coordinated efforts among all departments to ensure smooth management of the large number of devotees. Key focus areas included traffic regulation, vehicle parking systems, queue management, emergency response teams, and safeguarding pedestrian routes.

Speaking on the occasion, SP said to assist



families with children, special help desks and child safety teams will be set up, minimizing the risk of anyone getting lost.

SP Subba Rayudu instructed tighter coordination with the district administration and TTD Vigi-

lance teams to facilitate orderly movement and robust security measures throughout Tirumala.

SP said additional security personnel will be deployed, and CCTV surveillance will be strengthened

to prevent any untoward incidents during the festival days. He said plans also cover quick response units, medical support services, ambulance accessibility, and cooperation with fire departments.

Demand rises again to merge Nagari constituency with Tirupati dist

Tirupati: The ongoing district reorganisation exercise in the state has triggered fresh controversy in the Nagari constituency of Chittoor district.

During the previous reorganisation carried out by the YSRCP government in 2022, the Nagari Assembly constituency was split. Puttur and Vadamalapet mandals were moved to the newly formed Tirupati district, while the remaining three mandals — Nagari, Nindra and Vijayapuram — stayed under Chittoor district.

Since then, people from these three mandals have been asking the government to include them in Tirupati district, saying Tirupati is closer and better connected to Nagari than Chittoor.

The issue had gone quiet earlier as the previous government did not want to reopen the reorganisation process.

However, with the current NDA government tak-



ing up the exercise again, the demand has resurfaced.

The initial proposal placed before the cabinet reportedly did not include the three mandals in Tirupati district. This has led to fresh protests from local residents and political groups. On Monday, the joint action committee of all parties organised a rally from Om Shakti Temple to the Nagari RDO office. The group staged a protest and submitted a representation to the RDO demanding that Nagari, Nindra and Vijayapuram mandals be merged with Tirupati district.

Leaders recalled that Chief Minister N Chandrababu Naidu, had earlier announced in a public meeting that these mandals would be added to Tirupati district.

A cabinet subcommittee had also indicated that, based on education, healthcare, transport and accessibility, the three mandals are better suited to be part of Tirupati district.

They urged the Chief Minister to fulfil his promise and include the entire Nagari constituency in Tirupati district in the best interests of the people and development activities.

It may be recalled that the government has announced Madanapalle district keeping in view the demands and sentiments of the people of Madanapalle, Thamballa palle, Piler and Punganur.

With this, Punganur which is till now in Chittoor district will become part of the proposed Madanapalle district. If Nagari also is merged in Tirupati district, the Chittoor district, which was one of the biggest districts with 14 constituencies will be left with only five constituencies making it a small district.

Team including Indian scientists designs potent antidote to cobra, krait venom toxins

For some people, snakes are exotic yet dangerous creatures of the wild; eerie but elusive, and not something to worry about in day-to-day life. For others, especially some farmers in India and Africa, they are a constant and terrifying threat to life. Venom from snake bites leads to more than 100,000 deaths every year, with around 400,000 people left permanently disabled. The mortality burden is especially higher in low and middle-income countries in Africa and Asia, with India alone at a staggering average of 58,000 deaths in a year according to a 2020 report. However, considered a "poor man's disease", relatively less attention has been paid to the devastation caused by the bites. In some of these countries, snakebite incidence is distressingly high but inadequate access to proper healthcare prevents fast and efficient treatment, leading to disproportionately more deaths. Things were set to improve in 2017 when the World Health Organisation (WHO) finally stepped in to alert the world about one of its biggest hidden health crises. It officially classified snakebite envenoming as a highest priority neglected tropical disease. Animals in the middle

A major issue is that the current process of producing antivenom is outdated: it involves injecting large animals like horses with snake venom and collecting the animals' blood for the antibodies it produces against the venom. But the horses' blood could contain antibodies against other microorganisms as well, even against other components of the venom that are not harmful to humans. So only a fraction of the antibodies in the antivenoms is useful to humans, leading to more variability and the need for larger doses. In addition, because these antibodies are produced in another animal, the chances of humans developing an adverse or allergic reaction to these antivenoms are also higher. A variety of venoms

Driven by these concerns, a group of scientists — part of a consortium funded by the Wellcome Trust — decided to side-step animals and use human antibodies instead. Using a type of toxin found in many kinds of snakes, they synthetically developed a broadly applicable human antibody against the toxin. Their results were recently published in the journal *Science Translational Medicine*. "Venoms of snakes in India are so diverse that venoms of the same species across regions can't be neutralised by the same antivenom," Kartik Sunagar, head of the Evolutionary Venomics lab at the Indian Institute of Science, Bengaluru, and one of the lead authors of the study, said. "Even in the same geographical location, if you look at individuals of the same species, antivenom can only neutralise some venoms and not others. There is a stark variation in venoms, so that's why we wanted to figure out a solution that might work across regions and across species." Screening billions of antibodies The scientists focused on three-finger toxins (3FTxs) — one of the most abundant and lethal ingredients in elapid venoms. Elapids are a major medically relevant family of snakes that include cobras, kraits, and mambas. The scientists nar-

rowed their focus on a-neurotoxins, a specific class of 3FTxs that target receptors in human nerve and muscle cells. These toxins prevent the receptors from responding to acetylcholine, a neurotransmitter involved in carrying messages from the neurons to the muscles, leading to paralysis, an inability to breathe, and eventually death. Joseph Jardine, an antibody expert at Scripps Research Institute, in California, led the initial work of "finding the needle in the haystack" — i.e. finding the best antibody that could target the toxins among the billions of human antibodies available.

The scientists first synthesised variants of their toxin of interest, called long-chain 3FTxs (3FTx-L, a type of three-finger a-neurotoxins), in the lab. They then screened billions of human antibodies expressed on the surface of yeast cells for ones that bound best to the toxins in their study. This selection of antibodies far exceeds any number of antibodies that an animal's immune system could cook up in response to a venom. After multiple rounds, they had a shortlist of antibodies that broadly reacted with most of the 3FTx variants they used. All but king cobra

Nicholas Casewell's group at the Liverpool School for Tropical Medicine in the U.K. then tested the antibodies in vitro in human cells, to see which of them could best neutralise the toxins. This step brought them to an antibody they dubbed 95Mat5. Finally, Dr. Sunagar's group tested 95Mat5 in vivo in mice, to see if this broadly neutralising antibody could help protect against lethal doses of a-bungarotoxin, the 3FTx-L in the highly venomous many-banded kraits. They also injected mice with whole venom from king cobras, black mambas, and monocled cobras — all different elapid snakes from Asia and Africa with venom containing 3FTx-L variants — and tested to check how their antibody worked against them. They found 95Mat5 worked well against all the snake venoms, protecting the mice from death, with the only exception being the king cobras' venom, where the antibody delayed but could not prevent death. "We were surprised by the results of the black mamba, where the 3FTx-L is only 17% of the total venom composition. By knocking out that one toxin, we were able to protect mice fully from the other toxins in the venom in what may be a synergistic effect," said Irene Khalek, a scientist at Scripps Research Institute and one of the authors of the study. An 'impossible' find "The study is really well-performed, and I would expect that the antibody could be used as an important component in future antivenoms against mambas and cobras in Africa and Asia," Andreas Hougaard Laustsen-Kiel, head of the Tropical Pharmacology Lab at the Technical University of Denmark, said. Dr. Laustsen-Kiel was involved in a different study, published in *Nature Communications* last year, where a group of scientists discovered a similar broadly neutralising antibody against long-chain a-neurotoxins from snakes. "Because snake venoms are so complex, I would have thought it impossible to make an antibody that could knockout the whole venom," Dr. Sunagar said. Closer to a uni-



versal solution In the current study, the scientists found one reason why their antibody worked so well against their toxins of interest: the crystal structures of their antibody 96Mat5 and 3FTx-L variants revealed that the antibody bound the toxin exactly where the toxin would have bound its target receptor in human nerve and muscle cells. By mimicking the receptor-toxin interaction, the antibody could whisk the toxins away from the receptors and prevent them from exerting their deadly effects. The current antibody works well against a specific kind of toxin present in the venom of many dangerous snakes, but it is also a small first step towards a universal antivenom. The scientists said they are keen on discovering specific antibodies like these against toxins in other snake venoms as well, like in vipers.

"We need to discover antibodies for a couple of other toxins, then we can have a universal solution for the majority of snakes

in the world," Dr. Sunagar said. Rohini Subrahmanyam is a freelance journalist. Venom from snake bites leads to more than 100,000 deaths every year, with around 400,000 people left permanently disabled. The mortality burden is especially higher in low and middle-income countries in Africa and Asia, with India alone at a staggering average of 58,000 deaths in a year according to a 2020 report. The scientists focused on three-finger toxins (3FTxs) — one of the most abundant and lethal ingredients in elapid venoms. Elapids are a major medically relevant family of snakes that include cobras, kraits, and mambas. The current antibody works well against a specific kind of toxin present in the venom of many dangerous snakes, but it is also a small first step towards a universal antivenom. The scientists said they are keen on discovering specific antibodies like these against toxins in other snake venoms as well, like in vipers.

Xantham, guar gum in yoghurt, biscuits may raise diabetes risk: Study

New Delhi: Love to binge on ultra-processed foods like cake, biscuits, bread, yoghurt, and ice creams? Beware, these foods rich in emulsifiers like xantham and guar gum may raise your risk of diabetes, finds a study. Emulsifiers, the most commonly used additives, are often added to processed and packaged foods to make them look more appealing, boost their taste and texture as well as increase shelf life. The study appearing in *The Lancet Diabetes & Endocrinology* linked emulsifiers including mono- and diglycerides of fatty acids, carrageenans, modified starches, lecithins, phosphates, celluloses, gums, and pectins to the risk of developing Type 2 diabetes. Previously emulsifiers have been linked to cancers of the breast and prostate.

Researchers from France's INRAE — National Research Institute for Agriculture, Food and Environment studied the relationships between the dietary intakes of emulsifiers, assessed over a follow-up period of 14 years, and the risk of developing type 2 diabetes in a large study including 104,139 adults between 2009 and 2023. They diagnosed about 1,056 cases of diabetes as a result of chronic exposure to some emulsifiers. These were carrageenans (3 per cent increased risk per increment of 100 mg per day); tripotassium phosphate (15 per cent increased risk per increment of 500 mg per day); mono- and diacetyl tartaric acid esters of mono- and diglycerides of fatty acids (4 per cent increased risk per increment of 100 mg per day); sodium citrate (4 per cent increased risk per increment of 500 mg per day); guar gum (11 per cent increased risk per increment of 500 mg per day); gum arabic (3 per cent increased risk per increment of 1,000 mg per day) and xanthan gum (8 per cent increased risk per increment of 500 mg per day).

Bhilai to Dubai: How a chance meeting at a paan shop led to Mahadev betting app that's now at centre of ED probe

The owner of a juice corner, a contractor-businessman, a school dropout who worked as a clothes salesman and a BCA graduate — what brought this disparate group of people together was a shared interest in the vagaries of cricket, besides a penchant for hanging out at a paan stall in Bhilai's Akash Ganga market. The four are among the key players of the Mahadev online gaming app, which is now at the centre of a Rs 5,000-crore case of alleged money laundering that the Enforcement Directorate (ED) is investigating. According to the investigation agency, the Mahadev Online Book App, which is headquartered in the UAE, provided a platform for illegal betting in a range of activities — from election results to games such as poker, card games and cricket. The ED has claimed that money was transferred from the owners of the app to hawala operators in Chhattisgarh, with the trail allegedly leading all the way up to bureaucrats and politicians in the state.

The two alleged kingpins that the agency has narrowed in on are Sourabh Chandrakar, 28, and Ravi Uppal, 43, both Bhilai residents who are believed to be on the run in Dubai. Police said it was around 2017-2018 that Uppal and Chandrakar started the Mahadev app. Though they came from vastly different backgrounds — Uppal from an established business family in the city, while Chandrakar was the son of a former employee of the Bhilai Municipal Corporation — their paths crossed at the paan stall in Akash Ganga market, where they bonded over tea and cricket scores. Earlier this year, the Chhattisgarh Police issued a lookout notice against the duo while the ED initiated the process of issuing a red-corner notice against them. Around 2018, the agency started to crack down on the betting app and, in August this year, arrested four Raipur-based people. Chandrakar and Uppal, however, continue to evade the agency and are believed to be in Dubai. It was Chandrakar's February wedding in the UAE's Ras Al-Khaimah city, for which he is said to have splurged over Rs 200 crore of allegedly ill-gotten money, that set off alarm bells in the case. The ED is now issuing notices and summons to around 16 celebrities, including actors and singers, who were allegedly paid in cash for performing at Chandrakar's wedding. On October 4, the ED summoned actor Ranbir Kapoor in the case. The ED suspects that the celebrities were paid through hawala channels. Police sources said Chandrakar worked as a salesman at a garment store in Bhilai, earning Rs 10,000 a month, before he started a juice corner, called 'Juice Factory', at Nehru Nagar in Bhilai. Chandrakar's alleged business partner and co-founder of the app, Uppal, came from an upper-middle-class family in Bhilai. Police sources said that while Uppal took up contracts for installing borewells and had an oil-related business before he moved to Dubai, he has been involved in betting for over a decade. His network of cricket bookies, they said, are spread

across states — from Katni in Madhya Pradesh to Bilaspur, Raipur, Bhatapara and Dhamtari in Chhattisgarh.

Police said that for several years before starting the Mahadev app, Uppal was "out of Chhattisgarh" and everytime he got back to Bhilai, he would catch up with friends, mostly local punters, at the Akash Ganga market. Here, as he was introduced to Chandrakar, Uppal realised the latter's strong local connections would come in handy to recruit for the app. As they hit it off, around 2017-2018, the duo started work on the online app. Police said they first got in touch with makers of a similar Hyderabad-based app before taking the help of software engineers to set up their own. Much before the Covid lockdown, Chandrakar and Uppal began making the rounds of Dubai, where they eventually set up operations for the app. The Uppals' bungalow in Bhilai now stands locked, with police saying the family recently left the city. The ED raided his uncle's penthouse in a housing society in Bhilai, which is suspected to have been bought with proceeds of the crime. The place where Chandrakar ran a juice centre has been taken over by another person. A two-storied building from which he ran multiple businesses was earlier this year demolished by the landowner. When a salesman strikes big while Chandrakar and Uppal ran their operations from Dubai, the face of the app in Bhilai was Raja Gupta alias Raj, a 29-year-old whose fortunes are said to have changed overnight since he started working for them.

ED probe ED notice on a penthouse belonging to Uppal's uncle in Bhilai. (Express Photo by Jayprakash Naidu) A school dropout, until 2016, Raj worked as a salesman in a garment shop in the Akash Ganga market, earning Rs 1,600 a month, before he took to betting — and later accepting bets — on cricket. Raj also worked at a mobile shop and, as he went on his rounds to collect money for mobile chargers and headphones, he would get traders in the market to place their bets. Most people in the Akash Ganga market and the surrounding Supela area say they knew Raj worked for a "big bookie". His friend says, "We both used to lose money on bets but we were addicted. One day he said if we accept bets, we will make more money. Then, Raj was introduced to Sourabh (Chandrakar) who told him that he would make him rich." Not much later, says the friend, Raj's lifestyle underwent a drastic makeover. He bought an i20 car and an iPhone, wore gold and silver ornaments, and had a flamboyant presence on social media — leading many in Supela, including his friends, to believe he was the owner of Mahadev app. "Till the ED raids, we were under the impression that Raj was the owner of the app. He loved to show off and would often say that he would help all those who stuck with him in his days of struggle. But I don't know where Raj is now... I last saw him in 2021. He seems to have changed his mobile number," he says. When visited Raj's bungalow in Bhilai, his father refused to talk. His



sister said Raj has not come home in two years. According to sources in the ED and the police, Raj's job was to allegedly recruit youngsters from Chhattisgarh and take them to Dubai for selling customer login IDs for several lakhs to operators. While the app owners kept the lion's share of profits, punters such as Raj got around 20 per cent. Police said like Raj, there are several other youngsters in Bhilai who worked for Chandrakar and Uppal, and whose fortunes changed overnight. Many of them are now on the police radar. According to the police, a key part of the betting operation involved youngsters who were tasked with handling the back-end operations — from issuing IDs to potential customers to handling the money flow. Many of these 150-odd youngsters — from UP, Bihar, MP, Chhattisgarh and Jharkhand — were taken to Dubai for "training". While some stayed on, the others were sent back to India to handle operations here. Among those who went to Dubai is a 29-year-old from Bhilai who spoke to The Indian Express on the condition of anonymity. A small-time bookie, he says that after he lost a "few lakhs" on the bets he placed through Raj, the latter of-

fered him a "job" in Dubai. "I desperately wanted money to repay my debts so I went to Dubai in December 2021. There were around 70 of us from Chhattisgarh and we stayed in a villa in Dubai for six months. I was paid Rs 40,000 a month, of which I sent Rs 10,000 to my family. They paid for our food and stay, and we got to roam around Dubai," he says. His work involved depositing money that came from customers. "I hear there are 250 branches that control the app, each with seven men who handle the money," he says, adding that each branch made at least Rs 15 to Rs 20 lakh a week. In May 2022, with news of the ED and police raids, he returned home to Bhilai. While he continued to manage the operations of a Chhattisgarh-based branch, he kept losing money on bets. "A few months later, the police arrested me and I was paraded by the police in a press conference. The court released me, but my life is a mess. One of my colleagues from whom I borrowed Rs 1.50 lakh is threatening to kill me if I do not repay the money. My father had to sell our house to get me married and repay some of my debts. I am done with gambling. I hope the government shuts down the app."

Keen to fly to outer space with Indian astronaut: French astronaut Thomas Pesquet

New Delhi: French astronaut Thomas Pesquet on Monday said it was dream to fly with an Indian astronaut to explore outer space and bring its unbelievable benefits for humankind. Addressing the Indian Space Conclave organised by Indian Space Association (ISpA), Pesquet also recalled his year-long stay on the International Space Station spanning across two separate missions and stressed the need for protecting the earth, which looks fragile from outer space. "India is on the cusp of achieving an important milestone — the Gaganyaan mission which is to send humans into space — this is extremely impressive and noticed across the world," he said. Pesquet, who had two six-month stays on the International Space Station in 2016-17 and 2021, had met Prime Minister

Narendra Modi in Paris and shared the importance of undertaking a human spaceflight. "I have a new dream, the dream to one day fly with an Indian astronaut colleague and take this cooperation into outer space, to bring back the unbelievable benefits of space exploration to our countries," Pesquet said. At the Conclave, the ISpA, which is an organisation representing the private players in the space sector, inked a Memorandum of Understanding with GIFAS, the French Aerospace Industries Association, to increase cooperation in the sector. After 60 years of cooperation in the space sector, India and France are now encouraging the industry to step up collaboration even as the European country eyes to launch a reusable small launcher in the next three years.

It's okay to not have the right

A question I am asked often is what I do. When I respond with "I am a journalist", what inevitably follows are questions for pointers to an "insider's" view of the political climate in New Delhi. Elections are just around the corner and people want to know. The problem is, I don't have one because I am not a political journalist. To get to this point where I can say "I-don't-know" has taken enormous courage. And I wear this courage as a badge of honour. And each time I say no, I tell myself I have passed the Max Planck/Chauffeur Test. This needs some background.

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There is real knowledge, which is profound and rooted in deep comprehension. Then there is pretend knowledge, which is superficial and masquerades as expertise. The dichotomy between the both was vividly illustrated by a narrative, apocryphal perhaps, that involves the Nobel Prize-winning physicist Max Planck and his chauffeur. This story, captured public imagination when Charlie Munger, the billionaire investor and vice chairman of Berkshire Hathaway, delivered the commencement speech at the University of Santa Clara Gould Law School in 2007. Now called the Max Planck/Chauffeur Test, it serves as a powerful lens through which we can examine the texture of true understanding versus the veneer of pretend expertise.

The story has it that Planck, after receiving the Nobel Prize, was invited to lecture across Germany. His chauffeur, after having heard Planck's speech many times, memorized it and could recite it perfectly. One day, to amuse themselves, Planck and his chauffeur switched roles; the chauffeur delivered the lecture flawlessly until a physicist in the audience asked a complex question. The chauffeur, realizing the limits of his mimicry, wittily remarked that the question was so simple, he would let his chauffeur answer it. Max Planck took over. The point is, there is a profound truth about knowledge: the difference between understanding what lies on the surface and wrapping your head around its depths.

Extrapolate this test to professions such as journalism, stock market research and academia, where the currency of credibility is knowledge. In journalism, the rapid pace and the pressure to break news can sometimes lead to a reliance on pretend knowledge. Journalists, under deadline duress, may skim the surface of complex issues, offering summaries without the depth that understanding requires. This is not to disparage the profession; many journalists perform their roles with diligence and integrity, striving to understand the nuances of the stories they cover. Much the

same can be said of stock market analysts. As recently as in January 2024, the most blue-blooded of them applauded Paytm's founder Vijay Shekar Sharma for the company's results declared in the last quarter of December 2023. They refused to see the man was breaking the law and it would be a matter of time before the RBI would lose patience with him.

In much the same way, academia is not immune to the allure of pretend knowledge. The publish-or-perish ethos encourages quantity over quality. This leads many researchers to feign expertise in areas beyond their genuine comprehension. It is compounded by the complex incentive structures within academia, such as funding for the labs they rub, hinges on perceived expertise. The outcome is a landscape where some take shortcuts and navigate with the compass of pretence rather than the hard-earned map of real knowledge. While it is true the pressures are high in all these professions, it takes moral strength to admit the boundaries of one's understanding. "I don't know" is not a declaration of defeat, but a statement of honesty. Charlie Munger himself has championed the virtue of recognizing the limits of one's knowledge. He advocates for a



model of intellectual integrity where admitting ignorance is not only acceptable but commendable. The real versus pretend knowledge framework encourages us to scrutinize not just the information we consume but also the depth of our understanding. It invites us to ask ourselves whether we are the chauffeur, reciting facts without comprehension, or the scientist, deeply engaged with the material. In the end, the Max Planck/Chauffeur Test is more than

just a cautionary tale about the perils of superficial understanding. It is a call to intellectual integrity, a reminder that real knowledge is not just about the accumulation of facts but the depth of understanding. It challenges us to look beyond the surface, to engage with ideas and issues at a profound level, and to recognize that in the quest for knowledge, the courage to admit ignorance is the first step towards true understanding.

Experts suggest ASHA-like cadre for community mental healthcare

Could the south of India see the repurposing of the Accredited Social Health Activists (ASHA) into a community health worker who is paid, not incentivised, and can provide support to persons discharged from a psychiatric facility? Or can a similar cadre be created to take up community mental healthcare? In a conversation held recently, Vikram Patel, Paul Farmer Professor and Chair, Department of Global Health and Social Medicine, Harvard Medical School and R. Thara, vice chairperson, Schizophrenia Research Foundation (SCARF), explored the possibility of having a cadre similar to ASHAs to take community mental healthcare forward. Noting that he had visited many District Mental Health Programme (DMHP) sites around the country, Dr. Patel said that DMHP was purely a medication programme. "There is nothing community-based, no peer support and no rehabilitation," he said. There is no psychosocial intervention, added Dr. Thara. Elaborating on community mental health, Dr. Thara said it meant involving the local community in every way; including all community stakeholders - teachers, doctors, panchayat leaders or tahsildars. "We have trained a number of community-level workers, mostly women. They have empathy, they have acceptance in the local community, and if you train them, they play an excellent role in early detection, in facilitating care and follow-up, and in delivering some psychosocial intervention. We have



ASHAs, but you cannot overburden them, but we can have a similar cadre of health workers," she said. ASHAs conduct a rally organised to raise awareness among people on the importance of polio drops, in Vijayawada on February 29, 2024. SCARF started 'Manam Inidhu', a programme in which women from self-help groups were trained in the basic principles of mental health and counselling. If they came across persons with mild symptoms, they took them to a counsellor or to the DMHP, she said. Dr. Patel observed: "The (Indian) government is among the first governments in the world to embrace the com-

munity health worker movement, and on a massive scale. It is an environment ready for a change. We could say that maternal, new born and child health (MNCH) issues, which dominated the ASHA movement, are no longer major concerns. Let's say Tamil Nadu does not need ASHAs for maternal and child health, Kerala does not need it, and Karnataka probably does not either. So, could the south of India see the repurposing of the ASHA into a community health worker who is paid, not incentivised.... Could these States pioneer this kind of support such that every person who is discharged from a psychiatric facility -