

Delayed payments worry paddy farmers in Telangana

Hyderabad: Despite claims by the State government that over Rs 20,000 crore has been allocated to support Minimum Support Price (MSP) operations, delays in payment to paddy farmers are causing significant distress at different places. Officials are attributing it to technical reasons. Farmers in Yadadri Bhongir district, particularly in the Ghatkesar region, are growing increasingly frustrated as they have not received payments for their harvested paddy even after 10 days. According to government regulations, payments for procured paddy are supposed to be credited into farmers' bank accounts within 48 hours of procurement. However, bureaucratic delays have led to prolonged waiting periods, forcing farmers to turn to middlemen at a loss.

In Ghatkesar Mandal, procurement centers in villages such as Edulabad and Madharam were set up a month ago, while another center was inaugurated in Pratap Singaram on October 25. Yet, even with these procurement efforts in place, the payment process is taking more than three days to one week. This delay is proving costly for many, with some selling their paddy to middlemen at significantly re-

duced prices due to financial pressures. "We were promised quick payments, but it's been over 10 days and nothing has come through. The officials assured us that payments would be deposited within two days, but that hasn't happened," said one farmer from Edulabad. "Now we are forced to sell to middlemen, but the price is lower, and we're making a loss," he added. The government had announced an allocation of over Rs 20,000 crore to support the MSP operations for Kharif crops. However, the delay in payments is undermining the confidence of farmers, who are already dealing with fluctuating market prices and weather uncertainties. In response to the mounting frustration, Civil Supplies Department District Manager Sugunabai assured farmers that the delays were due to "technical reasons" and promised that payments would be credited to their accounts within the next two days. Meanwhile, in Suryapet district, paddy procurement has only just begun, and farmers there remain hopeful that payments will follow the promptness seen in previous years. To ensure smooth operations, Civil Supplies Commissioner D.S. Chouhan conducted a surprise inspection



of the paddy procurement centers two days ago in Nalgonda district. "The situation is very tense. If these delays continue, it could seriously affect farmers' trust in the entire procurement process," said another farmer from Ghatkesar. "We need to see action, not just assurances." The ongoing payment delays have raised questions about the

efficiency of the government machinery overseeing the MSP operations. With farmers already facing economic pressures, any prolonged uncertainty could have significant consequences, not only for the financial stability of these farming communities but also for the overall effectiveness of MSP programs meant to support them.

People have realised what they lost; BRS will return to power, says KCR



Hyderabad: Breaking a long silence, BRS president and former Chief Minister K. Chandrashekhar Rao on Saturday asserted that the people of the State had realized what they have lost without the party that nurtured Telangana so well for so long. Pointing out the increasing unrest among different sections of the society and the frequent protests against the ruling Congress, he expressed confidence that

the BRS would return to power, with the people still having great faith in the party. Speaking to party workers from Palakurthi Assembly Constituency who called on him at his Erravalli residence, Chandrashekhar Rao opened up in his unique way, sharing his genuine thoughts and feelings about the State, what was happening in the districts and in the process, making some critical observations, thus reaching out to the people. Pointing out the dismal performance of the Congress government, he said it was 11 months since the new government was formed, and people have realized what they have lost. The people were closely observing the current situation, he said, and assured the BRS leaders that there was no need to worry as the public had great faith in the party. Expressing complete confidence that the BRS would return to power in Telangana, Chandrashekhar Rao emphasized that governance was not just about words but about action. Asserting that the BRS did not, and does not, make empty promises and that the government should protect everyone, build an equitable society, and benefit the people, Chandrashekhar Rao criticized the Con-

gress government for its approach.

Questioning whether the responsibility given by the people was for service or for wasting time with words, the former Chief Minister reminded everyone that the BRS had implemented more than 90 percent of the promises it made in its manifesto and even implemented schemes that were not asked for or were among the promises. More importantly, given the cur-

rent attacks on BRS leaders, police high-handedness and cases being booked against party leaders and the cadre, Chandrashekhar Rao assured party members that there was no need to fear illegal cases, arrests or any other threats. He directed the party members to fight legally and work hard. Leaders from different parties joined the BRS in his presence on the occasion.

State bank of India averted a cyber fraud attack

SBI, Hyderabad Circle has been undertaking various activities to educate the customers on cybersecurity awareness, emphasizing the importance of staying vigilant against rising cyber threats and protect themselves from cyber fraud, safeguard their online banking credentials and report any suspicious activities. State bank of India averted a cyber fraud attack against one of its customers. Smt. Surya Swathi Dwadasi a staff at SBI, A.C. Guards branch has saved Rs.13 lakhs of a customer today. The customer was under Digital arrest threat from last four days and yesterday he had visited the branch for transfer of funds to other bank.

By observing that the customer is stressed and is continuously on call on his WhatsApp talking with someone, the bank staff sensed that he is under cyber-attack and brought it to the Branch Manager's notice. Even after persistent requests from bank staff, the customer was unwilling to listen and insisting for transfer of funds. But the bank staff tactfully delayed the transfer of funds yesterday and today. The customer came to bank for transfer of funds today again. Branch Manager Mr. Kamalakar convinced the customer that he is a victim of a cybercrime and not to succumb to fraudster's threat.

Understanding orphan drugs: what are they, how are they classified and what are their challenges in the Indian context

Orphan drugs, critical in treating rare diseases, have increasingly gained attention in India following the implementation of the National Policy for Rare Diseases (NPRD) in 2021. Despite this, India faces significant challenges in ensuring the development, affordability, and accessibility of orphan drugs, especially compared to other countries like the United States and the European Union. While global frameworks such as the Orphan Drug Act (ODA) of 1983 in the U.S. have successfully incentivised pharmaceutical companies to invest in these drugs, India is still in the early stages of establishing a robust system that can address the needs of its rare disease patients. Orphan drugs are pharmaceutical agents developed specifically to treat rare (orphan) diseases. These diseases, though affecting only a small portion of the population, often lead to life-threatening or chronically debilitating conditions. Definitions of orphan drugs vary depending on the regulatory framework. In the U.S., a disease is considered rare if it affects fewer than 2,00,000 people, while in the European Union, a disease must affect fewer than 1 in 10,000 people to be considered rare. Although there is no formal prevalence-based definition in India, the NPRD of 2021 outlines a framework for diagnosing and treating rare diseases, with a low prevalence threshold expected. The lack of a clear definition complicates the identification of orphan drugs and the addressing of needs of patients affected by these conditions.

Orphan drugs are categorised based on the types of diseases they target and their regulatory status. Diseases such as genetic disorders, rare cancers, metabolic disorders, and autoimmune conditions frequently fall under the orphan disease category. Genetic disorders include conditions like cystic fibrosis and Duchenne muscular dystrophy, while rare cancers like neuroblastoma and gliomas also qualify for orphan drug development. Metabolic disorders, such as Gaucher's disease and Fabry disease, and autoimmune diseases, like systemic sclerosis, also benefit from orphan drugs. Orphan drugs are further classified as approved by regulatory agencies like the U.S. Food and Drug Administration (FDA) or the European Medicines Agency (EMA) or orphan drug candidates still undergoing clinical trials. These classifications are critical in determining the availability and potential efficacy of treatments for rare diseases. Under India's NPRD, rare diseases are classified into three categories to facilitate treatment approaches. Group 1 includes disorders that are curable through one-time interventions, such as Lysosomal Storage Disorders (LSDs) requiring Hematopoietic Stem Cell Transplantation (HSCT). Group 2 encompasses diseases that need long-term or lifelong management but have relatively lower treatment costs, such as Phenylketonuria (PKU) and Maple Syrup Urine Disease (MSUD). Group 3 covers conditions like Gaucher Disease and Pompe Disease, where treatment is available but complicated by high costs and the necessity for lifelong care. For a drug to receive orphan drug designation, it must meet certain criteria that vary across countries. Typically,

the disease in question must have a low prevalence. Additionally, the condition must lack approved treatments, or the orphan drug must provide significant benefits over current treatment options. Developers of orphan drugs must also provide scientific evidence that the drug has the potential to treat or alleviate the condition. This evidence can be presented at any stage of drug development, from preclinical research to late-phase clinical trials. Once designated, orphan drugs receive several incentives to encourage their development, including market exclusivity, tax credits for research and development (R&D) expenses, and fee waivers for regulatory applications. Although orphan drug development has been incentivised globally, significant challenges remain, particularly in countries like India. The high cost of research and development is a major barrier, as orphan drugs often target small patient populations, making it difficult for pharmaceutical companies to justify the financial risk. Clinical trials for orphan drugs also face hurdles due to the limited number of patients available, prolonging development timelines. Pricing and accessibility are additional challenges, as the high costs of orphan drugs often make them unaffordable for patients in low- and middle-income countries like India. For instance, enzyme replacement therapies (ERTs) for diseases like Gaucher's disease can cost several crores annually, placing them out of reach for most Indian patients. India faces unique challenges in the development and accessibility of orphan drugs despite efforts like the NPRD. The country lacks a formal definition and comprehensive data on the prevalence of rare diseases, which hampers drug development efforts. Without a centralised national registry for rare diseases, it is difficult to estimate the true burden of these conditions, limiting pharmaceutical investment in orphan drug research. At the time of this piece's publication, 14,615 cases are registered under the portal in the rare disease registry. The high cost of orphan drugs further complicates access, as many treatments available internationally are prohibitively expensive in India. While the NPRD provides a framework for diagnosing and treating rare diseases, it falls short in offering financial or regulatory incentives that could encourage the development and marketing of orphan drugs. Unlike the U.S. and the European Union, India has yet to implement substantial tax breaks, market exclusivity periods, or other incentives that could stimulate orphan drug R&D. To address these challenges, India must take several key steps. India established a national rare disease registry to provide accurate prevalence data, guiding targeted treatment development. Additionally, the government should introduce increased financial incentives, such as tax breaks, research grants and subsidies, to encourage pharmaceutical companies to invest in orphan drug development. Implementing policies that regulate orphan drug pricing and offering government subsidies could make these treatments more affordable for Indian patients. Orphan drugs are essential in treating rare diseases, which affect a small but significant portion of the



population. With the right policy support, financial incentives and infrastructure development, India can improve its orphan

drug landscape and provide much-needed treatment options for patients suffering from rare diseases.

South Korean scientists first to discover electronic crystallites in solids



Seoul: A group of South Korean scientists have discovered electronic crystallites in a solid material for the first time in the world, which is expected to help make progress in studies on high-temperature superconductivity, the science ministry said on Thursday.

A research team, led by Professor Kim Keun-su at Yonsei University in Seoul, posted a paper, titled 'Electronic rotors and Wigner crystallites in a two-dimensional dipole liquid', in Nature, a prominent science journal, according to the Ministry of Science and ICT.

This marks the world's first experimental discovery of the structure, theorised by Hungarian American physicist Eugene Wigner in 1934, Yonhap news agency reported. Wigner crystal refers to a solid or crystalline formation of a gas of electrons enabled by strong repulsion between electrons at low electron density. Normally, a crystal formation is understood as an attraction between atoms. "Until now, scientists have had a dichotomous perception

of electrons: those with order and those without order," Kim said. "But our research found a third type of electronic crystallites with short-range crystalline order."

The discovery by Kim's team is expected to provide further clues to understand better high-temperature superconductivity and superfluidity, long-standing problems in modern-day physics. High-temperature superconductors, materials with critical temperature, are considered to have the potential for creating innovations in the energy, transportation, and medical industries as they can be easily cooled with liquid nitrogen. Superfluids are also known to have potential practical uses in health care, the electronics industry, and others. Kim said his team observed an electronic crystallite, with a size of 1 to 2 nanometres, while measuring the energy-momentum relation of electrons doped from alkali metals through angle-resolved photoemission spectroscopy and the Advanced Light Source, a specialised particle accelerator at the Lawrence Berkeley National Laboratory in the United States.

Congress Working Only For Self-interest, Not For Farmers: CM Haryana

Chandigarh (JAG MOHAN THAKEN), November 9: Haryana Chief Minister, Nayab Singh Saini, alleged that congress party is working for its own interests and not for the interests of the farmers. Taking a dig at the Opposition, he said the Congress is not able to digest the farmer-friendly policies of the government. For the Congress, which claims to protect the interests of farmers, their own interests are paramount, not the interests of the farmers. He said that seeing the farmer-friendly decisions of the Haryana Government and the arrangements made in the mandis for crop purchase, farmers of neighbouring states are also willing to sell their crops in the mandis of Haryana. C M Saini said that in other states, farmers had to agitate to get their crops purchased at MSP, whereas in Haryana, the government made robust arrangements and every grain of the farmers' crop is being purchased at MSP.

The Chief Minister said the Haryana Government has made all arrangements for the availability of fertilizers. Congress leaders are working to mislead the farmers whereas the truth is that adequate stock of fertilizers is available in Haryana and its distribution is also being ensured properly. C M Saini has requested all the farmers not to pay attention to any kind of rumours. He said his government is committed to ensure continuous supply of DAP in the state so that farmers do not face any

kind of problem in sowing Rabi crops. Till Today, a stock of 23,118 metric tonnes of DAP is available in various districts. Within the next two to three days, 9,172 metric tonnes more DAP will be received in various districts of the state. He said the DAP stock in the state is equal to the demand of last year. Last year, from October 1 to November 9, the consumption of DAP was 1,46,152 metric tonnes. This time, till November 9, 2024, 1,54,540 metric tonnes have been consumed. He said the Government of India has allotted 1,10,200 metric tonnes of DAP to Haryana for the month of November. Apart from this, 71,281 metric tonnes of Single Super Phosphate (SSP) and 24,343 metric tonnes of NPK stock are still available in the state. The Chief Minister said the state government has also worked for the interests of commission agents. "Our government has increased the commission of the commission agent from Rs 46 per quintal to Rs 55 per quintal. The additional burden of Rs 9 per quintal will be borne by the state government. The government has resolved all the problems of all rice millers in every possible way. A bonus of Rs 62.58 crore has been given to all rice millers till August 31, 2024 for delivery of CMR in the state. Apart from this, the matter of out-turn ratio of hybrid varieties of paddy has also been placed before the Government of India. Giving information about the purchase of Kharif crops, the Chief Minister said during this



Kharif season 2024-25, 4,84,927 farmers are registered on the 'Meri Fasal Mera Byora' portal for paddy. The government has made complete arrangements for the payment of the crop. After the purchase of the crop, the work of transferring the money

to the accounts of the farmers was done within 72 hours. He said so far, 50,46,872.45 metric tonnes of paddy have been procured in the state, in lieu of which an amount of more than Rs 11,296 crore has been paid to the farmers.

Quality Thought Announces Cyber Security Free Scholarship Test: Opportunity for Aspiring Professionals to Secure Up to 100% Fees Waiver



Quality Thought Software Training Institutes, a pioneer in the software training industry for the past 15 years, announced a Cyber Security free scholarship test scheduled for November 24, 2024, at 11:00 AM. This examination will be conducted both online and offline for students across India simultaneously.

The Cyber Security Scholarship Test offers a unique opportunity for students, where the first 100 or top 20% of merit students will receive a complete 100% scholarship for the remaining candidates based on their merit scores. Additionally, the program features a comprehensive six-month full-day training, consisting of three months

of intensive training followed by a three-month internship. As part of this training, experts will also guide participants in developing essential soft skills, ensuring they are well-prepared for their future careers. At a press conference held on 9th November, 2024 at Quality Thought Corporate office in Madhapur, Hyderabad, Mr. Ramana Bhupathi, Founder of Quality Thought, and Mr. Rajendra Bodda, Chief Information Security Officer (CISO) of Quality Thought unveiled this exciting new initiative aimed at empowering future cyber security professionals. The scholarship program is designed to identify talented individuals who can benefit from a rigorous and industry-aligned curriculum.

"Our commitment to education and

skill development has never been stronger. This scholarship test is a vital opportunity for aspiring cyber security professionals to gain invaluable knowledge and expertise," said Mr. Ramana Bhupathi. "At Quality Thought, we believe in breaking down financial barriers to education, ensuring that anyone with potential can pursue their dreams." Participants will engage in over 100 hands-on projects and learn from some of the leading experts in the field. Mr. Rajendra Bodda emphasized the importance of this initiative, stating, "As the demand for skilled cyber security professionals continues to grow, programs like this are essential. We are investing not just in individuals, but in the future of digital safety and security."

Ajay Kumar wins Srinivas Rayaprol Poetry Prize 2024

Hyderabad: Ajay Kumar, a 23-year old student of English Literature, has won the Srinivas Rayaprol Poetry Prize 2024. Kumar was selected from among 66 competitors this year by the Mumbai-based poet Menka Shivdasani and two faculty members of the Department of English at the University of Hyderabad who constituted the jury.

Neethu Krishnan, Aparna Chivukula, and Nikita Parikh have been shortlisted and received special mention from the jury. The 16th Srinivas Rayaprol Poetry Prize, consisting of a citation and cash prize of Rs. 15,000, will be presented to the winner at the Hyderabad Literary Festival in January 2025.

Rolling with the hunches: Life Hacks by Charles Assisi

Some years ago, I was in conversation with Sadhguru Jaggi Vasudev. His sense of humour had the audience eating out of his hand. As moderator, one of the questions I bowled at him related to “gut instinct”. What did he make of the idea? He hit it out of the park. “The gut is full of shit,” he said. The audience roared. I remember looking at him and thinking: What a rockstar.

But I’ve often wondered, since, is the gut just full of shit?

A crazy thought experiment occurred a few days ago. What if I ignored the gut entirely, for at least a week, and made my decisions as an algorithm would? Spoiler alert: I gave up the experiment on Day 2. What got me thinking about the algorithm model was that most of us now look to the internet — Google, social media, and lately, AI programs such as ChatGPT — for help with our dilemmas. We assume that these tools, with their terabytes of data and “smart” algorithms, will squeeze out answers that are free of human folly. Ostensibly, algorithms are trained to be relentlessly logical and painfully impartial. They don’t tire, don’t judge, and don’t end their day wondering if they made the “right” decision. We, on the other hand, sit on piles of memories, biases and hunches. We sift through snippets of lived experience, often clouded by emotion. Backed into a corner, we depend on something we can barely define; a surge of feeling that we call “gut instinct”. Studies suggest that this wordless prompt evolved as a survival tactic, draw-

ing on memory and experience to prod the human in moments of key decision-making: “Yes, that is a good move” or “No, something’s not quite right here”. Sometimes, that instinct is spot-on, as when it tells you another person is “shifty” despite no clear evidence. Sometimes, it is more indulgent than accurate (“You deserve that third samosa; you’ll make up for it later”). Is it flawless? Hardly. It is, in fact, intriguingly unpredictable. So I thought, why not take this variable out of the equation and try living “by the book” instead. If there’s data on everything, why not let it lead? I started by setting some ground rules. Every decision would be based on logic and historical data: input, output, statistical probability. My software program of choice was Notion. The first day kicked off with breakfast. Usually, I crave a mug of chai followed by eggs and buttered toast. But algorithms don’t have cravings. The data on optimal nutrition insisted on a soulless protein shake and egg whites. The buttered bread and chai were out of bounds. Next off, Notion suggested the inbox be tackled. Typically, I let my gut guide me, responding to whatever seems most urgent, pausing to chat with friends, and occasionally ignoring emails from people I find annoying. The algorithm didn’t approve. Unread emails were arranged, instead, by “priority”, based on sender history, response likelihood, and the algorithm’s understanding of productivity. The program suggested I had become about 15% more efficient between breakfast and lunch. But I missed dipping in and out of conversations for no reason



but pure enjoyment. Algorithms, it turns out, don’t do enjoyment. Then came a big decision. A friend called, someone I hadn’t heard from in months. Operating on gut instinct, I would have picked up without hesitation, knowing full well that it would steer me off course for a bit but also knowing that I would thoroughly enjoy the conversation. I answered, and you know what? We laughed, reminisced, and I hung up feeling genuinely happy. ROI? Impossible to measure. Value? Incalculable.

By Day 2, the limitations of living like an algorithm were inescapable. There are things algorithms excel at: organising files, managing time blocks, optimising workflows. But they don’t “care”: not about friends, or the joys of an impromptu after-

noon coffee break. In that sense, they’re uniquely clueless. Because life cannot always be about efficiency. The most precious bits of it, in fact, are made up of our weird detours, irrational whims and spontaneous side quests. This little adventure has taught me to appreciate algorithms for what they’re good at: efficiently cutting through noise when the path is clear. But life rarely hands us clean datasets or clear-cut walkways. Which is a core difference, isn’t it? When it comes to opportunity, aspirations, goals: The machines can compute; we create. I will continue to turn to the bots to help make sense of the world. But my gut will remain that quiet, instinctive wayfinder on murkier paths. It often has this uncanny way of cutting through the fog.

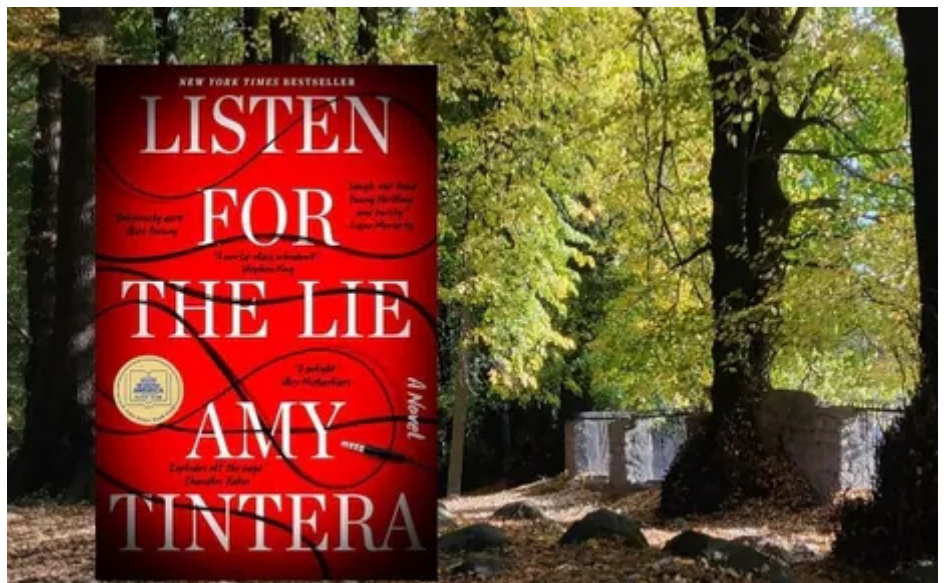
Fast-paced feel-good books

These last few days, on trips from the market, my backpack has been bursting — butter and baking powder for apple crumble, bread, eggs, lettuce and tomatoes for sandwiches. There’s been cooking and eating and lots of confabulation. Yesterday was full of walks on winding mountain paths, through leaves of yellow and red and then down to the market for coffee. “Don’t say we are having a coffee chat please, Mama”, implores my youngest, “it sounds like recruiting season at a B school”. So it was coffee and conversation, followed by sunny lunch at Johnson Café sharing persimmon salad and butter garlic trout and then home to lazing under patchwork quilts with squeals and giggles and non-stop chatter. And then suddenly, the holidays are over. Books, shoes, socks and phone chargers are gathered up, the clutter crammed into backpacks and they are on the night bus back to Delhi.

The house is spick and span and empty and so silent. Our dog has departed too, seeking distraction in the delights of the neighbour’s garden or maybe curled up in a corner somewhere. Even the pigeons on the roof are soundless. As for me, there is only one way I know how to weather this separation from my girls with fortitude — and that is to find the right books. I have a pile on my windowsill — two murder mysteries, one sci-fi thriller and a YA fantasy. Drastic times call for drastic measures. I am compelled to confess to you, dear Reader, that I go through them all, one by one, and by the time I emerge a

few days later, things don’t seem so bad after all. Here they are for your reading pleasure — perfect for breaking out of a reading slump and magical if you’re in the mood for fast-paced stories that will distract you from the dolefulness of the day, all four are excellent. Book 1 of 4: Starter Villain by John Scalzi: PG Wodehouse meets Douglas Adams in this snarky sci-fi story set in a start-up world where villains rule the world. Our hero, who is a washed-up business journalist is inducted into this universe with PowerPoint presentation slides that say things like “Villains here are not bad or evil people, they are merely “professional disruptors: the people who look at systems and processes; find the weak spots, loopholes and unintended consequences... and exploit them... for the advantage of their client base”. Add non-stop action with sentient cats, striking dolphins and surveillance satellites to this mix, and you have a rollicking romp of a thriller. It sounds fantastical and also spookily likely to come true in the next few years.

Book 2 of 4: Caraval by Stephanie Garber: Hunger Games meets The Night Circus meets Dungeons and Dragons in this immersive fantasy about a game world where two sisters play for their lives. Reading the book feels like being in a game world where you encounter all sorts of strange characters — and you need to decide whether to trust them, whether good or evil or merely non-player characters (NPCs) just there to add to the atmosphere. What’s eerie is that you can pay for things



in this world by answering questions about yourself. This personal information is then stored by the system to manipulate you — does this sound fantastical? or just true to online life? Read the book to find out. And if you, like me, are hooked, there are more books in this series to look forward to.

Book 3 of 4: Listen for the Lie by Amy Tintera: An unsolved murder is dug out of obscurity by a true crime podcast and suddenly best friend Lucy finds herself in the harsh glare of public attention as primary suspect. Lucy tells her story in breathless chapters that alternate with pacy podcast

episodes as the action builds towards a climax that’s peopled with all sorts of suspicious characters and many delicious secrets. The writing is simple and the plot is propulsive. As a fan of shows like Only Murders in the Building and true crime podcasts like Serial, I especially loved how this book paired a true crime podcast with a long-forgotten case. Rebecca Makkai did this a few years ago with her best-selling I Have Some Questions for You — this one is even better. Book 4 of 4: What a Way to Go by Bella Mackie: Downtown Abbey meets Agatha Christie in this murder mystery set in a wealthy gated community in London.

Trump's triumph: What it means for study-abroad aspirants from India

Donald Trump has not only won the U.S. Presidential elections in 2024 but also the popular vote, which he did not do in 2016. He has earned a bigger mandate now, a large part of which can be attributed to his vigorous campaigning against immigration although much of the rhetoric has been about illegal immigration. Mr. Trump is therefore expected to make significant decisions during the next four years on a wide variety of issues, including immigration and inflation. Indian parents and students would be concerned about the potential impact on the study-abroad chances of Indians. Quality of higher education, research in the U.S.A.

The United States has long been the world's leading higher education destination. The sheer number and quality of its top-tier colleges contribute significantly to its pre-eminence. In the QS World University Rankings 2025, the United States has 36 universities in the top 100, significantly outperforming any other country. Top American universities receive considerable funding from their government. For example, in 2024 alone, the U.S. government allocated close to \$250 billion to its institutes of higher education. Such substantial financial support drives cutting-edge research and innovation, moving the United States to the forefront of scientific discovery and technological growth, and consequently the world's largest economy for decades. This fosters a dynamic environment that attracts and develops highly qualified international students, and their talent in turn helps the U.S. maintain its worldwide dominance. Most Indian students enter the U.S. through student visas, such as the popular F-1 visa. Last year, the U.S. issued more than 1.4 lakh student visas to Indian students, which is the highest number from any country in the world, for the 3rd consecutive year.

The Optional Practical Training (OPT) program provides overseas students with a valuable opportunity to get practical work experience in the United States, complementing their academic studies with real-world applications. OPT offers a three-year extension to students pursuing degrees in Science, Technology, Engineering, and Mathematics (STEM), allowing them to immerse themselves in the American workforce and perhaps contribute to significant research and innovation. Non-STEM students are eligible for a one-year OPT term in which they can utilize their expertise in a professional context. OPT thus acts as a link between academic endeavours and employment goals, and it is during their OPT that Indians typically apply for an H-1B work visa through their American employer.

There are 65,000 H-1B visas issued every year, via a lottery system. The advantage of doing one's higher education in the U.S. is that an additional 20,000 H-1B visas are allocated to foreign students who have earned a Master's degree or Ph.D from a U.S. university or college. An H-1B visa has a maximum permissible duration of up to six years, which is more than sufficient to launch one's career and pay back education loans. Having said that,



the H-1B is a non-immigrant visa, and the process of converting an H-1B visa into a permanent residency permit (a.k.a Green Card) is a different matter altogether, especially for Indian nationals who have the longest Green Card applicant queue compared to any other country in the world. Legal and illegal immigration are different, even if many Americans are unaware of the distinction. Mr. Trump has repeatedly claimed that he is willing to end illegal immigration while supporting legal immigration. Everyone knows how he feels about illegal immigration because he was the first president to build "the wall" during his first term. Let us now turn our attention to legal immigration, which is a source of concern for Indian parents, working professionals, and students. During his first term, Mr. Trump and his fellow Republicans proposed a points-based immigration system as part of the RAISE Act. In this system, merit would be the deciding factor, rather than the lottery system which is based on luck. His purpose was to encourage the admittance of highly skilled immigrants who could contribute to the U.S. economy in ways and amounts that could not be met entirely by American natives. However, the Bill was strongly opposed by the Democrats and did not become law at the time. Trump even tweeted about how Indian immigrants consistently triumphed in the U.S. at the expense of Americans. He is said to have cited an example of how India benefited at the expense of the U.S., in the context of the H-1B US visa rejection of Kunal Bahl (the founder of Indian E-Commerce Startup, Snapdeal).

Top institutions are well aware of the quality that Indian students bring to their halls. Universities near the bottom of the pile, however, can be viewed with suspicion. However, if all other things were equal, Mr. Trump would not want to give preference to foreigners — even those who are legally in the country — at the expense

of Americans. Mr. Trump also opposes birth-citizenship tourism, family-based chain immigration (not close relatives, but next circle), and other methods of getting the legal right to reside and work in the U.S. since they are seen as exploiting the American system.

Choice of decision-maker Ultimately, Mr. Trump's choice of who he gives authority over legal immigration will determine how much is decided or carried out. During his first administration, for example, he had advisors like Steve Bannon and Stephen Miller who opposed legal immigration paths, even for skilled workers who could boost the US economy. Interestingly, Elon Musk, who has been a vocal and visible supporter this election, recently agreed to a tweet that sought the implementation of more effective immigration pathways to meet the demand for talented professionals in the U.S. Since the tweet calls for action by "someone like Elon", it could mean that Mr. Musk might agree to see this task

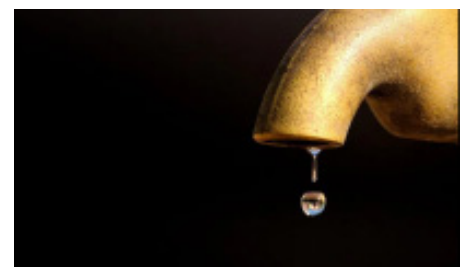
through, should Mr. Trump choose to entrust him with the responsibility. Furthermore, some of Trump's advisors, like Vivek Ramaswamy, are bright and well-spoken offspring of lawful Indian immigrants. Usha Vance, the daughter of lawful Indian immigrants, is married to J.D. Vance, Trump's vice president. He has therefore had numerous opportunities to witness and respect the contributions that lawful immigrants may make. We must now wait and see to whom Trump assigns the task of immigration reform, and if he will make the decision and assign them merely execution responsibilities or if he will also allow them to influence the choices.

(Pavithra Srinivasan earned her Master's degree in Engineering from Stanford University with a 100% fellowship. She worked for hi-tech companies and startups in Silicon Valley before returning to India. Pavithra is Co-founder & COO of Galvanize Global Education that provides guidance for study-abroad aspirants in international universities)

Water supply to be interrupted in parts of Hyderabad for 24 hours from 6 am on Nov 11

Hyderabad: There will be interruption in water supply in some parts of the city during 24 hours from 6 am on November 11. The affected areas include RC Puram, Ashoknagar, Jyoti Nagar, Lingampally, Chandanagar, Gangaram, Madinaguda, Miyapur, Biramguda, Aminpur, Erragadda, SR Nagar, Ameerpet, KPHB Colony, Kukatpally, Moosapet and Jagadgirigutta.

The HMWSSB in a press release said huge leakages have occurred in the 1500 mm dia PSC pumping main in Manjira Phase-2, which supplies drinking water to the city. To stop these leakages, repair



work will be undertaken from Monday 6 am to the next day 6 am. During these 24 hours, there will be interruption in water supply in some areas with pressure and in some other areas.

US elections results: What Trump 2.0 could mean for US-India trade

The US presidential race is a toss-up between Kamala Harris and Donald Trump. If the Vice President wins, broad policy continuity with the outgoing Biden administration may be expected in a range of areas. Trump's return could, however, bring disruption and unpredictability. For India, the impact on trade and business policy will be the most consequential. In his campaign rhetoric, Trump has branded India a "very big [trade] abuser" — which suggests that he could renew the trade tensions of his first term, and impose higher tariffs on more than \$75 billion worth of Indian exports to the US. The tilt towards protectionism and trade isolationism of Trump 1.0 (2017-21) was not reversed under the Biden administration. Trump had blocked the World Trade Organization (WTO) dispute resolution process and invoked wartime trade provisions to launch trade conflicts with major trade partners, including India.

In 2019, India lost duty-free access under the decades-old Generalised System of Preferences (GSP) programme, of which it had been the largest beneficiary. The tariff-free benefits accrued to approximately \$5.7 billion of India's exports to the US. According to Bernstein Research, a Trump presidency would hit China, but the benefits for India may be "limited", as it could come under renewed tariff pressure. The "China-plus-one" strategy may gain momentum, but the inflation resulting from trade barriers could disrupt the expected interest rate-cut trajectory, affecting middle-class consumption in India, the research note said. Indian pharmaceutical exports to the US could face setbacks, and profits may reduce for IT services firms due to a likely hardening of stance on H-1B visas, where increased rejections are expected. However, tax policies and their influence on corporate cash flows could help counter-balance the impact, the report said. "Rupee overall is likely to see a downgrade, courtesy increased inflation and rates staying higher for longer," it said.

Why trade with US matters The US is India's largest trade partner, with bilateral trade reaching almost \$120 billion in FY24 — slightly higher than India's China trade. However, unlike China, India's trade relationship with the US is favourable, which makes the US a vital source of foreign exchange. India-US trade; share of US in India's total foreign trade. India-US trade; share of US in India's total foreign trade. Despite attempts to diversify exports, India's dependence on the US has grown over the past decade. According to official 2022-23 data, the US accounts for 18% of India's exports, compared to 10% in 2010-11. India's export basket to the US is well-diversified, benefiting industries ranging from textiles to electronics and engineering. However, Trump's promised tariffs may primarily target China, given the far larger trade imbalance. A fresh round of US-China trade wars could benefit India by taking investments and manufacturing away from China. US, WTO, trade agreements Over the years, the US has

gradually distanced itself from the liberal global trade order that it helped establish after World War II, especially since China became a member of the WTO in 2001. China's entry did not trigger the expected economic liberalisation; it rather led to the spread of state capitalism, impacting US job markets. In response, the US has refrained from signing new free trade agreements (FTAs), even as bipartisan calls have grown for it to withdraw entirely from the WTO. Frustrated by unfavourable trade dispute rulings and its inability to manage Chinese trade practices through the WTO, the Trump administration disabled the WTO's dispute resolution function by blocking the appointments of judges, effectively leaving it inoperative for all members. Trump's successor, Joe Biden, did not restore the system — he only pledged reforms, which are yet to take concrete shape. High tariff walls policy... During his first term, Trump invoked national security provisions to impose 25% tariff on steel and 10% on aluminium from India and other countries, breaking from the practice of not targeting friendly nations. Biden chose to negotiate with India and the European Union rather than lifting these tariffs.

Trump has repeatedly voiced his frustration at high tariffs in India, which affect US companies like Harley-Davidson. At a rally last month, he criticised China, Brazil, and India, and called India a "tariff king" and "trade abuser". Notably, average tariffs in India rose to 18.1% in 2022 from 13% in 2014, which resulted in a lack of competitiveness among Indian industries compared to countries such as Vietnam, Thailand, and Mexico. India cut tariffs on several input items in the last Union Budget. Indian policymakers argue that most countries erected high tariff walls to protect domestic industry in the early stages of growth, and that India is no different in seeking to spur manufacturing. The government has introduced production-linked incentive (PLI) schemes for 14 priority sectors, and uses tariffs to boost local production. Several clean energy manufacturing sectors continue to face stiff competition from Chinese products. US protectionism grew under Biden as well. Citing unfair trade practices, the US increased tariffs on Chinese electric vehicles (EVs) from 25% to 100% earlier this year. Tariffs on certain steel and aluminium products rose from 0-7.5% to 25%. These increases did not directly impact India, but they resulted in container shortages amid a surge of Chinese shipments to the US before the tariffs took effect. The research organisation Peterson Institute for International Economics predicted last month that Trump's policies — deportations, import taxes, and efforts to undermine the Federal Reserve's independence — would significantly drive up consumer prices. According to the Peterson analysis, inflation, which would otherwise stand at 1.9% in 2026, could rise to between 6% and 9.3% if Trump implemented his economic proposals. Higher US inflation could hit Indian exports of labour-intensive items such as textiles, gems and jewellery, and leather products, impacting



millions of jobs. Higher inflation in the US hurts India disproportionately, as the US accounts for almost 20% of all Indian exports.

How do pollinators get attracted to flowers?

For our ecology to survive and for food production to occur, pollination is essential. Flowers attract pollinators through a combination of visual, olfactory, and nutritional strategies. Brightly coloured petals in hues like yellow, red, and blue are designed to catch the attention of specific pollinators such as bees, butterflies, and hummingbirds, each of which may be drawn to different colours.

For the male reproductive cells (pollen) to reach the female reproductive parts (ovaries), all seed plants must be pollinated. This preserves genetic variation and enables the plants to generate seeds for species propagation. In order for pollinators to locate them, flowers have evolved to exhibit clues. In addition, pollinators are frequently compensated with nectar for the "service" they render.

Many flowers also emit enticing fragrances that signal the presence of nectar, creating an appealing invitation for pollinators to visit. The nectar itself serves as a reward, providing essential sugars and nutrients, which encourages pollinators to return to the same flowers



repeatedly. Additionally, the shape and structure of flowers play a crucial role; tubular blooms may attract hummingbirds, while flat flowers often cater to bees and butterflies by providing easy landing platforms. Visual patterns known as "nectar guides" further direct pollinators to the nectar source, increasing the likelihood of effective pollination. Moreover, flowers may time their blooming to align with the activity patterns of their preferred pollinators, ensuring that they are available when pollinators are most active. Through these intricate adaptations, flowers not only ensure their reproduction but also support the health of ecosystems by fostering biodiversity.

Smog knows no borders, Pakistan minister says 'Punjabs on both sides' need joint plan

air quality index, Marriyum Aurangzeb, Punjab air quality, Punjab smog, Pakistan, Indian express news, current affairs Pakistan Punjab minister Marriyum Aurangzeb (right); stubble burning in Barnala on Sunday. With both sides of the border grappling with a common crisis, Marriyum Aurangzeb, Senior Minister in the Government of Punjab in Pakistan, has told The Indian Express that it is "high time for India and Pakistan, and especially Punjabs on both sides of the border, to initiate a joint smog mitigation plan". Two days ago, the air quality index (AQI) in Lahore hit a high of 1900, briefly giving it the unenviable tag of the world's most polluted city. In an SOS from across the border, Aurangzeb, who also holds the environment protection and climate change portfolio in Chief Minister Maryam Nawaz Sharif-led Punjab provincial government, claimed the "Eastern corridor winds blowing from India towards Lahore" were taking the smog to dangerous levels. Speaking to The Indian Express over the phone, Aurangzeb stressed on the need for "smog diplomacy".

"It is a national disaster for both countries, especially both Punjabs. If we look at the data of the past three-four days, the AQI in Lahore shot up to extreme levels forcing us to shut our primary schools. The direction of the wind from the Eastern Corridor, blowing from India towards Lahore, is affecting us the most. Our point is, this is not political. It's all based on scientific data and conditions such as wind, over which no one has control. The only way forward is to bring the smog issue to the table and work together," said Aurangzeb. farm fires, Punjab farm fires, NGT on farm fires, stubble burning, action against farm fires, farm fire control, indian express news As per the Punjab Pollution Control Board, till Novem-



ber 19, Punjab reported 34,459 farm fires. (Express Photo by Praveen Khanna) "Basically both Punjabs need to work together on this. According to what our CM has expressed, both countries need to have a joint smog mitigation action plan — time-bound with deadlines and sectoral targets... Our CM is of the view that it should not be dealt with through a political lens between two countries... We will be writing a letter to our Foreign Office, most probably by today, which I assume will further write to the foreign ministry in India... We are hopeful that India will re-

spond positively."

Asked if the winds from India were the only reason for Lahore's pollution woes, she said, "No, the winds from India are not the only reason... But yes, data shows that during the paddy harvest season commencing in October till late December, when wind direction and weather changes also happen, and Diwali is celebrated across the border, the smog encapsulates the entire region. As soon as wind changes direction, the AQI in Lahore drops to 200 or so... As I said, both the countries need to explore and study more data on this. It's

not like that I am blaming India or vice-versa," she said. Aurangzeb said Pakistan itself is facing a stubble burning challenge. "The difference between our and Punjab's paddy stubble problem on the Indian side is of magnitude. The number of farmers and size of farms in India is huge. Here, we are distributing super seeder machines to farmers to manage paddy stubble and also making arrests. Yesterday only, we arrested over 100 individuals for stubble burning," she said, adding that vehicular emission was another reason for Lahore's deteriorating air quality.

If tardigrades crowd-sourced their remarkable genes, can humans?

Tardigrades are one of the most resilient as well as enigmatic life forms on the earth. These organisms, also called water bears and moss piglets, are microscopic eight-legged creatures without a backbone. They inspire awe with their remarkable ability to survive in extreme environments, including areas so very radioactive that they are easily lethal to humans. They can also survive starvation, lack of air and water, and subzero temperatures. Belonging to a phylum of their own (Tardigrada), these remarkable creatures inhabit some of the more extreme ecosystems on the planet, from the frigid expanses of the Arctic and deep-sea floors to scorching deserts and even the vacuum of space. Researchers have identified more than 1,300 tardigrade species to date; each species is uniquely adapted to conditions that would be deadly to most other forms of life. Evolutionarily, the tardigrades

are an ancient species. The earliest known fossils date from around 90 million years ago, in the Cretaceous Period. Molecular dating suggests they originated at least 600 million years ago. When facing hostile environments, tardigrades can enter a state called cryptobiosis, effectively pausing almost all their biological processes and lingering in a state of suspended animation. This peculiar state allows them to tolerate extreme dryness, intense radiation, and freezing. Tardigrades' ability to survive radiation is due to specialised mechanisms that can shield their genetic material from damage. In fact, they don't just survive otherwise hazardous radiation: they are able to recover and resume normal life. Lessons of the tardigrade Their features have rendered tardigrades a subject of intense scientific study. Researchers hope unlocking the secrets of their specialised survival mechanisms will pave the way to advances

in human medicine, space exploration, and others. Research has indicated the presence of many mechanisms that help tardigrades, and insights into them are expected to hold great biomedical and industrial value. For example, researchers have of late been discussing the role of a specific class of proteins: these proteins have flexible bodies and don't have an intrinsic structure. Thus they have been named intrinsically disordered proteins. One subgroup of these is secretory-abundant heat-soluble proteins. Researchers recently attempted to synthesise these proteins in other microbes by cloning the underlying genes and transferring them to the latter. Their work suggested such a method is capable of enhancing the tolerance of the microbes against desiccation (completely drying up). This work was published in Nature Communications Biology in May. Another paper published last year in the same journal explored molecules

called small heat shock proteins and, in a similar approach, demonstrated that they could enhance microbes' ability to survive hot conditions as well as prevent proteins from clumping up when they dry out. Survival begins in the cell. More recently, researchers from China reported a new tardigrade species, *Hypsibius henanensis*. Their findings, reported on October 25 in Science, included a chromosome-level genome assembly that revealed many details about the genes that give tardigrades the ability to withstand radiation. They exposed tardigrades to gamma rays at doses around 1,000-times greater than the lethal limit for humans, and tracked which genes were expressed using genomic tools. The researchers found thousands of genes upregulated when the tardigrades were exposed to extreme radiation. Further analysis suggested that the radiation resistance is likely modulated by genes that can be acquired by horizontal transfer, i

With UP Madarsa verdict, Supreme Court upholds positive secularism

The three-judge bench of the Supreme Court (SC), led by Chief Justice of India D Y Chandrachud had promptly stayed the Allahabad High Court's March 22 ruling and has now overruled it. The verdict in Anjum Qadri and Anr vs Union of India & Ors upholds the constitutionality of the UP Madarsa Act, 2004. It has given a tremendous sense of relief to thousands of madarasas and lakhs of students studying in these institutions. The Government did defend the Act as a regulatory measure but the National Commission for Protection of Child Rights (NCPCR), as intervenor, opposed the petitions and argued that education imparted in madarasas is not of the desired quality and thus, the law violates Article 21A and the right to a mainstream education.

The SC did not agree with the High Court's decision to strike down the Madarsa Act based on secularism as part of the Basic Structure. Citing its Indira Nehru Gandhi judgment (1975), the SC categorically held that the doctrine of Basic Structure should be invoked to examine the validity of a constitutional amendment, not an ordinary piece of legislation like the UP Madarsa Act. Then Chief Justice A N Ray had observed that "applying the Basic Structure doctrine to test the validity of a statute will amount to 'rewriting the Constitution'." The current judgment authored by CJI Chandrachud held that in testing an ordinary law, courts should look just at legislative competence and consistency with fundamental rights. The judgment, accordingly, observed that an ordinary law cannot be declared unconstitutional for violating the basic structure of the Constitution because concepts such as democracy, federalism and secularism are undefined, and permitting courts to strike down legislation for their violation of such concepts will introduce an element of uncertainty in our constitutional adjudication.

Since the Madarsa Act was struck down in the name of secularism, the judgment discussed the concept at length. It relied on the nine-judge bench judgment in S R Bommai v. Union of India (1994), which had held that "secularism is a positive concept of equal treatment of all religions". The SC said in its Tuesday verdict that Articles 25 to 30 contain the other facet of secularism, that is, the practice of religious tolerance by the state. It observed that "by recognising and regulating the Madarsa education, the state legislature is taking positive action to safeguard the educational rights of the minorities." The judgment also said, in essence, that secularism is a facet of equality. It rightly observed that substantive equality shall remain an illusion unless the state is positively charged with the duty to provide equal treatment to all persons, irrespective of their religion, faith, or beliefs. It went on to hold that the right to manage its affairs given to a religious body is a fundamental right that cannot be abridged by any legislation.

The Court recalled its leading judgments on Article 30 to explain the extent of state control of minority institutions in the name of regulation. It clarified that the minority character of an institution cannot be

annihilated or destroyed. Certainly, minorities do not have a right to aid and affiliation or recognition of degrees. However, at the same time, neither aid nor affiliation nor recognition by the state can come with such conditions that would destroy an institution's minority character. What remains to be seen now is how the Court decides on Aligarh Muslim University's minority character. Madarasas are entitled to state protection under Article 26, which gives religious denominations or any section thereof the right to establish and maintain institutions for religious and charitable purposes. Thus, purely religious institutions can legitimately be established and maintained. Article 21-A does create a duty on the state to provide compulsory education between 6-14 years of age and thus the state has a legitimate interest in ensuring the quality of this education. But in Pramati Educational and Cultural Trust (2014), the SC held that the application of the RTE Act to minority educational institutions, whether aided or unaided, "may destroy the Article 30(1) guarantees to establish and administer educational institutions of their choice to religious and linguistic minorities." Accordingly, the SC refused to agree with the HC's reasoning that madarsa education is hit by Article 21-A due to its poor quality as the RTE Act itself contains a provision exempting minority institutions. The HC overlooked the fact of low quality of education in secular institutions. As per the 2023 Annual Status of Education Report, 25 per cent of students between the ages of 14-18 cannot read a class II text and over half face difficulties with arithmetic skills expected of Grade V students. A Mercer-Mettl Report (2023) found only 45 per cent of Indian graduates were employable. The primary focus of madarasas is not secular but theological studies. A person has the right to become a theologian — we cannot force them to have the same level of knowledge and competence as passouts of secular institutions. To go to a theological or secular school is a matter of choice. Religious instruction is different from religious education. Article 28 prohibits the former, not the latter. Even religious instruction can be given in aided or recognised institutions with the consent of the student or their parents. In fact, ideally, the Court should also have heard and decided on the PIL challenging the government's directive to 1,125 Kendriya Vidyalayas (Central Schools) managed by the Ministry of Education mandating morning prayers of Om Shanti. Article 28(1) of the Constitution explicitly lays down that "no religious instruction shall be imparted in any educational institution wholly maintained out of state funds". The PIL by Veenayak Shah has alleged that each morning, students irrespective of their faith are compelled to recite a Sanskrit prayer based on the Hindu religion and in its style, with folded hands and closed eyes. In Engel v Vitale (1962), the United States Supreme Court held that Bible reading at school prayers is unconstitutional. It observed that there cannot be any official prayer of this kind in public schools. The limited setback to madarsa education is the non-recognition of Fazil and Kamil degrees



as the UP Act cannot prevail over the UGC Act, 1956. As a matter of fact, these degrees are recognised by some universities only for the purposes of some theological and oriental studies courses. Thus, for UG and PG courses in Theology, Arabic or Islamic

Studies, recognition of such degrees in no way undermines the quality of higher education standards.

We should not close this gateway for madarsa graduates to enter university education.

Earliest known asymmetrical animal

Scientists have uncovered fossils of a 555-million-year-old creature, *Quaestio simpsonorum*, in South Australia's Nilpena Ediacara National Park, revealing what may be the earliest example of an asymmetrical body pattern in animals. This small, ancient marine organism, which moved across the ocean floor like a "marine Roomba," feeding on microscopic algae and bacteria, represents a significant milestone in the evolution of complex life.

What makes *Quaestio* particularly remarkable is the unusual "backward question mark"-shaped structure on its back, making it the earliest known creature to display a consistent asymmetry in its body design. This discovery is crucial because asymmetry played a vital role in the development of more complex organisms, allowing for the evolution of differentiated body parts. In humans, for example, asymmetry allows organs like the heart and liver to occupy different sides of the body, contributing to functional complexity. The fossils were unearthed from

Nilpena, a site renowned for yielding some of the earliest known complex life forms. Despite decades of fossil excavation in this region, nothing quite like *Quaestio* had been previously found. Evidence of its ability to move further excited researchers.



Fossilised tracks discovered behind one of the specimens suggest that *Quaestio* could actively navigate the ocean floor, potentially grazing on food sources as it traveled. This combination of movement and asymmetry hints at the evolutionary advancements taking place during the Ediacaran period, which preceded the more well-known Cambrian explosion of life.