



12/05/24 - 18/05/24



THE DESERVING INDIA

C.A. SHORTS

GAGAN - THE DESERVING INDIA





WORM DEVELOPS FOOD HABITS AND ITS OFFSPRING 'INHERIT' THEM

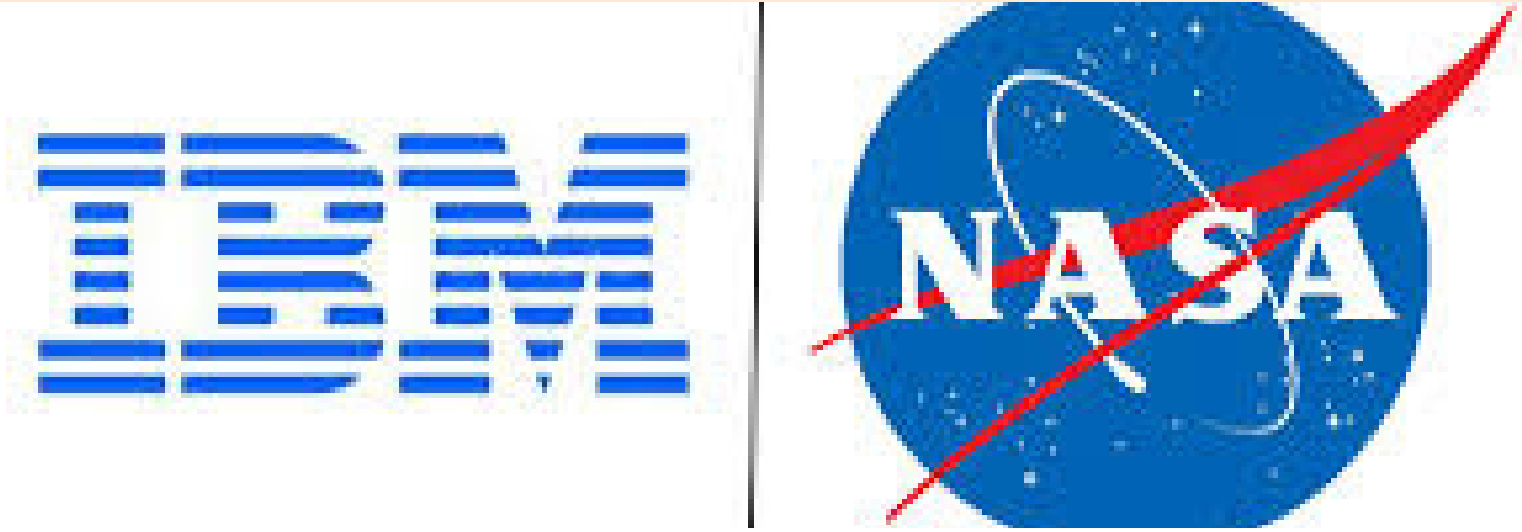
P. vranovensis makes a small RNA molecule called sRNA. When the worms ingest this strain, they also take in the sRNA. The sRNA then alters the worm's feeding behaviour such that, from that point on, the worms 'know' to avoid feeding on this bacterium.

The C. elegans worms' trans-generational ability also worked against the P. aeruginosa bacteria — which cause disease in humans. Scientists would like to discover whether our bodies can also take up sRNA molecules from the microbes in our gut or mouth and whether they can modify our behaviour, and possibly the behaviour of our children and later generations.



ISRAEL HAS NO 'CREDIBLE PLAN' FOR RAFAH - US

- **Thousands of Palestinians have been forced to flee from across Gaza, including Jabalia, Beit Lahiya and Rafah, as Israeli forces reinvade already heavily hit areas.**
- **Egypt foreign ministry has announced it will formally join the lawsuit filed by South Africa against Israel at the International Court of Justice which accuses Israel of violating its obligations under the Genocide Convention in the Gaza Strip.**
- **US Secretary of State Antony Blinken has defended a decision to pause a delivery to Israel of 3,500 bombs over concerns they could be used in the southern city of Rafah, saying Israel lacked a “credible plan” to protect 1.4 million civilians sheltering there.**



IBM AND NASA COLLABORATE TO CONVERT SATELLITE DATA INTO HIGH-RESOLUTION MAPS USING AI

International Business Machines Corporation (IBM) and National Aeronautics and Space Administration (NASA) have introduced a new geospatial foundation model that can transform satellite data into detailed maps of floods, fires, and other landscape transformation.

These maps can provide insights into the Earth's history and offer glimpses into its future. The collaborative effort aims to make this geospatial solution accessible for preview in the latter half of this year.

The platform's potential applications include estimating climate-related risks to agriculture, infrastructure, and buildings, assessing forests for carbon-offset initiatives, and assisting businesses in developing strategies to address and adapt to climate change by employing predictive models.



SEMAL TREES ARE BEING WIPED OUT IN RAJASTHAN DUE TO UDAIPUR'S HOLI

- Holika Dahan in Udaipur's Subash Chowk: A vibrant celebration featuring music, firecrackers, and a towering bonfire symbolizing victory of good over evil, drawing locals and tourists alike.
- Ecological significance of the silk cotton tree (Semal): Integral to the ecosystem, providing medicinal value, habitat for wildlife, and resources for tribal communities, but facing threats from overexploitation during Holi festivities.
- Conservation efforts and challenges: Initiatives like the 'Semal Conservation Mission' aiming to raise awareness and protect the tree, yet hindered by lack of documentation, enforcement of laws, and urban demand driving its exploitation.



AN OVERVIEW OF THE SMART CITIES MISSION

Smart cities are cities that urban experts say are like new Silicon Valleys. They're designed with lots of ways to travel and communicate, like airports and highways. They're also supposed to be really smart, using advanced technology.

As of April 26, the Urban Ministry's dashboard shows that out of 8,033 projects planned for Smart Cities, the total money set aside for them has dropped from an expected ₹2 lakh crore to ₹1,67,875 crore. That's 16% less than what was planned for 100 cities.

The Smart Cities Mission (SCM) ended up favouring only small parts of cities for development, leaving out most areas. It didn't really match what's happening in real urban areas in India.



SC DENIES HEMANT SOREN'S PETITION FOR INTERIM BAIL

Senior lawyer Kapil Sibal urged the Supreme Court to list the case of former Jharkhand Chief Minister Hemant Soren on May 17, the last working day before a long holiday, to allow Soren to campaign for the Lok Sabha election. However, Justice Khanna, citing the court's heavy workload, stated that May 20 was the earliest available date.

The Supreme Court refused interim bail for Hemant Soren to campaign in the ongoing general election but agreed to list his plea to quash his arrest by the Directorate of Enforcement (ED) on May 20. Justice Khanna highlighted the need for the ED to prepare a response and pointed out that campaigning would end 48 hours before the voting day on May 20.

Despite Sibal's fervent appeal for an earlier date, the court finally agreed to list the case on May 17 but cautioned Sibal to remain cautious about the outcome. Sibal expressed his disappointment, indicating that if the case was not resolved before May 20, the opportunity to participate in the elections would be lost..



MORE SOLAR STORMS BREWING AFTER LAST WEEK'S AURORAE AS SUN 'WAKES UP'

- Solar storms don't happen often, maybe once every few decades. The last big one like this was in 2003. They usually occur when the Sun is at its busiest.
- Scientists watching a sunspot called AR 3664 saw it getting bigger. By May 7, it was 16 times wider than Earth and full of magnetic energy. On May 10, three bursts of charged particles hit Earth.
- Back in 1859, the Sun let out a massive solar flare that caused a huge magnetic storm on Earth, the strongest ever recorded. Telegraph wires either caught fire or worked without needing power.



FIERCE BATTLES RAGE ACROSS GAZA STRIP AS U.S. CALLS FOR TRUCE, POST-WAR PLAN

- Israeli troops clashed with Hamas militants in Gaza, causing more Palestinians to flee.
- The United States called for a ceasefire and urged Israel to plan for peace to avoid prolonged conflict.
- Talks for a ceasefire and hostage release have stalled, with Qatar expressing disappointment.



CHINA-MYANMAR MODULE OF NSCN-IM HELPED BANNED OUTFITS IN MANIPUR: NIA

- The National Investigation Agency (NIA) claims that the Isak-Muivah faction of NSCN-IM, through its "China-Myanmar module," supported banned Meitei outfits to enter India from Myanmar. Their aim was to exploit ethnic tensions in Manipur and destabilize the state, ultimately waging war against the Indian government.
- The chargesheet, filed against five individuals arrested in Manipur in July last year, alleges they conspired to carry out violent attacks against the rival Kuki-Zo community using weapons stolen from government sources.
- Anand Singh, the main accused, allegedly recruited local youth for armed training to escalate ethnic strife. He participated in a weapons training camp organized by PLA cadres in July 2023, where he assisted in training youth in handling firearms and jungle warfare. The NIA claims NSCN-IM facilitated the infiltration of these Meitei outfits into Indian territory to carry out terrorist attacks, promising them safe passage and weapons.



CENTRE GRANTS INDIAN CITIZENSHIP TO OVER 300 PEOPLE UNDER CAA

- More than 300 people received citizenship certificates under the CAA, 2019, with 14 handed out by Union Home Secretary Ajay Kumar Bhalla in Delhi.
- Most applicants, likely Pakistani Hindus, got citizenship, but their country of origin wasn't revealed.
- The citizenship process requires declaring a country of origin and submitting documents, posing challenges for those who lack them, like many in West Bengal.



GENERAL, CENTRAL OBESITIES LINKED TO HIGHER RISK OF COLORECTAL CANCER

- Obesity rates are increasing globally, with India seeing a rise. A Lancet study in 2022 found obesity rates among Indian women and men to be 9.8% and 5.4% respectively.
- Obesity is linked to higher risks of diseases like heart disease, diabetes, and colorectal cancer (CRC), which is relatively low in India but presents with advanced stages and poor prognosis.
- Recent research suggests that not all obese individuals face the same CRC risk; certain body shapes, like "generally obese" and "tall and centrally obese," are more vulnerable, with genetic variations playing a role.



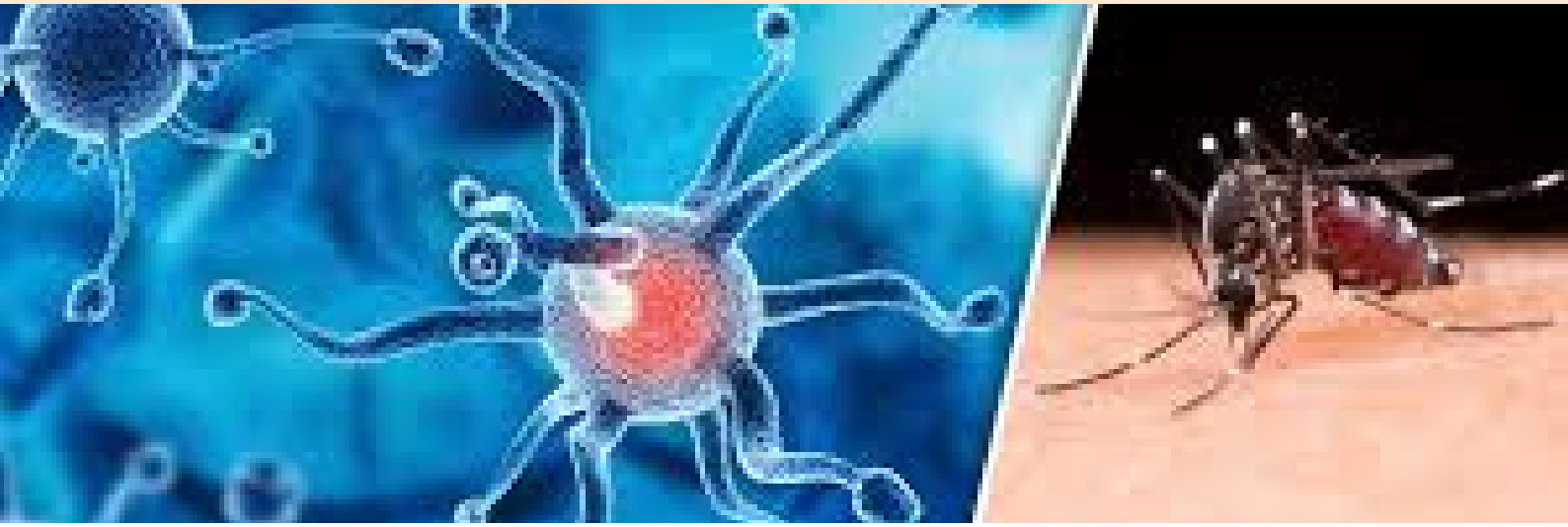
ON DELHI'S MOUNTING WASTE CRISIS

- **Delhi generates approximately 13,000 tonnes of waste daily, totaling around 42 lakh tonnes annually, with each person contributing about 0.6 kg/day.**
- **The Municipal Corporation of Delhi faces challenges due to the lack of waste segregation at its source, observed in many households and commercial establishments.**
- **To enhance solid waste management, Delhi's system should incorporate decentralised solutions for both wet and dry waste, along with establishing large-scale processing facilities for scientifically sound waste management.**



DO NO HARM: CONSERVATIVE, NON-SURGICAL APPROACHES ADVISED OVER HYSTERECTOMY

- Removing the uterus, called a hysterectomy, is a common surgery for women worldwide. While it's a major procedure, new technologies now make it possible to do it with less invasive methods.
- Hysterectomy has several side effects. These can include early menopause, higher risk of heart disease, urinary problems, weight gain, hormonal issues, and loss of sexual desire. Lower estrogen levels can also lead to bone density loss, hot flashes, weakness, depression, and reduced cognitive function.
- A survey found that 3.3% of women aged 15-49 had a hysterectomy. Half of these surgeries were done before the women turned 35. On average, 17 out of 1,000 married women in this age group have had the surgery.



KERALA SOUNDS WARNING ON WEST NILE VIRUS; NEIGHBOURING STATES ON GUARD

- Kerala is experiencing an early outbreak of West Nile Fever (WNF) this year, with 20 suspected cases, 10 confirmed cases, and 2 suspected deaths reported as of May 7.
- Only 1 in 150 people infected with the WN virus develop severe symptoms, such as encephalitis or meningitis. Older adults and immunocompromised individuals are at higher risk. The virus is spread by Culex mosquitoes, commonly found in stagnant water.
- The WN virus has been reported in Kerala annually since 2011, with cases now emerging in nearly all districts. Public health experts emphasise the need for improved surveillance and diagnostic systems to track and manage the virus effectively.



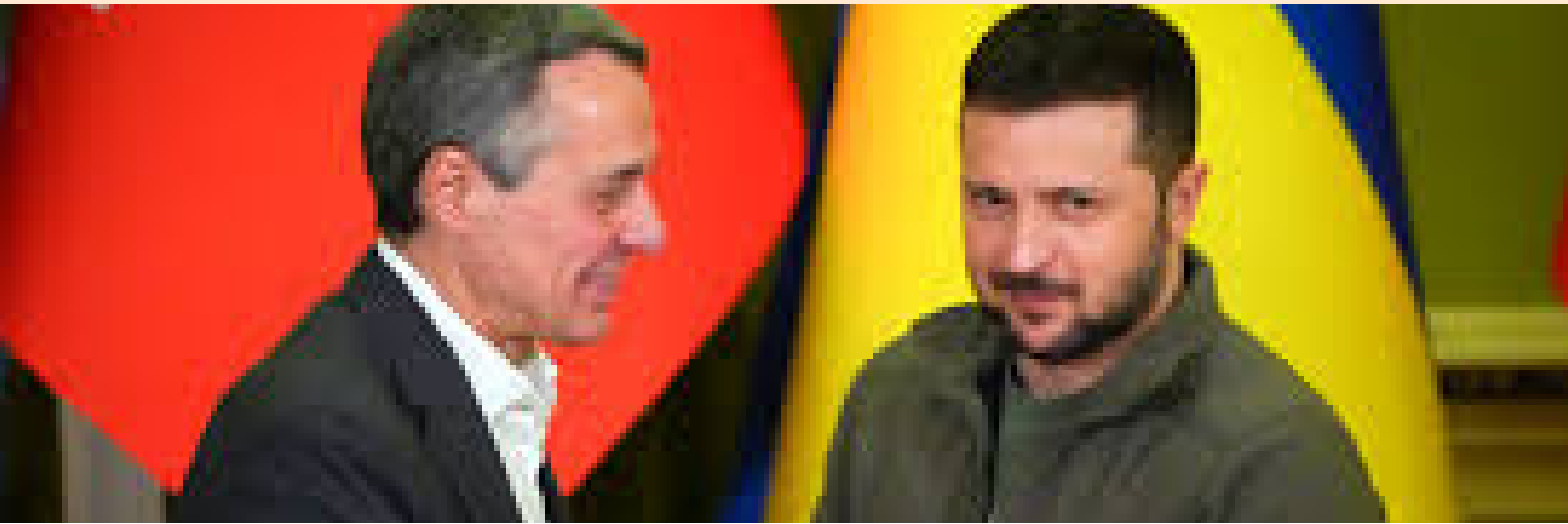
THE USE OF AI IN DRUG DEVELOPMENT

- The process of developing a drug begins with identifying and validating a target, which is a biological molecule (usually a gene or a protein) that the drug binds to in order to work.
- AI has the potential to revolutionise target discovery and our understanding of drug- target interactions by drastically reducing the time required, increasing the accuracy of interaction predictions, and saving money.
- The development of two AI-based prediction tools, AlphaFold and RoseTTAFold, created by researchers at DeepMind (a Google company) and the University of Washington, U.S., respectively, has provided a major scientific breakthrough in the field of computational drug development.



INDIA SHOULD NOT TAILOR ITS TIES WITH IRAN TO U.S. FOREIGN POLICY CHANGES

- India has signed a 10-year agreement with Iran to develop and operate the Chabahar port, investing \$120 million and offering a \$250 million credit facility, despite the risk of U.S. sanctions.
- The Chabahar port is crucial for India's connectivity plans, providing an alternative route to Afghanistan and Central Asia by bypassing Pakistan, and linking to the International North-South Transport Corridor (NSTC) for better trade with Europe.
- Despite U.S. hostility towards Iran and changing regional interests, India should remain committed to the Chabahar port project to enhance its geopolitical influence and trade connectivity in Central Asia.



IMPORTANT FOR INDIA TO ATTEND PEACE MEET AND HELP CONVEY MESSAGE TO RUSSIA: SWISS OFFICIAL

- India hasn't decided if it will attend the Ukraine Peace Conference in Switzerland, despite Swiss efforts to get it to participate. The conference aims to set up future peace talks between Russia and Ukraine.
- Swiss Foreign Secretary Alexandre Fasel highlighted India's key role, along with other BRICS members (except Russia), in communicating with Moscow and contributing to peace efforts. India has previously mediated in Black Sea Grain Initiative and nuclear threat talks.
- Switzerland considers itself a neutral host, despite sanctioning Russia. The conference will discuss navigation freedom, food security, nuclear safety, and humanitarian issues, which interest India. India's participation decision will come after other countries confirm attendance.



CHINA-RUSSIA PARTNERSHIP IS NOT DIRECTED AGAINST ANYONE

- Russian President Vladimir Putin concluded a two-day visit to China, emphasising strong strategic ties and a personal relationship with Chinese leader Xi Jinping, showcasing their partnership as an alternative to U.S. global influence.
- Putin highlighted the growth in bilateral trade and appreciated the substantive talks with Xi, spending an entire day with Chinese officials in Beijing. He noted that the China-Russia partnership aims to improve the development and well-being of both nations.
- While asserting that the partnership is not directed against anyone, Putin subtly rebuked the U.S., highlighting the emergence of a multipolar world and criticising those trying to maintain a monopoly on global decision-making.