



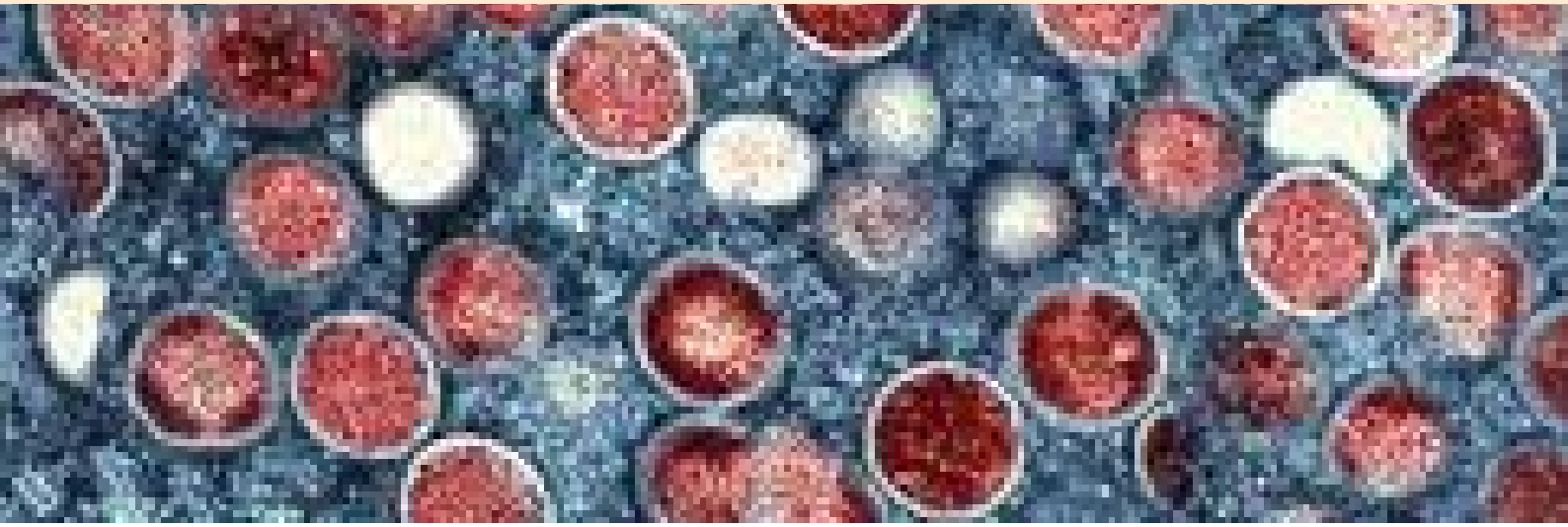
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C.A. SHORTS

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THE MPOX VIRUS USES A 'GENOMIC ACCORDION' TO EVOLVE AND INFECT HUMANS

THE GIST

Mpox was in the headlines after a rapidly expanding global outbreak in 2022-2023. The virus was previously called 'monkeypox' after a spillover event in a research facility involving monkeys in 1958

Researchers sequenced the genome of the mpox virus implicated in the 2022 outbreak. Mpox are DNA viruses. The mpox genome has about 197 kilobases: the core genes plus two sections about 6.4 kb long, one at each end of the genome

These sections of the virus genome were found to strongly influence human-to-human transmissibility. These were eventually found to be the virus's genomic accordions



MUIZZU'S PARTY MARKS BIG WIN IN MALDIVES PARLIAMENTARY POLLS

The ruling People's National Congress (PNC) of the Maldives secured a big win in the parliamentary elections on Sunday, giving President Mohamed Muizzu significant control over the legislature, six months after he rose to the country's top office. The leader, who wanted Indian military out of the island nation, has pledged to elevate strategic ties with China.

The poll outcome effectively reconfigures the Maldivian parliament — earlier controlled by the Opposition Maldivian Democratic Party (MDP) — in President Muizzu's favour.

Following his persistent demand, New Delhi agreed to replace its military personnel with civilians before May 10. Further, Mr. Muizzu has pledged to elevate strategic ties with China, during his state visit earlier this year.

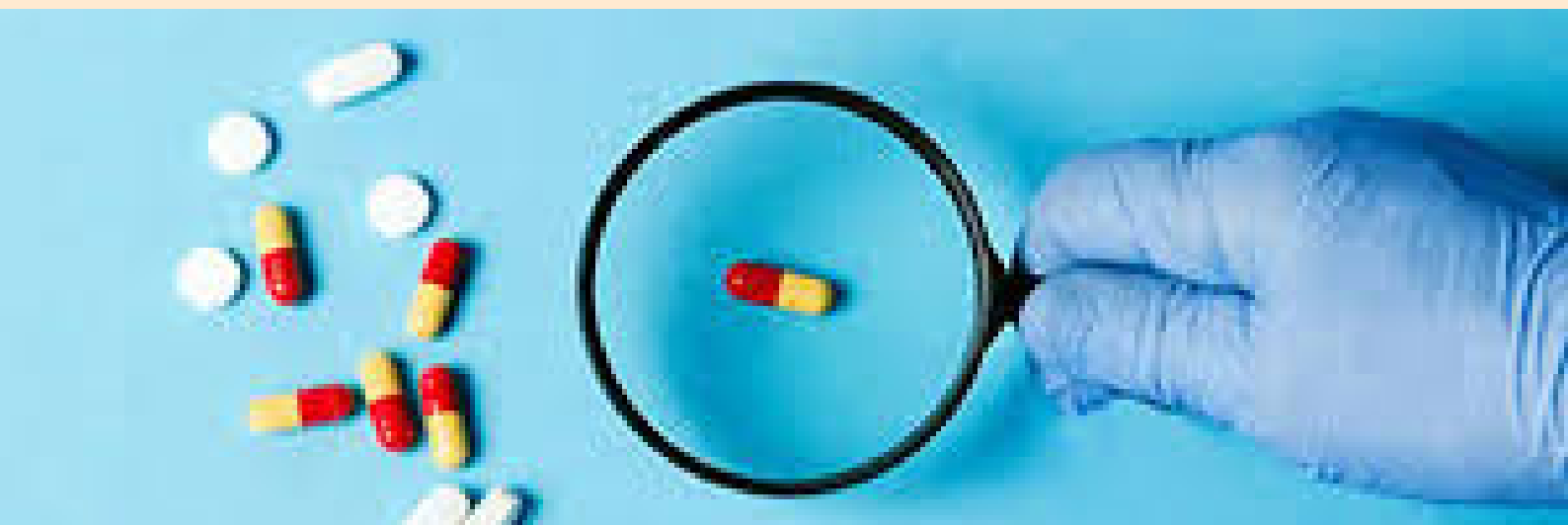


RUSSIA FLAGS CONCERN OVER QUALITY OF RICE IMPORTS FROM PAK

Russia has warned Pakistan that it would ban rice imports again if Moscow's phytosanitary concerns are not addressed in future consignments after a quarantine organism was detected in the rice consignment.

The warning came after Russia's Federal Service for Veterinary and Phytosanitary Surveillance (FSVPS) issued a notification regarding violations of international and Russian phytosanitary requirements over a shipment of rice imported from Pakistan.

Dated April 2, the notification highlights the presence of a quarantine organism, "Megaselis scalaris (Loew)," in the rice consignment. The Russian authorities have written to the Pakistan embassy to prevent such violations and ensure all Pakistani rice exporters follow phytosanitary standards to ensure the safety of agricultural products.



THE TOOLS HELPING SCIENTISTS UP THE RATE AT WHICH THEY FIND NEW DRUGS

As advances in drug-target discovery pull away from drug development, the spotlight on tools, and expertise required for the latter – including molecular docking simulations, chemical libraries, structural and computational biologists, institute-industry collaboration – has grown harsher

Drug discovery faces significant challenges despite advancements in identifying new targets, necessitating tools like molecular docking simulations and chemical libraries.

Researchers at CSIR-Centre for Cellular and Molecular Biology, Hyderabad, identified potential antimalarial drug targets by studying bacterial cell-wall expansion in *E. coli* and protein degradation in *P. falciparum*.

The complexity of drug discovery involves finding inhibitors that block target functions and determining protein structures, especially challenging for large molecules like those studied in malaria parasites.

Computer simulations and AI play crucial roles in predicting drug structures, aiding in the selection and modification of potential molecules.

Collaboration among infectious disease biologists, structural biologists, computational biologists, chemists, and research institutions is essential for accelerating drug discovery, alongside increased funding and involvement of startups and industries.





WHAT ARE RULES AROUND STAR CAMPAIGNERS?

What does the Representation of the People Act, 1951 state about the expenditure incurred by ‘leaders of a political party’? What was the advisory issued by the Election Commission to star campaigners? What did the Supreme Court rule with respect to the matter in 2020?

THE GIST

Section 77 of the Representation of the People Act, 1951 (RP Act) provides for law relating to expenditure incurred by ‘leaders of a political party’. These ‘leaders of a political party’ are popularly known as ‘star campaigners’.

The EC has issued an advisory to all political parties to maintain decorum and restraint in campaigning and raise the level of election to ‘issue’ based debate. It also put star campaigners on notice in case of any violations

In January 2020, during a campaign for the Delhi Assembly election, the EC had ordered removal of Anurag Thakur and Parvesh Verma of BJP from the list of star campaigners for making inflammatory utterances that violated the Model Code of Conduct.



EU LAUNCHES PROBE, THREATENS TO SUSPEND TIKTOK LITE APP'S 'ADDICTIVE' REWARDS

The European Union has launched an investigation into TikTok's Lite app due to concerns about its addictive features, particularly among minors. TikTok Lite, which rewards users for watching and liking videos, is under scrutiny for potential mental health risks. Despite TikTok's failure to provide a risk assessment by the deadline, the company has until Wednesday to defend itself. The European Commission warns of potential fines and penalties, including fines of up to 1% of TikTok's total annual income. However, TikTok maintains that its rewards program is not accessible to minors and continues discussions with the commission.

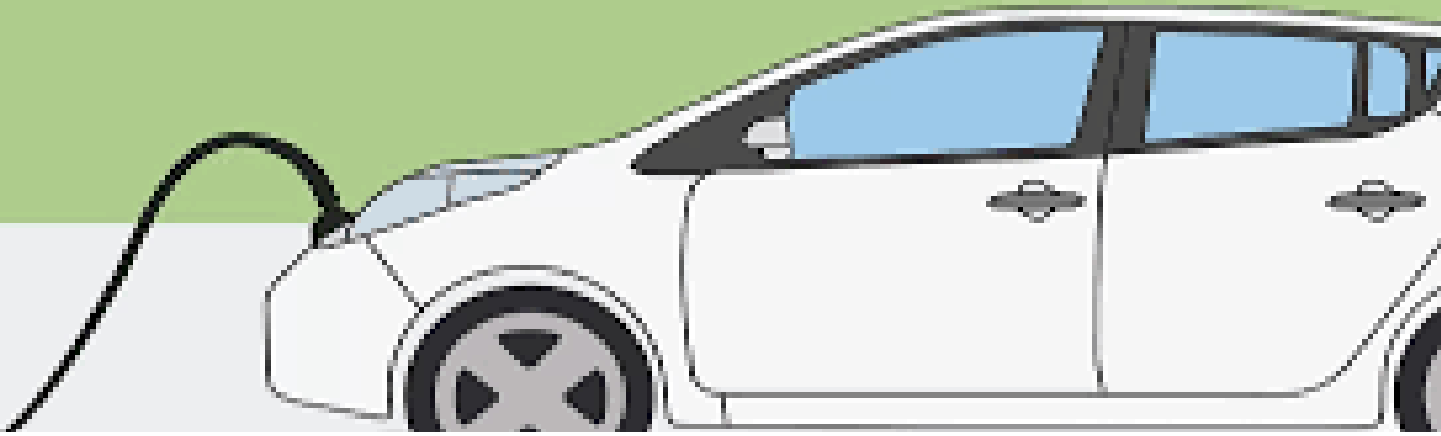


HP PARTNERS INDO-MIM FOR 3D PRINTED METAL PARTS

HP Inc collaborates with Indo-MIM to meet increasing demand for 3D printed high precision metal parts across various industries globally.

The partnership aims to utilize 3D printing technology to manufacture metal parts without traditional tooling or fixturing setups, reducing production costs significantly.

Indo-MIM acquires three HP Metal Jet S100 printers to serve clients in India, West Asia, Asia-Pacific, and the U.S., emphasizing local manufacturing and global exports to enhance India's presence in the manufacturing sector.



HOW IS INDIA PLANNING TO BOOST EV PRODUCTION?

THE GIST

The Union government on March 15 approved a policy to promote India as a manufacturing hub for Electric Vehicles (EVs).

Tata Motors, as reported by Reuters in December 2023, had opposed the Tesla proposal. It argued that lowering duties would hit the domestic industry.

I.V. Rao, Distinguished Fellow at The Energy and Resources Institute (TERI), thinks that global players setting up shop in India must consider local circumstances, like the environment, roads, driving behaviour and usage conditions.

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'INFLATION VULNERABLE TO RISING HEAT'

In the near term, extremeweather events and prolonged geopolitical tensions may pose a risk to price stability, officials led by deputy governor Michael D. Patra write in an article on the 'State of the Economy' in April edition of the RBI Bulletin.

Reserve Bank of India officials, in the April edition of the RBI Bulletin, warn about the potential risk of extreme weather events on inflation, citing concerns over volatile crude oil prices and geopolitical tensions.

They highlight the World Meteorological Organisation's red alert on global warming, indicating a high likelihood of 2024 becoming the hottest year on record, with increasing extreme weather events posing urgent challenges. Despite the grim outlook, there's optimism as chances of La Nina, leading to heavy rainfall in India, are rising, according to Australia's Bureau of Meteorology and the U.S. National Oceanic and Atmospheric Administration, potentially aiding growth impulses amidst inflation dynamics favoring India's growth ambitions.

Climate risk

RBI officials flag risks to inflation from climate change, cite World Meteorological Organisation's red alert on global warming



- Officials cite WMO's use of IMD data and its call for a 'collective response'

- Point to the onset of La Nina, waning of El Nino as providing hope on rains

- RBI officials underline that the softening of inflation provides growth impulses





NABARD UNVEILS STRATEGY TO MOBILISE GREEN FINANCING

NABARD unveils 'Climate Strategy 2030' on Earth Day to address India's need for green financing, citing a significant shortfall in current green finance inflows compared to the required \$170 billion annually.

The strategy focuses on four key pillars, including accelerating green lending across sectors, playing a broader market-making role, internal green transformation, and strategic resource mobilization.

Leading real estate developer DLF pledges to sustainable development, implementing initiatives like zero-discharge water systems and sewage treatment plants, recycling millions of liters of water daily, and prioritizing greenery preservation, earning recognition in the Dow Jones Sustainability Index for three consecutive years.



NO FORESTS OR ANIMALS WILL BE LEFT IF HUMAN-WILDLIFE CONFLICTS CONTINUE: SC

The Supreme Court warns that human-wildlife conflicts pose a serious threat to forests and wildlife, stressing the need for a balanced approach that respects the rights of both animals and humans.

During a case concerning the demarcation of boundaries for Assam's Pobitora wildlife sanctuary, the court emphasizes the importance of addressing the rights of villagers, especially those from marginalized communities, who reside within the sanctuary.

The Assam government has formed a special committee chaired by the Chief Secretary (Forests) to review sanctuary boundaries, aiming to protect wildlife and human inhabitants. The committee includes wildlife officials to ensure wildlife concerns are adequately represented.

The court will scrutinize the state's proposals for adjusting sanctuary boundaries, which include accommodating settlers and addressing the increasing rhinoceros population, emphasizing the need to consider both environmental and human aspects of the issue.



POWERFUL ANTIDOTE TO TOXINS IN COBRA, KRAIT VENOMS DEVELOPED

The current process of producing antivenom is outdated, involving injecting large animals with snake venom and collecting the animals' blood for the antibodies it produces. A group of scientists sidestepped animals and used human antibodies instead, eventually finding the potent 95Mat5

Snakebites result in over 100,000 deaths annually, disproportionately affecting low and middle-income countries like India and Africa, where access to proper healthcare is limited.

Traditional antivenom production methods involve injecting large animals like horses with snake venom, leading to variability and potential allergic reactions in humans.

Scientists have developed a new approach using human antibodies instead of animal-derived antivenoms, targeting a specific class of toxins found in various snake venoms.

The newly developed antibody, 95Mat5, shows promise in neutralizing toxins from different snake species, offering a potential universal solution for snakebite treatment.



ON THE NATIONAL CLEAN AIR PROGRAMME

THE GIST

Most cities proactively submitted their CAAPs yet their implementation has been inconsistent. On average, only 60% of the allocated funds have been used thus far, according to the Ministry.

Implementation delays hinder NCAP's success, particularly delays in approvals from the competent authorities.

Beyond the need for data and models, swift implementation on the ground is essential. For this, implementation agencies should seek to reduce bureaucratic red tape by utilising shared, standardised technical evaluations.

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RBI'S DRAFT RULES FOR PAYMENT AGGREGATORS

THE GIST

The Reserve Bank of India is proposing new regulations for offline payment aggregators (PAs) to enhance safety.

The proposed norms aim to extend existing guidelines to cover offline transactions and strengthen Know Your Customer requirements for merchants.

The draft regulations instruct that no entity, other than the card issuer and/or card network, can store data for proximity/face-to-face payments from August 1, 2025.

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kotak
Kotak Mahindra Bank

KOTAK PLUNGES ON RBI ORDER; CEO REASSURES

Kotak Mahindra Bank's shares plunged on Thursday, a day after the RBI barred India's fourth-biggest private bank by assets from taking on new clients digitally and issuing credit cards, a blow to a lender that relies heavily on online banking.

The Reserve Bank took action after Kotak's tech system failed to manage a surge in transactions when large numbers of customers signed up through its digital banking platform Kotak811, causing sporadic outages, said two Kotak officials and two others with knowledge of the matter.

Kotak fell 10.9% to ₹1,643 on the BSE after sliding 13% intraday to the lowest since November 2020. Jefferies cut its price target for the stock by 4%.

Kotak CEO Ashok Vaswani sought to allay employee concerns, writing in an email, seen by Reuters, "we will emerge stronger" and the issue would be resolved "in short order"



BANGLADESH REPATRIATES MYANMAR TROOPS WHO FLED BORDER CLASHES

Bangladesh repatriated approximately 300 Myanmar troops and civil servants who had crossed the border to escape attacks near the frontier.

Conflict in Myanmar has persisted since the military coup in 2021, with clashes involving the Arakan Army and junta forces prompting troops to seek refuge in neighboring Bangladesh.

The repatriation involved troops, police, and civil servants departing from Bangladesh's river port of Naniarchar, underlining the country's efforts to manage the influx of fleeing personnel.

Concerns over the conflict's escalation have led Bangladesh to heighten border security, while neighboring India also deported Myanmar nationals fleeing similar violence near their shared border.

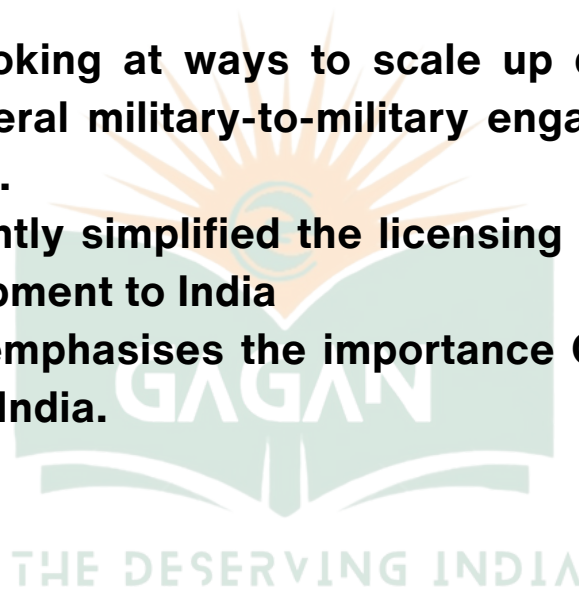


GERMANY LETS INDIA BUY SMALL ARMS FROM ITS FIRMS

Germany has granted licence to India to purchase small arms from German companies.

Germany is also looking at ways to scale up defence cooperation with India, with several military-to-military engagements lined up in the next few months.

It has also significantly simplified the licensing requirements for the sale of military equipment to India stressing that this emphasises the importance Germany attaches to its relationship with India.





STUDY SAYS SOLAR RADIATION AVAILABLE FOR PRODUCING POWER FALLING IN INDIA

The quantity of solar radiation available that can be economically converted by solar panels to electricity is showing an “alarming decreasing trend” in several locations in India, says an analysis by scientists at the India Meteorological Department (IMD)

Aerosols absorb the sunlight and deflect it away from the ground and they can also precipitate the formation of dense clouds that again block sunlight. The efficiency of solar panels are significantly influenced by the amount of sunlight falling on them.

India’s largest solar parks are located in the north-west of the country, particularly Gujarat and Rajasthan, and cities in both these States are also showing a decrease in SPV potential. As of today, India’s installed solar power capacity is about 81 GW (1 GW is 1,000 megawatt), or roughly 17% of the total installed electricity.

India has ambitious plans of sourcing about 500 GW, nearly half its requirement of electricity, from non-fossil fuel sources by 2030



SRI LANKA LEASES ITS WHITE ELEPHANT AIRPORT

Sri Lanka said on Friday it had leased Mattala Rajapaksa International Airport, a white elephant international airport built with Chinese loans, to a foreign joint venture, as the island nation's bankrupt government seeks to offload loss-making assets.

The small airport near a wildlife sanctuary on the southern coast opened in 2013 but was immediately plagued by problems, and has been a running sore on state coffers since. Government spokesperson Bandula Gunawardana told presspersons that Cabinet had awarded a 30-year lease to a joint venture between India's Shaurya Aeronautics and Russia's Airports of Regions Management Company.