

NEWSPAPER HIGHLIGHT

More than 1.2 million people died in 2019 of infections from antibiotic-resistant bacteria, according to a global study of 204 countries. The burden was highest in sub-Saharan Africa and South Asia, with children under 5 the most at risk. Another five million people died in 2019 from diseases in which antibiotic-resistant bacteria had a role.

The results are from the first open-air study of genetically engineered mosquitoes in the United States. The bioengineered male *Aedes aegypti* mosquitoes hatched, spread and mated with the wild population. All the females that inherited a deadly gene from a bioengineered dad died before they reached adulthood.

Variations in Earth's orbit might help to determine the evolution of marine phytoplankton. Researchers analysed fossils of coccolithophores that lived in the Pleistocene period alongside deviations in the circularity of Earth's annual orbit. The diversity of plankton species increased during periods of high eccentricity of Earth's orbit.

In the burning of wood, carbon and hydrogen are oxidised in a heat-generating reaction, the end products of which are carbon dioxide and water. The former is a greenhouse gas, contributing to global warming. Burning of hydrogen gives us only water and heat. A smarter way to harness the energy in hydrogen would be to generate electricity with it. This is achieved in a proton exchange membrane fuel cell where, in the presence of a metal catalyst, a hydrogen molecule is split into protons and electrons, with the electrons providing the current output.

Scientists have developed a new technique for rejuvenating skin cells. This technique has allowed researchers to rewind the cellular biological clock by around 30 years according to molecular measures. The partially rejuvenated cells showed signs of behaving more like youthful cells in experiments simulating a skin wound (eLife). This research, although in early stages, could eventually have implications for regenerative medicine. The new method overcomes the problem of entirely erasing cell identity by halting reprogramming part of the way through the process. The new

ACCOUNT AGGREGATOR

1. Around 2.5 lakh accounts were linked to Account Aggregator (AA) System, and nine banks go live on the AA System. Account aggregation or financial data aggregation is a process whereby data from several or all of an individual's or household's financial accounts are collected in one place. Account aggregating allows customers to aggregate data on all their financial assets within a single financial institution.

2. In terms of online banking, the user may be provided with a service that curates a home page on which account holders can see information from all of their checking, savings, CDs, and brokerage accounts. The data is then stored in the account aggregation software, allowing access to balance information and transaction records. Account Aggregators (AAs) are personal finance software, apps, and online services that provide account aggregation services.

3. They allow individuals to share and access data from one financial institution to another in the consolidated networks of AAs. These aggregators have received approval to access and share data by the Reserve Bank of India (RBI). Structured as NBFCs, account aggregators would disrupt the borrowing system from institutionalized financial institutions that make money on having custody of the borrower's financial data. With the launch of this mechanism to make credit availability easy, the big business of packaging, analyzing, and selling financial information would be disrupted, just as UPI disrupted the e-wallet business.

4. **Benefits - The borrower can avail services such as access to loans and access to money management if their banks join the AA network of data sharing.** Account aggregators as facilitators of small credit.

DAMASCUS GATE

1. Since the start of Ramadan 2022, Israeli forces have assaulted and arrested Palestinian residents in the Damascus Gate area. The Damascus Gate, or Bab al-Amud ('gate of the pillar'), has been a flashpoint between Palestinians and Israeli forces in occupied East Jerusalem for a long time. It is an Ottoman-era plaza, which has been in its current form since 1537.

2. It is the largest of the 7 open gates to the wall of the Jerusalem's Old City, which lies in East Jerusalem. [The wall was built during the times of Sultan Suleiman the Magnificent from the 16th century.] A social, cultural, and political Palestinian landmark, Damascus Gate is one of the few open spaces available for residents to gather.

3. **The Damascus Gate has become a national symbol for Jerusalemites and for Palestinians more generally - a symbol that expresses the national identity in the city.**

History - Israel occupied the Palestinian-majority East Jerusalem during the 1967 war and annexed it in breach of international law.

4. Israel declares all of Jerusalem its "complete and united" capital. But, the majority of countries around the world does not recognise Israeli sovereignty in East Jerusalem, consider it occupied territory.

INDIA POST PAYMENTS BANK

1. India Post Payments Bank (IPPB) has been established in 2018. It comes under the Department of Posts (DoP), Ministry of Communication with 100% equity owned by Government of India.

2. The bank has been set up with the vision to build the most accessible, affordable and trusted bank for the common man in India. The fundamental mandate of IPPB is to remove barriers for the unbanked and under-banked and reach the last mile leveraging a network comprising 160,000 post offices (145,000 in rural areas).

3. IPPB's reach is built on the key pillars of India Stack - enabling Paperless, Cashless and Presence-less banking in a simple and secure manner, through a CBS-integrated smart phone and

method, called 'maturation phase transient reprogramming', exposes cells to Yamanaka factors for just 13 days.

It's not only humans who appear eccentric; stars can have their own ideas of eccentricities, too. One such case is that of blue stragglers, a particular type of star seen in clusters and also, sometimes, alone. Scientists try to understand their eccentricity and, after studying them for long years, Indian Institute of Astrophysics, Bengaluru, researchers have found support for one way to understand their aberrant behaviour. For this, the researchers also made use of the observations by the UVIT instrument (Ultra Violet Imaging Telescope) of ASTROSAT, India's first science observatory in space.

Russia said it plans to deploy its newly tested Sarmat intercontinental ballistic missiles, capable of mounting nuclear strikes against the United States, by autumn.

Ngozi Okonjo-Iweala, Director-General, World Trade Organization (WTO), is looking into resolving WTO rules that are making it difficult for India to export foodgrains to meet shortages in other countries, caused by the Russia-Ukraine war, according to Finance Minister Nirmala Sitharaman. The difficulties, the Minister said, included WTO rules around the export of food by a country that had also procured food on a Minimum Support Price basis. "Countries like India, which can probably supply [foodgrains] are facing difficulties with WTO," Ms. Sitharaman told on Friday, the final full day of her visit to Washington DC for the World Bank/International Monetary Fund (IMF) Spring Meetings.

Finance Minister Nirmala Sitharaman met Boeing Defense CEO Ted Colbert and discussed avenues for investments and growth in maintenance, repair, and operations (MRO) and aircraft leasing in India.

India has agreed to extend an additional \$500 million credit line to help Sri Lanka import fuel, Finance Minister Ali Sabry said, amid delays in chalking out a bailout package with the IMF to mitigate the dire financial crisis facing the island nation.

The Government of Argentina will launch a campaign in India on Sunday demanding negotiation with the United Kingdom to settle the territorial dispute over the Islas

biometric device. IPPB's motto - Every customer is important; every transaction is significant, and every deposit is valuable.

WHAKAARI WHITE ISLAND

1. A new research detects pre-eruption warning signals at Whakaari White Island and other active volcanoes. Whakaari/White Island is a volcanic island located in the Bay of Plenty 50 km offshore of North Island, New Zealand.

2. It has been New Zealand's most active volcano since 1976. This stratovolcano (composite cone volcano) formed out of the convergent plate boundary between the Pacific and Australian plates. It is made of layers of andesite lava flows and pyroclastic deposits (tephra).

3. It is an active volcano at the top of a submarine vent at the northern end of the Taupō-Rotorua Volcanic Zone.

4. The full Māori name is Te Puia o Whakaari - The Dramatic Volcano. Until it was shattered in 2019 by high-pressure steam and gas explosions, the Whakaari White Island was a tourist magnet, with its alien landscape and spectacular hydrothermal features.

LEGAL ENTITY IDENTIFIER

1. The Legal Entity Identifier (LEI) is a 20-digit alpha-numeric code used to uniquely identify parties to financial transactions globally. LEI code is based on the ISO 17442 standard developed by the International Organization for Standardization (ISO). It connects to key reference information that enables clear and unique identification of legal entities participating in financial transactions.

2. Each LEI contains information about an entity's ownership structure and thus answers the questions of 'who is who' and 'who owns whom'. LEI was conceived as a key measure to improve the quality and accuracy of financial data systems for better risk management post the global financial crisis. The publicly available LEI data pool can be regarded as a global directory that greatly enhances transparency in the global marketplace.

3. Recently, the Reserve Bank of India (RBI) has extended the guidelines on LEI to large borrowers of Non-Banking Financial Companies (NBFCs) and Primary (Urban) Co-operative Banks (UCBs). It also advised that non-individual borrowers enjoying aggregate exposure of ₹5 crore and above from banks and financial institutions (FIs) shall be required to obtain LEI codes as per the given timeline.

4. As per the timeline, the borrowers having exposure of ₹25 crore are required to obtain LEI by April 30, 2023. Borrowers who fail to obtain LEI codes from an authorized Local Operating Unit (LOU) shall not be sanctioned any new exposure nor shall they be granted renewal/enhancement of any existing exposure.

5. However, departments/agencies of Central and State Governments (not PSUs registered under Companies Act or established as Corporation under the relevant statute) shall be exempted from this provision.

INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

1. Rafael Grossi, Director-General of the International Atomic Energy Agency (IAEA), will head an assistance mission to the now-defunct Chernobyl nuclear power plant in Ukraine aimed at stepping up efforts to help prevent the danger of a nuclear accident in the wake of the ongoing Moscow-Kiev war.

2. Background: Since the withdrawal of the Russian military from the Chernobyl plant, Ukraine has taken significant steps for the safe and secure operation of the site of world's worst nuclear accident, where various radioactive waste management facilities are now located. But the general situation in the area around the site known as the Exclusion Zone remains difficult, in part due to damaged bridges and de-mining activities.

3. About IAEA: Set up as the world's "Atoms for Peace" organization in 1957 within the United Nations family. Reports to both the United Nations General Assembly and Security Council. Headquarters in Vienna, Austria.

4. Functions: Works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies. Seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.

5. Programs: Program of Action for Cancer Therapy (PACT). Human Health Program. Water Availability Enhancement Project. International Project on Innovative Nuclear Reactors and Fuel

Malvinas that are known as the Falkland Islands in the United Kingdom. The initiative, which comes two days after the visit of British Prime Minister Boris Johnson, coincides with the 40th anniversary of the conflict between the U.K. and Argentina, which ended with the reestablishment of British control over the archipelago.

Cycles, 2000.