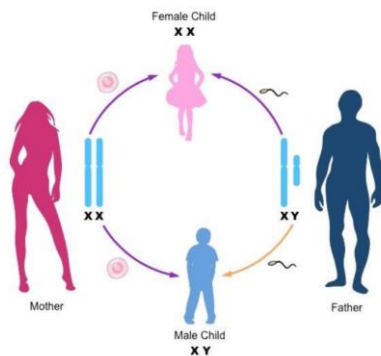


### Decline of the Y chromosome: Are men to go extinct?



#### Key Points:

- ❖ The Y chromosome, which plays a crucial role in determining male sex in humans, is shrinking. Over the past 300 million years, it has lost 1,393 of its original 1,438 genes, with only 45 genes remaining. According to Jennifer A.
- ❖ Marshall Graves, a distinguished Professor of Genetics and Vice Chancellor's Fellow, the Y chromosome is "running out of time." If this trend continues, the Y chromosome could disappear entirely within 11 million years, raising fears about the future of male offspring and human survival.



#### What is the role of the Y Chromosome

- ❖ The Y chromosome, although smaller and containing fewer genes than the X chromosome, is essential for male development.
- ❖ It carries the SRY gene, which triggers the development of male reproductive tissues like the testes. Males typically have one X and one Y chromosome (XY), while females have two X chromosomes (XX).
- ❖ Despite its size, the Y chromosome's function is critical in determining male characteristics in embryos.

#### What does it mean for human beings?

The spiny rat's ability to survive and reproduce without a Y chromosome suggests that humans could potentially evolve a new sex-determining gene if the Y chromosome were to disappear.

#### The Shrinking Y Chromosome: A Looming Extinction?

- ❖ The Y chromosome's decline has been a topic of scientific debate for years. The SRY gene, which was discovered in 1990, is known to trigger the SOX9 gene, a key player in male determination across all vertebrates.
- ❖ SOX9 is not located on the sex chromosomes, but it is activated by SRY, making it crucial for male development.
- ❖ However, the human Y chromosome has lost around 900 genes over the

last 166 million years, leaving only 55 active genes remaining.

- ❖ This loss has led to concerns that the Y chromosome could disappear within the next few million years.
- ❖ **A Glimmer of Hope: The Spiny Rat's Adaptation**
- ❖ As concerns about the human Y chromosome's fate grow, a new study published in the Proceedings of the National Academy of Sciences has provided a beacon of hope.
- ❖ Researchers have discovered that the spiny rat, a rodent species native to Japan, has evolved a new male-determining gene after losing its Y chromosome entirely.
- ❖ This adaptation could offer insights into how humans might survive the potential disappearance of their own Y chromosome.

### National Sports Day



#### Key Points:

- ❖ Every year since 2012, the country has observed 29 August as National Sports Day. This day pays tribute to one of the greatest hockey players in the world, Major Dhyan Chand, also known as a 'Wizard of Hockey'.

- ❖ 29 August is the birth anniversary of Major Dhyan Chand, whose wizardry with a hockey stick was instrumental in securing India a gold medal in the 1928 Amsterdam, 1932 Los Angeles, and 1936 Berlin Summer Olympics.
- ❖ **Background to the National Sports Day**
- ❖ The government of India started National Sports Day in 2012 to promote sports culture in the country and honour sports persons' achievements.
- ❖ On this day, the President of India gives sports-related awards, and the government uses this day to launch various sports-related schemes, like Khelo India, which was announced by Prime Minister Narendra Modi in 2018.
- ❖ **Who was Major Dhyan Chand?**



- ❖ Dhyan Chand was born as Dhyan Singh on August 29, 1905, in Prayagraj (earlier Allahabad) in Uttar Pradesh.
- ❖ He joined the British India Army and took up Hockey while serving in the Army. He used to practice hockey at

night under the moonlight, so he was nicknamed Dhyan Chand. The moon is called Chand in Hindi.

- ❖ He represented India in the 1928 Amsterdam Summer Olympics, where India won a gold medal.
- ❖ From 1928 until his retirement in 1948, he ruled the world of hockey, earning him the nicknames 'Hockey Wizard' and 'The Magician'.
- ❖ He represented India in 185 matches and scored over 400 goals during this period. Dhyan Chand retired as a Major in the Punjab Regiment of the Indian Army in 1956. At the age of 74 years, he passed away in 1979.
- ❖ **Honours and Award for Major Dhyan Chand**
- ❖ Major Dhyan Chand was bestowed India's third highest civilian award - Padma Bhushan in 1956.
- ❖ He is the only hockey player in whose honour the government has issued a commemorative postage stamp.
- ❖ The government of India instituted the Major Dhyan Chand Award for lifetime achievements in sports in 2002. It is given to individuals for their contribution to the promotion of sports.
- ❖ The Major Dhyan Chand Khel Ratna Award, earlier known as the Rajiv Gandhi Khel Ratna Award, was renamed in 2021 to honour Major Dhyan Chand.

- ❖ It is the highest honour given by the government of India in the field of sports. The Khel Ratna is awarded for outstanding performances in sports spanning over four years.

### CS Setty takes over as the 27th Chairman of SBI

#### 'Will strive to make SBI most valued financial institution'



#### Key Points:

- ❖ Challa Sreenivasulu Setty, or CS Setty, became the 27th Chairman of India's largest commercial bank, State Bank of India (SBI), on 28 August 2024.
- ❖ He succeeded Dinesh Khara, who retired after the closing of banking hours on 28 August 2024. John Matthai was the first chairman of SBI to be appointed in 1955 after the nationalisation of the Imperial Bank of India in 1955 under the State Bank of India Act 1955.
- ❖ The Imperial Bank of India was also renamed the State Bank of India. Dinesh Khara was appointed chairman of the SBI in October 2020 during the COVID-19 pandemic for three years, which the government extended by one year.

- ❖ Khara retired after attaining the maximum age limit for a chairman of the SBI, which is 63. During Khara's tenure, SBI has become one of the best-performing banks in India.

### Appointment of SBI Chairman

- ❖ According to the provisions of the State Bank of India Act 1955, the Chairman of SBI is appointed by the government of India in consultation with the Reserve Bank of India (RBI).
- ❖ However, in reality, the Financial Services Institutions Bureau (FSIB) under the Union Ministry of Finance conducts interviews for the post of Chairman and recommends the names to the government of India.
- ❖ The Appointment Committee of the Cabinet, the highest decision-making body in this matter, normally approves the name recommended by the FSIB. However, the government is not bound to accept the FSIB's recommendations; it can reject them.

### Tenure of SBI Chairman

- ❖ According to the State Bank of India Act 1955, the chairman's tenure can be a maximum of five years.
- ❖ The government of India has also fixed 63 years as the chairman's retirement age. The government of India can specify the chairman's tenure. CS Setty has been appointed

for a term of three years, starting 28 August 2024.

### About State Bank of India

- ❖ The State Bank of India's origins can be traced to the establishment of the Bank of Calcutta in 1896, which was renamed the Bank of Bengal in 1806.
- ❖ The Bank of Bombay was set up in 1840, and the Bank of Madras in 1843. All these banks were merged in 1921 to create the Imperial Bank of India, which was formed in 1921.
- ❖ The State Bank of India Act 1955 was enacted, and the government of India nationalised the Imperial Bank of India. The act also transferred the bank's ownership from foreigners to the Reserve Bank of India (RBI), which later transferred its ownership to the government of India. As of date, the government of India holds a 57.6% share of SBI.

### Headquarters: Mumbai, Maharashtra

- ❖ Chairman: Challa Sreenivasulu Setty
- ❖ Tagline: Pure Banking Nothing Else

2nd Indo-Russian Commission meeting on Emergency Management in Moscow



**Key Points:**

- ❖ The 9th India-Brazil Joint Commission Meeting was held in New Delhi on 27 August 2024.
- ❖ Dr S Jaishankar, Minister for External Affairs, led the Indian delegation and the Brazilian delegation was led by Brazilian Foreign Minister Mauro Vieira.
- ❖ The Brazilian foreign minister was on an official visit to India from 25-28 August 2024.
- ❖ The South American country of Brazil will host the G20 Summit meeting this year, and India expressed full support to Brazil for the G20 summit meeting.
- ❖ Capital of Brazil: Brasilia
- ❖ Currency: Brazilian
- ❖ Real President : Luiz Inácio Lula da Silva

**2nd India-Chile Joint Commission Meeting**

**Key Points:**

- ❖ The 2nd India-Chile Joint Commission Meeting was held in New Delhi on 28 August 2024.
- ❖ The Indian side was led by External Affairs Minister Dr S. Jaishankar. Foreign Minister Alberto van Klaveren led the Chilean side.
- ❖ Chilean foreign minister Alberto van Klaveren visited India from 27 to 29

August 2024. He was accompanied by Chilean Agriculture Minister Esteban Valenzuela.

- ❖ Chile is the world's longest country from north to south, 4,270 km. It is in South America.
- ❖ Capital: Santiago
- ❖ Currency: Peso
- ❖ President : Gabriel Boric

**6th India-Indonesia Joint meeting on Counter-Terrorism 2024**



**Key Points:**

- ❖ Indonesia's capital, Jakarta, hosted the 6th meeting of the India-Indonesia Joint Working Group on Counter-Terrorism on 23 August 2024.
- ❖ The Indian side was led by the Joint Secretary (Counter-Terrorism) in the Ministry of External Affairs, K.D. Dewal.
- ❖ The Indonesian side was led by Andhika Chrisnayudhanto, Deputy for International Cooperation at the National Counter Terrorism Agency of Indonesia.
- ❖ The next 7th meeting of the India-Indonesia Joint Working Group on

Counter-Terrorism will be held in New Delhi.

- ❖ Indonesia is an archipelago in Southeast Asia with the world's largest Muslim population..
- ❖ Capital: Jakarta
- ❖ Currency: Rupiah
- ❖ President: Joko Widodo

**C-DAC Inaugurates Model EV Charging Station and Hardware Emulation Facility**



**Key Points:**

- ❖ The Secretary, Ministry of Electronics and Information Technology (MeitY), S. Krishnan has inaugurated the Model Indigenous Electric Vehicle Charging Station at C-DAC Thiruvananthapuram, Technopark Campus.
- ❖ This center will have various AC and DC fast chargers for vehicles ranging from 2W to Heavy vehicles and, Play a crucial role in catalyzing an ecosystem for the promotion of the charging infrastructure with indigenous EV chargers research,

development, commercialization, and manufacturing through industries.

**Spices board unveils comprehensive scheme to boost exports and enhance cardamom productivity**



**Key Points:**

- ❖ The Spices Board, under the Ministry of Commerce and Industry, has launched a new scheme titled 'Sustainability in Spice Sector through Progressive, Innovative and Collaborative Interventions for Export Development (SPICED).' Scheduled to roll out in the fiscal year 2025- 26, the scheme has been approved with a budget of ₹422.30 crore. Its primary objective is to enhance value addition, drive innovation, and promote sustainability in the spice sector.
- ❖ The SPICED scheme introduces several key components, including Mission Value Addition, Mission Clean and Safe Spices, the promotion of Geographical Indication (GI) spices, and support for entrepreneurship through Spice Incubation Centres.

- ❖ Post-harvest quality improvement is a significant aspect of the scheme, with programs like Mission Clean and Safe Spices promoting sustainable production, certification systems, and extension advisory services.
- ❖ These initiatives are designed to empower farmer groups, such as Farmer Producer Organizations (FPOs), Farmer Producer Companies (FPCs), and Self-Help Groups (SHGs), particularly in major spicegrowing regions.
- ❖ The focus will be on improving post-harvest practices, ensuring an exportable surplus of spices that meet global food safety and quality standards.

**Satish Kumar named new Chairman and CEO of Railway Board**



**Key Points:**

- ❖ Indian Railway Management Service (IRMS) officer Satish Kumar has been appointed as the chairman and chief executive officer (CEO) of the Railway Board.

- ❖ His appointment marks a historic moment as he becomes the first individual from the Scheduled Caste or Dalit community to be selected for this position.
- ❖ Kumar's tenure is slated to commence on September 1, when he will replace the incumbent chairperson and CEO of the board, Jaya Varma Sinha, who will be retiring on August 31.
- ❖ Kumar, a notable officer from the 1986 batch of the Indian Railway Service of Mechanical Engineers (IRSME), has made remarkable contributions to Indian Railways over a distinguished career spanning more than 34 years, as acknowledged by the Railway Board.

**Mother Teresa International Awards Celebrated in Dubai**



**Key Points:**

- ❖ The 24th International Mother Teresa Awards Ceremony took place at the Millennium Plaza Dubai, commemorating the 114th birth

anniversary of the revered humanitarian.

- ❖ This prestigious event, organized by the All-India Minority and Weaker Sections Council, was held outside India for only the second time, with both international ceremonies having taken place in Dubai.
- ❖ The awards, established after Mother Teresa's passing in 1997, recognized exceptional individuals who have made significant contributions in various fields including education, science, culture, sports, social work, medicine, industry, and politics in India.

**Iran appoints Fatemeh Mohajerani as First Female Government Spokesperson**



**Key Points:**

- ❖ In Iran, for the first time, a woman will be the government spokesperson. At the suggestion of Iranian President Masoud Pezeshkian and with the approval of the Cabinet of Ministers, Fatemeh Mohajerani was appointed as the first female government spokesperson.
- ❖ Mohajerani, 54, is a Doctor of Business Administration from Edinburgh and has earlier served as

the head of the Technical and Vocational Training University of Shariati (for women).

- ❖ This is the latest appointment of a woman to a senior position. Besides her, three women hold high positions in the government including Shina Ansari who was appointed last week as head of the Department of Environment.

**Pakistani Christian becomes first in Goa to get citizenship under CAA**



**Key Points:**

- ❖ Joseph Francis A. Pereira, a Christian from Pakistan, has become the first person in Goa to receive Indian citizenship under the Citizenship Amendment Act (CAA).
- ❖ Chief Minister Pramod Sawant presented Pereira with his citizenship certificate during a ceremony in Panaji, the state capital.
- ❖ Pereira, who now resides in Cansaulim, South Goa, expressed his gratitude to Prime Minister Narendra Modi and Home Minister Amit Shah for introducing the CAA.
- ❖ Pereira, 78, retired in 2013 after working for 37 years in Bahrain. He settled in Goa with his wife, Martha Pereira, who was already an Indian citizen.

❖ The Citizenship Amendment Act allows Hindus, Sikhs, Jains, Christians, Parsis, and Buddhists from neighboring countries—Bangladesh, Pakistan, and Afghanistan—who entered India before December 31, 2014, to apply for citizenship after verification.

**Siemens Healthineers gets India nod for Mpox test kit**



**Key Points:**

❖ German healthcare firm Siemens Healthineers AG received the Indian drug regulator's approval to manufacture mpox detection kits in the country, a significant step to help screen and prevent the spread of the viral infection.

❖ The kits will be manufactured by the company's molecular diagnostics manufacturing unit in Vadodara, which has a production capacity of one million tests per annum.

❖ With the RT-PCR kits, the test results will be available in 40 minutes, which is significantly faster than traditional methods that take one to two hours. This will help reduce the turnaround time for reporting, leading to quicker responses.

❖ The IMDX Monkeypox Detection RT-PCR Assay is a molecular diagnostic test that targets two distinct regions in the viral genome, spanning both clade I and clade II variants of the virus. This ensures thorough detection across various viral strains, providing comprehensive results.



PW Web/App: <https://smart.link/7wwosivoicqd4>