



## Rapid Fire Current Affairs

### Natural Polyphenols to Combat Alzheimer's Disease

Researchers at **Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR)**, an autonomous institute of the [Department of Science and Technology \(DST\)](#) have discovered that naturally occurring plant-based **polyphenols (beneficial plant compounds with antioxidant properties)**, like **tannic acid found in Chestnut and Oak twigs**, can modulate the **ferroptosis-AD axis** to yield a safe, cost-effective strategy for combating [Alzheimer's disease \(AD\)](#).

- AD is a progressive neurodegenerative disorder characterized by **memory and cognitive decline**.
  - Ferroptosis is a type of **programmed cell death** that is **dependent on iron and is linked to the development of AD**.
- AD aligns with characteristics of ferroptosis, including **abnormal iron build-up**, and reduced activity of the antioxidant enzyme **glutathione peroxidase 4 (GPX4)**.
- **Tannic acid activates and enhances GPX4**, offering a comprehensive approach to combat AD.

Read more: [Alzheimer's disease](#)

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### India and WOAAH Collaborate for Pandemic Preparedness

- Recently, the Department of Animal Husbandry & Dairying, in partnership with the **World Organization for Animal Health (WOAH)**, organized a multi-sectoral workshop "**Risk-based management of spillover events in wildlife in India**" at Hyderabad.
- The workshop aimed at enhancing stakeholder knowledge about **wildlife-origin disease risk analysis**.
- Discussions emphasized the significance of a [One Health approach](#), cross-sectoral collaboration, and pandemic preparedness.
  - The "One Health" approach, which recognizes the **interconnectedness of wildlife, domestic animals, and human health**, remains crucial for a sustainable future.
- The WOAHA is an **intergovernmental organization** that was founded in 1924 to **improve animal health worldwide**.
  - WOAHA aims to **control and prevent the spread of epizootic diseases**.
  - WOAHA has **182 member countries, including all EU Member States**.
  - The **WOAHA headquarters is in Paris, France**, and Regional Commissions are maintained in each region of the world.

Read more: [One Health Concept](#)

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### Operation Polo

On **13<sup>th</sup> September, 1948**, India's military action known as "[Operation Polo](#)" was launched to integrate the princely state of **Hyderabad**, a significant event in Indian history.

- The **Nizam of Hyderabad, Mir Osman Ali Shah**, had hesitated to join India or Pakistan after Independence, capitalizing on the Indian government's preoccupation with the Kashmir conflict.
  - A standstill agreement signed in **November 1947** maintained the **status quo between**

**Hyderabad and India for a year**, allowing the Nizam to continue governing independently.

- However, **escalating tensions, cross-border raids, and intentions to establish an independent state**, prompted India to act.
- The **operation saw well-planned military thrusts from multiple directions**, ultimately leading to the surrender of the Hyderabad state forces.
  - This pivotal campaign, carried out under the **watchful eye of [Sardar Vallabhbhai Patel](#)**, culminated in a ceasefire declaration on **17<sup>th</sup> September, 1948** effectively placing Hyderabad under Indian control by **18<sup>th</sup> September, 1948**.

Read more: [Hyderabad Liberation Day](#)

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## Hindi Diwas

**Hindi Diwas**, celebrated annually on **14<sup>th</sup> September**, holds immense **historical significance** as it commemorates the **adoption of Hindi as one of India's official languages**.

- Its roots extend back to the **early days of India's struggle for independence** when a group of committed Hindi scholars and activists formed the **Hindi Sahitya Sammelan (Hindi Literary Conference) in 1918** to champion Hindi as a national language.
- The turning point arrived on **14<sup>th</sup> September, 1949**, when the Constituent Assembly of India officially **embraced Hindi as the nation's official language**, envisioning it as a unifying element among India's diverse linguistic and cultural regions.
  - Today, Hindi stands as **one of the two official languages of the Union government along with English** and is one of the **22 [scheduled languages of India](#)**.
- **World Hindi Day** is observed on **10 January**. It commemorates the anniversary of the first **World Hindi Conference** held in **Nagpur on 10<sup>th</sup> January, 1975**.

Read more: [Hindi Diwas](#)

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