

Biotechnology & Health:

Pharmaceutical & Medical Breakthroughs:

Cancer Immunotherapy Advances (Akeso, Inc.):

The National Medical Products Administration (NMPA) in China has accepted a supplementary New Drug Application (sNDA) for ivonescimab (a PD-1/VEGF bispecific antibody) in combination with chemotherapy. This is for the first-line treatment of advanced squamous Non-Small Cell Lung Cancer (NSCLC). The application is based on strong positive outcomes from its Phase III trial (AK112-306/HARMONi-6 study), which showed ivonescimab combined with chemotherapy to be superior to existing therapies like tislelizumab plus chemotherapy, and also outperformed pembrolizumab in previous head-to-head comparisons. Ivonescimab is currently in over 12 global registrational/Phase III clinical trials for various cancers.

Antibody-Drug Conjugate (ADC) for Cancer (Antengene Corporation): Antengene announced a poster presentation of data for ATG-022 (a Claudin 18.2 ADC) at ESMO 2025. ATG-022 targets CLDN18.2, which is overexpressed in various malignant tumors, including gastric, esophageal, cholangiocarcinoma, and pancreatic cancers. The U.S. FDA has granted Orphan Drug Designations for ATG-022 for gastric and pancreatic cancers. Data suggests robust efficacy across different levels of CLDN18.2 expression in gastric cancer, positioning it as a potential market leader.

Neurodegenerative Disease Treatment (Alterity Therapeutics): Alterity Therapeutics reported positive topline data from its open-label Phase 2 clinical trial of ATH434 for Multiple System Atrophy (MSA), a rare and rapidly progressive Parkinsonian disorder. ATH434 demonstrated clinical benefit on the Unified MSA Rating Scale and global neurological symptoms. Neuroimaging biomarkers showed target engagement and slowed brain atrophy. ATH434 is designed to inhibit the aggregation of pathological proteins implicated in neurodegeneration.

New Alzheimer's Proteins Discovered: A groundbreaking study has uncovered over 200 previously undetected misfolded proteins in the brains of aging rats with cognitive decline. This offers new insights into the mechanisms of Alzheimer's and other forms of dementia, potentially leading to new diagnostic and therapeutic targets.

Three-Person IVF Success: Scientists from Newcastle University in the UK have reported that eight children have been spared from devastating inherited genetic diseases thanks to a new three-person in vitro fertilization (IVF) technique.

Public Health & Policy (India and Global):

World Hepatitis Day 2025: Today, July 28, 2025, marks the 15th anniversary of World Hepatitis Day. The theme for 2025 is "Hepatitis: Let's Break It Down," urging immediate measures to eliminate economic, societal, and structural obstacles, including stigma, that hinder the eradication of hepatitis and prevention of liver cancer. Significant global progress has been made, including increased hepatitis B vaccine

coverage and high cure rates for hepatitis C with direct-acting antivirals.

COVID-19 Vaccine Impact: A new study indicates that vaccines have prevented over 2.5 million COVID-19 deaths worldwide.

Decline in Mother-to-Child HIV Transmission in India: Union Minister of State for Health and Family Welfare Anupriya Patel stated in Parliament that mother-to-child HIV transmission in India has declined by approximately 84% from 2010 to 2024.

Yoga for Type 2 Diabetes Prevention: A new report titled 'Yoga and Prevention of Type 2 Diabetes' suggests that regular practice of yoga may reduce the risk of developing Type 2 diabetes by as much as 40% among high-risk individuals.

India's Traditional Medicine (Ayush) Globalization: India is advancing the global reach of its traditional medical systems. The World Health Organization (WHO), in collaboration with the Ministry of Ayush and the Central Council for Research in Siddha (CCRS), recently concluded a two-day WHO External Expert Group Meeting, cementing India's role as an Ayush knowledge hub.

ICMR Developing Indigenous Malaria Vaccine: The Indian Council of Medical Research (ICMR) is developing a novel chimeric malaria vaccine candidate, AdFalcivax, in collaboration with its regional centers and the Department of Biotechnology's National Institute of Malaria Research (NIMR).

Government Initiatives for Women's Health in India: The Indian government has undertaken a series of initiatives focused on improving

women's health, hygiene, and overall well-being, including reducing hardship and promoting access to essential services.

Violence in Punjab's Public Health Facilities: The Indian Express reports at least 60 incidents of violence at Punjab's public health facilities in the past year. Doctors are reminding the Aam Aadmi Party (AAP) government of its "unfulfilled" promise to deploy security personnel, highlighting concerns about safety, especially for women doctors in rural areas, and its contribution to high attrition rates among health workers.

Guidelines for Medical Sample Collection in India: The Delhi High Court has directed the Union government to notify long-pending minimum standards for the collection and transport of medical samples. This aims to improve diagnostic accuracy and patient safety, as India currently lacks specific regulations, leading to inconsistencies, especially with private labs and home collection services.

UAE Introduces Sugar-Based Tax: The United Arab Emirates (UAE) is set to implement a tiered volumetric tax on sugar-sweetened beverages (SSBs) from January 2026, shifting from a flat 50% tax rate to promote healthier choices.

Doctor-Led Innovation in Healthcare: An opinion piece in The Hindu emphasizes the need for doctors to take charge as entrepreneurs and problem-solvers in healthcare innovation, advocating for internships in biotech incubators to be integrated into medical education. Government initiatives like BIRAC and Startup India are supporting MedTech entrepreneurs.



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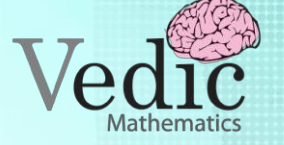
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1. Which company's supplementary New Drug Application (sNDA) for ivonescimab for lung cancer treatment was accepted by China's NMPA?

- a) Antengene Corporation
- b) Alterity Therapeutics
- c) Akeso, Inc.
- d) Newcastle University

Answer: c) Akeso, Inc.

The news states, "The National Medical Products Administration (NMPA) in China has accepted a supplementary New Drug Application (sNDA) for ivonescimab... from Akeso, Inc."

2. What type of cancer does Antengene's ATG-022 (a Claudin 18.2 ADC) primarily target, for which it has received Orphan Drug Designations from the U.S. FDA?

- a) Lung cancer
- b) Breast cancer
- c) Gastric and pancreatic cancers
- d) Leukemia

Answer: c) Gastric and pancreatic cancers

The news states, "The U.S. FDA has granted Orphan Drug Designations for ATG-022 for gastric and pancreatic cancers."

3. What neurodegenerative disorder is Alterity Therapeutics' ATH434 designed to treat?

- a) Alzheimer's disease
- b) Parkinson's disease
- c) Multiple System Atrophy (MSA)
- d) Huntington's disease

Answer: c) Multiple System Atrophy (MSA)

The news states, "Alterity Therapeutics reported positive topline data from its open-label study."





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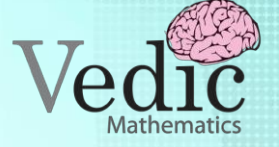
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label Phase 2 clinical trial of ATH434 for Multiple System Atrophy (MSA)..."

4. How many previously undetected misfolded proteins were uncovered in the brains of aging rats with cognitive decline in a new Alzheimer's study?

- a) Around 50
- b) Over 100
- c) Over 200
- d) Approximately 300

Answer: c) Over 200

The news mentions, "A groundbreaking study has uncovered over 200 previously undetected misfolded proteins..."

5. From which university are the scientists who reported the success of the three-person IVF technique?

- a) Oxford University
- b) Cambridge University
- c) Newcastle University
- d) University College London

Answer: c) Newcastle University

The news states, "Scientists from Newcastle University in the UK have reported that eight children have been spared from devastating inherited genetic diseases thanks to a new three-person in vitro fertilization (IVF) technique."

6. What is the theme for World Hepatitis Day 2025?

- a) "Hepatitis: Know the Facts"
- b) "Hepatitis: Let's Break It Down"
- c) "Hepatitis: Prevent, Test, Treat"
- d) "Hepatitis: A Global Priority"

Answer: b) "Hepatitis: Let's Break It Down"

****Explanation:**** The news explicitly states, "The theme for 2025 is 'Hepatitis: Let's Break It Down'..."

7. By what approximate percentage has mother-to-child HIV transmission in India declined from 2010 to 2024, according to Union Minister Anupriya Patel?

- a) 50%
- b) 65%
- c) 84%
- d) 95%

Answer: c) 84%

The news states, "...mother-to-child HIV transmission in India has declined by approximately 84% from 2010 to 2024."

8. What is the name of the novel chimeric malaria vaccine candidate being developed by ICMR?

- a) MalariaVax
- b) AdFalciVax
- c) ImmuMalaria
- d) PlasmoGuard

Answer: b) AdFalciVax

The news states, "The Indian Council of Medical Research (ICMR) is developing a novel chimeric malaria vaccine candidate, AdFalciVax..."

9. What has the Delhi High Court directed the Union government to notify concerning medical samples in India?

- a) New regulations for drug manufacturing.
- b) Minimum standards for the collection and transport of medical samples.
- c) Guidelines for online medical consultations.
- d) Protocols for medical research trials.

Answer: b) Minimum standards for the collection and transport of medical samples.





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The news states, "The Delhi High Court has directed the Union government to notify long-pending minimum standards for the collection and transport of medical samples."

10. Which country is set to implement a tiered volumetric tax on sugar-sweetened beverages (SSBs) from January 2026?

- a) India
- b) United States
- c) United Arab Emirates (UAE)
- d) China

Answer: c) United Arab Emirates (UAE)

The news states, "The United Arab Emirates (UAE) is set to implement a tiered volumetric tax on sugar-sweetened beverages (SSBs) from January 2026..."



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