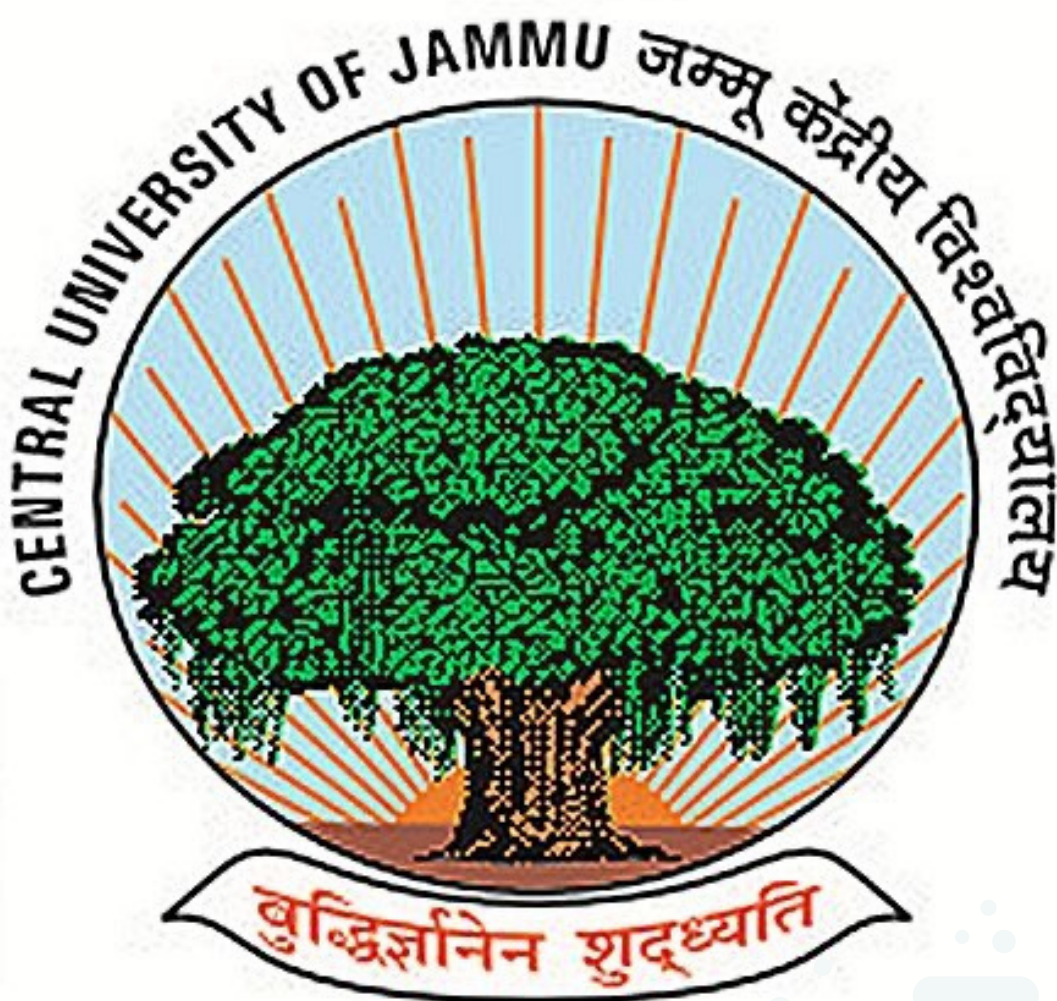


By Students of CMB (Centre for Molecular Biology)

MONTHLY MAGAZINE 2025 EDITION



POWERED BY CUROSITY,
DRIVEN BY STUDENTS

BIOTECH GAZETTE

August 2025 Edition

An Initiative by the students of Centre for Molecular Biology

Guided by the motto 'बुद्धिर्ज्ञानेन शुद्ध्यति' (**Knowledge refines, purifies, and sharpens the mind**), Central University of Jammu celebrates a decade of academic excellence. Embracing NEP 2020, we prioritize high-quality teaching, impactful research, and community engagement to bridge the student-institution gap. Central University of Jammu empowers students with knowledge and skills to become critical thinkers, ethical leaders, and responsible citizens, contributing to a brighter future for India.



Prof. (Dr.) Sanjeev Jain
Hon'ble Vice Chancellor

We are immensely proud to have Prof. Sanjeev Jain at the helm of our institution. Under his visionary leadership, we have witnessed remarkable growth and progress in both academic and research excellence. His unwavering dedication to fostering a culture of innovation and inclusivity has significantly enriched our community. The Hon'ble Vice-Chancellor's commitment to nurturing young minds and promoting collaborative endeavors has set a high standard for all of us to aspire.

We are delighted to recognize the exceptional leadership of our esteemed Head of Department, Dr Narendra K Bairwa. His dedication to academic excellence and unwavering commitment to advancing our field have been truly inspiring. Through his innovative approaches and collaborative spirit, he has fostered a vibrant learning environment that encourages growth and discovery.



Dr Narendra K Bairwa
Director CMB

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We are deeply grateful for the invaluable guidance and unwavering support provided by our esteemed faculty mentors. Their commitment to sharing knowledge, offering encouragement, and inspiring the next generation has left an indelible mark on our community.

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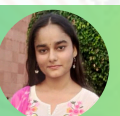
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We are incredibly proud of the outstanding work done by our dedicated editorial team, Genetic Guild. Their passion for excellence and commitment to delivering high-quality content have been instrumental in shaping our newsletter. Through their meticulous attention to detail and unwavering dedication, they have ensured that every issue is both informative and engaging for our readers.

World Sanskrit Day 2025

For thousands of years, Sanskrit has carried India's deepest ideas, discoveries and dreams. This year's theme, **Vedic Heritage & Tradition**, reminds us that the language is more than just a bridge to the past. It is also a guiding light for the present and future. Its words continue to shape the way we think, worship, learn, and even code-proving that true wisdom never fades.

World Sanskrit Day is celebrated on Shravana Purnima, which this year falls on August 9. The occasion traces back to the time when Gurukuls would begin their academic year on this day. In 1969, it received formal recognition, marking its significance in celebrating one of the oldest and most scientific languages, often called Devavani :“the language of the gods.”

From Ancient Wisdom to Modern Relevance

“सत्यम् वद, धर्मम् चर” “Satyam Vada, Dharmam Cara means “Speak the truth, practice righteousness.” (Taittiriya Upanishad 1.11)

For centuries, these words have been guiding principles for ethical living. Sanskrit's contribution goes beyond spirituality—it continues to shape intellectual, cultural, and scientific thought.

- **Linguistic Roots:** More than 97% of Indian languages draw vocabulary and grammar from Sanskrit.
- **Scientific Precision:** Panini's Ashtadhyayi, written over 2,500 years ago, is still considered among the most sophisticated grammar systems ever created and even inspires today's AI models.
- **Knowledge Repository:** With over 3,000 ancient texts, Sanskrit literature spans fields like astronomy, medicine, mathematics, statecraft, and philosophy.

शाश्वतम्
ज्ञानमव्ययम्

"Knowledge is
eternal and
imperishable"

– Bhagavad Gita
2.20



“Sanskrit is not relic of the past, it is about continuity and adaptability. From yoga mantras to modern computational linguistics, from scientific naming to space mission terminology, its relevance remains intact. It proves that a language rooted in tradition can still speak directly to the future.”

“विद्या ददाति विनयम्”

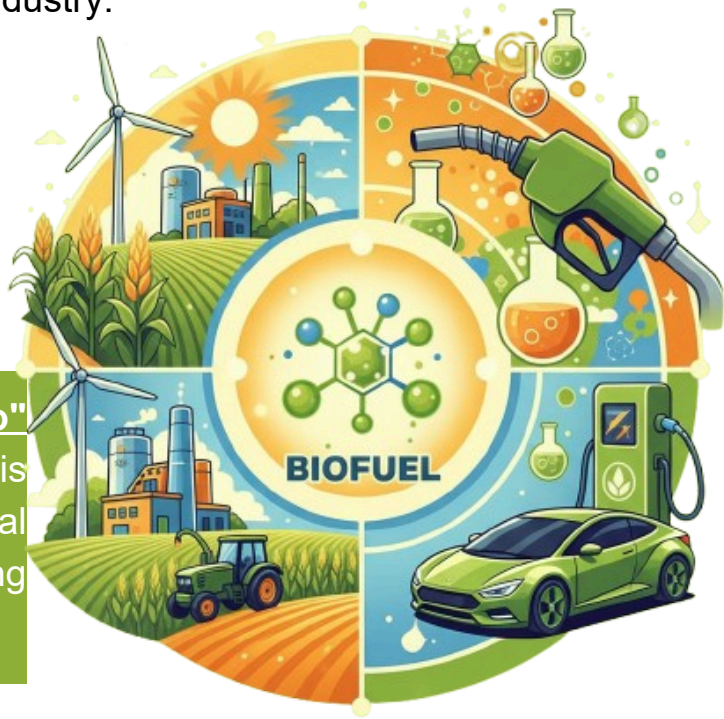
–“Knowledge brings humility; humility brings worthiness; worthiness brings prosperity; prosperity leads to dharma; and dharma brings happiness.” (Hitopadesha 1.6)

World Biofuel Day 2025

Every year on **August 10th**, we commemorate World Biofuel Day to raise awareness of the value of non-fossil fuels as a substitute for traditional fossil fuels and to showcase the government's numerous initiatives in the biofuel industry.

This day also commemorates Sir Rudolf Diesel's 1893 research experiments in which he powered an engine using peanut oil. According to his research, vegetable oil will eventually take the place of fossil fuels as the primary fuel for various mechanical engines within the next century.

"Biofuels: A Sustainable Pathway to Net Zero" is the theme for World Biofuel Day in 2025. This highlights how biofuels can help achieve global climate goals while substantially lowering greenhouse gas emissions.



Why are biofuels important?

The use of biofuels, which are environmentally friendly, helps reduce concerns about carbon emissions. Because biofuels are made from renewable biomass resources, they offer a strategic advantage for advancing sustainable development and assisting traditional energy sources in meeting the rapidly rising demand for transportation fuels linked to rapid economic growth. They also help meet the energy needs of India's large rural population.

Reduced reliance on crude oil imports, a cleaner environment, more revenue for farmers, and the creation of jobs in rural areas are all advantages of biofuels. The Government of India's initiatives for Swachh Bharat, Make in India, and raising farmers' incomes work in tandem with the biofuels program.

The Way Ahead

- In a nation like India, encouraging the use of biofuels for transportation will contribute to a decrease in the cost of importing crude oil.
- Given that India has a sizable agricultural economy and a wealth of agricultural residues, the potential for producing biofuels there is enormous. In the form of new cash crops, biofuels can support agricultural and rural development.
- In order to produce sustainable biofuels, wastelands and municipal waste that are generated in cities should be used. Food and energy can be produced from a well-planned and executed biofuel solution.

World Elephant Day 2025



World Elephant Day was first launched on August 12, 2012, by Canadian filmmakers Patricia Sims and Michael Clark, in collaboration with the Elephant Reintroduction Foundation of Thailand. Their documentary *Return to the Forest* brought global attention to the importance of reintroducing captive elephants into the wild. Since then, over 100 wildlife organizations and millions of individuals have joined this global movement. Patricia Sims continues to lead the World Elephant Society, which works tirelessly for elephant conservation worldwide.



The theme for 2025 is “Safeguarding Elephant Habitats for a Sustainable Future.”

A Call to Action

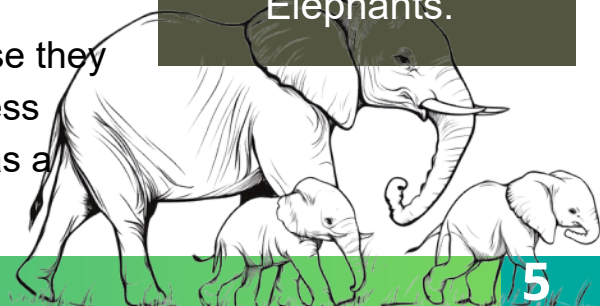
World Elephant Day reminds us that protecting elephants is not a one-day task but a continuous responsibility. Each small step counts : choosing sustainable products, supporting conservation groups, and spreading awareness.

“Be a Friend to Giants. Save the Elephants.”

Objectives of World Elephant Day

- Spread awareness about the dangers elephants face both in the wild and in captivity
- Promote ethical treatment and well-managed conservation programs
- Support strict measures against ivory trade and poaching
- Educate the public about the role of elephants in biodiversity and ecosystems
- Encourage global cooperation for elephant protection

Elephants are often called “ecosystem engineers” because they shape forests and grasslands in ways that benefit countless other species. Protecting them means protecting nature as a whole.



Organ Donation Day 2025

Organ Donation Day is observed globally on **August 13**, commemorating the first successful living donor transplant in 1954, when Ronald Lee Herrick donated a kidney to his twin brother. In India, the milestone was reached on August 3, 1994, with the country's first heart transplant. Since 2023, India has chosen August 3 as its own Organ Donation Day to honor that achievement.

The global **theme for 2025, Answering the Call, is not just a slogan but a heartfelt appeal**. It honors the tireless work of healthcare professionals, transplant coordinators, and donor families, while inspiring citizens to step forward and pledge their organs.

The agenda focuses on:

- Raising public awareness about organ and tissue donation
- Addressing myths and cultural hesitations
- Promoting Aadhaar-linked donor registration
- Celebrating donor families and transplant recipients
- Promoting ethical and transparent donation systems
- Across India, the day is marked by awareness walks, musical tributes, pledge drives, and storytelling sessions that bring out the deeply human side of donation.



India's Progress in 2025

This year's achievements reflect both medical success and human compassion:

- Ranked 3rd globally in total transplants, after the US and China
- AIIMS Mangalagiri facilitated 11 transplants, including deceased donor (cadaver) donations.
- Campaigns like Live Beyond Your Life, featuring Amitabh Bachchan, inspired thousands to pledge.



Organ donation is more than a medical act. It is a moral commitment that turns grief into hope and loss into life.

Let us answer the call. Let us pledge. Let us save lives.

"Be remembered, not for what you owned, but for the lives you saved"

International Left-Handers Day 2025

International Left-Handers Day, also known as World Left-Handers Day, is celebrated every year on **August 13**. This day is dedicated to appreciating the uniqueness of people who are left-handed. It was first celebrated in 1976 by Dean R. Campbell, the founder of Left-handers International, Inc.

The aim of this day is to spread awareness about the challenges and advantages of being left-handed in a world mostly designed for right-handed people. Left-handers make up about 7–10% of the global population, and this day recognizes their special abilities and individuality. It also reminds us that using the left hand for everyday activities is completely normal, even though most tools and systems favor right-handers.



Around 10–12% of people in the world are left-handed, including many talented and famous personalities. Internationally, well-known left-handers include Napoleon Bonaparte, Pablo Picasso, Isaac Newton, Oprah Winfrey, and Barack Obama. In India, Mahatma Gandhi, Narendra Modi, Amitabh Bachchan, Rajinikanth, Sachin Tendulkar, and Ratan Tata are reportedly left-handed.



Interesting Facts About Left-Handed People

- Left-handers often show different brain lateralization, sometimes linked to creative thinking.
- They recover language skills faster after a stroke compared to right-handers.
- Left-handers often have an advantage in sports like tennis, boxing, and baseball.
- They can type around 3,000 words using only their left hand on a QWERTY keyboard, compared to only 300 with the right hand.
- Around 10–12% of the world's population is left-handed.
- Sinistrophobia is the fear of left-handed people.
- A baby who sucks its left thumb in the womb is likely to be left-handed.
- Many artists and musicians are left-handed.
- In some cultures, being left-handed is still considered impolite or unusual.
- Studies suggest that some left-handers may show strengths in creative thinking and multitasking.



Independence Day 2025

August 15, 1947 is a date etched forever in the heart of every Indian. On this historic day, our nation broke free from nearly two centuries of British rule and took its first breath as an independent country. Independence Day is not just a festive occasion. It is a moment to look back with gratitude, to reflect on our duties, and to renew our promise of building a stronger India.

Our freedom was not handed over to us easily. It was achieved through years of sacrifice, struggle, and courage. Leaders like Mahatma Gandhi, who led the non-violent freedom movement, Netaji Subhas Chandra Bose, who inspired millions with his call for armed resistance, and Jawaharlal Nehru, who became the first Prime Minister of independent India, played a defining role in shaping the dream of a free and democratic nation.



But independence was never only about ending foreign rule. It was also about laying the foundation of a society based on justice, equality, liberty, and fraternity – the very values that are proudly enshrined in the Preamble of our Constitution. True freedom goes beyond political independence. It means freedom from poverty, illiteracy, inequality, and injustice.

Each of us has a role to play :casting our vote, lending a helping hand to those in need, raising our voice against injustice, or simply fulfilling our responsibilities with sincerity. Together, we shape the India of tomorrow.

As we hoist the Tricolour this Independence Day, let it fill us not just with pride but also with purpose. Let us pay tribute to the countless sacrifices of our freedom fighters by working towards a fairer, stronger, and united India.

“Freedom is not the end of struggle, but the beginning of responsibility.”

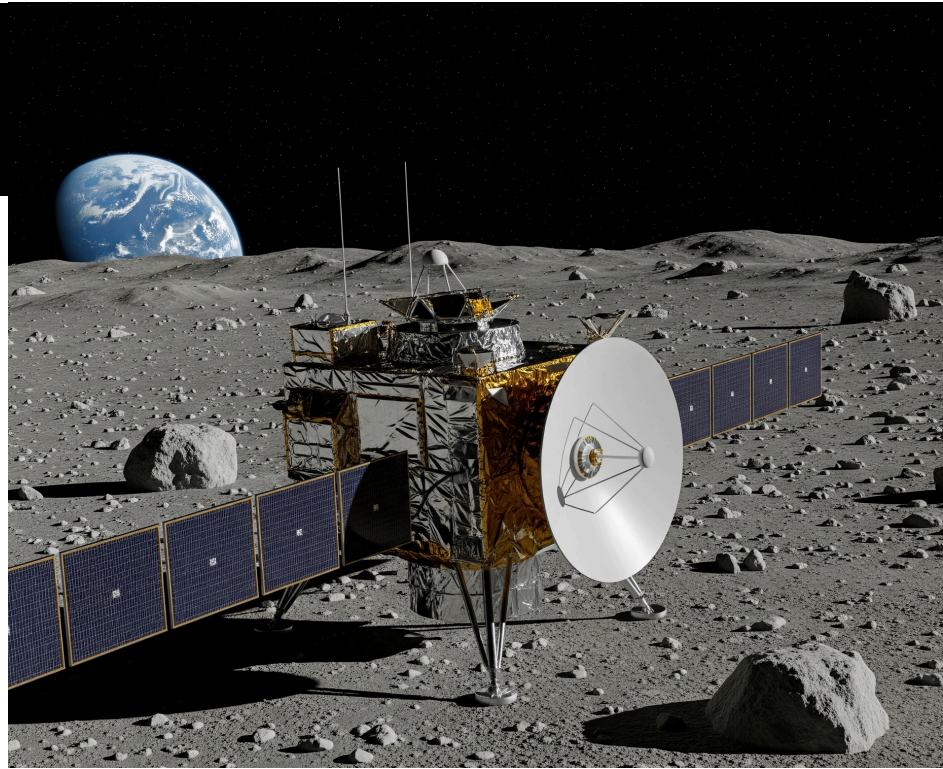


ISRO Day - National Space Day 2025

On August 23, 2023, ISRO made history with the successful soft landing of Chandrayaan-3 near the Moon's south pole, making India the first nation to achieve this milestone. The landing site, named Shiv Shakti Point, has since become a symbol of India's spirit of exploration and resilience. Since then, August 23 has been observed as National Space Day, and 2025 marks its second year of celebration.

Theme: "Aryabhata to
Gaganyaan: Ancient Wisdom to
Infinite Possibilities"

This year's theme highlights India's inspiring journey, beginning with the launch of the pioneering Aryabhata satellite and now moving towards the ambitious Gaganyaan human spaceflight program. It shows how the wisdom and curiosity of our past continue to drive innovation and open up new possibilities for the future of space exploration.



Recent Achievements

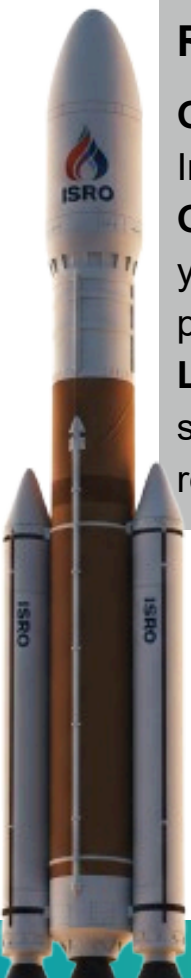
GSLV-F16 (July 30, 2025): Successfully launched the NISAR satellite, a joint India–US mission designed for high-precision Earth observation and monitoring.

Gaganyaan Year 2025: Dedicated to India's first human spaceflight program. The year begins with an uncrewed mission featuring Vyommitra, a humanoid robot, paving the way for crewed flights planned for 2026.

Ladakh Human Analogue Mission (2024–present): An ongoing program that simulates lunar and Martian terrain in Ladakh to support astronaut training and research.

As we mark ISRO Day, we celebrate India's extraordinary journey from Aryabhata to Gaganyaan, which reflects not just our achievements in space, but also our limitless potential for the future. With every mission, ISRO proves that India's sky is not the limit: it is only the beginning.

"From Aryabhata to Gaganyaan – India's sky is just the beginning"



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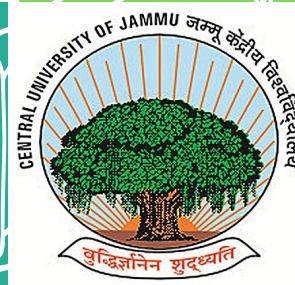
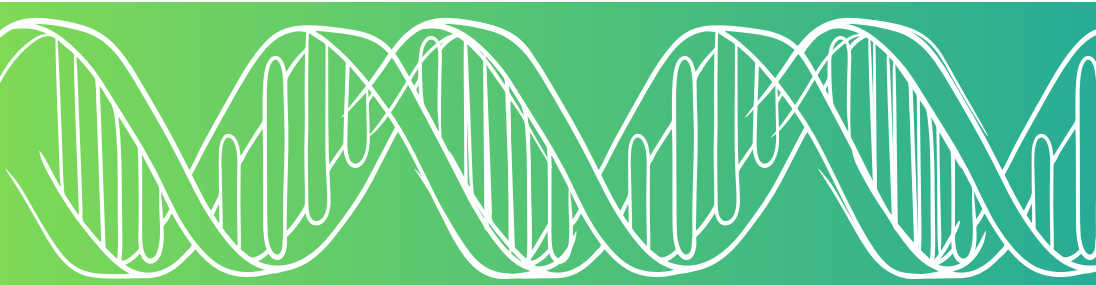
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