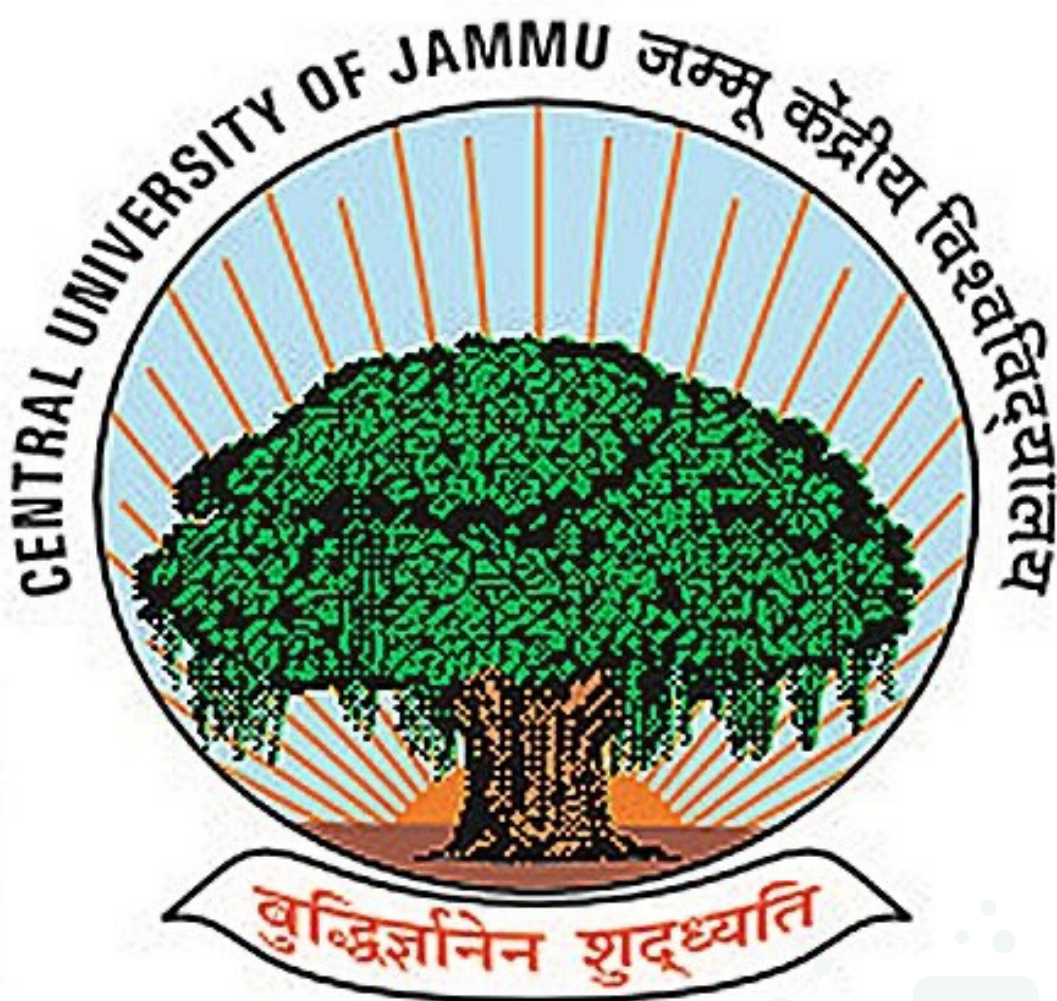


By Students of CMB (Centre for Molecular Biology)

MONTHLY MAGAZINE 2025 EDITION



POWERED BY CUROSITY,
DRIVEN BY STUDENTS

BIOTECH GAZETTE

May 2025 Edition

An Initiative by the students of Centre for Molecular Biology

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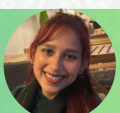
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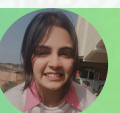
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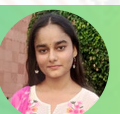
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We are incredibly proud of the outstanding work done by our dedicated editorial team, Genetic Guild. Their passion for excellence and commitment to delivering high-quality content have been instrumental in shaping our newsletter. Through their meticulous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

World Asthma Day

8th May 2025

Asthma affects more than 260 million people globally and leads to over 450,000 deaths each year. Yet, it remains one of the most manageable chronic illnesses—when treatment is accessible. Sadly, many patients in low- and middle-income countries still struggle to obtain life-saving inhalers and basic healthcare services.



India alone accounts for nearly 10% of global asthma cases, making awareness and equitable care a national priority.

The **2025 theme, “Make Inhaled Treatments Accessible for ALL,”** is a call to action from the [Global Initiative for Asthma \(GINA\)](#) and the [World Health Organization \(WHO\)](#). The goal is clear: no person with asthma should die or suffer simply because they cannot afford or access their prescribed inhaler.

Inhaled corticosteroids, which prevent most serious asthma attacks, are still unavailable or unaffordable to many who need them the most. This year’s campaign advocates for policy-level changes, such as subsidized inhalers, wider public distribution, and education at the community level to eliminate stigma and misinformation around asthma.



Managing Asthma

Good asthma care involves more than just medication. Patients must monitor their symptoms, avoid known triggers such as smoke and pollution, and stay physically active. Breathing exercises, stress management, and regular vaccinations also play a vital role in reducing flare-ups. Technology is now helping patients track their symptoms through mobile apps and digital peak flow meters, making asthma management smarter and more responsive.

Every Breath Is a Right, Not a Privilege

This World Asthma Day, let’s shift from awareness to accessibility. A child gasping for breath in a remote village deserves the same treatment as one in a metro hospital. Asthma doesn’t discriminate—so neither should healthcare systems.

“We must ensure that no life is lost to asthma just because help was out of reach.”

Every Breath Counts so let’s work toward a world where every person with asthma—regardless of where they live—has access to the care they need.



World Thalassaemia Day

On **8 May 2025**, the global thalassaemia community united in solidarity to mark International Thalassaemia Day. This year, we proudly embraced the theme: **"Together for Thalassaemia: Uniting Communities, Prioritising Patients"**. This theme underscores the importance of fostering a patient-centered approach to thalassaemia care, ensuring that individuals are treated with dignity and that their holistic well-being is prioritized.

In honour of International Thalassaemia Day 2025, the Thalassaemia International Federation (TIF), in collaboration with the European Board and College of Obstetrics and Gynaecology (EBCOG), proudly presents a Joint Statement calling for urgent, unified action to address the unmet needs of individuals living with thalassaemia worldwide.

Thalassaemia is rare in Europe, except in Mediterranean countries. Increased migration is raising its prevalence elsewhere, with misdiagnosis common, especially in underserved communities. Women with thalassaemia face additional challenges during pregnancy, requiring specialized care.



- Thalassaemia is undeniably more than a clinical condition; every statistic represents a person with distinct experiences, aspirations, and challenges. It's essential that the human element is brought to the forefront and not relegated to the background of medical complexities.
- This year, we insist on a patient-centred approach that goes beyond mere treatment, fully embracing holistic well-being, dignity, and empowerment.
- By standing united as a global community, we will effect meaningful change, ensuring that the needs, rights, and voices of individuals with thalassaemia are not only acknowledged but prioritised and upheld.
- Reframe the focus by placing patients at the very core of thalassaemia care. Envision a future where individuals with thalassaemia are empowered and supported by a community that is united in its diversity.

This day is all about celebrating our achievements and embracing the opportunities ahead by Community Engagement, Patient-Centered Approach, Awareness and Advocacy & Global Observance.



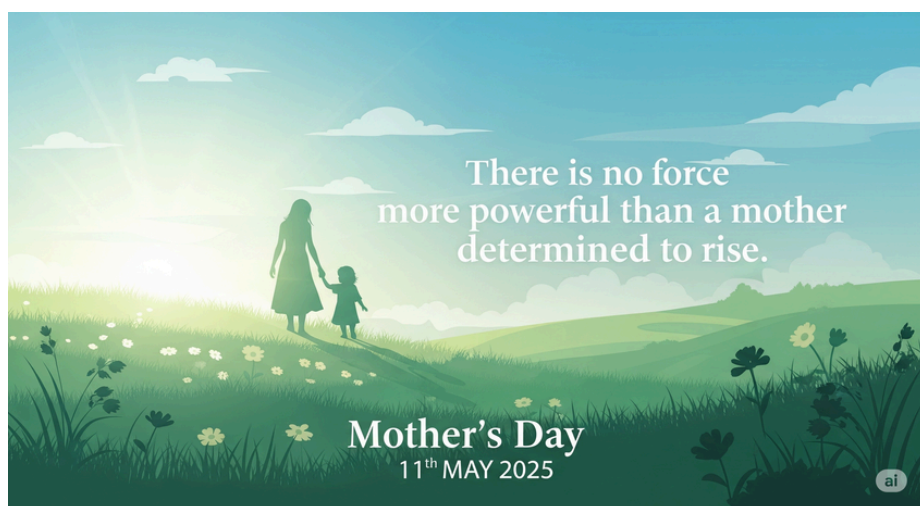
Mother's Day 2025: Celebrating the Mothers Who Move the World



In today's world, motherhood is no longer confined to the home—it spills into boardrooms, laboratories, sports arenas, and frontlines. From navigating family duties to pursuing professional goals, mothers are redefining resilience daily. They aren't just raising children—they're shaping futures, economies, and communities. Whether it's a mother running a small business from a one-room home or managing corporate strategy with a toddler on her lap, she balances more than just time—she balances lives.

The Reality Behind the Role

A recent 2024 survey by Mompreso revealed that nearly 75% of Indian mothers experience emotional burnout weekly. Despite being the backbone of many households, their mental health, career aspirations, and personal dreams often go unacknowledged. 43% of working mothers leave their jobs post-maternity due to lack of support and childcare facilities. In India, women still do over 80% of all unpaid care work, according to a report by the National Sample Survey Office.



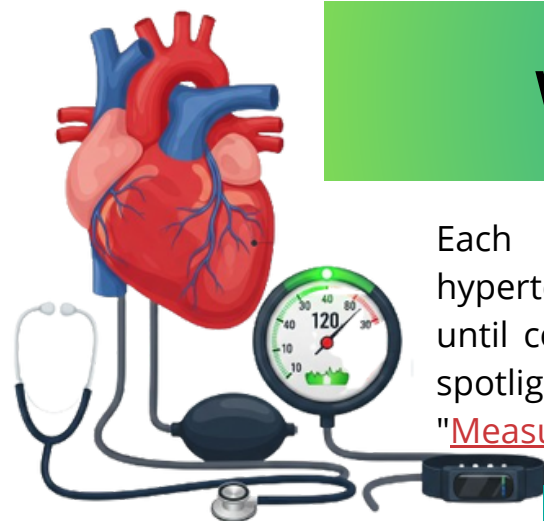
This Mother's Day, we must ask: are we truly supporting our mothers, or just celebrating them for a day?

True celebration isn't in flowers and cards—it's in presence, support, and change. Listening to her dreams. Giving her rest. Encouraging her to start that course she always wanted to take. Teaching children that caregiving is not just a mother's role, but a shared family responsibility. From maternity leave to flexible workplaces and mental health access, it's time we advocate for real, lasting support systems that let mothers thrive, not just survive.

This Mother's Day, celebrate her strength, not just her service.

Mother's Day 2025 is not only a day to thank mothers—it's a call to uplift them. It's a chance to see her not just as "Ma," but as a complete individual with dreams, needs, and unmatched power. Every day she gives a piece of herself. This year, let's give something back—not out of duty, but out of deep gratitude and respect.





World Hypertension Day 2025

Each **May 17**, communities worldwide unite to highlight hypertension—the “silent killer” often without visible symptoms until complications arise. World Hypertension Day 2025 shines a spotlight on this global health crisis under the powerful theme: "Measure Your Blood Pressure Accurately, Control It, Live Longer."

What Is Hypertension?

Hypertension means your blood is pushing too hard against your artery walls — silently damaging your heart, brain, and kidneys over time.

- Normal: Less than 120/80 mmHg
- High (Stage 1): 130/80 mmHg or more
- Crisis: 180/120 mmHg or higher — get emergency help

Though symptomless at first, the damage progresses silently. That's why knowing your numbers matters.

Global Outlook: What's New?

In 2025, global health leaders are shifting from awareness to action. From wider BP screenings in underserved areas to AI-powered home monitoring tools, the focus is on reaching people where they are. Youth-focused education campaigns and sodium-reduction policies are also gaining momentum - turning prevention into a public movement.

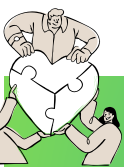


Prevention Is in Your Hands

You don't need a medical degree to outsmart hypertension. Just check your BP regularly, eat clean, move daily, ditch tobacco and excess alcohol, and keep stress in check. These simple habits are your strongest defense - and they start with you.

This World Hypertension Day, the world is taking action - with free BP checks, fitness events, health talks, and nutrition workshops happening globally. Join your local event or visit the WHO portal to find one near you. One step today could save a life tomorrow - maybe yours.

World Hypertension Day 2025 isn't just a date - it's a life-saving reminder. No matter your age, knowing your numbers could mean the difference between life and loss. Don't wait for symptoms. Get checked. Take charge. Spread the word. This is the year we silence the silent killer together.





INTERNATIONAL DAY FOR BIODIVERSITY 2025

Harmony with nature and sustainable development



The International Day for Biodiversity (IDB) is celebrated on 22 May annually. The IDB 2025 campaign seeks to focus the world's attention on the linkages between the 2030 Agenda and its Sustainable Development Goals (SDGs) and the Goals and Targets of the Kunming-Montreal Global Biodiversity Framework (KMGBF) as two universal agendas that must be pursued in tandem in the spirit of the recently adopted Pact for the future.

Biological diversity, or biodiversity, includes the variety of plants, animals, microorganisms, and the genetic differences within each species, as well as diverse ecosystems like lakes, forests, and agricultural landscapes. Biodiversity is essential for civilization; for instance, fish provide 20 percent of animal protein for about 3 billion people, and over 80 percent of the human diet comes from plants. In rural areas of developing countries, nearly 80 percent of people rely on traditional plant-based medicines for healthcare.



Objectives of the IDB 2025:

To demand the swift development of National Biodiversity Strategies and Action Plans (NBSAPs) that are (a) fully aligned with the Kunming-Montreal Global Biodiversity Framework (KMGBF) and (b) integrated into National Sustainable Development Strategies guided by the SDGs, ensuring no one is left behind.

To elevate public awareness about the indispensable role of biodiversity in sustaining all life on Earth, while effectively addressing pressing socio-economic challenges like poverty and inequality within the framework of the Sustainable Development Goals (SDGs).

To galvanize bold initiatives from all sectors, including the private sector, civil society, and the media. These initiatives will range from effectively communicating the science of biodiversity to advocating for the accelerated implementation of the SDGs and the KMGBF, while driving the transformational changes required to decouple socio-economic advancement from environmental degradation.

To emphasize the critical importance of leveraging synergies across all levels through a comprehensive approach that engages both government and society, with the UN system providing robust support to national stakeholders through unified UN Sustainable Development Cooperation Frameworks that embody the principles of the KMGBF and the SDGs.



International Day of Potato 2025

The International Day of Potato, observed every year on **May 30**, is a global recognition of one of the world's most versatile, nutritious, and resilient crops — the humble potato. In 2025, the theme **"Shaping History, Feeding the Future"** reflects both the potato's rich past and its powerful role in addressing modern global challenges like hunger, sustainability, and climate resilience.

Shaping History

From ancient terraced farms of the Andes to plates across Europe, Asia, and Africa, the potato has influenced empires, economies, and everyday diets. Civilizations have survived and flourished with its help. It played a key role in agricultural revolutions, fed millions during times of famine and war, and became a staple food across cultures. Its journey is deeply woven into the fabric of global history, proving that even a small crop can have an enormous impact.



Feeding the Future

In a time when food insecurity, soil degradation, and climate change threaten global nutrition, the potato stands strong as a future-facing crop. It grows quickly, adapts to various climates, requires less water than many grains, and provides essential nutrients like carbohydrates, vitamin C, potassium, and fiber. For smallholder farmers and developing communities, it offers not just food, but livelihood and hope.

Why This Day Matters :

- **Nutrition**: Potatoes are a dense source of energy and nutrition, helping fight malnutrition worldwide.
- **Sustainability**: With low input needs and a high yield potential, potatoes support climate-smart agriculture.
- **Food Security**: In both rural and urban areas, potatoes contribute to affordable food systems.
- **Livelihoods**: Millions of farmers, especially women and marginalized groups, depend on potato cultivation for income.



As we look to a future shaped by innovation and resilience, the potato emerges as a symbol of both tradition and progress. It reminds us that the answers to global food challenges don't always lie in the newest technologies, but sometimes in the most familiar roots — quite literally.

By honoring the potato, we celebrate human resilience, adaptability, and the shared goal of nourishing every life on this planet.

World No Tobacco Day 2025

: Smoke Screens and Silent Wars



Every **May 31st**, the world confronts a deadly illusion—tobacco, sold in sleek packaging and masked as freedom, but in truth, a silent killer claiming over 8 million lives annually. This year, World No Tobacco Day 2025 strikes a sharper chord with its **theme: "Protecting Future Generations."** It's a call to action against an industry that preys on youth and endangers tomorrow with every puff sold today.

Tobacco's Real Cost Isn't on the Price Tag

Tobacco's cost goes far beyond money—it steals breath, time, and potential. Studies (e.g., BMJ) estimate each cigarette cuts life expectancy by around eleven minutes. Multiply that by 1.3 billion daily smokers worldwide. Yet the numbers alone can't capture the full cost: The father who won't walk his daughter down the aisle, the teenager trading future lungs for fleeting coolness, mother who must choose between chemotherapy and feeding her children.

This is the emotional bankruptcy tobacco inflicts—on families, futures, and entire communities.

The Psychological Trap

Nicotine doesn't just poison the body—it hijacks the brain. By hijacking dopamine pathways, it builds powerful addiction loops, making tobacco one of the hardest habits to break. It preys on stress, anxiety, and loneliness—offering comfort while quietly tightening its grip.

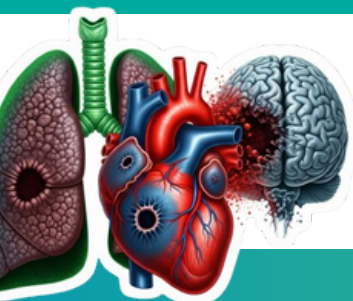
Here's the harsh truth: No one chooses addiction—they choose relief. But what they get isn't freedom. It's a trap, disguised as escape, and sealed in chains.

Fight Back in 2025

Whether you're 16 or 60, smoker or smoke-free, you have a role in this fight. Start the conversation—not with judgment, but with truth. Speak up in schools, homes, and online spaces. Support those trying to quit—because nicotine withdrawal isn't weakness, it's warfare. Push for bold policies that create tobacco-free zones where futures can breathe. And if you or someone you know is struggling, turn to **smart tools like QuitGenius, SmokeFree, or national helplines**—because real help is now just a tap away. The war on tobacco isn't just global—it's personal. And every voice counts.

World No Tobacco Day 2025 isn't just a date—it's a stand.

A stand for truth over tactics, for breath over branding, for a future unclouded by smoke.



If you're reading this and thinking of quitting—you're not breaking down, you're breaking free. Strength isn't in the struggle—it's in the decision to begin. Even the smallest choice to quit is a giant leap toward reclaiming your life. **Because sometimes, the most powerful rebellion isn't loud—it's the quiet, fearless act of choosing to breathe.**

Reference

World Asthma day-

- <https://www.who.int/news/item/06-05-2025-working-together-to-make-asthma-a-global-health-priority>

World Thalassemia Day-

- <https://internationalthalassaemiaday.org/>
- <https://thalassaemia.org.cy/news/international-thalassaemia-day-2025-announcing-this-years-theme/>
- <https://thalassaemia.org.cy/news/international-thalassaemia-day-2025-joint-statement-by-tif-ebcog/>

Mother's Day

- <https://timesofindia.indiatimes.com/life-style/events/when-is-mothers-day-2025-history-significance-story-and-all-you-need-to-know-about-mothers-day/articleshow/120987260.cms>

World Hypertension Day-

- <https://www.who.int/southeastasia/news/detail/17-05-2025>
- <https://www.pacehospital.com/world-hypertension-day>
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC2643187/>
- <https://www.paho.org/en/world-hypertension-day>

International Day for Biodiversity-

- <https://www.cbd.int/biodiversity-day>
- <https://www.cbd.int/biodiversity-day/2025/stories-and-highlights>
- <https://www.unep.org/events/un-day/international-day-biological-diversity-2025>

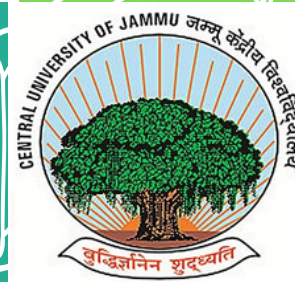
International Day of Potato

- <https://www.fao.org/international-potato-day>
- <https://cipotato.org>
- <https://www.who.int>

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