Breaking New Ground in Alzheimer's Research

Proud moment! **Dr. Nisha Singh**, Assistant Professor at Gujarat Biotechnology University Biotechnology University, has contributed to Alzheimer's research published in Small Journal (Wiley), featuring a novel nanoparticle-based therapeutic approach.

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GBU researcher on team that focused on multi-pronged Alzheimer's cure

Dec 17, 2025, 12.13 AM IST

Ahmedabad: An antioxidant, epigallocatechin-3-gallate (EGCG), found in green tea, along with other components, was used by researchers to develop a nanoparticle that will help reduce the intensity of Alzheimer's disease and even help develop new neurons, indicated research published recently in the journal Small. One of the authors of the study is from Gujarat Biotechnology University (GBU).

The team used EGCG along with dopamine, a neurotransmitter important for mood, and tryptophan, an amino acid involved in many cellular functions, to develop the nanoparticle named EGCG-dopamine-tryptophan nanoparticles (EDTNPs). The nanoparticles simultaneously target amyloid aggregation, oxidative stress, inflammation, and neuronal degeneration, according to a release by the researchers on Tuesday.

The researchers included Dr Jiban Jyoti Panda and the team from the Institute of Nano Science and Technology (INST), Mohali, with support from Dr Ashok Kumar Datusalia (NIPER Raebareli) and Dr Nisha Singh (GBU). Dr Singh told TOI that the computational work for the project was carried out at GBU.

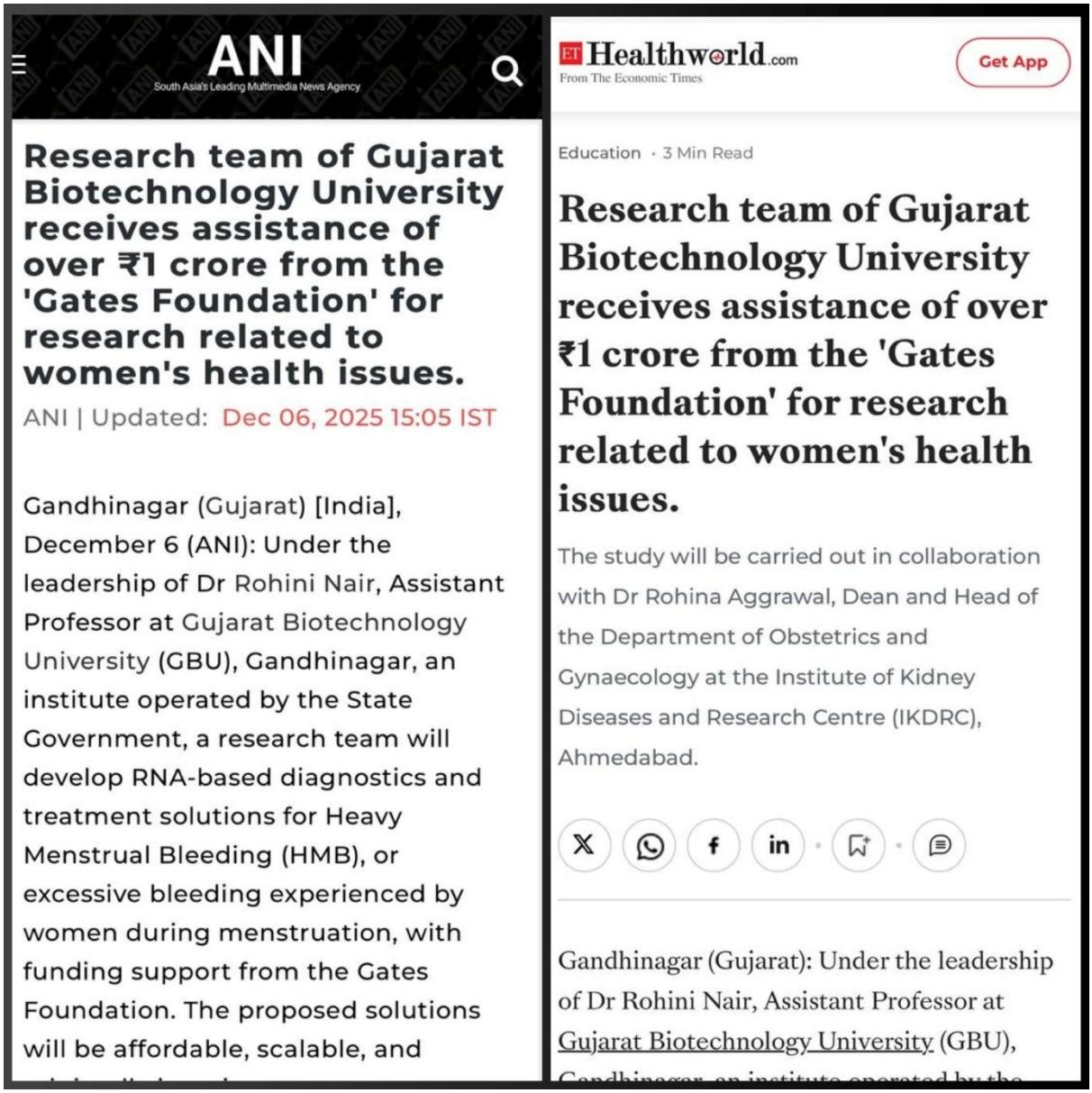
"The result of the research will help develop a new path for Alzheimer's treatment," said Dr Singh. Researchers said that the conventional therapies often target a single pathological feature, but the new pathway is multipronged in approach.

Dr. Majumdar Highlights Bioeconomy Vision at IISF 2025 in Chandigarh

We are delighted to share that **Dr. Subeer Majumdar**, Director General, Gujarat Biotechnology University, delivered a lecture and participated in a panel discussion on an important session of Bioeconomy, based on the Hon'ble Prime Minister's visionary BIOE3 policy at the India International Science Festival 2025, organized at Chandigarh by the Department of Science & Technology, Government of India. It is held from December 6–9 under the theme "Vigyan Se Samruddhi: For Aatmanirbhar Bharat". At a time when the nation is steering toward science-led growth, GBU of the Department of Science and Technology, Gujarat, is committed to advancing the bioeconomy through cutting-edge research and Innovation for shaping the national discourse on Bioeconomy and self-reliance.

GBU Secures Gates Foundation Grant for Women's Health Research

Hearty congratulations to **Dr. Rohini Nair** on receiving a research grant from the Gates Foundation for innovative work addressing heavy menstrual bleeding. This achievement reinforces GBU's commitment to science-driven innovation. A research team at the Gujarat Biotechnology University (GBU) has secured over ₹1 Crore in funding from the Gates Foundation for critical research focused on women's health. The project, led by Assistant Professor Dr. Nair, aims to develop RNA-based, cost-effective, and minimally invasive diagnostic and therapeutic tools for Heavy Menstrual Bleeding (HMB). This research will be helpful in resolving the difficulties faced by women during menstruation. Modern diagnostics and AI technology will be utilized to identify the causes of HMB (Heavy Menstrual Bleeding) in underserved areas. Women will be invited by GBU (Gujarat Biotechnology University) for HMB problem resolution and awareness.



ANI
South Asia's Leading Multimedia News Agency

Research team of Gujarat Biotechnology University receives assistance of over ₹1 crore from the 'Gates Foundation' for research related to women's health issues.

ANI | Updated: Dec 06, 2025 15:05 IST

Gandhinagar (Gujarat) [India], December 6 (ANI): Under the leadership of Dr Rohini Nair, Assistant Professor at Gujarat Biotechnology University (GBU), Gandhinagar, an institute operated by the State Government, a research team will develop RNA-based diagnostics and treatment solutions for Heavy Menstrual Bleeding (HMB), or excessive bleeding experienced by women during menstruation, with funding support from the Gates Foundation. The proposed solutions will be affordable, scalable, and

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Research team of Gujarat Biotechnology University receives assistance of over ₹1 crore from the 'Gates Foundation' for research related to women's health issues.

The study will be carried out in collaboration with Dr Rohina Aggrawal, Dean and Head of the Department of Obstetrics and Gynaecology at the Institute of Kidney Diseases and Research Centre (IKDRC), Ahmedabad.

Gandhinagar (Gujarat): Under the leadership of Dr Rohini Nair, Assistant Professor at Gujarat Biotechnology University (GBU),

Insights on Biotechnology and Innovation from DBT Secretary at GBU

GBU was honoured to host **Prof. Rajesh Gokhale**, Secretary, Department of Biotechnology, Ministry of Science & Technology, Government of India. Prof. Gokhale interacted with GBU's students and faculty, sharing invaluable insights on biotechnology, research & innovation.








GBU Director General Awarded Lifetime Achievement Honour at LASAICON-2025

A Moment of Pride for Gujarat Biotechnology University! We are delighted to share that **Dr. Subeer S. Majumdar**, Director General, Gujarat Biotechnology University, has been honoured with the Lifetime Achievement Award at LASAICON-2025. This recognition celebrates his outstanding dedication, innovation, and leadership that have significantly advanced the field of Animal Biotechnology, setting new benchmarks for excellence. The award was presented at the International Conference on “From Preclinical to Clinical: Connecting the Dots of Research, Animal Welfare, Drug Discovery and Pharma Innovation for Viksit Bharat”, held from 1st–2nd December 2025, organized at CSIR-IMTECH, Chandigarh by the Laboratory Animal Science Association of India (LASAI).

GBU Hosts Future Innovators from ADCH

Gujarat Biotechnology University was delighted to host MDS students from the Orthodontics, Prosthodontics, Oral Pathology, and Oral Medicine & Radiology departments of Ahmedabad Dental College & Hospital (ADCH).

The students explored GBU's state-of-the-art research and laboratory facilities and received valuable insights for their ongoing research from Prof. (Dr.) Rakesh Rawal, Dean – Academics & HOD Medical Biotechnology.

Gujarat Biotechnology University @ Vibrant Gujarat Regional Conference!

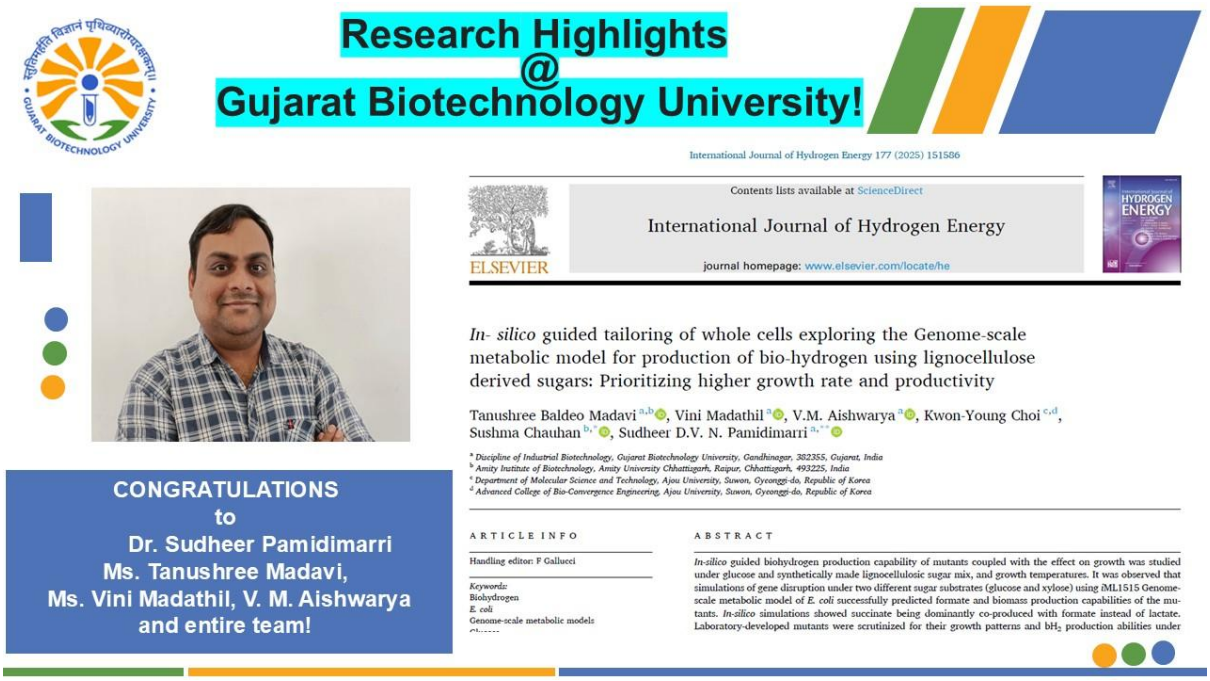
Under the umbrella of the Department of Science and Technology, Government of Gujarat, Gujarat Biotechnology University (GBU) proudly participated in the Vibrant Gujarat Regional Conference, being held at Ganpat University, Mehsana (9-13 October 2025) in alignment with the vision of Viksit Bharat @2047.

GBU partners with ADCH on Oral Cancer innovations

Today, Gujarat Biotechnology University (GBU) signed an MoU with Ahmedabad Dental College & Hospital (ADCH) to foster collaboration in academic and translational research. The partnership will focus on conducting joint research and promoting faculty and student training, with the shared goal of advancing biotechnology-driven healthcare innovation in oral cancer.

GBU research team publishes breakthrough in sustainable energy

Many congratulations to Dr. Sudheer Pamidimarri and his research team at GBU for their outstanding research published in the International Journal of Hydrogen Energy. This research work strengthens the vision of building a sustainable energy future.



Celebrating GBU student's success in CSIR-JRF-2025

We are delighted to share the success of our students in the CSIR-JRF 2025 Examination! Swethan Uv – Rank 73 and Samarth Desai – Rank 92. Wishing you continued success ahead!

CSIR-JRF Achievers

Swethan Uv
Rank 73
M.Sc. Medical Biotechnology

Samarth Desai
Rank 92
M.Sc. Medical Biotechnology

Many Congratulations to **Swethan Uv** and **Samarth Desai** for qualifying **CSIR-JRF (2025) !**

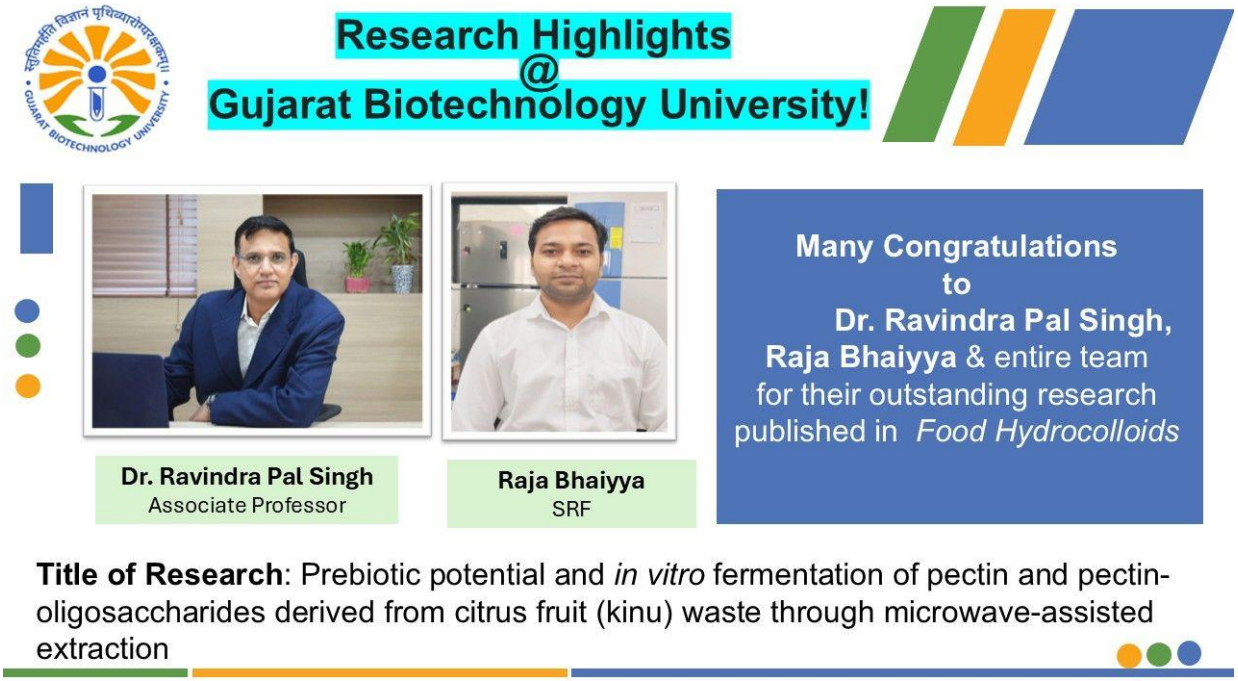
We are proud of your accomplishment and wish you continued success ahead!

GBU explores prebiotic potential of Kinnow peel waste!

In the study by Gujarat Biotechnology University, kinnow peel waste was utilized as a raw material for the extraction of pectin, which was subsequently used to generate pectin-derived oligosaccharides (POSs) which have a significant potential as prebiotic compounds.

GBU study demonstrates prebiotic potential of pectin-derived oligosaccharaides

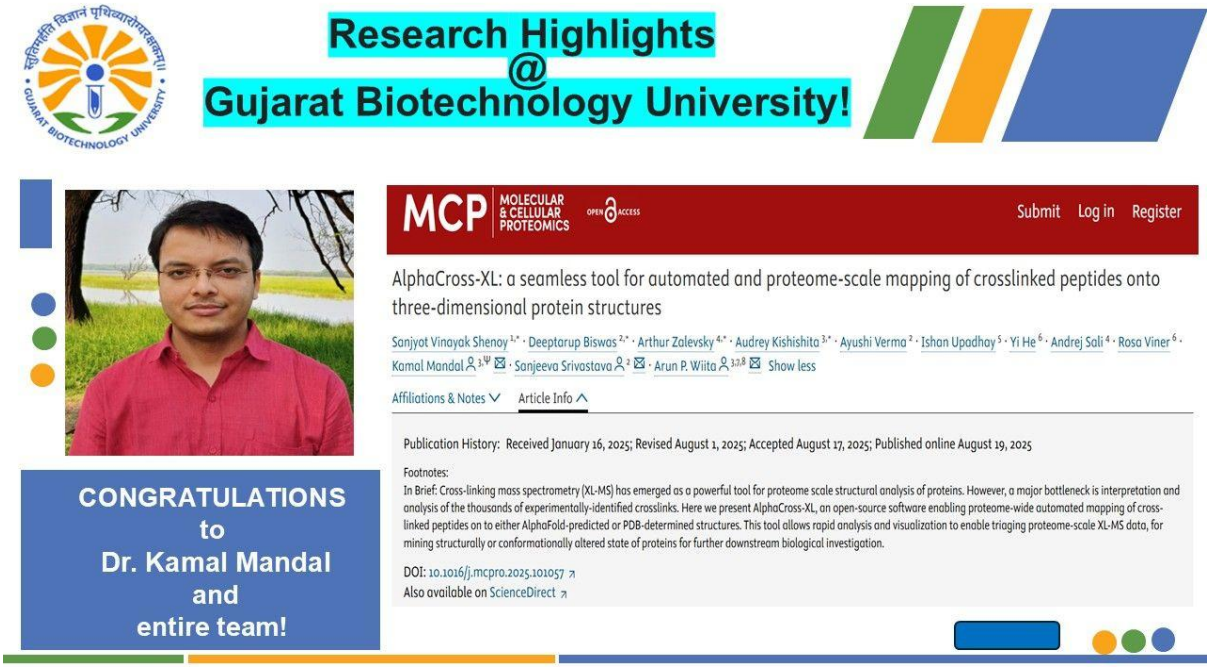
Turning Waste into Wellness! The study led by Raja Bhaiyya, Ravindra Pal Singh and other researchers, demonstrates how citrus fruit (kinnow peel waste) can be transformed into next-generation prebiotics that support gut health. By generating pectin-derived oligosaccharides (POSs), the researchers observed enhanced growth of beneficial microbes like Bacteroides, Bifidobacteria, and Lactobacillus, along with increased short-chain fatty acids – essential for overall wellness. A step forward in sustainable nutrition and gut health innovations!



AlphaCross-XL: GBU, UCSF, and IIT Bombay Launch First-in-Class Tool for Protein Structure Mapping

We are delighted to share that Dr. **Kamal Mandal**'s laboratory, along with a team of researchers from UCSF and IIT Bombay, published a new article in Molecular & Cellular Proteomics: “AlphaCross-XL: a seamless tool for automated and proteome-scale mapping of crosslinked peptides onto three-dimensional protein structures.”

AlphaCross-XL is seamlessly integrated with AlphaFold, enabling automated and proteome-scale mapping of cross-linked peptides onto protein 3D structures. This first-in-class open-source software is a novel addition to the toolkit for structural biology and mass spectrometry. The tool will help researchers worldwide for better understanding of protein conformational alterations and its disease relevance, thereby facilitating identification of potential novel therapeutic targets.



Glimpses of CRC-2025!

Organized by Gujarat Biotechnology University in collaboration with **UN Mehta Institute Of Cardiology & Research Center**, the two-day convergence on the theme “Redefining Cardiovascular Health: Integrating Basic Science, Clinical Insight, Biotechnology & Artificial Intelligence” brought together leading clinicians, scientists, and innovators from across India. CRC-2025 marked a milestone in advancing cardiovascular research by seamlessly bridging science, medicine, and technology.

A Breakthrough Step in India’s Fight Against Cancer!

Gujarat Biotechnology University has signed MoU with Celliimune Biotech Pvt. Ltd. to co-develop indigenous CAR-T Cell Therapy a cutting-edge treatment for blood cancer patients. This collaboration marks a powerful synergy between cutting-edge academic research and biopharma innovation—aimed at making life-saving cancer therapies more accessible and affordable for India. The event was graced by Ms. Mona Khandhar (IAS), Principal Secretary, DST, Government of Gujarat; Shri Sudhir Vaid, Chairman & Managing Director, Concord Biotech Ltd; and Shri Ankur Vaid , Director, Celliimune Biotech Pvt. Ltd. With the presence of top leadership from GBU and Celliimune Biotech Pvt. Ltd., the ceremony marked the beginning of a visionary partnership in cancer care innovation. This is a remarkable achievement for GBU where an Industry funded collaboration of such stature is initiated. Together, GBU and Celliimune are redefining cancer care—by India, for India.

GBU Student Wins 2nd Prize at International Agriculture Conference

We extend heartiest congratulations to MSc student, Ms. shivani G. working under the guidance of Dr. Nisha Singh for securing 2nd Prize in Oral Presentation at the 9th International Conference on Agrinext: Future Trends in Agriculture (ICANFTA-2025), held at the Department of Agriculture, Brainware University, Kolkata.

Prof. Rakesh Rawal Joins Gujarat State Allied & Healthcare Council

Gujarat Biotechnology University extends the heartiest congratulations to Prof. (Dr.) Rakesh Rawal for being nominated as a member of the Gujarat State Allied and Healthcare Council by the Health & Family Welfare Department, Government of Gujarat!

Highlights from Biothon-2025, hosted by Gujarat Biotechnology University!

A competition aimed at addressing societal challenges through innovative, interdisciplinary solutions. Aligned with BioE3 (Biotechnology for Economy, Environment, and Employment), the UN Sustainable Development Goals, and the One Health Approach, participants presented their ideas in response to the problem statements provided by leading Biotech industries in critical areas such as Agritech, Sustainability, Healthcare, and Energy. Awards were presented for Best Innovation (BioE3 Alignment), Best Societal Impact (SDG Alignment), Rising Startup Idea (Industry Potential) and Rising Star award.

Prof. Sudhir Pratap Singh Honored as INSA Associate Fellow

Gujarat Biotechnology University extends warmest congratulations to Prof. Sudhir Pratap Singh, for being honored as "INSA Associate Fellow" by the Indian National Science Academy (INSA), New Delhi, recognizing his outstanding contributions in the filed Industrial Biotechnology.