CENTRAL UNIVERSITY OF TAMILNADU

DEPARTMENT OF BIOTECHNOLOGY

Scivantage

Magazine 2026

04

VOLUME

2026

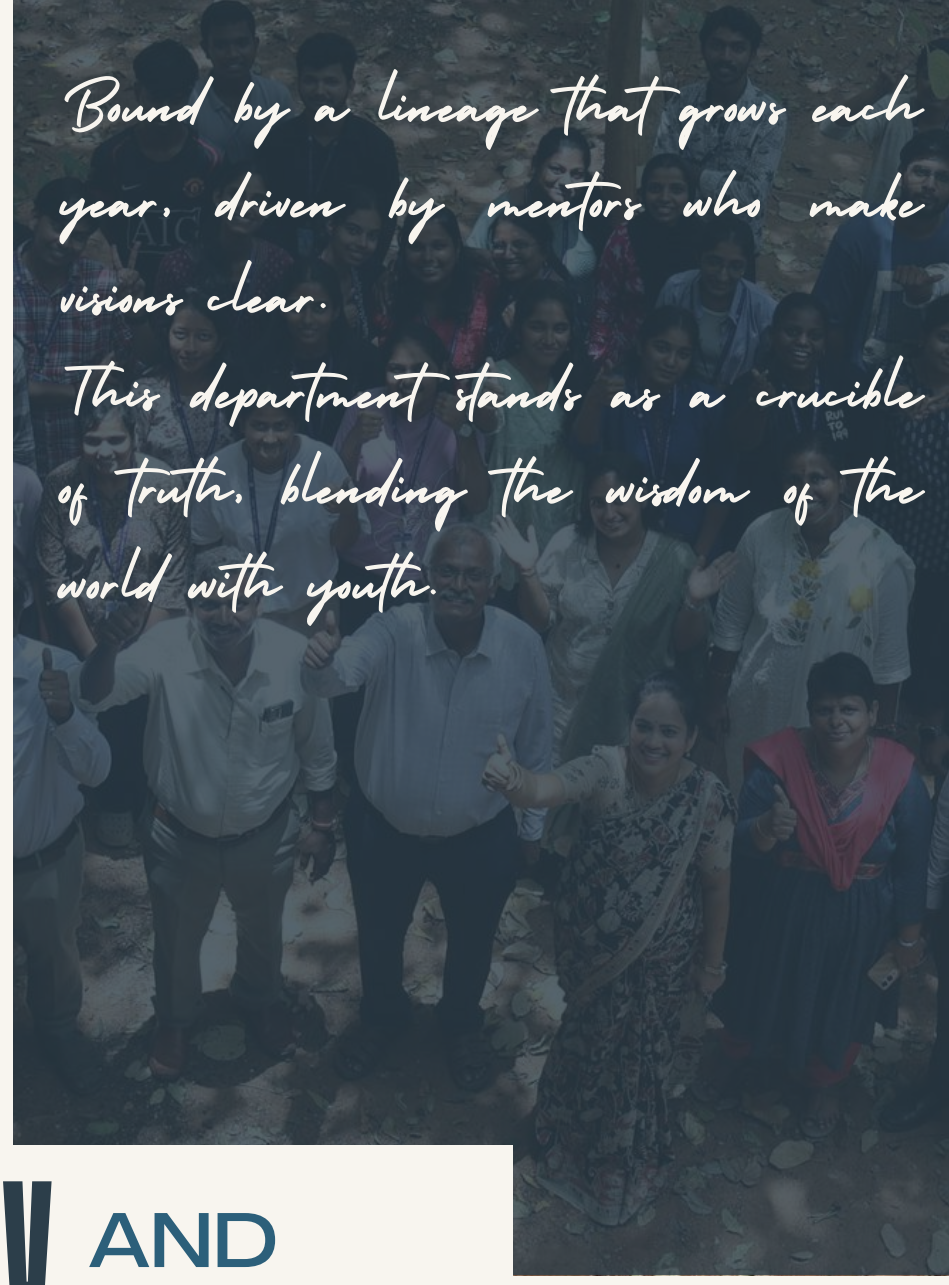
Crescimento

04

Welcome to

SCIVANTAGE

VOLUME-04

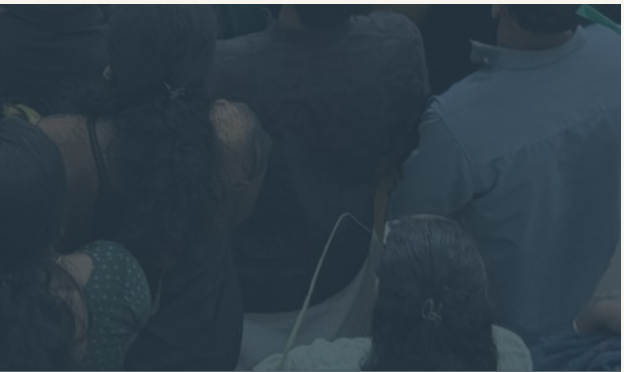


Bound by a lineage that grows each year, driven by mentors who make visions clear.

This department stands as a crucible of truth, blending the wisdom of the world with youth.

HELIX AND HORIZON

The future's bright, stage is set, the finest days are coming yet!



EDITORIAL TEAM

ADVISORS

Prof. J. RAJESH BANU

Dr. MEGANATHAN KANNAN

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Sudharsh S

Preetha R

Kartheeswaran D

Mathangi M Subramanian

Sangeetha D

Mohamed Rizwan G

Santhakumar E

Roshni M

Juhe Shanofar B

Harini S V

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FOREWORD BY THE VICE CHANCELLOR

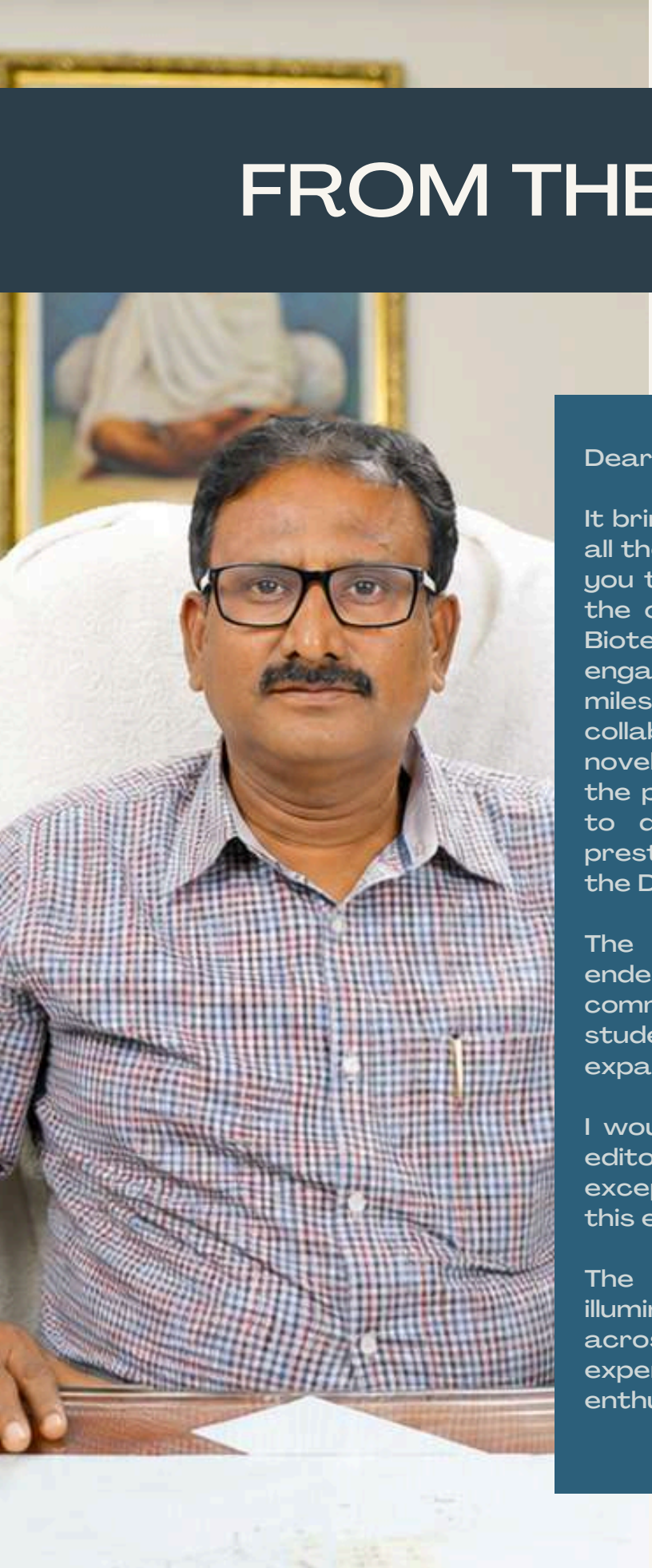
As the Vice Chancellor of the Central University of Tamil Nadu, it is my privilege to pen this foreword for our Department of Biotechnology. This is an academic anchor of our University since 2012. Since its establishment, the department has steadily advanced as an academic rigour, cutting-edge research and impactful innovation. The department empowers young scientists to confront global challenges in healthcare and environmental sustainability; it continues to shape the future of biological sciences.

The Department of Biotechnology expands its scientific footprint through high-impact initiatives like the DST-PURSE-funded Organ-on-Chip. Its academic framework remains equally strong, offering B.Sc. Honours, elite DBT-sponsored M.Sc., and deep-dive PhD tracks. The tireless dedication of both mentors and students ensures that the department remains an active catalyst for global scientific milestones, creative innovation, and human welfare.

I firmly believe that the Department of Biotechnology would inspire premium standards and inventive thinking, leading to purposeful investigative findings in the foreseeable future.

— VICE CHANCELLOR

FROM THE REGISTRAR'S DESK



Dear Students and Friends,

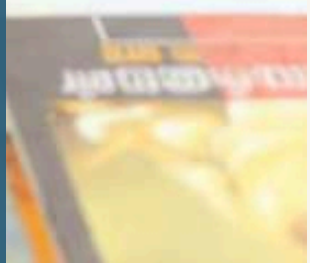
It brings me great joy whilst I send my best to all the readers and highlight a few words with you through this latest edition of *Scivantage*, the official magazine of the Department of Biotechnology. I warmly invite you to actively engage in the journey of the department's milestones and the spotlight of the collaborative exploration of knowledge, novelty, and intellectual rigor. As you explore the pages of this magazine, you are solicited to discover the triumphs, originality, and prestigious academic brilliance that exemplify the Department of Biotechnology.

The magazine showcases the multifaceted endeavours pioneered by our academic community, led by our faculty members and students, to emphasize mutual passion to expand the horizons of biotech.

I would like to applaud the contributors and editorial team for their imaginative approach, exceptional commitment, and foresight into this edition of *Scivantage* to life.

The chapters within this magazine will illuminate, ignite, and empower the readers across disciplines, motivating them to seek expertise and discovery with fresh enthusiasm.

— REGISTRAR



DEAN

SCHOOL OF INTEGRATIVE BIOLOGY

Prof. P. Rajaguru

Our Department is driven by a relentless pursuit of innovation, leading to reaching new heights anchored by the exceptional calibre of our MSc and PhD students who enter our programmes backed by prestigious CSIR, ICMR, BET, GATE, and GAT-B stipends. This serves as the foundation for the academic distinction that brought the landmark PURSE project to our campus. Our faculty members' research footprint expands exponentially, marked by the publication of 48 peer-reviewed papers and 4 scholarly books this year. With 9 active research projects driving innovation, totalling an impressive Rs. 3.72 crores, we are reinforcing our stature as a premier hub for cutting-edge scientific discovery.

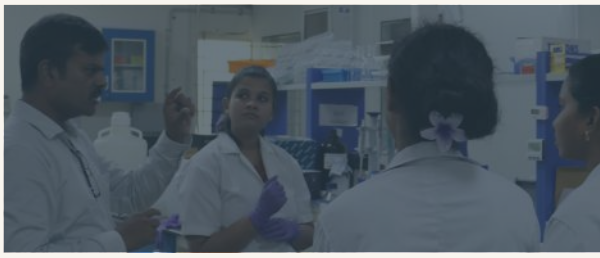
HEAD

DEPARTMENT OF BIOTECHNOLOGY

Prof. J. Rajesh Banu

I take immense pride in the vibrant diversity of our department, where top-tier students from every corner of India unite after clearing the intensely competitive Common University Entrance Test (CUET) exam. This year, our students have set a visionary benchmark in national examinations, securing 17 GATE qualifications, 9 CSIR-UGC NET clearances, 4 ICMR-JRF fellowships, and 5 IIT-JAM successes while simultaneously enriching global science by publishing 9 research papers and authoring 5 book chapters. Embodying true holistic excellence, these brilliant minds seamlessly balance their rigorous scholastic pursuits with stellar achievements in sports, leadership roles in social organisations like NCC, and diverse extra-curricular activities, making them outstanding spirits of our biotechnology community.

PROLOGUE



The Department of Biotechnology is a vibrant community where curiosity meets collaboration, extending far beyond traditional labs and lectures. This magazine highlights our journey, showcasing groundbreaking research, significant milestones and the relentless passion driving scientific discovery. Grounded in dedication, we honour the people, innovative ideas and moments that strengthen our shared scientific spirit. Our professors are not only the backbone of our department; they wear many hats as their contributions extend beyond lecture halls and research labs. In our department, our faculty members take vital administrative responsibilities to strengthen our University.

VISION

- Enlighten the potential of Biotechnology to achieve newer heights in the multi-disciplinary education, research and entrepreneurship and instil human values and welfare via promoting innovation in biotechnology for nation-building.

MISSION

- To provide an academic ambience that emphasizes creativity and critical thinking among students.
- To promote multi-disciplinary education, research and creative analysis among the students across diversified areas in biotechnology.
- To display leadership qualities in pedagogy and learning for a better understanding of mechanistic concepts in biotechnology.

PROGRAMMES & STREAMS

The Department of Biotechnology offers comprehensive academic and research opportunities through multidisciplinary programmes designed to equip students with strong theoretical knowledge, practical exposure, and research competence in modern biotechnology.

- B.Sc. Honours (4Years) Biotechnology
- M.Sc. Biotechnology (DBT Supported)
- Ph.D. Biotechnology

ROOTS TO RISE

CRESCIMENTO' 25

Certain traditions do more than a look back - they define our purpose. The launch of our annual magazine *Crescimento'25* marked the release of *SCI-VANTAGE*- Volume 03, of the Department of Biotechnology on May 15th, 2025, felicitated by our honourable Vice Chancellor of the Central University of Tamil Nadu, Prof M. Krishnan at the Department of Biotechnology. It was a milestone moment and one such occasion - a coming together of minds, a celebration of our journey, and a profound tribute to the soul of our department. We gather this year to honour our tradition that remains as vibrant as ever.

Crescimento'25 commemorated a remarkable academic year defined by research breakthroughs, cultural triumphs, community impact, and social outreach. This milestone gathering brought students and faculty members together to celebrate a year defined by resilience and collective success. The debut of *SCI-VANTAGE* - Volume 03 marks the threshold of a new chapter, symbolising retrospective innovation inspiring the breakthroughs tomorrow. *Crescimento'25* extends its profound gratitude to Dr. Poornachandar Gugulothu, whose strategic guidance and meticulous commitment beautifully brought immense success.

Crescimento'25

ROOTS TO RISE

CRESCIMENTO' 25

More than a look back at the years gone by our Crescimento opens its pages anew. we step into insights both profound and true. building a legacy that will never fade.

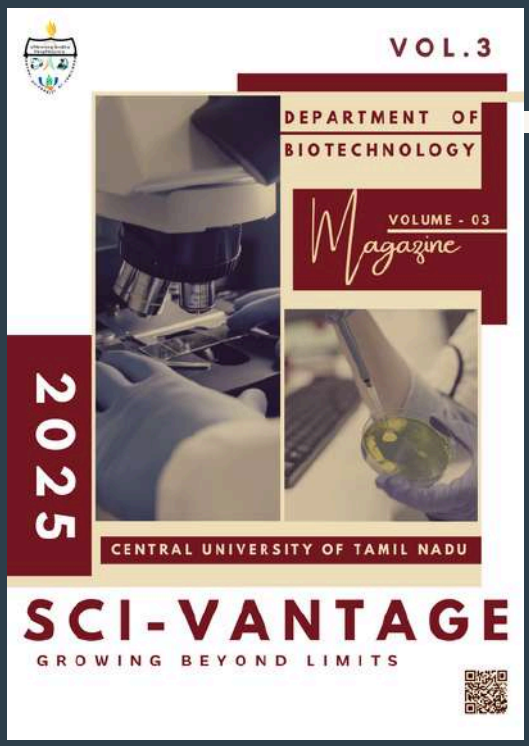










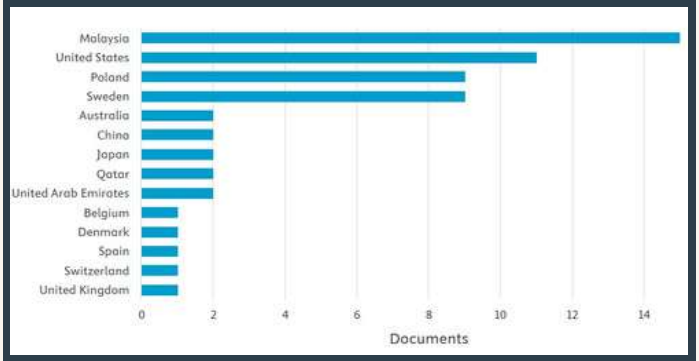


MAGAZINE VOLUME 03

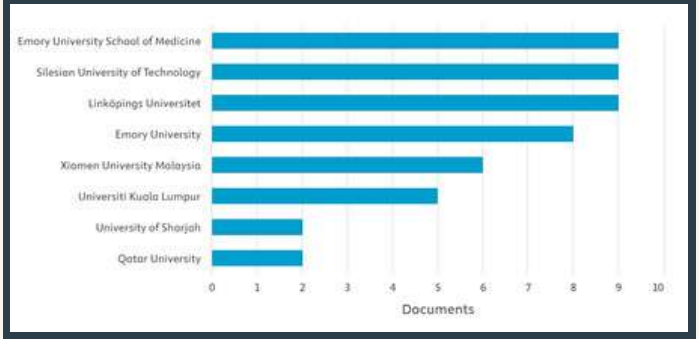
So now we celebrate not just our rank but our shared travel from our earliest days to our current standing in research. As a new chapter begins, we move forward with a promise of deeper insights, building a legacy that evolves and strengthens every passing year.

PEOPLE & RESEARCH AREAS

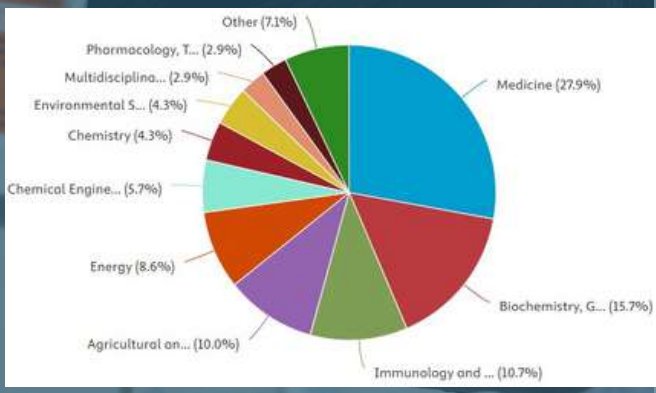
International Collaborations Scopus 2025-26



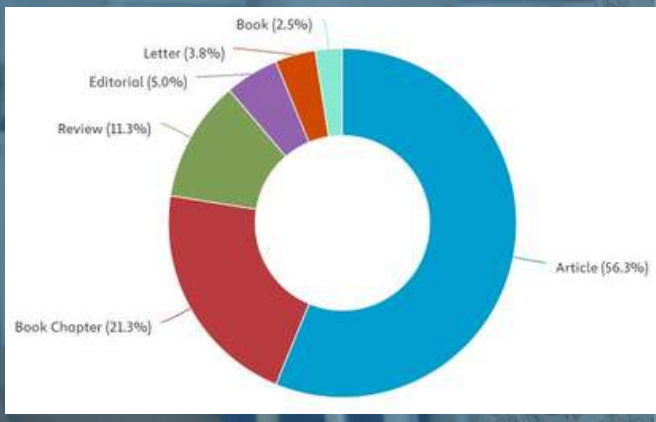
Countries Institution Scopus 2025-26



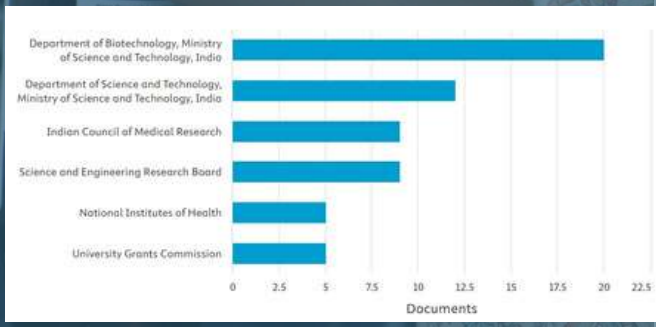
Subject area Scopus 2025-26



Article type Scopus 2025-26



Funding sponsor Scopus 2025-26

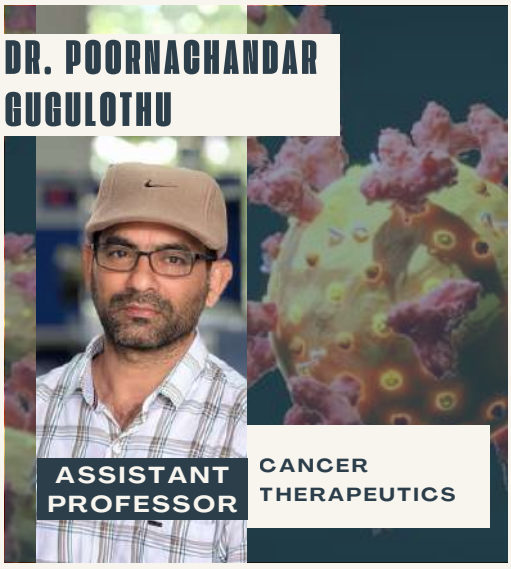


Research Milestones are the definition of perseverance, which focuses on creativity and collaboration to produce innovation that will result in the transformation of the world. In this section, we will be focusing on our professors, the guiding force and pillar of support behind the academic and scientific excellence and their cutting-edge research areas.

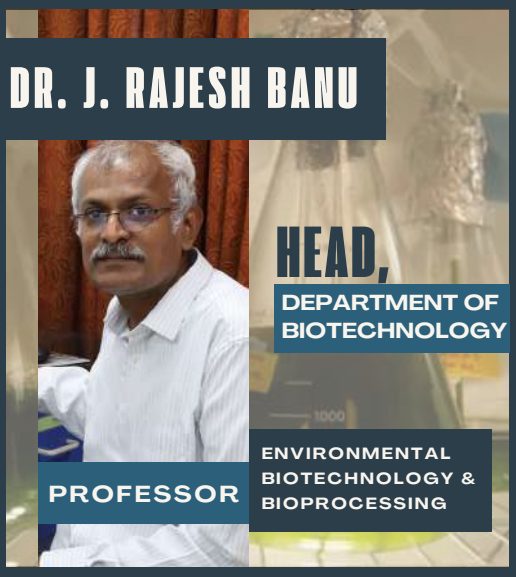
MOLECULAR TOXICOLOGY

PLANT TISSUE CULTURE

CANCER THERAPEUTICS

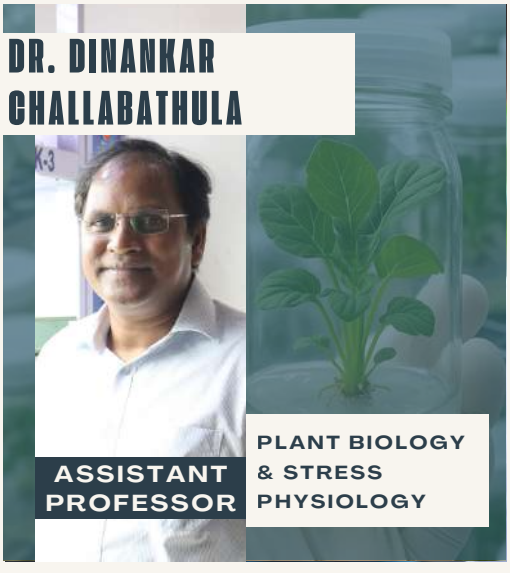


BIOPROCESS

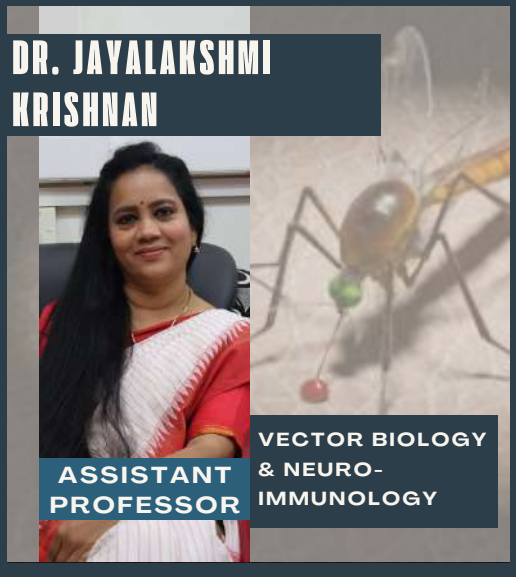


THRUST

PLANT PHYSIOLOGY



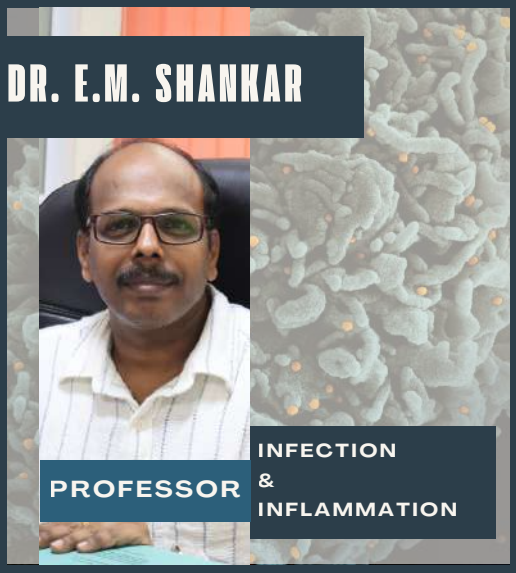
VECTOR BIOLOGY



AREA

INFECTION BIOLOGY

DR. E.M. SHANKAR

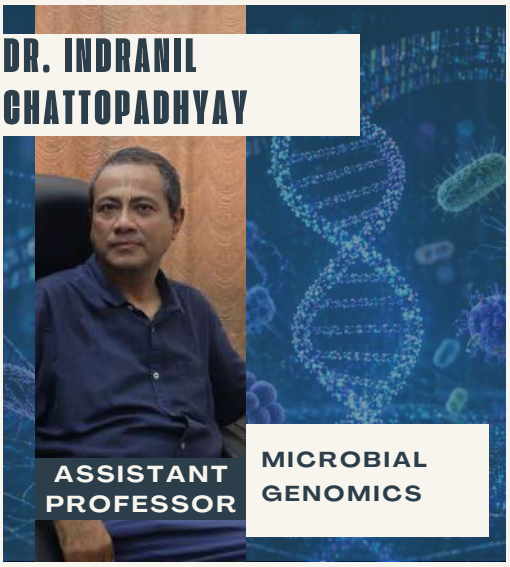


PROFESSOR

INFECTION & INFLAMMATION

MICROBIAL GENOMICS

DR. INDRANIL CHATTOPADHYAY

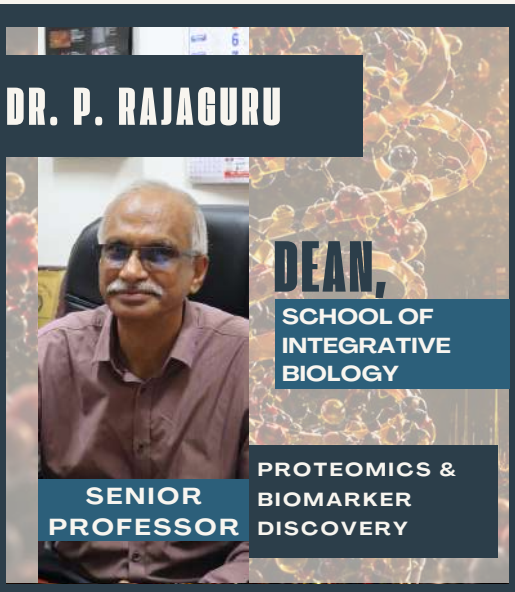


ASSISTANT PROFESSOR

MICROBIAL GENOMICS

PROTEOMICS BIOMARKERS

DR. P. RAJAGURU



DEAN,

SCHOOL OF INTEGRATIVE BIOLOGY

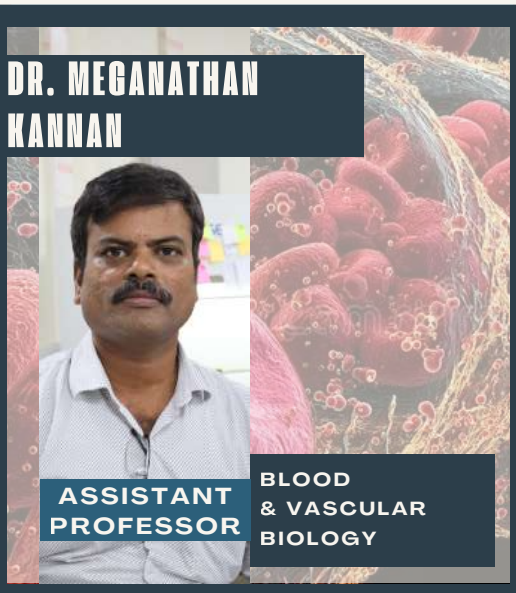
SENIOR PROFESSOR

PROTEOMICS & BIOMARKER DISCOVERY

This section is a comprehensive guide to the specialised research domains, core thrust areas, and scientific expertise of faculty members forming the cornerstone of our department.

BLOOD AND VASCULAR BIOLOGY

DR. MEGANATHAN KANNAN

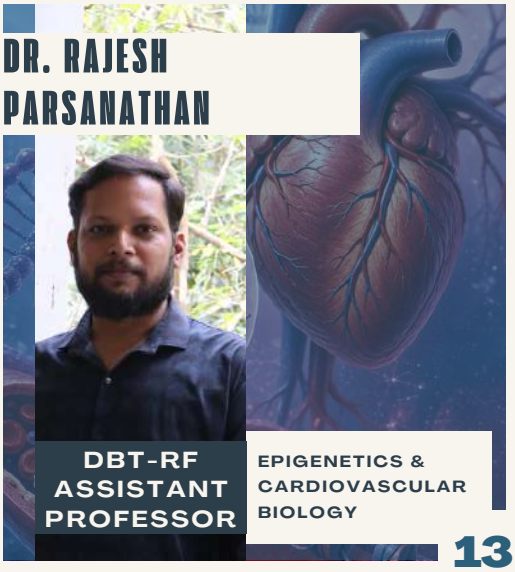


ASSISTANT PROFESSOR

BLOOD & VASCULAR BIOLOGY

EPIGENETICS

DR. RAJESH PARSANATHAN



DBT-RF ASSISTANT PROFESSOR

EPIGENETICS & CARDIOVASCULAR BIOLOGY

GUEST FACULTY

Dr. S. Vidhushini.
M.Sc., Ph.D.

Dr. M. Pradeepa
M.Sc., M.Phil., Ph.D.

We bridge the gap of what we see, with what the future's pulse could be.

NON-TEACHING STAFF

Mr. K. NEHRU M.Sc.,
M.Phil., B.Ed., DMLT

Mrs. J. LATHA B.Sc.,
DMLT, ANM

Mr. T.
MURUGANANTHAM

AWARDS

ACHIEVEMENTS

PROF. J. RAJESH BANU

- Technical Expert Committee member on advanced biofuels and sustainability (Energy, Environment and Forest Biotechnology), Ministry of Science and Technology, DBT, GoI-2025
- Member of the Screening Committee for the Evaluation of Project proposals – Chief Minister Research Grant 2025-26, Tamil Nadu.
- Expert member to review a research proposal for the executive government agency of the National Science Centre, Poland.
- Expert member to review a research proposal for the Swiss National Science Foundation (SNSF), Switzerland.

PROF. E. M. SHANKAR

- Honorary Visiting Professor, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia.
- Editor of Distinction-Editorial Contribution Award 2025, Scientific Reports, Springer Nature, USA.
- Author Services Award 2025, Scientific Reports, Springer Nature, USA.
- Associate Editor, Reviews in Medical Virology, Wiley & Sons Publishers, London UK.
- Academic Editor, PLOS Neglected Tropical Diseases, Public Library of Sciences, USA.
- Academic Editor, Journal of Parasitology Research, Wiley and Sons, Inc., USA.
- Associate Editor, Frontiers in Pharmacology (Inflammation Pharmacology), Frontiers Media, Lausanne, Switzerland.

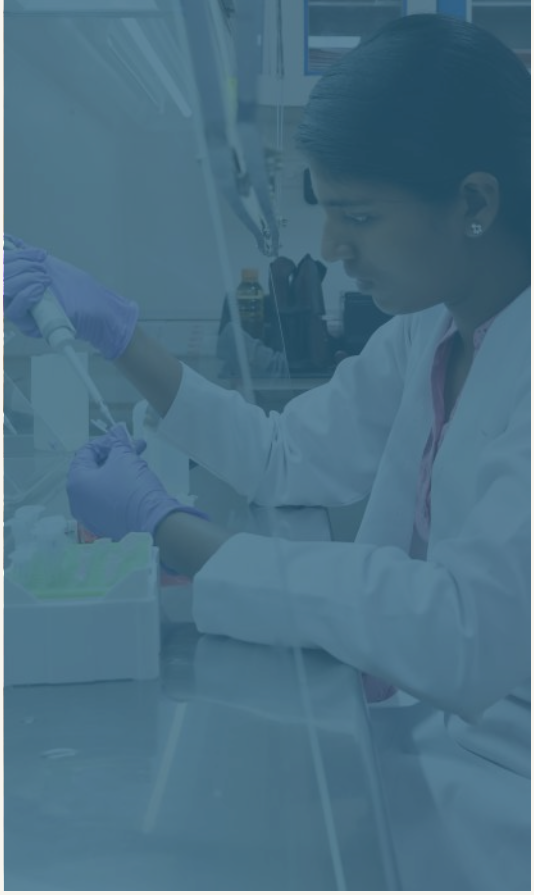
DR. JAYALAKSHMI KRISHNAN

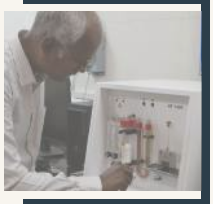
- Innovative Researcher Award, awarded by National Academy of Vector Borne Diseases, Bhubaneswar in the year 2025

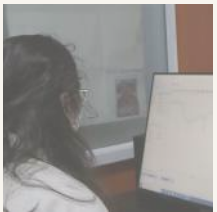
FELLOWSHIP

S.NO	NAME	SPONSORING AGENCY	POSITION	DURATION	AMOUNT SANCTIONED (RS.)
01	 Dr. Preethi, M.E., Ph.D.	Department of BioTechnology, Government of India	Research Associate	Feb 2024-2027	23,82,000
02	 Dr. Zarin Taj, M.Sc., Ph.D.	ICMR INDIAN COUNCIL OF MEDICAL RESEARCH	Research Associate	Jan 2023-2026	22,17,600
03	 Dr. Raja Lakshmi, M.Sc., M.Phil., Ph.D.	ICMR INDIAN COUNCIL OF MEDICAL RESEARCH	Research Associate	Jan 2023-2026	22,96,800

ACADEMICS & RESEARCH HIGHLIGHTS







Innovations are profoundly strengthened by pursuit of knowledge which reflects learning and exploration of current information. Celebrating this journey through these milestones this section focusses on the research highlights and the remarkable contributions of students and faculty members.

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in this section

DBT- GAT-B MEETING

DBT-PG PROGRAMME ANNUAL ADVISORY COMMITTEE MEETING: A RESOUNDING SUCCESS

Advisory committee members, Vice Chancellor (VC) Prof. M. Krishnan, and faculty during the second annual meeting at APJ Abdul Kalam Meeting Room, CUTN.

The Department hosted the Second Annual Advisory Committee Meeting of the DBT-sponsored Postgraduate Program on 6 February 2026 in hybrid mode at the APJ Abdul Kalam Meeting Room, CUTN. Officials from the Department of Biotechnology (DBT), Government of India (GoI), participated online. At the same time, the DBT-nominated reviewer, the Honourable Vice-Chancellor, and the Department's faculty members attended the meeting in person. Hon'ble Vice-Chancellor Prof. M. Krishnan highlighted the University's remarkable achievements, including growth in student admission, obtaining DST-FIST support for seven departments, an NIRF rank of 83 in the University Category, and the DST-PURSE grant.

The programme coordinator presented the updates, including student admissions, the implementation of a DBT curriculum aligned with NEP 2020, and support from trained faculty and interdisciplinary departments. Students completed internships, participated in scientific conferences and workshops, and visited RGCA (Sirkazhi), NCBS (Pune), and JNCASR (Bengaluru). The program's growing reputation was evident in the high GAT-B scores of new entrants. On the research front, the Department received multiple R&D and consultancy grants and established collaborations with TIGS and AlgalR, Thanjavur. The academic output was robust, with 194 publications, including student dissertation findings, patents, and books.

Students were appointed in industry, cleared competitive exams, and enrolled in doctoral programs at premier institutions. The meeting also acknowledged well-equipped research facilities, active student engagement, and strong institutional support systems. At the outset of the meeting, DBT, GoI has extended the DBT-GAT-B program for another two years.

Articles - 2026

ACADEMICS & RESEARCH HIGHLIGHTS

DEPARTMENT PUBLICATIONS

ARTICLES - 2026

01 Pradeep M, Srivignesh S, Rama Krishna K, Kathiresan S, Ramesh Kumar A. (2026). Modulation of yield dynamics in acid lime cv. Balaji during hasta bahar through foliar application of novel plant growth regulators. *Plant Science Today*, (IF: 0.8).

02 D Kiran Khanna, K M Divya Jayalakshmi, D Arun, S Jayavardhini, S Hemanth Karthikaa, S Sumetha & Karthik Thiyagarajan A, (2025) A Short-term cross-sectional retrospective study on procalcitonin as a diagnostic aid for various infectious diseases. *Future Journal of Pharmaceutical Sciences*, 11, 29. Q2 (IF:3)

03 Kavitha S, Yukesh K. R., Ginni G, Appels. L, Łapkowski, Yogendra K.M., Palanivelu. K, Rajaguru. P., Pugalenthi. V. Rajesh Banu J. (2025) Recent Advances in Photocatalytic Conversion of Lignocellulosic Biomass: Routes, Limitations, and Outlook. *ACS Engineering Au*, 5(3), pp. 191-225. Q1 (IF: 5.1)

04 Chatla, A. J., Dharavath, N., Mamidala, P., Gugulothu, P. C., & Yerrabelly, J. R. (2025). Synthesis, Anticancer and EGFR Inhibitory Activity of Novel [1,2,4]Triazolo[3,4-b][1,3,4]thiadiazine-isoxazoles. *Asian Journal of Chemistry*, 37(5), 1237–1245. Q4

05 Bhavana M A, S. Kavitha. K. Rethinapraga, Yukesh Kannah Ravi, P.Rajaguru, Rajesh Banu J (2025). Integrated biorefinery for sustainable conversion of food waste to polyhydroxyalkanoates and bioenergy. *Bioresource Technology*, Vol. 434, 132744. Q1 (IF: 9.0).

06 Geethu, K.,Akshaya, K.,Kavitha, S.,Ravi, Y.K., Rajesh Banu J. (2025). Improving energy ratio of ultrasonic pretreatment of waste activated sludge using the combination of potassium permanganate and acidic conditions. *Energy*, 331, 137053. Q1 (IF: 9.4).

07 Selvavinayagam ST, Sankar G, Yong YK, Sankar S, Zhang Y, Tan HY, Balakrishnan P, Murugesan A, Rajeshkumar M, Frederick A, Senthil Kumar M, Priyaraj P, Prabhakaran J, Sangeetha P, Arunpathy P, Charu R, Muruganandam N, Sakate DM, Jayakumar D, Dhandapani P, Rudrapathy P, Velu V, Emmenegger M, Larsson M, Shankar EM, Raju S (2025), Association of clinical laboratory parameters with latent tuberculosis infection among healthcare workers of primary health centers—A cross-sectional observational study. *PLOS Global Public Health*, 5(6): e0004873, Q1 (I.F: 3.356)

08 Sivagurunathan N, Calivarathan L. (2025). Inflammasome Activation as a Key Driver of Acetaminophen-induced Hepatotoxicity: Mechanisms and Emerging Therapeutics. *Gene expression*, 24(3), 235-249.

09 Sudheer, A., Taj, Z., Nidhin, I. K., & Chattopadhyay, I. (2025). Unraveling the Transcriptomic Adaptations of *Streptococcus mutans* Biofilm to the Post-Biotic Impact of *Lactiplantibacillus plantarum*. *APMIS*, 133(7), e70054. (IF:2.6)

10 Jebaseelan, J., Ganesh, U. K., Johnwilmet, P. L., Anbalagan, R., Krishnan, J., & Balakrishnan, A. S. (2025). Exploring the Antibacterial, Antioxidant and Larvicidal Effects against *Culex quinquefasciatus* of Nigella sativa Seeds and its Silver Nanoparticles. *Acta Parasitologica*, 70(4), 164. Q3 (IF:1.5)

11 Balakrishnan P, Saravanan S, Vignesh R, Sivamalar S, Nallusamy D, Sathish S, Krithika C, Sridhar C, Raju S, Velu V, Shankar EM, (2025) Discovery of HCV vaccine: Where do we stand? *Indian Journal of Medical Microbiology*, 57:100940, Q3 (IF: 1.3)

12 Tharunkumar J, Rajesh Parsanathan, Neena Elezebeth Phillip, Suchitra Rakesh. (2025) Response Surface Methodology for Optimizing Flocculation Efficiency of Chitosan and Inorganic flocculants in Microalgae and Yeast cultures. *Biomass and Bioenergy*, 202, 108222. Q1 (IF: 5.8)

Articles - 2026

ACADEMICS & RESEARCH HIGHLIGHTS

DEPARTMENT PUBLICATIONS

ARTICLES - 2026

13 Taj, Z., Chithradevi, B., Bakka, K., & Challabathula, D. (2025). Modulation in key physiological traits improved ROS scavenging and salinity tolerance amelioration in rice and tomato inoculated with halotolerant rhizobacteria Providencia rettgeri ST202. *Planta*, 262(4), 78. Q1 (IF:3.9)

14 Selvavinayagam ST, Anusree A, Yong YK, Sankar S, Frederick A, Rajeshkumar M, Kumar MS, Sampath P, Sankar G, Roy CL, Karishma SJ, Murugesan A, Balakrishnan P, Govindaraj S, Byrareddy SN, Velu V, Shankar EM, Larsson M, Kannan M, Raju S ,(2025) Clinical laboratory analytes and platelet-associated parameters as surrogate markers of subclinical inflammation in latent tuberculosis infection, *Frontiers in Immunology*, 16: 1662454 ,Q1 (IF: 5.9)

15 Saranya, B., Kartheeswaran, D., Suchitra, R., Ramesh, K. A., & Kathiresan, S. (2025). Direct and indirect organogenesis in soybean for efficient shoot induction through balanced levels of auxins and cytokinins. *Plant Science Today*, 12(sp3). (IF: 0.8).

16 Rajesh Parsanathan, S Sunil, R. Byju. (2025). Circular RNAs in cardiovascular disease: A paradigm shift in diagnosis and therapeutics. *Life Science*, 379, 123877. Q1 (IF: 5.1).

17 Vasanthrao, R., Nidhin, I. K., Taj, Z., & Chattopadhyay, I. (2025). Comprehensive whole metagenomics analysis uncovers microbial community and resistome variability across anthropogenically contaminated soils in urban and suburban areas of Tamil Nadu, India. *Frontiers in Microbiology*, 16, 1649872. Q2 (IF:4.5)

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Articles - 2026

ACADEMICS & RESEARCH HIGHLIGHTS

DEPARTMENT PUBLICATIONS

ARTICLES - 2026

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Articles - 2026

ACADEMICS & RESEARCH HIGHLIGHTS

DEPARTMENT PUBLICATIONS

ARTICLES - 2026

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ACADEMICS & RESEARCH HIGHLIGHTS

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BOOK CHAPTERS - 2026

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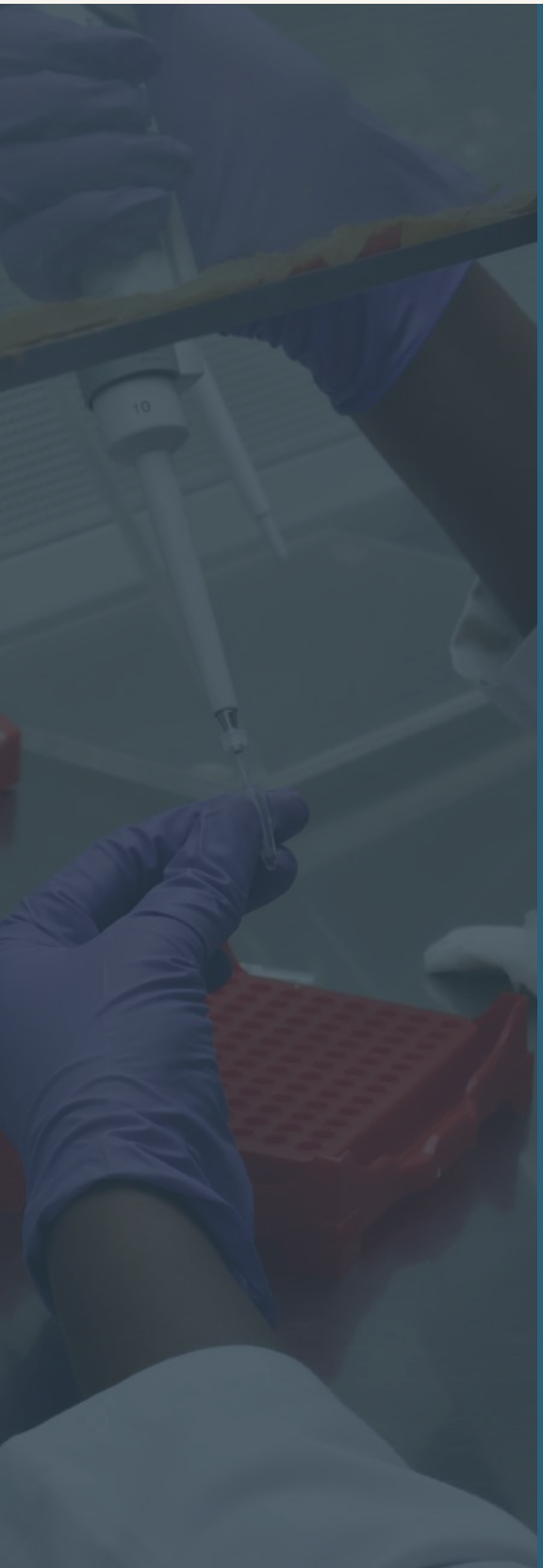
Articles - 2026

ACADEMICS & RESEARCH HIGHLIGHTS

DEPARTMENT PUBLICATIONS

BOOK CHAPTERS - 2026



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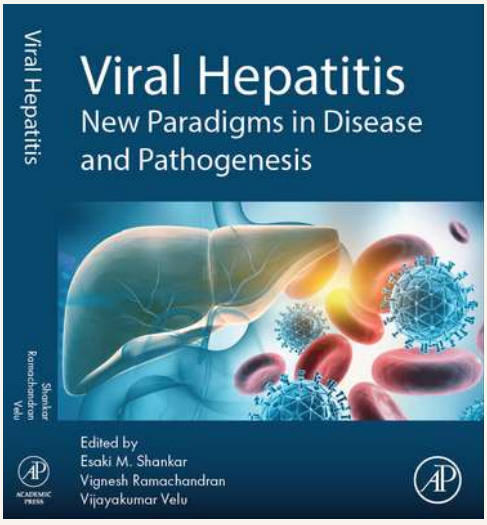
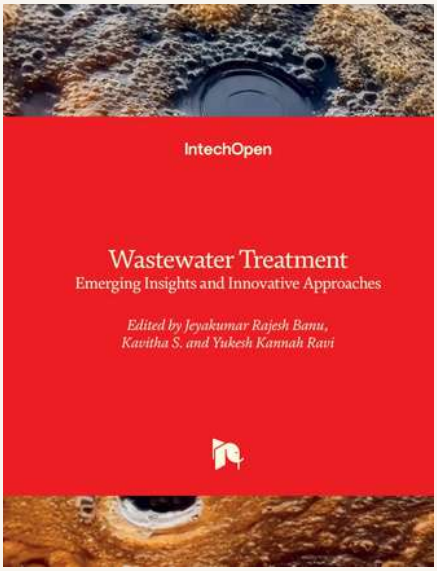
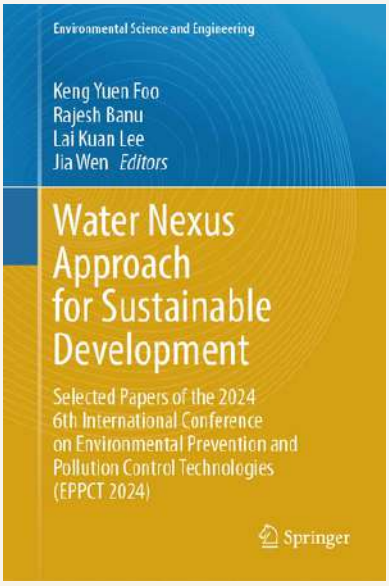
Books Published

ACADEMICS & RESEARCH HIGHLIGHTS

BOOKS PUBLISHED 2026







Out - Reach

ACADEMICS & RESEARCH HIGHLIGHTS

OUT -REACH

This segment includes the event where 198 students in grade 12 from various Government Higher Secondary Schools from Panangudi, Ammaiappan, Kattur, and Kulikarai visited our department. Our professors enlightened them about the research facilities available in our Department of Biotechnology and how this would shape their future. The information was delivered in the afternoon session between 2:00 - 04:00 PM on 14th October, 2025, and 29th October, 2025, by our beloved professors who represented our Department of Biotechnology and inspired the young, diligent minds who aspire to become vivid scientists to reach their dream destination. He also explained the pathway to reach CUTN by mentioning the entrance exam, CUET UG.

"Scholarly writing for scholastic progress" was delivered by esteemed Prof. E. M. Shankar at a two-day workshop on Navigating the PhD Research Journey: The Research Process, conducted on 6 - 7th March 2026, by the Department of Chemistry, Central University of Tamil Nadu, Thiruvarur, India.

Out - Reach

ACADEMICS & RESEARCH HIGHLIGHTS

OUT-REACH

HIV/AIDS - More than a disease: Knowledge, awareness, and hope" was presented by eminent Professor Dr. E. M. Shankar on 17th March 2026, of NSS Lecture Series, at J. M. Heynes Conference Hall in the Department of Economics, Rabindranath Tagore Block, Central University of Tamil Nadu, Thiruvarur, India.

The article "An ancient infection breaks out of Asia's fever zone", published in ***Nature India*** on 12th March 2026, featured scientific insights contributed by Sathya Jeevitha Balakrishnan and Dr. Jayalakshmi Krishnan, Assistant Professor, Department of Biotechnology, Central University of Tamil Nadu.


nature › nature india › comment › article

COMMENT | 12 March 2026

An ancient infection breaks Asia's fever zone

Mite-borne scrub typhus is now turning up across Africa – and Asia experience may offer the world its best playbook.

By Sathya Jeevitha Balakrishnan & Jayalakshmi Krishnan

Invited talks by Our faculty

ACADEMICS & RESEARCH HIGHLIGHTS

INVITED TALKS BY OUR FACULTY

01 Shankar. EM., invited lecture on "Global burden of infectious diseases - New paradigms in dengue pathogenesis" School of Biological Sciences and UGC - Malaviya Mission Teacher Training Centre, Madurai Kamaraj University & "Refresher Course in Life Sciences on "Emerging Frontiers in Life Sciences" Human Resource Development Centre, Madurai Kamaraj University, Madurai, 16th December, 2025.

02 Shankar. EM., invited lecture on "Human genetics of infectious diseases", ICMR-DHR Hands-on Training Workshop on PCR Techniques in Clinical Diagnosis, Department of Biotechnology, Bharathidason University, Thiruchirappalli, 24th November, 2025.

03 Rajesh Banu. J., Invited talk on "Importance and Mitigation measures for the Climate Changes in Environment" at M/s. Andavar College of Nursing, Poravacherry, Nagapattinam. Andavar College of Nursing, Poravacherry, Nagapattinam.

04 Rajesh Banu. J., Invited talk on "Nanobiocatalysts: Potential applications in biofuel production and biotransformation" at One Week Online Short Term Course on "Nanomaterials for a Sustainable Future", 24th September, 2025.

05 Rajesh Banu. J., Invited talk through online on "Challenges and Ethical Considerations in Disaster Management" at AICTE-sponsored 06-day Online Faculty Development Program (FDP) on "Artificial Intelligence for Environmental Sustainability and Disaster Resilience", University College of Engineering, Anna University Dindigul, 27th September, 2025.

06 Kathiresan. S., Invited talk on "Differential gene expression in Microalgae" at Department of Microbial Technology, School of Biological Sciences, Madurai Kamaraj University, Madurai, 13th March, 2026.

07 Kathiresan. S., Invited talk on "Genetic Engineering in Crop Plants" at the Department of Microbial Technology, School of Biological Sciences, Madurai Kamaraj University, Madurai, 13th October, 2026.

08 Kannan. M., Invited talk on "The dual roles of platelets in Hemostasis" at Refresher Course in Life Sciences, UGC-Malaviya Mission Teacher Training Centre, Central University of Kerala, Kasargod, 7th January, 2026.

09 Kannan. M., Invited talk on "From Bleeding to Blockage" at Refresher Course in Biological Sciences, UGC-Malaviya Mission Teacher Training Centre, Bharathiar University, Coimbatore, 11th November, 2025.

10 Parsanathan. R., Invited talk on "Next-Gen Cancer Therapy: Targeted Protein Degradation to Overcome Drug Resistance" at 3 Days Workshop on 2D and 3D Cell-Based Assays in Cancer Drug Screening, Department of Biotechnology, School of Bioengineering, SRM Institute of Science and Technology, Kattangulathur, Chennai, 11th to 13th August, 2025.

11 Parsanathan. R., Invited talk on "Histatin-6: A Novel Antimicrobial Peptide Strategy to Impede OmpA-Mediated Biofilm Formation in MDR *A. baumannii*" on IBS Inaugural Conclave - "From Molecules to Microbial Communities, Sastra Deemed University, Thanjavur, 28th November, 2025.

Invited talks by Our faculty

ACADEMICS & RESEARCH HIGHLIGHTS

INVITED TALKS

BY OUR FACULTY

12

Parsanathan. R., Invited talk on "Interactive Materials for Students" on 12-Day Refresher Course 12-Day on "Harnessing AI for Pedagogical Excellence and Academic Productivity, under the Malaviya Mission Teacher Training Programme (MMTTP) of the Ministry of Education, Government of India. UGC–MMTTC, NIT, Warangal, 19th to 24th December, 2025.

13

Parsanathan. R., Invited talk on "Decoding the Glutathione-Vitamin D Axis: Innovation for Nutritional Health" on ICBIINH-2025, "Emerging Biological Pathways for Enhancing Nutrition and Disease Prevention" (SDG-3), Department of Zoology, Jamal Mohammed College (Autonomous), Thiruchirappalli, 22nd December, 2025.

14

Parsanathan. R., Invited talk on "Statistical Computing with R: A Researcher's Toolkit" on DHR Sponsored Support to Institution (STI) training program for capacity building," entitled "Operational Research for Medical and Biomedical Professionals: Bench to Bedside, MGMARI, Sri Balaji Vidyapeeth, Pillaiyarkuppam, Puducherry, 16th to 21st february, 2026.

15

Parsanathan. R., Invited talk on "Synthetic Biology: Learning to Read and Write the Code of Life" at Department of Biotechnology, School of Life Sciences, Vels Institute of Science, Technology & Advanced Studies is an institute of higher education located in Pallavaram, Chennai, 13th March, 2026.

16

Parsanathan. R., Invited talk on "Network Pharmacology in Drug Designing" on a National level hands-on Workshop on "Network Pharmacology in Drug Designing, Department of Biochemistry, PSG College of Arts and Science, Coimbatore, 18th March, 2026.

Academic Summits

ACADEMICS & RESEARCH HIGHLIGHTS

ACADEMIC SUMMITS

ACADEMIC CONFERENCES ATTENDED BY PROFESSORS

01

"Changing dynamics of global dengue epidemiology and pathogenesis" Shankar EM, International Conference on Health and Disease Management (ICHDM 2026), Department of Chemistry and Biosciences, Srinivasa Ramanujan Centre, SASTRA University, Kumbakonam, 26th to 27th February, 2026.

02

"From seasonal to endemic disease - Changing dynamics of dengue epidemiology and pathogenesis"Shankar EM, International Symposium on Infectious Diseases and Virology (SiDV 2026), Meenakshi Academy of Higher Education and Research (MAHER), Chennai, 16th February, 2026.

03

"Global burden of infectious diseases - New paradigms in dengue pathogenesis" School of Biological Sciences and UGC - Malaviya Mission Teacher Training Centre, Madurai Kamaraj University & "Refresher Course in Life Sciences on "Emerging Frontiers in Life Sciences" Shankar EM, Human Resource Development Centre, Madurai Kamaraj University, Madurai, 16th December, 2025.

04

"New paradigms in immunopathogenesis and vaccine research" Shankar EM, HIVe 2025 Mysuru 9th Annual Update on HIV/AIDS, TB & Other Infectious Diseases, Asha Kirana, Hotel IBIS Styles, Mysuru,7th to 8th June, 2025.

05

"Integrated Biorefinery Approach for Food Waste Valorization: Concurrent Production of Polyhydroxyalkanoates and Biomethane" Rajesh Banu J, 3rd International Conference on Frontiers in Industrial Biotechnology (ICFIBT-2026) St. Joseph Engineering College, Chennai dated 31st March, 2026.

06

"Effect of photocatalytic mediated biological disintegration of microalgae to enhance fermentative hydrogen yield: Energy and cost assessment" Yukesh Kannah Ravi, Kavitha S, Rajesh Banu J. University of Aveiro, Portugal. 23rd to 25th July, 2025.

Academic Summits

ACADEMICS & RESEARCH HIGHLIGHTS

ACADEMIC SUMMITS

07

"Bioengineering in Oilseed Crops for High Value Poly Unsaturated Fatty Acid Production" Kathiresan S, International Conference on Bioengineering-2026, SRM Institute of Science and Technology, Kattangulathur, Chennai. 11th to 13th March, 2026.

08

"Abiotic Elicitation for the Elevation of Alpha-Linolenic Acid (ALA) and other Essential Fatty Acids in Oilseed Crops" Kathiresan S, 3rd International Conference on "The Next Green Revolution: Trends and Challenges in Sustainable Agriculture" Pushkaram College of Agricultural Sciences, Pudukkottai, 14th August, 2025.

09

"Microalgae - A Potential Reservoir For Crop Improvement" on "MicCon25" Kathiresan. S., International Conference on "Microbes: Friends or Foes?",School of Biological Sciences, Madurai Kamaraj University, Madurai, 31st October, 2025.

10

"Increased levels of D-Dimer and Plasminogen Activator Inhibitor-1 in Immune Thrombocytopenia: Implications for thrombotic complications" Kannan, M., Thrombosis & Hemostasis Summit of North America (THSNA 2026), Portland, Oregon, USA, 19th to 21st March, 2026.

11

"Evaluating the platelet mitochondrial membrane potential in Severe Hemophilia A with mild bleeding" Kannan. M., The 33rd Congress of the International Society on Thrombosis and Haemostasis (ISTH), Washington, USA, 21st to 25th June, 2025.

12

"The importance of P-LCR and ESR in the prediction of latent tuberculosis infection," Kannan. M., The 33rd Congress of the International Society on Thrombosis and Haemostasis (ISTH), Washington, USA, 21st to 25th June, 2025.

13

"Virtue to vitality: exploring food and biological wisdom in Thirukural" Jayalakshmi. K., International Thirukural conference on Human Dignity, University of Vavuniya, Srilanka and World Tamil cultural Center , Jaffna, Srilanka, 1st & 2nd February, 2026.

Academic Summits

ACADEMICS & RESEARCH HIGHLIGHTS

ACADEMIC SUMMITS

14

"From Water to Brain: Understanding the Brain-Eating Amoeba (***Naegleria fowleri***)" Jayalakshmi. K., International Conference on Advances in Health Care and Medical Sciences, Department of Microbiology and Biotechnology, Indira Gandhi College, Thiruchirappalli, 26th September, 2025.

15

"Scrub typhus: A reemerging global public health threat in India" Jayalakshmi. K., International Conference on FutureBio-25: Smart technologies and Sustainable strategies in Biosciences, Department of Animal Health and Management, Alagappa University, Karaikudi, 29th September, 2025.

16

"***Wolbachia Endobacterium*** in a wild population of Aedes Aegypti and A. Albopictus from Nagapattinum District, Tamil Nadu" Jayalakshmi. K., International Conference on "Life Science for Human Sustainability with special emphasis on Control of Vector-Borne Disease, Syed Ammal Arts and Science College, Ramanathapuram, The Society of Life Sciences, Satna, M.P, & The Absolute Human Care Foundation, New Delhi, 12th to 14th November, 2025.

17

"Investigation of V1016G ***kdr*** Mutation in Aedes aegypti from Nagapattinum District during Pyrethroid Insecticide Resistance" Jayalakshmi. K., International Conference on Vector borne diseases, Ravenshaw University, Cuttack, 21st to 23rd November, 2025.

18

"Expression Profiling and Insulin-Stimulated Activity of Class I–III Glucose Transporters (GLUTs) in Peripheral Blood Mononuclear Cells Across BMI Categories in Young Adults" Rajesh Parsanathan, TRENDO - 2025, ITC Grand Chola, Chennai, 27th to 29th June 2025.

19

"Integrating Network Pharmacology and In Vitro Validation to Elucidate Anti-Diabetic Potential of Indian Medicinal Plants: Focus on Bauhinia variegate" Rajesh Parsanathan, Three Days National Conference on Contribution of Medical Technology in Indian Traditional Medicine and Modern Medicine, School of Chemistry and Biotechnology, SASTRA Deemed University, Thanjavur, & AICET (ATAL), 9th to 11th October, 2025.

RESEARCH PROJECTS

S.NO	NAME/ROLE	SPONSORING AGENCY	TITLE OF THE PROJECT	DURATION	AMOUNT SANCTIONED (RS.)
01	Dr. Indranil Chattopadhyay PI	ICMR INDIAN COUNCIL OF MEDICAL RESEARCH	Evaluation of Antibiofilm ..... and their Inflammatory Potentials in Oral Epithelial Cells	Mar 2023-2026	20,00,000
02	Dr. Kathiresan S PI	SERB DIA	Influence OF ..... Genes on Omega3/6 Fatty Acid ..... A Genetic Engineering Approach	June 2023-2026	43,74,000
03	Dr. Rajesh Banu J PI	Department of BioTechnology, Government of India	A novel bioconversion of VFA ..... concomitant synthesis of biopolymer-based NP	Oct 2023-2026	42,00,000
04	Dr. Jayalakshmi K PI	SERB DIA	Prevalence of substance abuse in University/College students in four metropolitan cities of India.	Oct 2023-2025	8,05,300
05	Dr. Dinakar C PI	SERB DIA	Elucidating the dynamics of photosynthesis ..... for crop improvement in the scenario of climate change	Nov 2023-2026	48, 41,782
06	Dr. Jayalakshmi K Co-PI	Indian Council of Social Science Research	Quality of Life, Determinants and Perceived ..... Three Southern States of India	Jan 2024-2026	11,00,000
07	Dr. Dinakar C Co-PI	SERB DIA	Reverse genetics approach for functional ..... in *Saccharomyces cerevisiae.*	Feb 2024-2026	44,78,315
08	Dr. Indranil Chattopadhyay PI	Department of BioTechnology, Government of India	Assessment of anti-oral biofilm activity ..... fermented soybean food Tungrymbai of Meghalaya.	2025-2028	40,00,000
09	Dr. Rajesh Parsanathan PI	Department of BioTechnology, Government of India	G6PD deficiency and its role in ..... CV disease: protective role of L-cysteine supplementation.	August 2021 - 2026	1,13,60,000

CONSULTANCY PROJECT

10	Dr. Jayalakshmi K	Ajay Biotech, Pune	Mosquito vaporizer testing in Dengue vectors	Mar 2025-2026	50,000

OUTROUND
ACADEMIC VISIT

PROF. J. RAJESH BANU

Prof. J. Rajesh Banu undertook a collaborative research visit to Qatar University during December 3rd - 13th, 2025, upon invitation from Prof. Siham Yousuf Al-Qaradawi. The visit was part of the ongoing collaborative research project (NPRP14S-0401-210120) titled "Development of Innovative Integrated Approaches for Sustainable Biohydrogen Production Using Predominant Macroalgal Species in Qatar." During the visit, productive discussions were held on the progress of the project, key research challenges, and future directions for collaboration. Prof. J. Rajesh Banu also conducted a focused workshop and delivered a seminar, facilitating knowledge exchange with the research team at Qatar University. This international engagement has significantly strengthened collaborative research efforts and enhanced the global academic presence of the department.

DR. JAYALAKSHMI KRISHNAN

Dr. Jayalakshmi Krishnan visited Sri Lanka (Jaffna) to present a paper titled 'From Virtue to Vitality: Exploring Food and Biological Wisdom in Thirukural' at the International Thirukural Conference on Human Dignity, held at the University of Vavuniya and the World Tamil Cultural Centre, Jaffna, Sri Lanka, on 2nd February, 2026.

DST- Purse Project

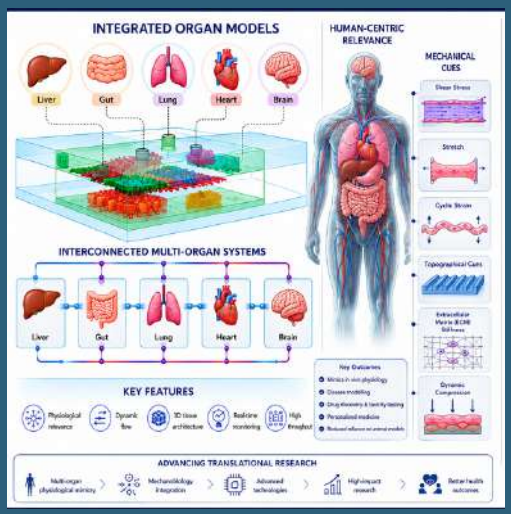
ACADEMICS & RESEARCH HIGHLIGHTS

DST-PURSE PROJECT

The Department of Science and Technology, through its Promotion of University Research and Scientific Excellence (DST-PURSE) initiative, has revamped the research ecosystem at the Central University of Tamil Nadu, providing the pioneering infrastructure. This effort fosters high-impact research, equipping faculty and students to enhance collaborative innovation across various academic departments.

One of the major achievements of this collaborative initiative is the development of Organ-on-a-Chip (OoC) technology at the Central University of Tamil Nadu. This interdisciplinary project seamlessly integrates expertise from Biotechnology, Material Science and Chemistry to engineer microfluidic systems that accurately mirror human cell and organ behaviour. These microenvironments serve as high-fidelity platforms for predictive drug screening, toxicology evaluation, disease profiling and pharmaceutical screening.

This bridges the gap between preclinical studies and human trials, providing a superior, human-relevant alternative to traditional animal experimentation and static 2D cell cultures. The DST-PURSE initiative has facilitated the transformation of CUTN's scientific landscape by establishing a core research facility to advance multidisciplinary investigation.



This facility includes sophisticated equipment, including 3D bioprinters, FACS cell sorter, real-time live cell imaging, PCR systems and certified biosafety containment zones. This strategic infrastructure drives academic growth by providing experiential faculty and students with practical skills ultimately promoting collaborative innovation and solutions driven science.

New Arrivals

ACADEMICS & RESEARCH HIGHLIGHTS

NEW ARRIVALS

The addition of advanced research facilities marks a significant step toward strengthening the department's scientific and analytical capabilities. These newly established infrastructures aim to reduce dependency on outsourcing while fostering independent discovery-driven research, paving the way for greater scientific exploration within the department.

FACS

The Department of Biotechnology is equipped with advanced Flow Cytometry facilities, including the CytoFLEX S and CytoFLEX SRT, enabling high-precision cellular analysis and sorting for cutting-edge biomedical and life science research applications.

GAS CHROMATOGRAPH (GC)

The Gas Chromatography facility featuring the GC4000 PLUS supports advanced qualitative and quantitative analysis of chemical compounds across diverse research domains.

TOC – LIQUID AND SOLID

The multi N/C 3100 and HT 1300 facility enables efficient analysis of total organic carbon in both liquid and solid samples, supporting environmental, biochemical, and analytical research studies with high accuracy and reliability.

BIOTECH FAMILY

From classrooms and laboratories to such achievements, the family of the Department of Biotechnology is woven into togetherness through countless memories to be reminisced. This section would showcase the albums and memories shared by our faculty, students, research scholars and staff members who form the heart of the department.

Students Thoughts

"Balancing rigorous Biotech labs with campus life taught me that resilience isn't just a biological trait; it's something we build here every single day."

"Every failure in the lab taught me a lesson, and every success brought us closer together as a team, ready to take on the future."

"From casual classroom chats to deep lab revelations, different perspectives and one shared journey. These are the voices that define our department."

"To me, the Department isn't just about textbooks and exams; it's a space where a simple, curious question can spark a massive lifelong passion."

"Between late-night exam prep and celebrating cultural festivals, we didn't just learn biotechnology here, we found a family and created unforgettable memories."

Voices, ideas, and inspirations. This segment captures the personal reflections, creative musings, and unique perspectives of our students as they navigate the evolving world of biotechnology and campus life.






Captured here in brief, casual words. Cherished forever as lifelong memories

List of contents in this section

Biotech diversity

BIOTECH FAMILY

BIOTECH DIVERSITY

113 61

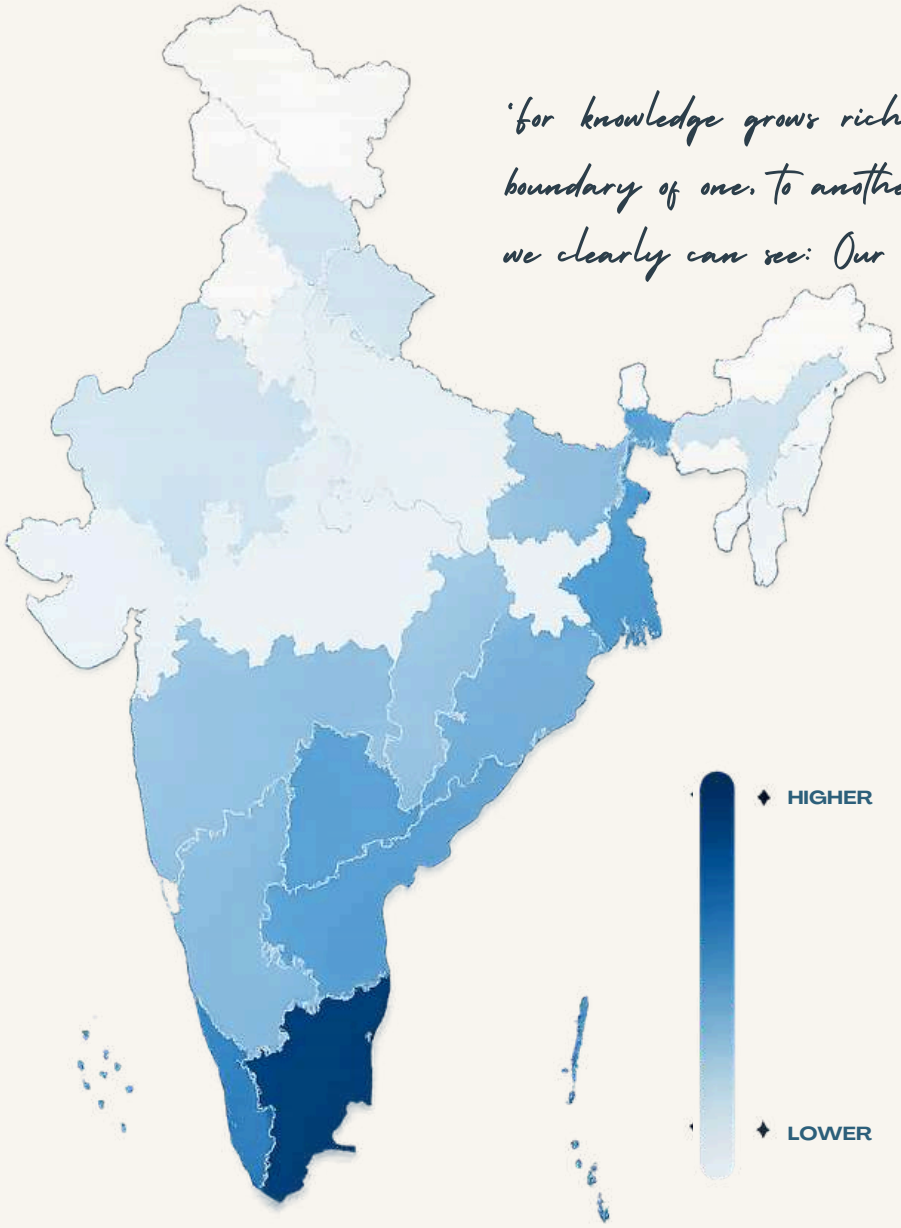
POPULATION

174

NRI STUDENTS - 2

BIOTECH FAMILY

Program	Students
Integrated M.Sc.	111
M.Sc.	40
Research Scholars	23
Total number of Students	174



'for knowledge grows rich when the canopy blends, where the boundary of one, to another, extends. In this habitat of learning, we clearly can see: Our brilliance depends on our diversity.'

Unity in Diversity is the heartbeat of our Biotechnology Department. This vibrant melting pot of cultures, ideas and ambitions is the home to 174 students (56M,95F(2 NRI's)) and 23 scholars. Within our MSc and IMSc cohorts, this rich mixture of backgrounds creates a powerful reaction – sparking breakthrough areas, deep empathy and lifelong networks. This incredible diversity is our secret ingredient for innovation. It shapes how we debate in seminars, collaborate in labs and build friendships that last a lifetime. Diverse by nature, united by science, we thrive as one!

Biotech album

BIOTECH FAMILY

BIOTECH ALBUM

BATCH. NO: 2025 - 29 TUESDAY, 21.04.2026

B.Sc. Honours BIOTECHNOLOGY

1ST YEAR

BATCH. NO: 2024 - 29 TUESDAY, 21.04.2026

I.M.Sc. BIOTECHNOLOGY

2ND YEAR

freezing the time of live unscripted laughter in a casual style. so these frames can hold more than ink. since this is the spirit we captured here to stay.

BATCH NO: 2023 - 28 TUESDAY, 21.04.2026

I.M.Sc. BIOTECHNOLOGY

3RD YEAR

BATCH NO: 2022 -27 TUESDAY, 21.04.2026

I.M.Sc. BIOTECHNOLOGY

4TH YEAR

Biotech album

BIOTECH FAMILY

BIOTECH ALBUM

BATCH NO: 2021 - 26 TUESDAY, 21.04.2026

I.M.Sc. LIFE SCIENCES

5TH YEAR

TUESDAY, 21.04.2026

RESEARCH SCHOLARS

freezing the time of live unscripted laughter in a casual style. so these frames can hold more than ink. since this is the spirit we captured here to stay.

BATCH NO: 2025 - 27 TUESDAY, 21.04.2026

M.Sc. BIOTECHNOLOGY

1ST YEAR

BATCH NO: 2024 - 26 TUESDAY, 21.04.2026

M.Sc. BIOTECHNOLOGY

2ND YEAR

Biotech album

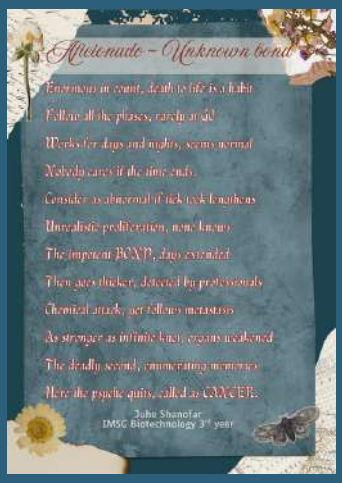
BIOTECH FAMILY

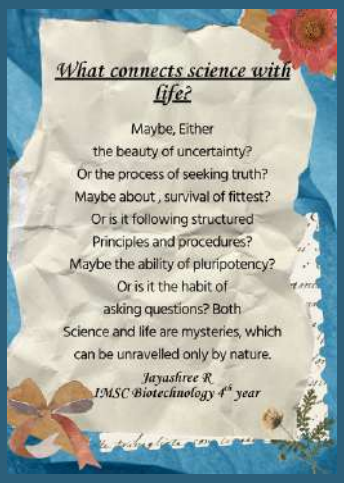
DBT Canvas

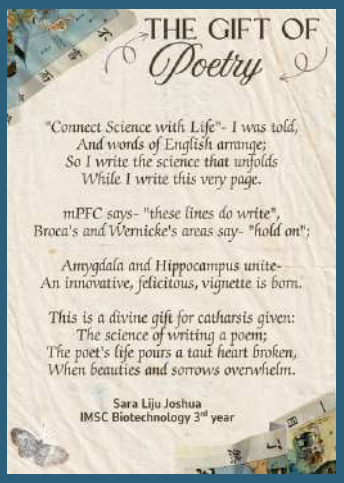
This section is where innovation thrives since science meets masterpieces. The DBT canvas is an exciting new initiative launched this year - a fresh, open-ended initiative where science tells its story through colour, rhythm, and design. This initiative bridges the gap between the laboratory and redefines Biotechnology through its own perspective. From intricate paintings and poetic reflections to digital illustrations, the DBT Canvas proves that scientific minds possess some of the most vivid imaginations through a completely different lens.

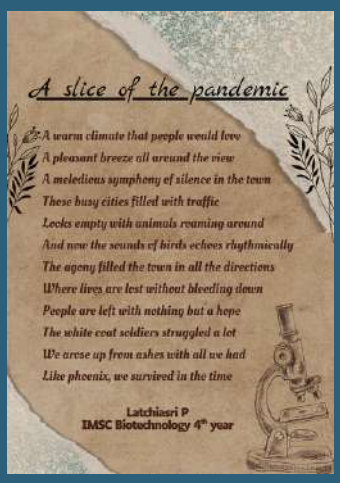
'A blank white page - an open door, is an invitation to explore, with colours bright and words profound, the canvas shows what we can be bound by science yet entirely free.'

POETRY









DBT Canvas

Artworks

Vasundra Devi V
IMSc 2nd year

Prapti Saikia
MSc 1st year

ALUMNI Meeting

SEP 03, 2025

A beautiful convergence of eras took place this past September when an alumni gathering was hosted alongside the convocation. Dr. Poornachandar Gugulothu spearheaded this congregation. The event provided an essential forum for networking, reminiscing, and honouring shared educational roots. Former students from a variety of batches returned with immense pride, sharing their life lessons and career victories with current students. This dynamic exchange sparked inspiration across the room by enriching the professional networks and leaving a lasting impression on everyone present.

BIOTECH FAMILY

The STUDENT SENATE

LEADING WITH PURPOSE, SERVING WITH PASSION

In the Senate, we believe that great departments aren't built by individuals- they're crafted by communities united in purpose and passion."

The Student Senate stands as the heartbeat of our Department- a dynamic force that transforms student voices into meaningful action. More than just representatives, we are catalysts for change, builders of community, and champions of every student's academic journey and campus experience.

The Student Senate bridges the gap between aspiration and achievement. We are your advocates in institutional dialogue, your partners in creating memorable experiences, and your support system in navigating academic life. Through open communication channels and constructive engagement with faculty and administration, we ensure every student voice shapes our Department's future.

Through dedicated efforts, the Senate strengthens student representation, supports policies that improve learning, and creates opportunities for personal and professional growth. We empower students to lead, innovate, and succeed.

MEET THE SENATE

"Leadership isn't about holding positions; it's about creating possibilities. Meet the architects of our department's vibrant spirit."

PRESIDENT

SUDHARSH S

(5th year, IMSc., Life Sciences)

VICE PRESIDENT

PREETHA R

(2nd year, MSc., Biotechnology)

SECRETARY

KETHAWATH SHIVA KUMAR

(4th year, IMSc., Biotechnology)

TREASURER

SAI KIRAN

(3rd year, IMSc., Biotechnology)

JOINT SECRETARY

DAYANAND I

(2nd year, IMSc., Biotechnology)

ACADEMIC EVENTS

We'll look back on our memorable industrial visits that connected theory to practice and embrace the nostalgia.

Academic events empower students to function as a venue to provide a forum where they can cultivate a broader perspective of the practical world in their careers. This would nurture their research interest, collaborative spirit, and passion towards research and scientific innovation. In this segment, we will be looking through the expert session at the DBT Café, and our science day celebrations featuring quizzes and treasure hunts that sparked curiosity. Additionally, we will be looking back on our memorable industrial visits that resulted in the connection of theoretical experiences to the real world, embracing nostalgia.

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DBT Café

ACADEMIC EVENTS

DBT Café

The DBT Café forum brought students face-to-face with leading minds across the global research ecosystem, engaging directly with visionaries shaping the future of life sciences. The interactive dialogues delved deep to explore cutting-edge biotech breakthroughs, brain health, next-gen pharmacology and psychiatric genomics. This high-level forum successfully equipped aspiring scientists with critical industry perspectives while sparking a shared passion for interdisciplinary innovation.

Dr. V. Vithya

Date: 30.10.2025
Topic: Mental Healthand Well-being Strategies for Students and Scholars

Dr. Anusree Lakshmi Sivadas

Date: 07.11.2025
Topic: Determination of RNA Fate: Decoding Molecular Mechanisms Underlying Nuclear RNA Surveillance in S. pombe

Dr. Navya Sree KV

Date: 07.11.2025
Topic: Unravelling Cellular Interfaces: mTORC1 Signaling, Cholesterol Metabolism and ECM Dynamics

Dr. Sujit Kumar Behera

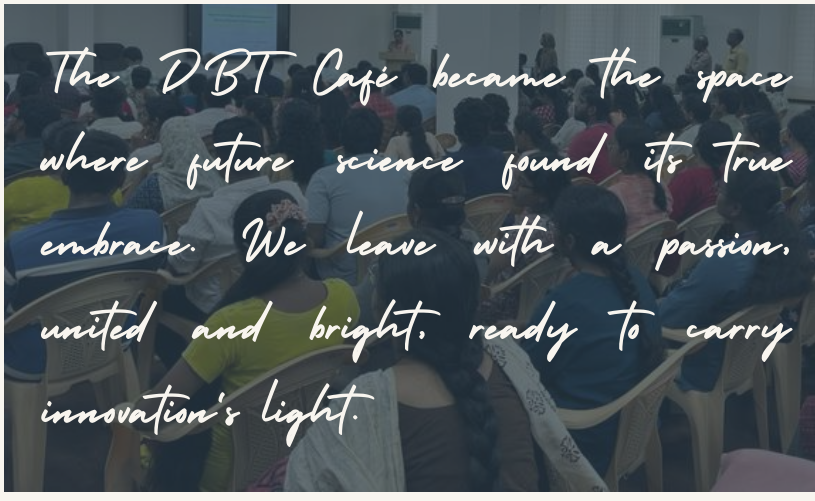
Date: 20.02.2026
Topic: Recent Trendsin Molecular and Diagnostic Assays for Infectious Diseases of Zoonotic Importance

Dr. Punnya Rajendran

Date: 23.03.2026
Topic: A Cognitive Approach to LSRW Skills in English for Competitive Exams

Dr. K. Rama Krishna

Date: 04.05.2026
Topic: Post-Harvest Physiological and Biochemical Changes Associated with Fruit Ripening



National Science Day.

ACADEMIC EVENTS

NATIONAL SCIENCE DAY

Celebration

Marking the National Science Day, the Department of Biotechnology orchestrated a lively environment of interactive learning games and uniting students' cohorts across diverse academic disciplines. The event brought the students together from all academic streams; it was explicitly designed to ignite the experiential challenges, analytical interactive labs and high-level cerebral tournaments. The lively, buzzing venue served as the perfect reason to generate a high-energy atmosphere for future innovation.

EVENTS OF THE DAY

EVENT-X

01 This event showcases your scientific ideas in celebration of National Science Day, featuring student teams demonstrating their novel solutions to an expert jury. The event was designed to spark creative problem solving, cross-functional teamwork and peer collaboration.

SCI-WHIZ QUIZ

02 This segment was an interesting and thought-provoking quiz competition exploring concepts from science and technology, current affairs and general knowledge. The event pushed participants to leverage their rapid-fire reflexes and teamwork in a lively atmosphere.

TREASURE HUNT

03 An exhilarating puzzle trail where the participants solved empirical riddles and conceptual codes while mapping the terrain across the campus. This promoted the lateral thinking, peer cohesion and competitiveness amongst the students.

PRIZE DISTRUBUTION

National Science Day.

ACADEMIC EVENTS

NATIONAL SCIENCE DAY

Celebration

One Day Seminar

ACADEMIC EVENTS

ONE DAY SEMINAR

The Department of Biotechnology in Central University of Tamil Nadu took the centre stage on 17th April 2026 during the “One Day Lecture Series: Advances in Biosciences”, coordinated by Dr. Jayalakshmi Krishnan. The academic forum brought forward critical research insights from a panel of technical experts featuring Dr. Rajkumar Subramani, Dr. P. Sundaresan, and Dr. A.R. Shiyam Sundar. This led to an interactive conversation that broke down complex concepts in targeted drug discovery, genetic engineering, viral pathogens, and synthetic biology. This session led the exchange of domain knowledge, research literacy, and aligned academic learning with current biotech industry standards.

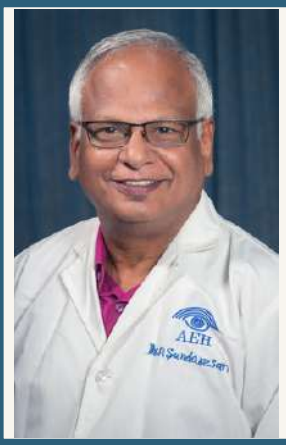
IT HAPPENED IN THREE SESSIONS

SPEAKERS

DR. RAJKUMAR SUBRAMANI

Assistant Professor, Department of Chemistry, Central University of Tamil Nadu, Thiruvarur.

Session I: Modern Techniques in Drug Development



DR. P. SUNDARESAN

ICMR Emeritus Scientist, Department of Genetics, Aravind Medical Research Foundation, Madurai.

Session II: Genetics, Virology, and the Future of Health

DR. A. R. SHIYAM SUNDAR

Scientist, Jananom Private Limited, Coimbatore.

Session III: Bridging the Research Gap Between Academia and Industry

Industrial Visit

ACADEMIC EVENTS

INDUSTRIAL Visit 2026

From textbooks to tech hubs: Students traced the path of innovation. The Department of Biotechnology organised an extensive educational and industrial tour under the leadership of Prof. J. Rajesh Banu, Dr. Poornachandar Gugulothu, and Dr. Vidhushini S. The itinerary seamlessly blended the scientific discovery with cultural exploration from Thiruvarur to Bengaluru. It was an inspiring intersection of science, heritage, and discovery, and gaining critical exposure at the Bengaluru Bioinnovation Centre, supported by Beckman Coulter Life Sciences. While witnessing translational ecosystems and corporate innovations, our students caught a glimpse of their own future as scientific pioneers.

Beyond the laboratory walls, the tour leaned into the history and nature with pitstops at historic Mysore palace, lush Lalbagh Botanical Garden, Brindavan Gardens, the local zoo and a unique vintage car museum. It successfully expanded horizons, stimulated scientific inquiry and illustrated how biotech connects with the world outside the classroom.

Industrial Visit

ACADEMIC EVENTS

ROAD MAP

OF IV

2026

CULTURAL EVENTS










Beyond the lecture hall, our department brings students and faculty members together to thrive on connection and foster celebrations on our shared traditions, joy, unity, and a stronger community. This segment will begin with honouring our mentors on Teacher's Day and welcoming our newbies, to cherish the jubilant festive joy of Pongal and the Alstroemeria farewell to cherish the moments spent during their golden days of our moments that defined us.

This celebration finds its perfect place, our distinct voices gather here as one, where stories of our shared growth are unfolded.

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Teachers' Day

CULTURAL EVENTS

TEACHERS' DAY Celebration 2026

















Students gathered in the Har Gobind Khorana Block to extend warmth and gratitude on Teacher's Day, offering touching tributes and performances that highlighted their admiration. Students honoured their mentors' heartfelt speeches and sincere performances. The Student Senate organized the event with simple yet meaningful details, transforming the space into an atmosphere filled with connection and a humble yet impactful, genuine exchange of feelings.

Our professors quietly listened to our students' heartfelt emotional speeches as the room was filled with quiet admiration, turning modest tokens of appreciation into unforgettable moments. A few tributes particularly moved the auditorium into silence, highlighting the deep-seated respect between the faculty and their students. Over tea, formal barriers dissolved into light-hearted laughter and meaningful conversation. For a few hours, normal class routines paused for cozy laughter and personal ties. Standard lectures yielded to a night of solidarity and gratitude, forging memories that lingered long after the room emptied.

Ryzentronz

CULTURAL EVENTS

FRESHERS' DAY

Ryzentronz

2026

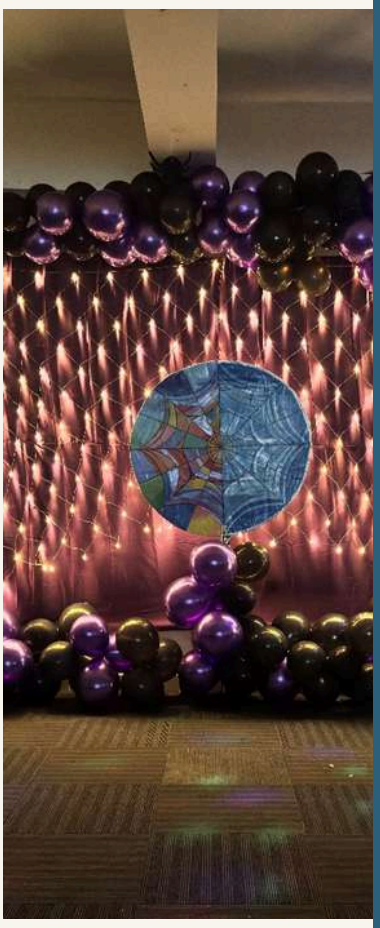
The prefix sound "Ryzen" strongly echoes "Rising." It marks the transition of new students stepping up into higher education. Ryzentronz'25 was more than an event that was just associated with welcoming our freshers. It created a stunning venue with effervescence as the hall of the Master of Social Work (MSW) bloomed. This bridged the gap between the seniors and juniors, turning the unfamiliar campus into a welcoming home. We set up an extravagant theme for the juniors to dress in purple and black, with genuine smiles, and welcomed them with open arms and reassurance.

Ryzentronz

CULTURAL EVENTS

RYZENTRONZ

Every conversation shared a joke and a supportive gesture contributing to deep sense of unity flowing through the entire hall. As the night progressed there were spontaneous interactions leading to an exhilarating finale of an electric DJ session. Long after the purple lights dimmed, the happy chaos faded, leading to the overwhelming sense of unity and connections remaining anchored in everyone's hearts. It was more than just a welcome event, and this successfully passed the torch of supportive tradition from one academic generation to the next.



Welcome to the Biotechnology – You are already one of us.

'Raise the energy, feel the cheer, your journey starts right now, right here.'

fresher's of the year

IMSc - 1st YEAR

MSc - 1st YEAR

Pongal Celebration

CULTURAL EVENTS

PONGAL DAY

Celebration

2026
















DBT Pongal 2026 wrapped the Department in the spirit of unity. Vivid rangolis, sacred pooja offerings, and steaming clay pots of a distinguished variety of Pongal transformed the Department into a hub of cultural pride and joyous interactions. Students and scholars masterfully balanced artistic expression, nutrition and collaboration, turning the environment into a celebratory ambience. The shared smiles, games and festive lunch effectively deepened the spirit of institutional harmony defining our academic journey.

The energy peaked during the high-stakes Uriyadi matches, and a high-energy musical session brought a thrilling climax to the evening festivities. This vibrant celebration successfully set an inspiring, joyful tone for the upcoming months, permanently anchoring the tight-knit bond shared across all batches.

Pongal Celebration

CULTURAL EVENTS

As the Sun begins its northward journey, Tamil Nadu celebrates Pongal as a time-honoured thanksgiving to the elements that sustain us. Family gather to boil freshly harvested rice until it overflows, a powerful symbol of luck and joy. From the vibrant kolams at our doorsteps to the communal joy of preparing the traditional rice dish, this cherished celebration fosters a deep sense of community, symbolising the enduring spirit of cultural heritage and common prosperity.

PhD SCHOLARS

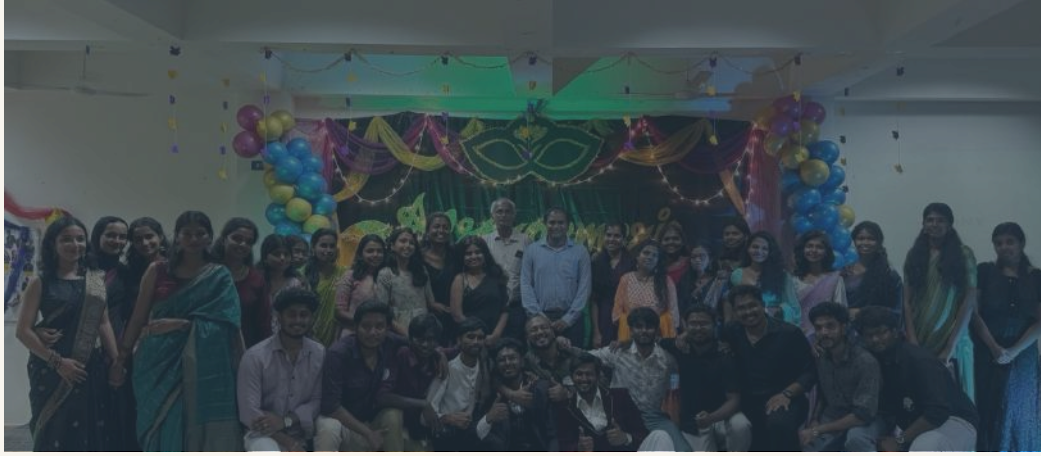
A MOMENT OF TRIUMPH: THE GRAND FINALE

The festivities wrapped on a high note as the department's PhD cohort emerged as the absolute winners of the DBT Pongal 2026 events. Their boundless passion, creative spark and, collaborative effort set a beautiful benchmark. This stellar performance amplified the collective pride and served as an etched in memory.

Cultural games, music, dance, and community gatherings further add joy and togetherness to the occasion. The overflowing Pongal pot symbolises prosperity, abundance, and happiness, while the entire celebration reflects unity, cultural pride, and the importance of preserving traditions across generations.

Alstroemeria

CULTURAL EVENTS



FAREWELL DAY

Alstroemeria

2026

Unlike roses that signify love, Alstroemeria defines a deep, devoted bond between friends. Tears, laughter, and timeless memories defined ALSTROEMERIA'26, a moving farewell hosted for the departing Integrated Life Sciences (2021-2026) and Biotech (2024-2026) batches. Inspired by the blossoming of Alstroemeria, a symbol of enduring devotion and mutual support, the event honoured the academic milestones and shared experiences within the Department of Biotechnology. The celebration captured the bittersweet essence of saying goodbye.

The junior hosted and brought immense energy to the night, unfolding the evening into a lively showcase of artistic performances, interactive games, and music, fostering a warm space for laughter and reflection among students and faculty members.

Alstromeria

CULTURAL EVENTS

ALSTROEMERIA

The venue came alive with nostalgic photo collages and memory corners, blending nostalgia with celebratory joy. The night was wrapped up as an unforgettable event as the crowd shared moving speeches, captured final group shots and gathered for a grand dinner, leaving the graduating cohort with an enduring reminder of their collective legacy and a strong send-off for the future.

ALSTROEMERIA 2026" stood as a beautiful reminder that while journeys may end, the friendships, experiences, and connections created along the way remain timeless.

The campus will not feel the same without the mention of your name. Go conquer worlds, go chase the light, your future ahead shines bright.

final year Students

IMSc - 5th Year

MSc - 2nd Year

STUDENTS' ACHIEVEMENTS

You studied, you dreamed, you brought your best, passing every challenging test. Keep reaching high, keep aiming far, for you have proven you are a star.

Distinction is forged by commitment, devotion, grit, and the boldness to reach further and this is how academic mastery is attained. Here, we feature the stellar triumphs where research presentations, conference involvements, honours and notable victories in elite pan-India selection examinations like GATE, IIT-JAM and CUET.

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Exam Qualifiers

STUDENTS' ACHIEVEMENTS

GATE QUALIFIERS 2026

SUBIKSHA M N

ABHISHEK S NAIR

AKSA ANNA AJITH

ANITHA LAKSHMI S

BALAKRISHNAN SM

CHAGANTI SIREESHA

DHARAVATH SAI KUMAR

HARSHITHA NAINAR

INUPANURTHI SUMA MADHURI

JAGATH GOVIND ARAVINDAKSHAN MP

KUMARI MINU

LAVANYA V

Exam Qualifiers

STUDENTS' ACHIEVEMENTS

GATE QUALIFIERS 2026

XL

MSc 1st YEAR

NIKHITHA MARIA SAJU

XL

MSc 2nd YEAR

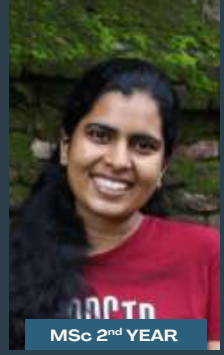
RICHIK DEBNATH

XL

MSc 2nd YEAR

ROSHAN K S

BT &XL



MSc 2nd YEAR

SWATHISANGARI D

XL

IMSc 5th YEAR

SHANMATHI S

TIFR JGEEBILS QUALIFIERS 2026

MSc 2nd YEAR

PETHEESWARAN M

Exam Qualifiers

STUDENTS' ACHIEVEMENTS

CSIR UGC NET QUALIFIERS 2026

2025 JUNE SESSION

SOCHANPHY KEISHING

R NANDHANA

SUDHARSH S

2025 DECEMBER SESSION

LECTURESHIP

NEHA G

SUDHARSH S

ROSHAN K S

PhD

ABHISHEK S NAIR

LAVANYA V

KEERTHANA H

HARSHITHA NAINAR

Exam Qualifiers

STUDENTS' ACHIEVEMENTS

ICMR BRET JRF QUALIFIERS 2026

IMSc 5th YEAR

SUDHARSH S

MSC BATCH 2023-2025

SIYANA FATHIMA

IMSc 5th YEAR

NEHA G

MSC BATCH 2023-2025

DHARAVATH SAI KUMAR

IIT JAM QUALIFIERS 2026

BT – AIR 41

IMSc 3rd YEAR

SUBIKSHA M N

BT

MSc 1st YEAR

AJAY RATHOD

BT

IMSc 3RD YEAR

DEBARBITA ROY

BT

IMSc 3RD YEAR

JUHE SHANOFAR B

BT

IMSc 3RD YEAR

R TRINAI SAI

Exam Qualifiers

STUDENTS' ACHIEVEMENTS

NPTEL CERTIFICATIONS 2026

TOP 1% AND ELITE + SILVER

MSc 2nd YEAR

AKSA ANNA AJITH

SELECTED FOR NPTEL PRE-DOCTORAL FELLOWSHIP AT IISER, PUNE

ELITE + TOPPER + TOP 5%

IMSc 3rd YEAR

SUBHIKSHA M N

ELITE + SILVER

IMSc 2nd YEAR

PRANEETA

ELITE + SILVER

MSc 2nd YEAR

CHANDRIKA TAKRI

ELITE + SILVER

IMSc 3rd YEAR

JUHE SHANOFAR B

Publications

STUDENTS' ACHIEVEMENTS

PUBLICATIONS 2026

1. BHAVANA MA


Contents lists available at ScienceDirect

Bioresource Technology

journal homepage: www.elsevier.com/locate/biortech

Integrated biorefinery for sustainable conversion of food waste to polyhydroxyalkanoates and bioenergy

Bhavana M A[a], S. Kavitha[b], K. Rethinapraga[a], Yukesh Kannah Ravi[c], P. Rajaguru[a], J. Rajesh Banu[a,*]

29th May 2025

2. GEETHU & AKSHAYA


Contents lists available at ScienceDirect

Energy

journal homepage: www.elsevier.com/locate/energy

Improving energy ratio of ultrasonic pretreatment of waste activated sludge using the combination of potassium permanganate and acidic conditions

K. Geethu[a,1], K. Akshaya[a,1], S. Kavitha[b], Yukesh Kannah Ravi[c], J. Rajesh Banu[a,*]

7th June 2025

3. RISHABA BYJU


Contents lists available at ScienceDirect

Life Sciences

journal homepage: www.elsevier.com/locate/lifescie

Circular RNAs in cardiovascular disease: A paradigm shift in diagnosis and therapeutics

Rajesh Parsanathan[*], Sredha Sunil[1], Rishaba Byju[1]

18th July 2025

4. KAMALAVANNAN RAASHIKA


Contents lists available at ScienceDirect

In Silico Research in Biomedicine

journal homepage: www.sciencedirect.com/journal/in-silico-research-in-biomedicine

In silico disruption of TGF-β signalling in AR-deficient triple-negative breast cancer via AMP-based therapeutics

Anurupa Chakraborty[b], Zarin Taj[a], Kamalavannan Raashika[a], L.C. Singh[c], Indranil Chattopadhyay[a,*]

18th Dec 2025

5. HARSHITHA, KARUNYA, NEHA & PREETHA


Contents lists available at ScienceDirect

Process Biochemistry

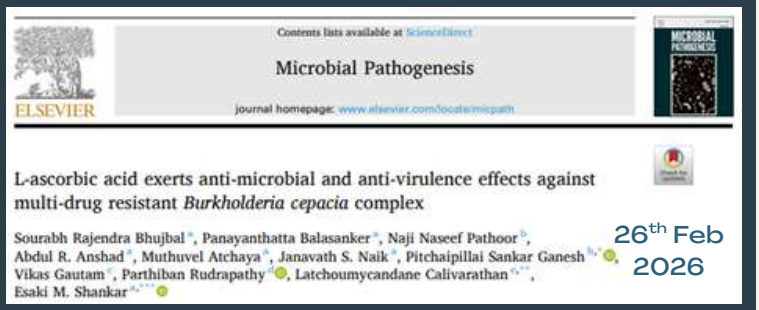
journal homepage: www.elsevier.com/locate/procbio

Ultrasonic-alkaline-thermal pretreatment on cassava sago waste for the energy efficient biomethane production

Preethi, Harshitha Nainar, V. Karunya, G. Neha, R. Preetha, Rajeev Kumar Bhaskar, P. Rajaguru, J. Rajesh Banu*

5th Jan 2026

6. SOURABH BHUJBAL


Contents lists available at ScienceDirect

Microbial Pathogenesis

journal homepage: www.elsevier.com/locate/micpath

L-ascorbic acid exerts anti-microbial and anti-virulence effects against multi-drug resistant *Burkholderia cepacia* complex

Sourabh Rajendra Bhujbal[a], Panayanthatta Balasanker[a], Naji Naseef Pathoor[b], Abdul R. Anshad[a], Muthuvel Atchaya[a], Janavath S. Naik[a], Pitchaipillai Sankar Ganesh[b,*], Vikas Gautam[c], Parthiban Rudrapathy[d], Latchoumycandane Calivarathan[a,**], Esaki M. Shankar[a,***]

26th Feb 2026

7. SUDHARSH SARAVANAN


Carbohydrate Research 565 (2026) 109929

Contents lists available at ScienceDirect

Carbohydrate Research

journal homepage: www.elsevier.com/locate/carres

In silico evaluation of macroalgae specific carbohydrates for antioxidant, anti-inflammatory and antiglycemic activity

Sumit Phakatkar[a,b], Cathrine Sumathi Manohar[a,b,*], Sudharsh Saravanan[a], Vaidehi A. Nair[a]

9th April 2026

8. SIYANA FATHIMA

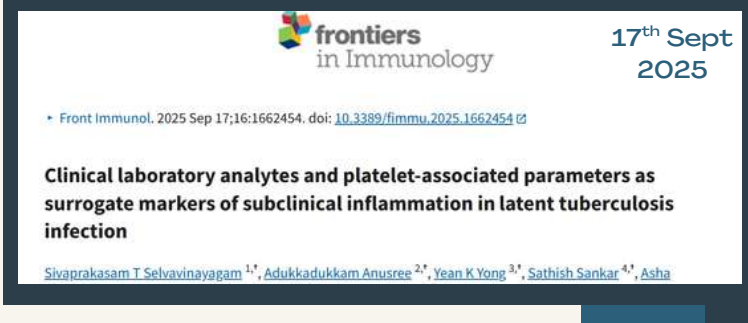

Metabolomic atlas of dengue virus infection reveals distinct circulating bioactive lipid signatures

Abdul R. Anshad, Muthuvel Atchaya, Shanmugam Saravanan, Amudhan Murugesan, Siyana Fathima, Ethihas R. Mahasamudram, Rajendran Kannan, Mario Larsson, Esaki M. Shankar

Published: May 12, 2026 • https://doi.org/10.1371/journal.pntd.0014327

12th Dec 2026

9. ADUKKADUKKAM ANUSREE


frontiers in Immunology

• Front Immunol. 2025 Sep 17;16:1662454. doi: 10.3389/fimmu.2025.1662454

Clinical laboratory analytes and platelet-associated parameters as surrogate markers of subclinical inflammation in latent tuberculosis infection

Sivaprakasam T Selvavinayagam[1,†], Adukkadukkam Anusree[2,†], Yean K Yong[3,†], Sathish Sankar[4,†], Asha

17th Sept 2025

Publications

STUDENTS' ACHIEVEMENTS

PUBLICATIONS

BOOK CHAPTERS 2026

1. KAMALAVANNAN RAASHIKA

Culturomics and Microbial Biofilms

Chapter | First Online: 08 July 2025

pp 311–341 | Cite this chapter

Save chapter

Zarin Taj, Kamalavannan Raashika, Vinoth Kumarasamy & Indranil Chattopadhyay

8th July 2025

2. SEELAM SANDHYA RANI

Genomic Insights into the Field of Biofilm Research

Chapter | First Online: 08 July 2025

pp 131–153 | Cite this chapter

Save chapter

Zarin Taj, Seelam Sandhya Rani, Rohit Gundamaraju & Indranil Chattopadhyay

8th July 2025

3. SOCHANPHY KEISHING

Fundamentals and Applications of Omics in Microbiology

Chapter | First Online: 08 July 2025

pp 63–90 | Cite this chapter

Save chapter

Zarin Taj, Sochanphy Keishing & Indranil Chattopadhyay

8th July 2025

4. MOHAMED RIZWAN GHOUSE

ACADEMIC PRESS

Viral Hepatitis

New Paradigms in Disease and Pathogenesis

2026, Pages 109-136

Chapter 6 - miRNA: The stealth regulators of hepatitis B virus pathogenesis

Rajesh Parsanathan, Rishaba Byju, Mohamed Rizwan Ghouse

7th Nov 2025

5. M. PETHEESWARAN

SPRINGER NATURE Link

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Home > Plant-Microbiome Nanotechnology > Chapter

Synergistic Effect of Plant Growth–Promoting Rhizobacteria and Nanoparticles in Abiotic Stress Alleviation in Plants

Chapter | First Online: 09 January 2026

pp 65–100 | Cite this chapter

Save chapter

B. Chithradevi, M. Petheeswaran, Kavya Bakka & Dinakar Challabathula

9th Jan 2026

Conferences

STUDENTS' ACHIEVEMENTS

CONFERENCE PARTICIPATION

MSc 1st YEAR

ARINPAM GHOSH

Infectious Disease and Virology-SIDV-2026, Meenakshi Medical College Hospital And Research Institute, 16th Feb 2026, MAHER, Chennai.

MSc 2nd YEAR

CHANDRIKA TAKRI

AI XLife 2026 - Advances in Computational Biology Across Scales for Life and Health Sciences, Sastra Deemed to be University, 17th & 18th April 2026, Thanjavur.
Poster Presentation - "In silico Immuno - Informatics Design of a Stable Multi Epitope Vaccine Targeting *KgP* of *Porphyromonas gingivalis*".

IMSc 4th YEAR

JESHWANTHH RAJ I

HIVE Mysuru 2025 - 9th Annual Update on HIV/AIDS, TB & Other Infectious Diseases, 7th - 8th June 2025.
Oral Presentation - Bio - Vision 2026, St. Joseph's College, Trichy, 7th Jan 2026 "Integrated Bioinformatic Profiling of Collagen Expression, Drug Sensitivity, and Survival in Breast Invasive Carcinoma."

MSc 2nd YEAR

KEERTHANA H

National Conference on Challenges in Chemical, Biochemical and Food Technology for Sustainable Development - Annamalai University, Chidambaram.
Oral Presentation - "Sustainable Bioenergy from Chicken Feather Barb Through Microwave-Bacterial Pretreatment".

IMSc 5th YEAR

NEHA G

- SRM Falling Walls Conference, Chennai.
- STET Conference
- AICTE VAANI - Sastra University, Thanjavur.

MSc 1st YEAR

NIKHITHA MARIA SAJU

38th Kerala Science Congress, Organized by the Kerala State Council for Science, Technology and Environment (KSCSTE), From 30th January to 2nd February 2026 at St. Albert's College (Autonomous), Ernakulam.

MSc 2nd YEAR

PREETHA R

National Conference on Challenges in Chemical, Biochemical and Food Technology for Sustainable Development, - Annamalai University, Chidambaram.
Oral Presentation - Duckweed as a Renewable Feedstock for Bioenergy Production Through Thermochemical Pretreatment.

MSC 2nd YEAR

RITHISH KUMAR MANJAPPA

AI XLife 2026 - Advances in Computational Biology Across Scales for Life and Health Sciences, Sastra Deemed to be University, 17th & 18th April 2026, Thanjavur.
·Poster Presentation: Evaluation of Antibiofilm Efficacy of Postbiotic Components Against Strong Biofilm-Forming Oral Bacteria

Conferences & Internships

STUDENTS' ACHIEVEMENTS

CONFERENCE

PARTICIPATION

SWATHISANGARI D

Global Summit on Innovative Drug Design, Discovery, And Translational Research. Organizing Institute: Pondicherry University.

DATE: 29th to 31st October 2025

VARUN M

SARS-COV2 Transgress or Not?
Pondicherry University.

INTERNSHIP

PARTICIPATION

MSc 2nd YEAR

SWATHISANGARI D

Summer Intern at BRIC-NIAB, Hyderabad
SSR Provision Under ANRF Funding Agency

IMSc 4th YEAR

BALAKRISHNAN S M

INSA-2026, JNU, New Delhi.

Workshops Attended

STUDENTS' ACHIVEMENTS

WORKSHOPS ATTENDED 2026

MSc 2nd YEAR

VARUN M

Now Generation Sequencing, Organization: Bioclues Date: June to July 2025.
Research & Innovation: Ethics, Scientific Communication & IPR Awareness. Organization: Mangalayatan University Jabalpur, Date: 8th July to 12th July 2025.

MSc 2nd YEAR

CHANDRIKA TAKRI

Bioinformatics With AI, IISc, Bangalore, 2 Days Workshop

15th - 16th NOV 2025, BANGALORE.

IMSc 5th year

SUDHARSH S

Hands-On Workshop on Spectroscopy and Biophysical Characterization.

IIT MADRAS, JUNE 14th-15th, 2025

SCHOLARSHIPS

B.Sc. Honours 1st year

JANANI THIRUMURUGAN

RELIANCE FOUNDATION SCHOLARSHIP

B.Sc. Honours 1st year

R. CHIRAYU

ISRO OUTREACH COLLABORATOR – ISEC 2025. AN INTERNSHIP WAS OFFERED BY ERUDITE INITIATIVES DURING THE MONTHS OF MAY TO JUNE, 2025.

Awards

STUDENTS' ACHIEVEMENTS

AWARDS 2026

IMSc 5th YEAR

NEHA G

ORAL/POSTER:

1.First Prize Oral in STET Conference.
2.Second Prize in Falling Walls.

IMSc 2nd YEAR

PRANEETA

Socioverse Debate Competition

ANVESHAN 2026

The Association of Indian Universities conducted ANVESHAN 2025 – Research and Innovation Competition to promote research aptitude, innovation, and interdisciplinary scientific thinking among University students. The competition included six major streams such as Health Science, Social Science, Basic Science, Engineering and Technology, Interdisciplinary Studies, and Agricultural Science, providing students with valuable opportunities for research exposure and academic collaboration. Students from our department excelled in the Health Science category at the University-level competition.

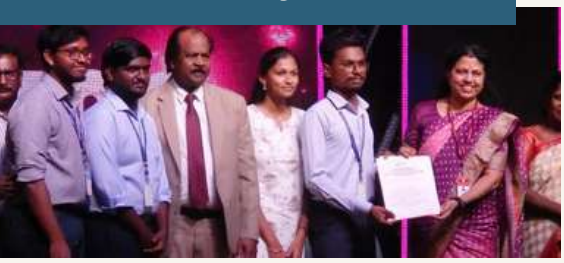
The team comprising Balakrishnan S. M., Dhivya Shree K. R., Santhakumar E., and Jeshwanthh Raj I secured the First Prize, while Mohamed Rizwan G., Neha G., Yogesh Kannan T, and ManjulaDevi R won the Second Prize for their research presentations. The awardees received prizes and certificates from the Honourable Vice Chancellor. The First Prize-winning team further represented the institution at the South Zonal ANVESHAN 2025 Competition held at VIT-AP University, gaining valuable exposure to a wider research community and showcasing the department's commitment to innovation and academic excellence.

Awards

STUDENTS'
ACHIVEMENTS

AWARDS 2026

ANVESHAN
1ST PRIZE



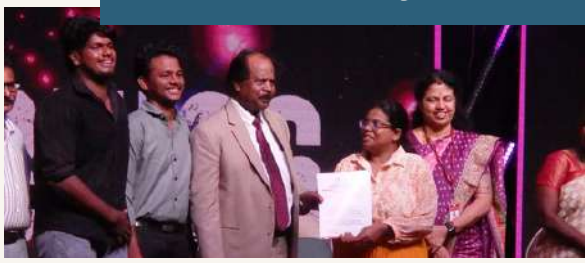
BALAKRISHNAN S. M
IMSc
4th YEAR

DHIVYA SHREE K. R.
IMSc
4th YEAR

SANTHAKUMAR E.
IMSc
4th YEAR

JESHWANTHH RAJ I
IMSc
4th YEAR

ANVESHAN
2ND PRIZE



MOHAMED RIZWAN G.
IMSc
4th YEAR

NEHA G.
IMSC
5th YEAR

YOGESH KANNAN T
IMSc
4th YEAR

MANJULA DEVI R
IMSc
4th YEAR

YOUTH PARLIAMENT

E Sarnya commendably represented Tamil Nadu as the principal representative in the National Environmental Youth Parliament. This platform provided profound exposure in environmental administration and policy formulation. It cultivated executive skills and decisive thinking crucial for a researcher. This achievement showcases a balance between scholarly distinction and societal impact. Sarnya achieved the fifth spot across the state in the Viksit Bharat Youth Parliament. This event significantly marked the aspect of channelling young intellects into scientific enquiry, inventing design and policies driven by the development of national advancement. These forums energise upcoming scientific leaders to actively shape a prosperous and self-sufficient nation.

Sports

STUDENTS' ACHIVEMENTS

SPORTS

NCC 2026

MSc 2nd YEAR

VARUN M

1st place in 100M backstroke, CM Trophy 2025 - Swimming Meet

IMSc 3rd YEAR

SRIMATHI S

AIU Southzone Interuniversity Chess Championship for Women 2025-26, Gitam University, Vishakapatnam, Andhra Pradesh.

IMSc 3rd YEAR

R TRINAI SAI

CM Trophy Basketball (1st Position)

NCC CADETS

STUDENTS' ACHIVEMENTS

PLACEMENT

HIGHER STUDIES 2026

SUJITHA K

PhD,
NIT
Andhra
Pradesh.

SOCHANPHY KEISHING

PhD,
IIT Bombay.

ATHUL KIRAN

Project Associate, Regional Cancer Centre, Trivandrum.

GAYATREE DASH

Project Associate, PGIMER, Chandigarh.

BALASANKER P

Project Associate, PGIMER, University of Hyderabad, Vijayawada.

NISHOK GP

Academic Coordinator, biology tutor at SEEKERS, Trichy.

SIDDHARTH S

Associate Resource Person, Azim Premji foundation, Uttarakhand.

BIJOY KP

Operations and Project Management Role, Nucleome Informatics.

AGILAN SUGUMARAN

QC Microbiology Team Executive, Maiva pharma company.

SIYANA FATHIMA

PhD with JRF, JIPMER, Pondicherry.

SHANMATHI S

Velammal Bodhi Campus, Chennai.

NANDHINI MS

Velammal Bodhi Campus, Chennai.

Golden Laureates

STUDENTS' ACHIVEMENTS

GOLDEN LAUREATES 2026

GOLDEN LAUREATES - A LEGACY OF ACADEMIC EXCELLENCE

The pinnacle of academic success is reached when relentless dedication meets institutional pride. The Golden Laureates gallery honours our department's topmost achievers who earned the prestigious Gold Medal at last year's convocation ceremony. Earning the rare distinction of receiving their awards directly from the President of India.

They stand as the true ambassadors whose achievements reflect the highest standard of intellectual dedication and bring distinctive pride to our legacy.

ARITHASRI G U

INTEGRATED M.SC., LIFE SCIENCES

SEELAM SANDHYA RANI

M.SC., BIOTECHNOLOGY

SCHOLARS' ACHIEVEMENTS

from the lab to the final stage, history welcomes a brand-new sage.

Driven by an appetite for exploration and passion for breakthrough insights our scholars continue to elevate in strengthening pioneering research and intellectual brilliance. Their exceptional breakthroughs like ranging from top tier journal articles, elite grants and symposium awards. This bears the witness to serve as a clear indicator of their profound focus and ingenuity, resulting in enhancing the spotlight of honour and scholarly prestige.

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Conferences

SCHOLARS' ACHIEVEMENTS

CONFERENCE PARTICIPATION

SARANYA B

"Metabolic Engineering of Soybean for the Production of GLA and SDA via Δ6-Desaturase Expression" Saranya B, Kartheeswaran D, Kathiresan S, ICB-2026, SRM Institute of Science and Technology, Kattangulathur, Chennai. 11th to 13th March 2026.

KARTHEESWARAN D

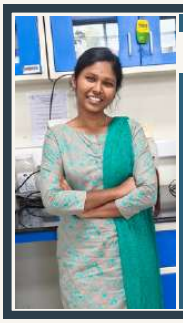
"Role of Plant Growth Regulators in Callus Induction for Fatty Acid Biosynthesis in Groundnut (*Arachis hypogaea. L*)" Kartheeswaran D, Saranya B, Kathiresan S, ICB-2026, SRM Institute of Science and Technology, Kattangulathur, Chennai. 11th to 13th March 2026.

PREETHI M

"Waste to wealth: Bioenergy generation from eutrophicated water algal biomass via ultrasonic surfactant pretreatment" Preethi M, Rajesh Banu J, National Conference on CBFSD, Annamalai University, Chidambram, 10th & 11th October 2025.

AISWARYA SUDHEER C K

"Application of Lactobacillus fermentum towards effective management of biofilm threat by *Staphylococcus aureus* and *Pseudomonas aeruginosa*". Aiswarya Sudheer C.K., I.K. Nidhin, Indranil Chattopadhyay, PAO1-(ETGB-2023), IU-CGGT-University of Kerala, Trivandrum, 15th to 17th November 2025.

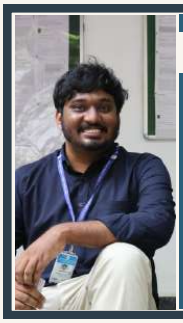


RETHINAPRAGA K

"Energy-efficient selective delignification and bacterial hydrolysis of cellulose in corncob biorefinery for sustainable production of biopolymer and Biohydrogen" Rethinapraga K and Rajesh Banu J. ICERSC - 2026, IIT Madras, 09th & 10th April 2026.

KALAISELVI T

"Synergistic effect of enzyme for enhanced food waste solubilization and biomethane yield: energy analysis" - Kalaiselvi T and Rajesh Banu J. ICERSC - 2026, IIT Madras, 09th & 10th April 2026.



MOHAMMED ANSHAD AR

Aberrant acute-phase reactants of inflammation and systemic complement levels attribute to varying grades of dengue disease severity Anshad AR, Saravanan S, Murugesan A, Shankar EM. 16th International Conference on Vector-Borne Diseases, Ravenshaw University, Cuttack & NAVBD, 21th to 23rd November 2025.

SONAL SANGWAN

"Sustaining Photosynthetic Efficiency Through Redox Dissipation in PGPR-Inoculated Rice Plants" Sonal Sangwan (Research Scholar), Dr. Dinakar Challabathula (Supervisor). International Seminar on "Innovation On Resilience: Integrating Genetics, Crop Management and Varietal Protection For Sustainable Agriculture", Annamalai University, Chidambaram, Tamil Nadu, India, 5th & 6th March 2026 (Oral Presentation).

SATHYA JEEVITHA B

- ICAHMS 2025, Shrimati Indira Gandhi College, Trichy, 26th Sept 2025.
- FSTSSB-2025, Alagappa University, Karaikudi, 29th & 30th Sept 2025.
- 16th International Conference on Vector-Borne Diseases, Ravenshaw University, Cuttack & NAVBD, 21st-23rd Nov 2025.
- International Conference on "Life Science for Human Sustainability with special emphasis on Control of Vector-Borne Disease, Syed Ammal Arts and Science College, Ramanathapuram, 12th - 14th November, 2025.

Publications

SCHOLARS' ACHIEVEMENTS

PUBLICATIONS 2026

AISHWARYA SUDHEER C K

Sudheer, A., Taj, Z., Nidhin, I. K., & Chattopadhyay, I. (2025). Unravelling the Transcriptomic Adaptations of *Streptococcus mutans* Biofilm to the Post-Biotic Impact of *Lactiplantibacillus plantarum*. *APMIS*, 133(7), e70054. Q2 (IF: 2.6).

CHITRALI LAHA ROY

Selvavinayagam ST, Anusree A, Yong YK, Sankar S, Frederick A, Rajeshkumar M, Kumar MS, Sampath P, Sankar G, Roy CL, Karishma SJ, Murugesan A, Balakrishnan P, Govindaraj S, Byrareddy SN, Velu V, Shankar EM, Larsson M, Kannan M, Raju S, (2025) Clinical laboratory analytes and platelet-associated parameters as surrogate markers of subclinical inflammation in latent tuberculosis infection, *Frontiers in Immunology*, 16: 1662454, Q1 (IF: 5.9)

SARANYA B

Saranya B, Kartheeswaran D, Suchitra Rakesh, Ramesh Kumar A, and Kathiresan S (2025). Direct and Indirect Organogenesis in Soybean for Efficient Shoot Induction through Balanced Levels of Various Auxin and Cytokinin. *Plant Science Today*, 12, 10257. (IF: 0.8).

VASANTH RAO RAMAVATH

Vasanth Rao R, Nidhin IK, Taj Z, and Chattopadhyay, I. Comprehensive whole metagenomics analysis uncovers microbial community and resistome variability across anthropogenically contaminated soils in urban and suburban areas of Tamil Nadu, India *Front. Microbiol* 16:1649872. Q1 (IF: 4.5).

CHITRALI LAHA ROY

Roy CL, Maharana S, Ranjan R, Ahmad F, Mahapatra M, Saxena R, Kannan M. (2025). Do Activated Platelets Contribute to Mild Bleeding in Severe Hemophilia A? *Indian Journal of Hematology and Blood Transfusion* 1-9. (IF: 0.6).

MOHAMMED ANSHAD AR

Anshad AR, Saravanan S, Murugesan A, Vighnesh R, Raju S, Kannan R, Yong YK, Larsson M, Shankar EM,(2026) Aberrant systemic acute-phase complement responses in conjunction with soluble CR1 attribute to varying grades of dengue disease severity, *Frontiers in Immunology* , 16:1731011,Q1 (IF: 5.9)

PREETHI M

Preethi, Nainar, H., Karunya, Neha, Rajeeve.K.B., Rajaguru, P., Rajesh Banu J. (2026). Ultrasonic-alkaline-thermal pretreatment on cassava sago waste for the energy efficient biomethane production. *Process Biochemistry*, 162, 183-190. Q1 (IF: 4).

SATHYA JEEVITHA B

Balakrishnan, S. J., & Krishnan, J. (2026). An ancient infection breaks out of Asia's fever zone.

Publications

SCHOLARS' ACHIEVEMENTS

PUBLICATIONS 2026

PREETHI M

Preethi M, Roy CL, Kannan M, Gugulothu P, Aljaber ASJ, Ahmad YH, Al-Qaradawi SY, RAJESH Banu J. (2026). Enhancing biomethane generation from eutrophic water harvested algal biomass through A combined pretreatment strategy, *Chemistry-Methods*, 6(4), e202500162. Q1 (IF: 3.6).

RAJEEV KUMAR BHASKAR

Rajeev K. B., Kavitha. S, Dinesh Kumar. M., Yukesh K. R., Rajesh Banu J. (2026). Synergistic effect of potassium persulfate on microwave pretreatment for enhanced biogas production from macroalgal biomass. *Renewable Energy*, 125785. Q1 (IF: 9.1).

RETHINAPRAGA K

Rethinapraga. K, S. Kavitha, Yukesh K. R, Guangyin Zhen, Rajesh Banu J. (2026). Energy-Efficient selective fractionation of lignin and bacterial hydrolysis of cellulose in Corncob Biorefinery for Sustainable Production of PHA and Biohydrogen. *International Journal of Biological Macromolecules*, 152090. Q1 (IF: 8.5).

PREETHI M

Preethi, Kalaiselvi T, Pugalenthi. V, Gunasekaran. M., Rajesh Banu J. (2026). Nanobiocatalysts: Potential applications in biofuel production and biotransformation. *Carbon Neutralization*, 5(3) e70161. Q1 (IF: 12.0).

MOHAMMED ANSHAD AR

Anshad, A.R., Atchaya, M, Saravanan, S., Murugesan. A., Fathima S, Mahasamudram ER., Kannan, R., Larsson, M. and Shankar, EM. (2026). Metabolomic atlas of dengue virus infection reveals distinct circulating bioactive lipid signatures, *PLoS Negl Trop Dis*, 20(5): e0014327. Q1 (IF: 3.4).

Awards

SCHOLARS' ACHIEVEMENTS

AWARDS 2026

SARANYA B

BEST POSTER PRESENTATION

ICB-2026, SRM Institute of Science and Technology, Kattangulathur, Chennai. 11th to 13th March 2026.

RETHINAPRAGA K

BEST ORAL PRESENTATION

ICERSC - 2026, IIT Madras, 09 & 10 April 2026.

KALAISELVI T

BEST ORAL PRESENTATION

ICERSC - 2026, IIT Madras, 09 & 10 April 2026.

SATHYA JEEVITHA B

BEST ORAL PRESENTATION

ICAHMS 2025,
Shrimati Indira Gandhi College, Tiruchirappalli, 26th Sep 2025.

PhD AWARDED

IRENE MARY PRAVEEN

"Understanding the Neuroprotective Mechanism of Ginkgolide B in Mouse Model of Parkinson's Disease"

Supervisor: Latchoumycandane Calivarathan

EPILOGUE

This lineage grows with every passing page, as young innovators take the centre stage, it is no farewell that we speak today, just a brief pause along a brilliant way.

As we conclude this latest edition of SCI-VANTAGE volume 04, we contemplate a path defined by evolution to look back on a timeline rich with development, keepsakes and collective moments. This defines the core soul of the Department of Biotechnology and serves as a direct reflection of earnest efforts, stamina, resilience and togetherness. Every page of this magazine unfolds the heritage and flourishes the tradition to develop the lineage. It symbolises the unified discovery, positive metamorphosis and stimulates growth. Each milestone here evolves around an impactful narrative to unveil the progress, which is a perpetual quest driven by synergistic effort.

As the final page turns, know that this is not a goodbye; the future holds mysteries that need to be unravelled.

As the stars don't disappear when dawn arrives, they simply wait for a moment to shine. So, until next time!! Stay curious, stay rooted, stay tuned.

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