VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

40 YEARS OF TRANSFORMING LIVES

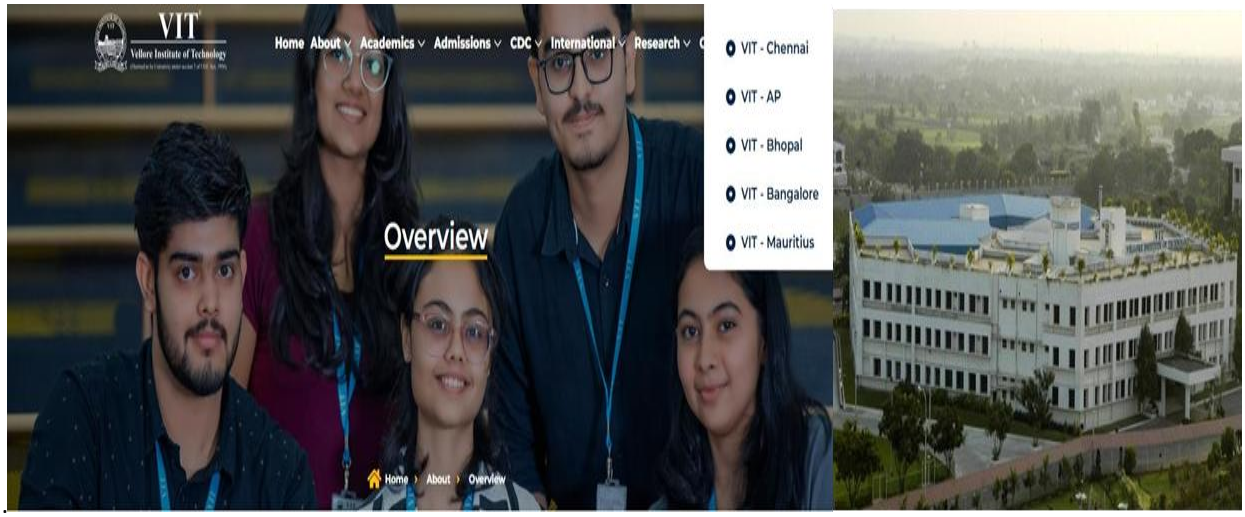
SCHOOL OF BIO SCIENCES AND TECHNOLOGY

BIOBROADCAST

April - June 2025

VELLORE INSTITUTE OF TECHNOLOGY

VIT is a distinguished educational institution committed to achieving excellence in higher education. It was founded to deliver high-quality higher education that meets international standards. The university is ranked 691st in the QS World University Rankings and 142nd Best Institution in the world in Engineering and Technology. The VIT Group of Institutions provides 71 undergraduate programs, 58 postgraduate programs, 15 integrated programs, 2 research programs, and 2 MTech industrial programs. Furthermore, full-time Ph.D, deep-tech PhD programs in Engineering and Management, Ph.D. programs in Science and Languages, and Direct Ph.D programs in engineering fields are available in 2025.



Dr. G. Viswanathan

Founder & Chancellor

Mr. Sankar Viswanathan, Vice President

Dr. Sekar Viswanathan, Vice President

Dr. G. V. Selvam, Vice President

Dr. Sandhya Pentareddy, Executive Director

Ms. Kadhambari S. Viswanathan, Assistant Vice President

Dr. V. S. Kanchana Bhaaskaran, Vice Chancellor

Dr. Partha Sharathi Mallick, Pro-Vice Chancellor

Dr. T. Jayabharathi, Registrar

Follow Us:

OUR INSPIRATION

Hon'ble Chancellor Dr. G. Viswanathan stands as a guiding light for the younger generation, inspiring countless students to pursue excellence with purpose. Under his visionary leadership, Vellore Institute of Technology (VIT) has grown into a global institution committed to innovation, integrity, and impactful education. The university fosters a dynamic and inclusive atmosphere that encourages creativity, discipline, and a shared responsibility for progress. As Dr. Viswanathan rightly states, *"Knowledge is a protective shield which cannot be ruined by any external force."* This belief forms the cornerstone of VIT's academic philosophy.

The institute promotes an environment where faculty and students alike thrive in a culture of care, accountability, and continuous improvement. With robust national and international collaborations across academia and industry, VIT remains dedicated to fostering global competencies and economic development. Anchored in service and compassion, VIT's mission extends to improving lives through education that uplifts communities. Its core values include student-centric learning, strong ethical foundation, excellence in execution, social responsibility, and mutual respect to shape the institution's enduring legacy of transformation through knowledge.

Thank you so much, sir, for your blessings, encouragement, and support….

DEAN'S MESSAGE

Dear Students, Faculty, and Staff,

Greetings from the School of Biosciences and Technology!

It gives me immense pleasure to present the April–June edition of *BioBroadcast*, highlighting the dynamic accomplishments and continued excellence within our School of Bio Sciences and Technology. This quarter has been vibrant with remarkable faculty outreach, significant patents, impactful publications, and noteworthy achievements. We take pride in the achievements of our students and research scholars, whose successes on various platforms continue to elevate our academic stature. Journal club meetings have been conducted to foster rich academic dialogue, and we are especially proud to share the list of Ph.D. scholars who successfully defended their theses during this period, a true reflection of our thriving research environment. In the past two decades, SBST has emerged as a leading institution for multidisciplinary education and research, focussing on addressing the global issues in environmental sustainability, agribusiness, and health. Our distinguished faculty, with expertise spanning molecular biology, microbiology, bioinformatics, pharmacovigilance, computational biology, and data analytics, is at the heart of our mission. The research community continues to explore frontiers in advanced domains such as Artificial Intelligence and Machine Learning in Biosciences, quorum sensing mechanisms, gene editing, precision medicine, synthetic biology, evaluation and efficacy of sanitizers-cum-aerosols, and bio printing, paving the way for translational research and futuristic applications.

We offer students the opportunity to innovate, experience real-world challenges, and gain hands-on experience through partnerships with top research institutes, biotech companies, and pharmaceutical industries. We promote a global perspective by promoting international collaborations and student exchange programs. As we move forward, let us remain committed to nurturing innovation, collaboration, and academic excellence.

Warm regards,

Dr. Suneetha V.

Dean, School of Bio-Sciences and Technology, VIT

VIT University Rankings - 2025

SUBJECT	World Rank	India Rank
Engineering & Technology	**142**	**9**
Computer Science & Information Systems	110	4-7
Data Science and Artificial Intelligence	**51-100**	**1-7**
Engineering - Electrical & Electronic	151-200	7-10
Engineering - Mechanical, Aeronautical & Manufacturing	201-250	9-10
Engineering - Chemical	251-300	9-11
Natural Sciences	**362**	**11**
Materials Science	151-200	7
Mathematics	201-250	7-9
Statistics & Operational Research	251-275	8
Chemistry	301-350	9-11
Physics & Astronomy	401-450	10-15
Environmental Sciences	451-500	13
Biological Sciences	**351-400**	**8-9**
Agriculture & Forestry	**351-400**	**11-12**
Business & Management Studies	**551-600**	**23-27**

Global Recognition for Educational Leadership

Heartfelt Congratulations to Our **Hon'ble Chancellor, Dr. G. Viswanathan** on being conferred the Honorary Doctor of Pedagogy by Rochester Institute of Technology, New York

We are proud to share that our Hon'ble Chancellor has been awarded the prestigious Honorary Doctor of Pedagogy degree by the Rochester Institute of Technology (RIT), New York, USA, in recognition of his outstanding contributions to education and leadership. The honor was formally conferred on May 9, 2025, marking a moment of great pride for our university community.

Nobel Laureate Meeting

Our Hon’ble Chancellor recently had the privilege of meeting Nobel Laureate Dr. M. Stanley Whittingham, the pioneer of lithium-ion battery technology, marking a momentous occasion of scientific dialogue and academic inspiration.

Empowering Women: VIT Leadership

Ms. Kadhambari S. Viswanathan, **Assistant Vice-President** and our proud alumnus of SBST, Vellore Institute of Technology, was a featured speaker at India Today's State of the States – Madhya Pradesh First conclave held on April 25, 2025 in Bhopal. She addressed the theme "Empowering Women: The Road Ahead," highlighting VIT's commitment to inclusive leadership.

NEW ADMIN POSITION

Congratulations to Dr. Rasool M, Professor (Level-PHAG), SBST for appointment as Director, Purchase Department from 16 June 2025 to 30 June 2028.

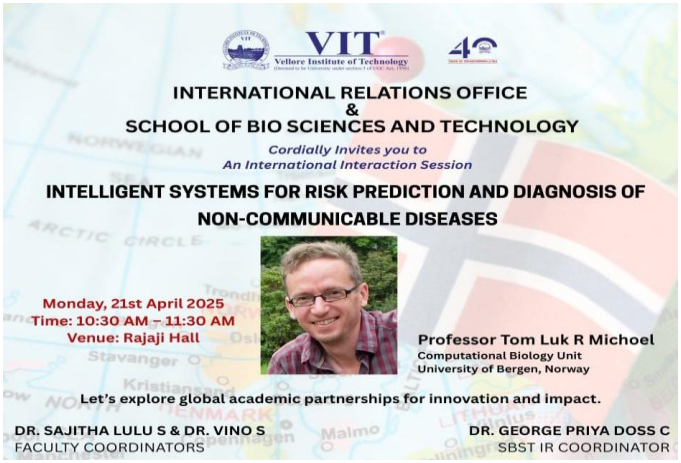
FACULTY OUTREACH

1. Jubilant Biosys Limited Meeting with Faculty Members

We were honoured to host Jubilant Biosys Limited, a leading biopharma company, on 21st May 2025 (Wednesday). Their visit to VIT included interactions with the Dean, Associate Dean, HODs, and faculty of SAS and SBST, focusing on exploring our courses, laboratory facilities, and research culture-marking a significant step in academia-industry collaboration.

2. Global Academic Exchange on AI in Healthcare at VIT

VIT's International Relations Office and School of Bio Sciences and Technology hosted Prof. Tom Luk R. Micheol from the University of Bergen, Norway, for a session on "Intelligent Systems for Risk Prediction and Diagnosis of Non-Communicable Diseases" on 21st April 2025. The event emphasised global collaboration in computational biology and healthcare innovation.



FACULTY ACHIEVEMENTS

Registration of Design

Title: Graduated Petri dish
Application number: 452598-001
Inventors: Dr. Godwin Christopher, Veilumuthu P

Patents

Published patents

1. Title: Animal Feed Formulation from Feather Wastes and Method of Preparation Thereof **(Published on 15th April 2025).**
   Dr. Suneetha Vuppu, Sathvika K.

2. Title: PVA Beads for Arsenic Bioremediation **(Published on 23rd April 2025).**
   Dr. Sudandira Doss C, Pearl John, Arsh Praveen, Arya Praveen, Rishikesh Bardia

3. Title: AI-driven Prognostic System for Neurodegenerative Disease Using Multi-Omics and Digital Biomarkers **(Published on 30th April 2025).**
   Dr. Sajitha Lulu S., Dr. Shynu P.G., Dr. S. Vino

4. Formulation of Polycaprolactone (PCL) Microsphere Encapsulated with Low Molecular Weight and Highly Hydrophilic Model Drug (H2O2) by Modified Double Emulsion Solvent Evaporation Method **(Published on 30th April 2025).**
   Dr. Sunita Nayak, Debarchan Panda

5. Title: Pilot Scale Dual Chambered Packed Bed Column Bioreactor with A Pulverizer **(Published on 28th May 2025).**
Dr. Anand Prem Rajan, Dr. Jose S., Harshan K.

6. Title: TriPhytoCaps- Polyherbal Antidiabetic Capsules for Blood Glucose Regulation **(Published on 30th May 2025).**
Dr. Jayasri M.A.,Dr. K. Suthindhiran, Animish Deepak Andhere.

7. Title: A Zn and Cu-containing 8-hydroxyquinoline-based bio-selective metal-organic complexes for imparting anti-biofilm properties to biomaterial **(Published on 30th May 2025).**
Dr. Debasish Mishra, Gutti Pavan

8. Title: A magnetosome-embedded lemongrass wound dressing and method for its preparation **(Published on 30th May 2025).**
Dr. K. Suthindhiran, Dr. Jayasri M.A., Prem Anand K., M. Haripriya, Animish Deepak Andhere

9. Title: Process for the Preparation of Low-Fat Vegan Mayonnaise Product Using Coconut as a Fat Substitute **(Published on 28th June 2025).**
Dr. Jeevitha G.C., Surya A., Madhumitha P.L.

LIST OF PUBLICATIONS

1. Murugan D.; Vasanthakumari Thirumalaiswamy H.; Murugesan V.; Venkatesan J.; Balachandran U.; Lakshminarayanan K.; Satpati D.; Nikolić S.; Rangasamy L. (2025). Unlocking the power of affibody-conjugated radioactive metallopharmaceuticals for targeted cancer diagnosis and therapy. Pharmacology and Therapeutics. **(IF: 12)**
2. Mohan A.A.; Talwar P. (2025). MAM kinases: physiological roles, related diseases, and therapeutic perspectives—a systematic review. Cellular and Molecular Biology Letters. **(IF: 9.2)**
3. Panda T.K.; Bollepalli D.; Beji D.S.; Varanasi K.; Ananth M.; Rajarajeswaran J.; Eswar Neerugatti K.R. (2025). Beyond Slurry Systems: Chitosan Thin Film Fabrication, Mechanism, and Reusability for Sustainable Textile Effluent Remediation. Separation and Purification Technology. **(IF: 8.1)**
4. Ray S.; Vashishth R.; Mukherjee A.G.; Valsala Gopalakrishnan A.; Sabina E.P. (2025). Mercury in the environment: Biogeochemical transformation, ecological impacts, human risks, and remediation strategies. Chemosphere. **(IF: 8.1)**
5. Lawrence L.V.; Vishnu D. (2025). Exploring the potential of biologically synthesized nano-adsorbents in removal of hexavalent chromium (Cr (VI)): Mechanistic studies and circular economy integration. Journal of Environmental Management. **(IF: 8.0)**
6. Sahu A.; Ruhal R. (2025). Immune system dynamics in response to *Pseudomonas aeruginosa* biofilms. npj Biofilms and Microbiomes. **(IF: 7.8)**
7. Sekaran M.; Thiagarajan K. (2025). Biochemical detoxification of hexavalent chromium (Cr6 +) by the endophytic fungus *Aspergillus ruber* isolated from the marine alga *Portieria hornemannii.* Journal of Environmental Chemical Engineering. **(IF: 7.4)**
8. Palanisamy T.B.; Arumugam M. (2025). Transcriptomic analysis reveals potential biomarkers for early-onset pre-eclampsia using integrative bioinformatics and LASSO LASSO-based approach. Computers in Biology and Medicine. **(IF: 7)**
9. Gopikrishnan M.; Elavarasu S.M.; Vasudevan K.; Shree Devi M.S.; K S.; Varsha A S.L.; Doss C G.P. (2025). Evolutionary trajectories of Nipah virus: Evaluating the antiviral efficacy of *Kabasura Kudineer* Chooranam. Computers in Biology and Medicine. **(IF: 7)**
10. Saravanan K.; Baskaran R.R. (2025). Fucoxanthin-supplemented combinatorial treatment accelerates diabetic wound healing in rats by targeting hypermethylation of Ang-1 promoter via DNMT-1 inhibition. Biomedicine and Pharmacotherapy. **(IF: 6.9)**
11. Ganeshbabu M.; Manochkumar J.; Efferth T.; Ramamoorthy S. (2025). Lutein: A natural defence combating age-related macular degeneration. Phytomedicine. **(IF: 6.7)**
12. Mundanat A.S.; Singh V.; Talniya N.C.; Rana S.S. (2025). Plasma modification in fruit juices: Changes in structure, colour, rheological parameters and sensory properties. Food Chemistry: X **(IF: 6.5)**
13. Suresh P.; Muneer S. (2025). Light spectrum mediated improved graft-healing response by enhanced expression of transport protein in vegetables under drought conditions. Plant Physiology and Biochemistry. **(IF: 6.1)**
14. Senthilkumar H.; Arumugam M. (2025). Gut microbiota: a hidden player in polycystic ovary syndrome. Journal of Translational Medicine. **(IF: 6.1)**

15. Varghese R.; Emerson A.; Vannier B.; George Priya Doss C.; Priyadharshini R.; Efferth T.; Ramamoorthy S. (2025). Substantial Effects of Carotenoids on Skin Health: A Mechanistic Perspective. Phytotherapy Research. **(IF: 6.1)**
16. Gundlapalli M.; Ganesan S. (2025). Polyhydroxyalkanoates (PHAs): Key Challenges in production and sustainable strategies for cost reduction within a circular economy framework. Results in Engineering. **(IF: 6.0)**
17. Palanisamy S.; Saravana Kumar B.K.; Sivakumar G.; Selvan S.; Lee J.; Bharathi D. (2025). Advancing marine cellulose-based packaging: A review on sustainable biorefinery perspectives. Biomass and Bioenergy. **(IF: 5.8)**
18. Sishu N.K.; Selvaraj C.I. (2025). Bio-fabrication of *Cichorium intybus* L. root aqueous extract mediated ZnO nanoparticle (CIRAE-ZnO NP) for its promising therapeutic applications. Green Chemistry Letters and Reviews. **(IF: 5.8)**
19. Sishu N.K.; Selvaraj C.I. (2025). Biogenic Ag-CuO nanocomposite fabricated using *Cichorium intybus L*. root extract: A dual approach for biological investigations and photocatalytic degradation of norfloxacin. Surfaces and Interfaces. **(IF: 5.7)**
20. Saha P.; Ravanan P.; Talwar P. (2025). A multi-omics exploration of PPARG activation in colon cancer: kinases featuring a PPRE sequence within regulatory regions. Biology Direct. **(IF: 5.7)**
21. Ramalingam P.S.; Aranganathan M.; Hussain M.S.; Elangovan S.; Chellasamy G.; Balakrishnan P.; Mekala J.R.; Yun K.; Arumugam S. (2025). Unveiling reverse vaccinology and immunoinformatics toward Saint Louis encephalitis virus: a ray of hope for vaccine development. Frontiers in Immunology. **(IF: 5.7)**
22. Khare A.; De D.; Arora A. (2025). Shelf-life of iron-rich ready-to-eat snacks: Impact of vacuum and modified atmospheric packaging under different storage conditions. Food Control. **(IF: 5.6)**
23. Chavda V.P.; Vuppu S.; Mishra T.; Sharma N.; Kamaraj S.; Mishra S.; Sureshbhai B.; Matsoukas J.; Apostolopoulos V. (2025). Control measures for neglected tropical diseases: vaccine updates. Expert Review of Vaccines. **(IF: 5.5)**
24. Ramesh P.; Palaniappan A. (2025). Green synthesis of nanoceria using *Terminalia Arjuna* extract for enhanced stability, antioxidant, and anticancer properties than their chemical counterparts. Colloids and Surfaces B: Biointerfaces. **(IF: 5.4)**
25. Harshan K.; Rajan A.P. (2025). Unveiling the potential of microbial biominers in bioleaching for heavy metal recovery from E-waste – A comprehensive review. Journal of Hazardous Materials Advances. **(IF: 5.4)**
26. Priyadharshini S.; Veilumuthu P.; Godwin Christopher J.; Anitha K. (2025). The synergy of experimental and Theoretical investigation of solvent impact on structural, physicochemical properties of a bioactive meta-para Schiff base crystal: 4-Bromo 3-nitrobenzylidene aniline. Journal of Molecular Liquids. **(IF: 5.3)**
27. Ezhil I.; Seetharaman A.; Kanumuri R.; Rajamani B.; Gangavarapu R.R.; Venkatraman G.; Rayala S.K. (2025). Novel Combination Therapy Targeting Oncogenic Signaling Kinase P21-Activated Kinase 1 and Chemotherapeutic Drugs Against Triple-Negative Breast Cancer. Molecular Cancer Therapeutics. **(IF: 5.3)**

28. Sekar M.; Thirumurugan K. (2025). The role of TP53INP2 as an adaptor protein in the regulation of lipophagy in mature adipocytes. Life Sciences. **(IF: 5.2)**
29. Joseph S.; Vijayakumar N.; Kothandam S.; Janakiraman K.; Abraham J.; Genasan K.; Swamiappan S. (2025). Silver-doped diopside: A multifunctional bioceramic with enhanced bioactivity, mechanical strength, and antimicrobial properties for bone regeneration. Ceramics International. **(IF: 5.1)**
30. Sharmila A.; Selvaraj C.I. (2025). Sustainable synthesis of Au-ZnO nanocomposites for effective photocatalytic degradation of methylene blue in wastewater and therapeutic applications. Ceramics International. **(IF: 5.1)**
31. Kumari R.; Banerjee S. (2025). Regulation of Different Types of Cell Death by Noncoding RNAs: Molecular Insights and Therapeutic Implications. ACS Pharmacology and Translational Science. **(IF: 4.9)**
32. Chakraborty S.; Kumar A.S.; Banerjee S. (2025). Lipids: Driving Forces in the Underlying Biology of Carcinogenesis. ACS Pharmacology and Translational Science. **(IF: 4.9)**
33. Gopinathan S.; Suthindhiran K. (2025). Microbial contamination in the marine recreational sites and its impact on public health. Ocean and Coastal Management. **(IF: 4.8)**
34. Annamalai C.; Viswanathan P. (2025). Vitamin D and Acute Kidney Injury: A Reciprocal Relationship. Biomolecules. **(IF: 4.8)**
35. Sankar S.; Kalidass B.; Indrakumar J.; Kodiveri Muthukaliannan G. (2025). NSAID-encapsulated nanoparticles as a targeted therapeutic platform for modulating chronic inflammation and inhibiting cancer progression: a review. Inflammopharmacology. **(IF: 4.6)**
36. Sridhar P.; Bhatt H.; Padala K.; Reddy S.R.; Alagumuthu M.; Arumugam S.; Chun-Cheng L.; Wang S.-K. (2025). Sustainable synthesis of nitrogen-rich pyridazine-triazole scaffolds as efficient Tyrosine kinase inhibitors via Click reaction. Bioorganic Chemistry. **(IF: 4.5)**
37. Hiremath K.B.; Manochkumar J.; Ramamoorthy S.; Shivashankar M. (2025). Studies on DNA/HSA binding properties of new triazole-based imine functionalized derivatives using spectroscopic and computational methods. Bioorganic Chemistry. **(IF: 4.5)**
38. George E.A.; Naha A.; Soundharya H.; Pallavi J.; Menon A.; Anbarasu A.; Ramaiah S. (2025). Pharmacokinetics Screening, Molecular Docking, and Dynamics Simulations Revealed Novel Antimicrobial Peptide, NKLF2 Mutants as Potent Inhibitors of Mycobacterium tuberculosis. Probiotics and Antimicrobial Proteins. **(IF: 4.4)**
39. Kavya P.; Gayathri M. (2025). Bioactive fraction isolated from *Curcuma angustifolia* rhizome exerts anti-diabetic effects in vitro, in silico and in vivo by regulating AMPK/PKA signaling pathway. Frontiers in Pharmacology. **(IF: 4.4)**
40. Vijayaganapathi A.; Mohanasrinivasan V. A (2025). Review of Next-Generation Probiotics—As a Gateway to Biotherapeutics. Probiotics and Antimicrobial Proteins **(IF: 4.4)**
41. Nag S.; Damodar K.S.H.; Mukherjee S.; Rao D.R.; Debnath I.; Haryini S.; Mohanto S.; Ahmed M.G.; Subramaniyan V. (2025). Unveiling the trending paradigms of synthesis and theranostic biomedical potentials of nano-diamonds (NDs) - a state-of-the-art update. Inorganic Chemistry Communications. **(IF: 4.4)**

42. Priyadarshini L.A.S.; Kataria R. (2025). Microbial synthesis and extraction of value-added metabolites by *Rhodotorula toruloides* from waste stream: a sustainable approach. Microbial Cell Factories. **(IF: 4.3)**

43. M M.; C S.D. (2025). A bioprocess optimization study to enhance the production of Menaquinone-7 using Bacillus subtilis MM26. Microbial Cell Factories. **(IF: 4.3)**

44. Robinson G.I.; Gerasymchuk M.; Zanikov T.; Gojani E.G.; Asghari S.; Groves A.; Haselhorst L.; Nandakumar S.Stahl C.; Cruz C.; Cameron M.; Zahoruiko Y.; Li D.; Rodriguez-Juarez R.; Snelling A.; Hudson D.; Fiselier A.; Kovalchuk O.; Kovalchuk I. (2025). LPS-Induced Liver Inflammation Is Inhibited by Psilocybin and Eugenol in Mice. Pharmaceuticals. **(IF: 4.3)**

45. Sridhar N.; Manian R. (2025). Advances in biochar production from microalgae: techniques, challenges, and environmental benefits. Clean Technologies and Environmental Policy. **(IF: 4.2)**

46. Hiruthyaswamy S.P.; Bose A.; Upadhyay A.; Raha T.; Bhattacharjee S.; Singha I.; Ray S.; Nicky Macarius N.M.; Viswanathan P .; Deepankumar K. (2025). Molecular signaling pathways in osteoarthritis and biomaterials for cartilage regeneration: a review. Bioengineered. **(IF: 4.2)**

47. Sahoo K.; Lingasamy P.; Khatun M.; Sudhakaran S.L.; Salumets A.; Sundararajan V.; Modhukur V. (2025). Artificial Intelligence in cancer epigenomics: a review on advances in pan-cancer detection and precision medicine. Epigenetics and Chromatin. **(IF: 4.2)**

48. Dhar S.; Ahmad F.; Deshpande A.; Rana S.S.; Ahmed A T.; Priyadarsini S. (2025). 3-Dimensional printing and bioprinting in neurological sciences: applications in surgery, imaging, tissue engineering, and pharmacology and therapeutics. Journal of materials science. Materials in medicine. **(IF: 4.2)**

49. Kavya P.; Krishnamurthy S.; Bhave S.; Telugu S.; Gayathri M. (2025). Standardisation, chemical characterisation, and evaluation of antihyperglycemic and antioxidant activity of an edible polyherbal formulation: An in vitro and in silico study. Journal of Molecular Structure. **(IF: 4.0)**

50. Sundar R.D.V.; Arunachalam S. (2025). 2,4-Di-tert-butylphenol from Endophytic Fungi *Fusarium oxysporum* attenuates the growth of multidrug-resistant pathogens. Frontiers in Microbiology. **(IF: 4.0)**

51. Tomichen S.; Panchal S. (2025). The cardamom-Fusarium pathosystem: current knowledge and future directions. World Journal of Microbiology and Biotechnology. **(IF: 4.0)**

52. Murugan S.; B S.S.S.; Gopinath P.; Saravanan R.; Sundaram S.; Shanmugasundaram G.; Venkatraman G.; Rayala S.K. (2025). Pak1 dysregulates pyruvate metabolism in PDAC cells by exerting a phosphorylation-mediated regulatory effect on PDHA1. Journal of Biological Chemistry. **(IF: 4.0)**

53. Pattapulavar V.; Ramanujam S.; Sekaran M.; Chandrasekaran R.; Panchal S.; Christopher J.G. (2025). Biosynthetic Pathway of psi, psi-Carotene from *Streptomyces sp.* VITGV38 (MCC 4869). Frontiers in Microbiology. **(IF: 4.0)**

54. Hadkar V.M.; Selvaraj C.I. (2025). Bio-inspired Ag3PO4-ZnO Nanocomposites: Investigation of its Antioxidant, Anticancer Activity and Photocatalytic Degradation of

Methylene Blue Dye. Journal of Inorganic and Organometallic Polymers and Materials. **(IF: 3.9)**

55. Sheik Moideen Thaha S.K.; Hasini M.P.; Nair R.R.; Sathish Kumar P.; Jeyajothi K.; Muruganandam L.; Rajasekaran C.; Basavegowda N. (2025). Low-frequency ultrasound-enabled synthesis of Ag/TiO2/g-C3N4 nanocomposites for efficient visible-light-driven photocatalysis. Materials Science and Engineering: B. **(IF: 3.9)**

56. Lawrence L.V.; Venkat Kumar S..; Vishnu D. (2025). Emerging trends on biologically synthesized nano-fertilizers from microalgal extracts and their enhanced productivity in foliar and soil applications. Energy, Ecology and Environment. **(IF: 3.9)**

57. Loganathan T.; George Priya Doss C. (2025). Computational molecular insights into ibrutinib as a potent inhibitor of HER2-L755S mutant in breast cancer: gene expression studies, virtual screening, docking, and molecular dynamics analysis. Frontiers in Molecular Biosciences. **(IF: 3.9)**

58. Dutta P.; Chakraborty A.; Amrit R.; Dey P.; Buragohain T.; Osborne W.J. (2025). Biotic remedies for Antibiotic pollution: A Review on Bioremediation Strategies. Water, Air, and Soil Pollution. **(IF: 3.8)**

59. Roy A.; Anbarasu A. (2025). Unveiling Berberine analogues as potential inhibitors of *Escherichia coli* FtsZ through machine learning molecular docking and molecular dynamics approach. Scientific Reports. **(IF: 3.8)**

60. Varghese R.; Ramamoorthy S. (2025). Deciphering the effects of bixin on pulmonary alveolar adenocarcinoma migration and proliferation via targeting BAX/BCL-2 and Cyclin D1. Scientific Reports. **(IF: 3.8)**

61. Priya V.; Sudhakaran R. (2025). A novel approach for DNA extraction of white spot syndrome virus detection in penaeid shrimp. Scientific Reports. **(IF: 3.8)**

62. Pearl S.; Anbarasu A. (2025). Genomic landscape of nosocomial *Acinetobacter baumannii*: A comprehensive analysis of the resistome, virulome, and mobilome. Scientific Reports. **(IF: 3.8)**

63. Wahid M.; Mandal R.K.; Sikander M.; Khan M.R.; Haque S.; Nagda N.; Ahmad F.; Rodriguez Morales A.J. (2025). Safety and Efficacy of Repurposed Smallpox Vaccines Against Mpox: A Critical Review of ACAM2000, JYNNEOS, and LC16. Journal of Epidemiology and Global Health. **(IF: 3.8)**

64. Raali R.; Suresh P.K. (2025). Unraveling Glioblastoma: TME Implication and Gene Therapy Advances. Current Gene Therapy. **(IF: 3.8)**

65. Panickar A.; Manoharan A.; Ramaiah S. (2025). Single-nucleotide polymorphisms and penicillin non-susceptibility among invasive *Streptococcus pneumoniae* from Vietnam and India: Insights from a comparative genomics study. Journal of Global Antimicrobial Resistance. **(IF: 3.7)**

66. Ankit Kumar Bharti S.; Gopalakrishnan A.V. (2025). Lead-Induced Nephrotoxicity and Its Therapeutic Interventions: An Updated Review. Biological Trace Element Research. **(IF: 3.4)**

67. Omer S.N.; Saravanan P.; Senthilnathan; Kumar P; Lopez-Maldonado E.A.; Rajeshkannan R.; Venkat Kumar S. (2025). Molecular docking insights: interaction mechanisms of green-

synthesized iron oxide nanoparticles with bacterial proteins. Microbial Pathogenesis. **(IF: 3.3)**

68. Mahendrarajan V.; Easwaran N. (2025). Isolation, probiotic characterization and genomic analysis of *Enterococcus durans* VIT3 from edible curd. Microbial Pathogenesis. **(IF: 3.3)**

69. Tewari J.; Qidwai K.A.; Tewari A.; Rana A.; Singh V.; Tewari V.; Mateen R.; Khatoon S.; Ahmad F.; Haque S. (2025). Efficacy and safety of imeglimin, a novel oral agent in the management of type 2 diabetes mellitus: a systematic review and meta-analysis. Naunyn-Schmiedeberg's Archives of Pharmacology. **(IF: 3.1)**

70. Bhattacharya I.; Maity D.K.; Kumar A.; Sarkar S.; Bhattacharya T.; Sahu A.; Sreedhar R.; Arumugam S. (2025). Beyond obesity: lean metabolic dysfunction-associated steatohepatitis from unveiling molecular pathogenesis to therapeutic advancement. Naunyn-Schmiedeberg's Archives of Pharmacology. **(IF: 3.1)**

71. Murali R.; Gopalakrishnan A.V. (2025). Imperatorin as an activator of Nrf2/ARE in mercury-induced brain damage based on rat model study, molecular docking, and molecular simulation approaches. Naunyn-Schmiedeberg's Archives of Pharmacology. **(IF: 3.1)**

72. Kamaraj B.; C G.P.D. (2025). Theoretical investigation of AKT1 mutations in breast cancer: a computational approach to structural and functional insights. Journal of Computer-Aided Molecular Design. **(IF: 3.0)**

73. Salim P.; Mandal A.K.A. (2025). Theaflavins-Loaded Liposome Ameliorates the Adjuvant-Induced Arthritis in Wistar Albino Rats. BioNanoScience. **(IF: 3.0)**

(Source: Office of Academic Research)

FACULTY ACHIEVEMENTS

1. Hearty Congratulations to our esteemed Professor **Dr. Karthikeyan S** from our School of Bio-Science and Technology for securing a **Consultancy Project** from **M/s Focus Engineering, Bangalore.**
   Title of the Project: **App Development for Mobility Customer Centric Module**
   Sanctioned Amount: **Rs 4,72,000/-**
   Project Duration: **6 Months**

2. Hearty Congratulations to our esteemed Professor **Dr. Anand Prem Rajan** from our School of Bio-Science and Technology for securing a **Consultancy Project** from **Willys Enterprise, Vellore**
   Title of the Project: **Design and Implementation of a Real-Time E-Waste Management System**
   Sanctioned Amount: **Rs 30,000/-**
   Project Duration: **12 Months**

3. Hearty Congratulations to our esteemed Professors **Dr. Sajitha Lulu S, Dr. Vino S, Dr. Ramanathan K, and Dr. Shanthi V** from our School of Bio-Science and Technology for securing a **Consultancy Project** from **M/s. Nyro Research India Pvt. Ltd., Kerala**
   Title of the Project: **Development of bioinformatics target prioritization pipeline**
   Sanctioned Amount: **Rs 47,200/-**
   Project Duration: **3 Months**




4. **Dr. Suneetha Vuppu** visited the United States of America as a part of teaching- learning process. She presented her research findings at international conferences and engaged in scientific interactions to foster future collaborations. She participated in international conferences such as 30th Annual Teaching and Learning Conference was organized by DePaul University on 2nd May, 2025; 11th IBTN Research Symposium by University of Illinois on 19th and 20th May, 2025; (Re) Centering: The 8th Annual NU Bioethics & Medical Bio Conference on 21st May 2025 by Northwestern University; Changemakers conference by Bradley University and scientific interaction in Hong Kong. The visit also included interaction with esteemed professors from Bradley University, the University of Illinois Springfield, DePaul University, Northwestern University, Illinois State University, Illinois Wesleyan University, and the University of Illinois Chicago.

5. **Dr. Trupti Patel** visited Khalifa University, Abu Dhabi, in May 2025 to perform advanced experiments and participate in hands-on training sessions as part of a collaborative research initiative.

6. **Dr. P.K. Suresh** visited University of Phillipines, Quezon City, Philippines as a Visiting Professor. He was received well by the faculty members, students as well as the technicians.

NATIONAL GUEST LECTURES

Sl No	Guest Lecture On	Faculty Coordinator(s)	Resource Person	Organisation	Date
1	Recombinant protein production and its application	Dr. Kanagavel Deepankumar	Dr.S. Jagannathan	Pasteur Institute of India, Coonoor	04.04.2025
2	Protein production: From laboratory to Industry	Dr. M.Anbalagan	Mr. Vijay Singh Pundir	Perfect day Biosciences	04.04.2025
3	Art of protein purification: From an industrial perspective	Dr. M.Anbalagan, Dr Aanchal Mittal	Mr. Vijay Singh Pundir	Perfect day Biosciences	04.04.2025
4	Marine Nutraceuticals - Present and Future Prospects	Dr. K. Suthindhiran	Dr. Lekshmi R.G	ICAR- Central Institute of Fisheries Technology - Cochin	04.04.2025
5	From leaf to label: Navigating Tea Processing, Standards, and	Dr. Ayesha Noor	Dr. Sawinder Kaur	Lovely Professional University, Phagwara, Punjab	05.04.2025

	Labelling for Quality Assurance				
6	The tissue engineer's toolbox	Dr. Sunita Nayak	Dr. Banani Kundu	Adamas University - West Bengal	07.04.2025
7	The Human Eye and the Vibrant World	Dr. Prakash Kumar Shukla, Dr. Krishna Rao Eswar N	Dr. Mukesh Kumar	All India Institute of Medical Science - New Delhi	07.04.2025
8	Research Insights and Perspective of French HEI	Dr. Priti Talwar, Dr. Manjubala I	Prof. Christian Lefebvre d'Hellencourt	Université de La Réunion-CYROI-2 - France	07.04.2025
9	Preparation of phytosterol esters of alpha linolenic acid and its utilization in food	Dr. Jeevitha G C	Dr. R G Raja Rajan	Nutralipid3 Pvt Ltd	09.04.2025
10	Gene expression profiling techniques	Dr. Reena Rajkumari B, Dr. Priti Talwar	Prof. Ravanan P	Central University of Tamil Nadu	09.04.2025
11	Bridging Science, Society, and Sustainability	Dr. George Priya Doss C	Dr. Sabarinath Subramaniam	Bharat Genome Database & GenAi Research Labs, Thiruvananthapuram	09.04.2025
12	Revolutionizing Industries: Recent Advancements and Applications of Biotechnology in the 21st Century	Dr. Anand Prem Rajan	Dr. L. Karthik	Salem Microbes Pvt. Ltd salem	10.04.2025
13	Extraction of Bio-oil from Algal biomass for Food and Biodiesel Production Application	Dr. S Venkat Kumar, Dr. Ramesh Pathy	Dr. S. Renganathan	Alagappa College of Technology, Anna University, Chennai	10.04.2025
14	Recent Trends in Analytical Techniques in Biotechnology	Dr. Anand Prem Rajan	Dr. L. Karthik	Salem Microbes Pvt. Ltd salem	10.04.2025
15	Downstream processing in biofuel production	Dr. S Venkat Kumar, Dr. Ramesh Pathy, Dr. Sangeetha Subramanian	Dr. S. Renganathan	Alagappa College of Technology, Anna University, Chennai	10.04.2025
16	Nutritional value of seaweeds and their potential as Nutraceuticals	Dr. M.A. Jayasri, Dr. K. Suthindhiran	Dr. Stella C	Sethu Bhaskara Agriculture College and Research	11.04.2025

				Foundation - Karaikudi	
17	AI-Driven Protein Engineering: Enzymes for Therapeutics and Sustainable Chemical Synthesis	Dr. K. Ramanathan, Dr. V. Shanthi	Mr. Pravin Kumar	Kcat Enzymatic Pvt. Ltd Bengaluru	11.04.2025
18	Trends in Pharma Management	Dr. M. Kavitha	Ms. P. Swetha	Shield Healthcare Adyar, Chennai	12.04.2025
19	Recent trends in aptamers, oligonucleotide-based diagnostics in emerging and re-emerging infectious diseases	Dr. Asit Ranjan Ghosh	Dr. Arghya Sett	Luxembourg Institute of Science and Technology - Luxembourg	16.04.2025
20	Exosomes in cancer: Messengers of pathogenesis and tools for therapy	Dr Rohit, Dr. Rashmi Kataria	Dr. Girijesh Kumar Patel	Motilal Nehru National Institute of Technology, Allahabad, Prayagraj	16.04.2025

RESEARCH DEVELOPMENT SERIES

Event	Title	Speaker	Address	Organizer
RDS 1	Patent filing, Eligibility criteria and Prosecution	Mr. Rajesh Kumar John	Biostatistics consultant Dwele data science, Coimbatore	Dr. Sudha R, Dr. Anand Aarasu

FACULTY DEVELOPMENT PROGRAM

Event	Title	Organizer	Date
FDP	Data analytics to health: Disease diagnosis to drug development	Dr. Satarupa Banerjee, Dr. Rahul Shaw	05-05-25 to 09-05-25

Memorandum of Understanding (MoU)

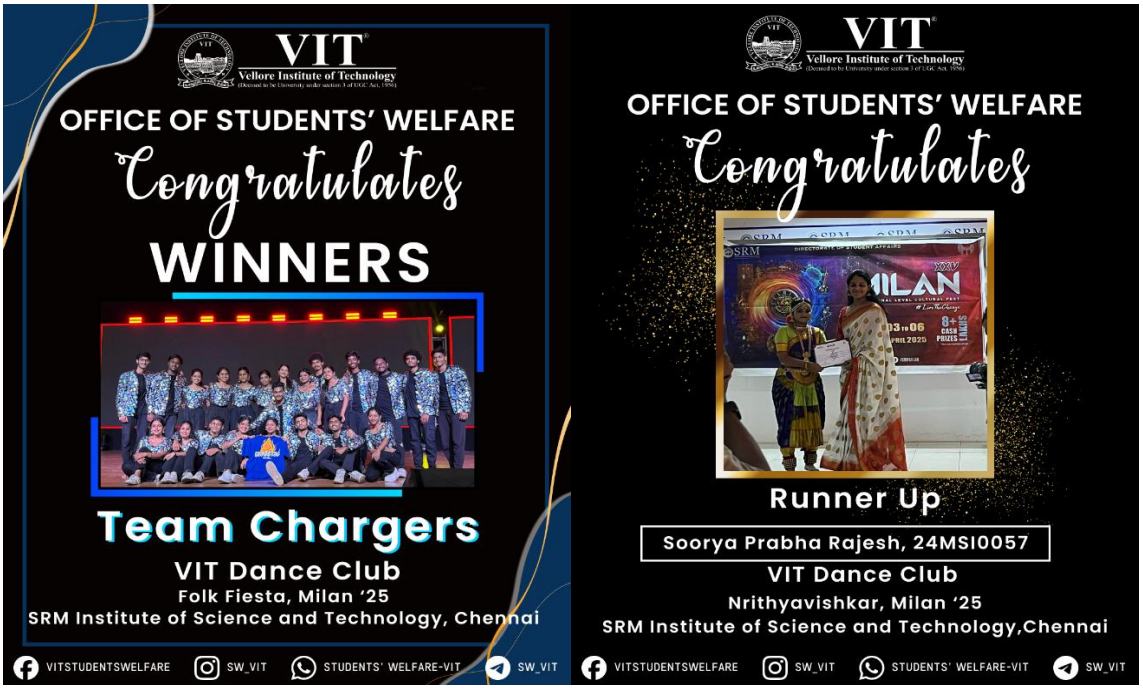
University of Sussex

MicroPros Lab Inc., Canada: An MoU was signed between Vellore Institute of Technology and MicroPros Lab Inc., Canada, to engage in academic and research collaborations. This collaboration has resulted in the submission of two project proposals to the Beef Cattle Research Council (BCRC) in Alberta for 2025. Faculty involved- Dr. Gayathri M.

Sivasakthi Science Foundation: An MoU was signed between VIT and Sivasakthi Science Foundation focusing on initiation joint research collaboration work on Neurodegenerative related research particularly recent advancements by using Artificial Intelligence (AI) and Alzheimer's disease (AD). Dr. Sabarinath Subramaniam (Retired Professor at University of California, Berkeley, and Director of Sivasakthi Science Foundation).

STUDENTS ACHIEVEMENTS

1. The **VIT Dance Club** brought accolades to the institute by winning top positions at *Milan 2025*, the Annual Cultural Fest of SRM University, Chennai, held on **4th April 2025**. The team *Riwaayat*, comprising **Aarushi Kadam (23BBT0124), Priyanshi Jain (24BBT0019), Ishanvi Bhatt (23BBT0003), and Akshita Sriram (23BBT0153)**, secured **1st Place in Laya Dhaara**, while the team *Chargers*, featuring **Neha Shibil (22BBT0186), Diyaa Sunil (22BBT0263), and Gayathri (21BBT0241),** clinched **1st Place in Folk Fiesta**, and **Soorya Prabha Rajesh (24MSI0057)** bagged **Runner Up in Nrithyavishkar**, showcasing excellence in dance and cultural representation.



2. We are immensely proud of **Ms. Shrujana K (21BBT0027)** for being awarded the prestigious **Chancellor's Gold Medal** in the *Engineering Category* during the **University Day & Annual Sports Day 2025** celebrations on **5th April 2025**, in recognition of her outstanding academic and extracurricular contributions.

3. The **VIT Model United Nations Society (VITMUNSOC)** added to our legacy of achievements by securing the **Best Delegation Award** at the **ECOSOC – Economic and Social Council**, held from **April 4th to 6th, 2025**. A special mention goes to **Parnika Prakash (24BBT0242)** for her notable performance during the conference.

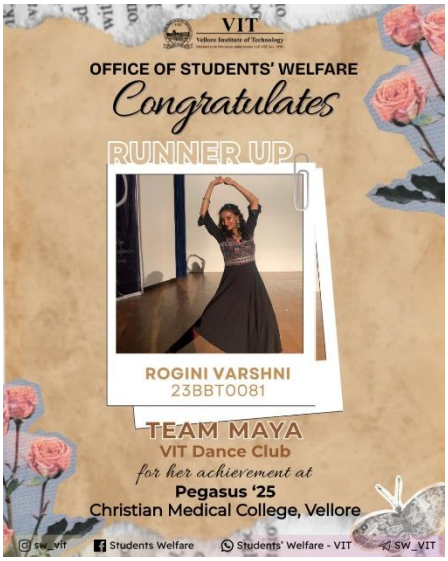
4. **Team Mosambi** from VIT Vellore made us proud by emerging as the **First Runner-Up** in *PREVENZA*, a challenging case study competition held as part of **Cognizance'25**, the annual technical fest at **IIT Roorkee**, on **23rd March 2025**. Congratulations to **Krut Doshi**

(22BBT0134) and **Rachit Upadhyay (22BBT0120)** for their innovative thinking and problem-solving abilities.

5. The **Society for Biological Engineering (SBE-VIT)** brought laurels to VIT by securing the **Second Place (First Runner-Up)** in the prestigious **Biohackathon** held at the **ACT Campus, Anna University, Chennai** on **5th April 2025**. The winning team included **Krut Doshi (22BBT0134), Rachit Upadhyay (22BBT0120), Ratnadeep Das (23BBT0066), Harshita Kumar (23BBT0130), and Aanavi Patel (23BBT0017),** who showcased their bioengineering acumen and collaborative skills.

6. We extend our heartfelt congratulations to **Ms. Rogini Varshini (23BBT0081)** for her exemplary performance as a member of **Team Maya**, which earned the **Runner-Up** position

in a **dance** event at **Pegasus '25**, organized by **Christian Medical College, Vellore from 30th June 2025**.



7. We congratulate **Ria Susan Chacko (23BBT006)** for her stellar performance as part of **Kshatriya Electric**, which secured the **2nd Runner-Up** position in the **Drag Race** event during the **Mega ATV Championship 2025** hosted by **Sri Ramakrishna Institute of Technology, Coimbatore**, on **May 12, 2025**.

RESEARCH SCHOLAR ACHIEVEMENT

1. Congratulations to Mr. Premkumar T. (20PHD2052), guided by Dr. Sajitha Lulu got selected or the position of Senior Project Associate under the Government Project ICMR-NIRRCH, Mumbai, titled “Establishment of Bioinformatics and Computational Biology Centre (Centre for advanced research in bioinformatics and computational biology for woman and child health)—BIC,” funded by the Department of Biotechnology.

2. Congratulations to Prof. Ashadevi S and her research scholars Mr. S. Mohmed Muzammil (20PHD0229) and Ms S. Aswini (20PHD2030) for securing second prize in paper presentation at "International Conference on Frontier Areas of Agriculture, Biotechnology and Food Technology for Sustainable Bioresources and Bioeconomy - ICFAABF'25" held on 24th and 25th April 2025 organized by Department of Biotechnology, Food Technology and Agricultural Engineering, Bannari Amman Institute of Technology, Sathyamangalam, Erode – 638401

3. Congratulations to the research scholar Mr. Animish Andhere (20PHD0569) guided by Dr. M A Jayasri for bagging the best paper award with cash prize for the oral presentation in the theme of Phytomolecules and Phytotherapy at the International Seminar on New Horizons in Plant Sciences-NHPS-2025, organized by the Department of Botany, University of Kerala, Kariavattom, Trivandrum.

JOURNAL CLUB MEETING

DATE	TOPIC	RESEARCH SCHOLAR	MODERATOR
16.04.25	Therapeutic Effects of Puerarin-Loaded Bone Marrow Mesenchymal Stem Cell–Derived Exosomes in a Rat Model of Osteoarthritis	Ms. Krishna S	Dr. Rohit
16.04.25	Cell-free supernatants of probiotic consortia impede hyphal formation and disperse biofilms of vulvovaginal candidiasis, causing Candida in an *ex vivo* model	Ms. Dhesiga K	Dr. Rohit
09.04.25	3D-Printed Composite Bioceramic Scaffolds for Bone and Cartilage Integrated Regeneration	Ms. Gayathri S S	Dr. Sunita Nayak
09.04.25	Efficient adsorption and photocatalytic degradation of cationic dyes based on rod-shaped rare-earth-based MOFs	Ms. Swagata Pal	Dr. Sunita Nayak
02.04.25	Hyperglycemia-Driven Insulin Signalling Defects Promote Parkinson's Disease-Like Pathology in Mic	Mr. Mukul	Dr. George Priya Doss C, Dr. E. P. Sabina
02.04.25	Transcriptome profiling by combined machine learning and statistical R analysis identifies TMEM236 as a potential novel diagnostic biomarker for colorectal cancer	Mr. Ankur Datta	Dr. George Priya Doss C, Dr. E. P. Sabina

Ph.D. VIVA VOCE

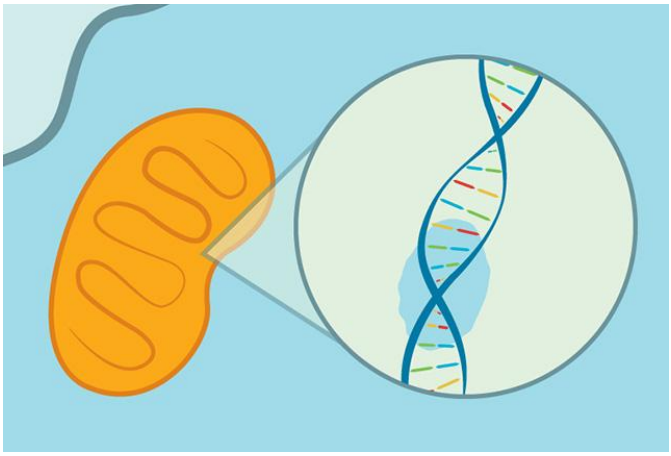
Congratulations to all the Scholars for completing their Ph.D. Journey

Sl No	Scholar	Supervisor	Date
1.	Ms. Gomathi S (21PHD0320)	Dr. Ramesh Pathy M	30.06.25
2.	Mr. Gopal Rameshbhai Italiya (21PHD0081)	Dr. Sangeetha Subramanian	24.06.25
3.	Ms. Vaishnavi J (19PHD0426)	Dr. Jabez Osborne W	18.06.25
4.	Ms. Haimanti Mondal (20PHD0597)	Dr. John Thomas	17.06.25
5.	Ms. Sumathi K (21PHD0323)	Dr. Ramesh Pathy M	23.06.25
6.	Ms. Ratna Upadhyay (16PHD0180)	Late. Dr. Febin Prabhu Dass J	13.06.25
7.	Mr. Sudhir Kumar Pal (17PHD0029)	Dr. Sanjit Kumar	16.06.25
8.	Ms. Namrata Chandrashekhar ROY (19PHD0160)	Dr. Kannabiran K	12.06.25
9.	Ms. Anwesha Sarkar (15PHD0188)	Dr. Bhaskara Rao K.V	04.06.25
10.	Ms. Pramilaa K (21PHD0072)	Dr. Venkat Kumar S	30.05.25
11.	Mr. Ravindran K (19PHD0023)	Dr. Jagan Mohan Obbineni	13.05.25
12.	Ms. Jayanthi V (16PHD0226)	Dr. Sangeetha Subramanian	25.04.25
13.	Mr. Amjad Hussain (15PHD0195)	Dr. Godwin Christopher J	23.04.25
14.	Mr. Abbas Alam Choudhury (20PHD0603)	Dr. Devi Rajeswari V	18.04.25
15.	Ms. Geethika E (15PHD0054)	Dr. Siva R	07.04.25
16.	Ms. Nishita Lal (15PHD0258)	Dr. Anilkumar G	03.04.25

Sir M. Visvesvaraya (SMV) HEXAGON Building

STUDENTS' CORNER

Precision Genome Editing for Mitochondrial Disease



Mitochondrial diseases (like Leigh disease and Leber's hereditary optic neuropathy) are among the most prevalent inherited disorders. These are complex metabolic disorders caused by mutations in either the mitochondrial or the nuclear genome that affect the body's ability to generate energy. Conventional treatments predominantly target specific organs, particularly those with elevated energy requirements like the brain and muscles, concentrating on symptom relief or the alteration of mitochondrial function by small chemicals, metabolic reprogramming, or mitochondrial replacement therapy. None of these therapies is curative. It is imperative to discover medicines that can rectify mitochondrial DNA mutations.

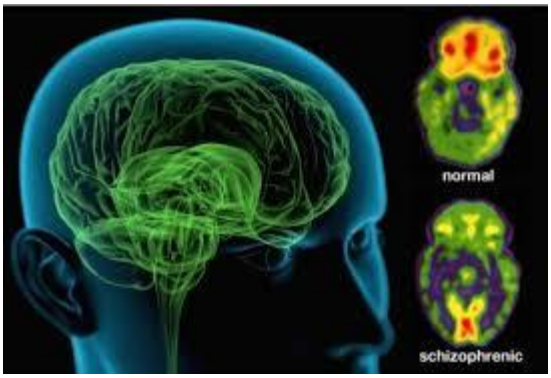
Recent investigations are advancing in this area by utilising designed, precise mitochondrial base editors capable of permanently rectifying harmful mitochondrial mutations. While base editing and epigenome editing techniques for altering the nuclear genome are advancing to late-stage clinical trials, mitochondrial genome editors are transitioning to clinical use at a slower pace. Current trends have shown enhanced precision and efficiency of evolved base editors, enabling them to exceed the heteroplasmy thresholds required for phenotypic production and to replicate mitochondrial diseases in rodents. As with other editing methods now being implemented in clinical settings, specificity and safety must be rigorously regulated. Supplementary modifying enzymes that could serve as alternatives to error-prone and bystander-laden deaminases may expand the targeted spectrum while minimizing specific engineering. Deaminase-free glycosylase-based editors have been investigated for nuclear base editing to minimise off-target effects linked to deamination processes and to broaden the spectrum of attainable base modifications.

These may be modified for mitochondrial G-to-T base editing. Through advanced research, technical obstacles are gradually decreasing, representing hopeful progress towards potential clinical therapies.

Source- Powering new therapeutics with precision mitochondrial editing. *Nat Biotechnol* 43, 831–832 (2025).

Harshika Suri (22BBT0140), BTech Biotechnology

Formal Thought Disorder in Schizophrenia: What Early Brain Development Tells Us



Schizophrenia is a severe mental disorder that influences an individual's cognition, emotions, and behaviour. Individuals with schizophrenia may appear to have disconnected from reality, causing distress for themselves and their family and friends. Individuals are often diagnosed with schizophrenia between the ages of 16 and 30, following their initial episode of psychosis. Studies indicate that gradual alterations in cognition, affect, and social behaviour frequently manifest prior to the initial episode of psychosis. Recognising these subtle alterations and linking individuals to treatment before their initial episode may provide enduring advantages for their health, well-being, and daily functioning. Therapeutic interventions can assist individuals with schizophrenia in participating in educational or occupational activities and enjoying personal relationships.

Formal Thought Disorder (FTD) is a core symptom in schizophrenia spectrum disorders, with a prevalence of up to 91% occurring early in the progression of the disease**.** It significantly impairs symptom remission, occupational and social functioning, life satisfaction and well-being, as well as the therapeutic alliance and psychological rehabilitation. The heterogeneity observed in FTD is often characterised as a dichotomy between negative and positive FTD, involving a quantitative deficiency in speech and thought production at one extreme and an increase in speech and thought output at the other. Although the differentiation between negative and positive FTD is commonly recognised, factor analytic investigations indicate the existence of up to five components that account for greater variance than the negative-positive dichotomy. Importantly, FTD dimensions have clinical significance. Positive and negative FTD are associated with distinct neuropsychological impairments across many cognitive domains. The negative FTD component more precisely forecasted the advancement to schizophrenia in those predisposed to psychosis, regardless of genetic susceptibility. Similarly, various characteristics of FTD (either positive or negative) predicted worse outcomes. A recent study on schizophrenia has identified that local gyrification (a marker of early brain development) might effectively elucidate the neuromorphological foundations of various FTD dimensions in schizophrenia, thereby supporting the heterogeneity of FTD in this condition and revealing FTD dimension-specific neuromorphological correlates.

Source- Hänggi, J., Walther, S., Gangl, N. *et al.* Differential structural cortical correlates of positive, negative, and linguistic control formal thought disorder dimensions in schizophrenia. *Schizophr (Nature)* **11**, 99 (2025). https://doi.org/10.1038/s41537-025-00644-8

Toshika Mishra (21PHD0218), ICMR Project Research Scientist-I

Some Glimpses of SBST

EMP ID	FACULTY NAME	DESIGNATION	ACHIEVEMENTS	DETAILS
10357	Dr. KARTHIKEYAN S	Professor and Dy. Director CDC	Service	24 years 3 Months
10357	Dr. KARTHIKEYAN S	Professor and Dy. Director CDC	Industry Consultancy Projects	3166401
10791	Dr. SIVA R	Professor Higher Academic Grade	International Visit	More than 10 countries
10832	Dr. SUNEETHA V	Professor Higher Academic Grade & Dean SBST	Awards @ > 55	RED CROSS, DST , FICCI, ICMR Govt. of India
10832	Dr. SUNEETHA V	Professor Higher Academic Grade & Dean SBST	Patents	13
11468	Dr. ANAND A	Professor Higher Academic Grade & Associate Dean SBST	Fund Generated	>5 crores
12175	Dr. GEORGE PRIYA DOSS	Professor	Publications	346
12175	Dr. GEORGE PRIYA DOSS	Professor	Citations	6,656 Citations by 5,098 documents
12175	Dr. GEORGE PRIYA DOSS	Professor	UG Publications	>25
12175	Dr. GEORGE PRIYA DOSS	Professor	h- index	41
12365	Dr. PRITI TALWAR	Professor	Most cited paper	1683- Autophagy
STUDENT NOTABLE ACHIEVEMENT				

Reg. No	Alumni Name	ACHIEVEMENTS
06BBT090	Ms. Kadhambari S Viswanathan	"Limca Book of Records"
08BBT166	Mr. Rachit Raj	Indian Administrative Service Govt. of India with more distinguished awards - UPSC 3rd Rank Holder
08BBT178	Mr.Rajveer Meena	Guinness World Record
11BBT0081	Mr. Vidur Sabharwal	secured All India Rank (AIR)-1 in GATE EXAMINATION 2015 (Biotechnology).
12BBT0104	Lt.Shubhangi Swaroop	First female pilot of the Indian Navy. She is a pilot of Maritime reconnaissance aircraft in Indian Navy
STAFF		
EMP ID	STAFF NAME	ACHIEVEMENTS
10123	Mrs. Santhi Veerasamy	>27 years of service

EMP ID	FACULTY NAME	DESIGNATION	ACHIEVEMENTS	DETAILS
10357	Dr. KARTHIKEYAN S	Professor and Director Alumni Affairs	Industry Consultancy Projects	>50 lakhs
10515	Dr. KANNABIRAN K	Professor Higher Academic Grade	Guided more Ph.D Scholars and awarded	>18
10712	Dr. SUDHA RAMAIAH	Professor	Sports and games	Participated and Won Prizes > 15 years
10791	Dr. SIVA R	Professor Higher Academic Grade	International Visit	More than 12 countries
10832	Dr. SUNEETHA V	Professor Higher Academic Grade & Dean SBST	UG Publications	>72
10832	Dr. SUNEETHA V	Professor Higher Academic Grade & Dean SBST	Abroad University Visited @ >25	Nanyang Technological University (NTU), National University of Singapore (NUS), , and

				Singapore Management University (SMU), Tribhuvan University, Kathmandu University, Pokhara University, University of Oxford, University of Cambridge, Imperial College London, UCL (University College London), the University of Edinburgh, and King's College London, University of Florida, Boston University, Florida State College of Jacksonville, University of North Florida, Santa Fe College, University of Chicago, University of Illinois, Illinois State University, Illinois Wesleyan University, DePaul University, North Western University and Bradley University etc.
10832	Dr. SUNEETHA V	Professor Higher Academic Grade & Dean SBST	Patents	19
11264	Dr. GOTHANDAM K.M	Professor Higher Academic Grade	Guest Lectures and training programs or workshops Organized	>50

11468	Dr. ANAND A	Professor Higher Academic Grade & Associate Dean SBST	Research	More Collaborations with top Institutes
11993	Dr. RASOOL M	Professor Higher Academic Grade	Administrative Roles Experience at VIT	>6
12175	Dr. GEORGE PRIYA DOSS	Professor	Fund Generated	Above 6 crores
12175	Dr. George Priya Doss C	Professor	High Citation	1431
12175	Dr. GEORGE PRIYA DOSS	Professor	Publications	353
12175	Dr. GEORGE PRIYA DOSS	Professor	Citations	7,059 Citations by 5,098 documents
12175	Dr. GEORGE PRIYA DOSS	Professor	h- index	42
12365	Dr. PRITI TALWAR	Professor	Most cited paper	1806- Autophagy
13290	SUDHAKARAN R	Asso. Prof Sr.	2025 more collaboration and MOU for research	Japan

STUDENT NOTABLE ACHIEVEMENT

Reg. No	Alumni Name	ACHIEVEMENTS
06BBT090	Ms. Kadhambari S Viswanathan	"Limca Book of Records"
08BBT166	Mr. Rachit Raj	Indian Administrative Service Govt. of India with more distinguished awards - UPSC 3rd Rank Holder
08BBT178	Mr.Rajveer Meena	Guinness World Record
11BBT0081	Mr. Vidur Sabharwal	Secured All India Rank (AIR)-1 in GATE EXAMINATION 2015 (Biotechnology).
12BBT0104	Lt..Shubhangi Swaroop	First female pilot of the Indian Navy. She is a pilot of Maritime reconnaissance aircraft in Indian Navy

STAFF

EMP ID	STAFF NAME	ACHIEVEMENTS

10123	Mrs. Santhi Veerasamy	>28 years of service
12176	Mrs. K. Mythili	Sports and games (won >20 prizes) VIT Tournaments
80225	Mrs. Lathapriya R	Voluntary Service Rendered at Darshini and Thaai Karangal by VIT from 19th to 26th May 2025 for Basic Computers for Visually Challenged.


DARSHINI

VIT

CERTIFICATE

Mrs. LATHAPRIYA R

(Lab Technician)

In appreciation of the Voluntary Service Rendered during

Basic Computers for Visually Challenged

Organised by VIT-Vellore, Darshini and Thaai Karangal
from 19th May 2025 - 26th May 2025
at
VIT (Vellore Campus)

SBST- A MOVE TO CONSULTANCY

GLIMPSES OF CONSULTANCY PROJECTS

Sl No	ERP No	Faculty Name	Project Title	Funding Agency
1	10357	Dr. S. Karthikeyan	Technical Solutions for developing cost-effective astaxanthin production.	Astamin Biotech, India
2	10357	Dr. S. Karthikeyan	Technical solutions for textile effluent treatment using biotechnological applications.	Eminent Textile Mills Private Ltd, India
3	10357	Dr. S. Karthikeyan	Scale-up of microbes for liquid biofertilizers.	OmniActive Health Technologies, India
4	10357	Dr. S. Karthikeyan	Scale-up of microbes for liquid biofertilizers	OmniActive Health Technologies, India
5	10357	Dr. S. Karthikeyan	Development of bio fertilizers and feed additives for poultry.	V K Palappa Nadar Poultry Farms Pvt Ltd, India
6	10357	Dr. S. Karthikeyan	Rapid Identification of microbial food spoilage by image processing and Neural Networks.	Euro Exim Bank, UK
7	10371	Dr. T. B. Sridharan	SEM Sample Preparation, Analysis, and Data Interpretations	University of Kerala, Thiruvalluvar University, SCSVMV University, CMFRI, SKP ENGG College, Pondicherry University, Annamalai University, Md Saleem Inst of Engg, Muthurangam Govt Arts College Eminent Textile Mills, India

8	10601	Dr. Devi Rajeswari	Herbal-Nano based Bio application studies	Xcellogen Biotech India Pvt Ltd, India
9	10601	Dr. Devi Rajeswari	Green synthesis of nano particles and applications.	Xcellogen Biotech India PVT LTD, INDIA
10	10627	Dr. C. Shanthi	Collagen characterization	GATES GROUP Life Science Division, India
11	10791	Dr. R. Siva	Optimizing the extraction molecular characterization bio-activities of chlorella growth factor.	E I D Parry India Limited, India
12	10832	Dr. Suneetha V	Scientific and Technical Consultancy.	Aquaguard, Bangalore, India
13	10832	Dr. Suneetha V	Ac and Air Purifiers Microbial Quality Analysed	Aeroguard, Eureka Forbes, India
14	10832	Dr. Suneetha V	Viral and Actinomycetes assay in Air conditioning missions and air purifiers.	Eureka Forbes, India
15	10832	Dr. Suneetha V	Scientific and Technical consultancy	Eureka Forbes, India
16	10902	Dr. A. Mohanapriya	Metabolic Engineering of Corynebacterium glutamicum for hyper production of Citric acid	Wisecorner Laboratories Pvt Ltd, India
17	11194	Dr. Subathradevi	Gene editing of the virulent gene from E.coli using CRISPR system	Salem Microbes Pvt Ltd, India
18	11194	Dr. Subathradevi	Screening the neuraminidase inhibition activity of polyherbal formulations	Siddha Central Research Institute CCRS Ministry of Ayush, India

19	11264	Dr. K. M. Gothandam	Evaluation of carotenoids, antioxidant enzymes , antioxidant compounds, protein, and photosynthetic pigments in stress-treated grape leaves	United Arab Emirates, United Arab Emirates
20	11393	Dr. C. Ramalingam	Oleogels for prototypes melting at 37c with a good sensory chocolates (project Elixir)	ITC, India
21	11477	Dr. Jayanthi Abraham	ETP treatment by phycoremediation-microbes	SOLISTAA Pharmaceuticals, India
22	11477	Dr. Jayanthi Abraham	Consultancy on microbial Analysis	Ultramarine Pigments ltd, INDIA
23	11603	Dr. Pragasam	Extraction and characterization of sulphated polysaccharide and Ca spiyulan from Spirulina.	EID Parry India Limited, INDIA
24	11603	Dr. V. Pragasam	Stress management device	Kramsky Stamping and Molding India Pvt Ltd, India
25	11902	Dr. Mohanasrinivasan	Development of bacteriocin for the food industry applications.	Salem Microbes Private Limited, India
26	11902	Dr. V. Mohanasrinivasan	Study on bioactive compounds and therapeutic potential of Begenia and Quercus incana extracts for medicinal formulation.	BIRAC SRISTI, INDIA
27	11902	Dr. V. Mohanasrinivasan	Technical solutions for improving animal health using biotechnological applications.	Vetbiotics Animal Healthcare Pvt Ltd, INDIA
28	12147	Dr. V. Shanthi	Cost for running a molecular dynamics simulation.	Sathyabama Institute of Science and Technology, INDIA
29	12175	Dr. George Priya Doss	Chemical Characterization Of Plant Extracts.	AYUSH, India
30	12175	Dr. George Priya Doss	Development Of Antimicrobial Stewardship KPI	The Hilda Lazarus Core Research Chair in Christian Medical College and Hospital, India

31	12175	Dr. George Priya Doss	Drug Resistance Identification	CMC VELLORE, India
32	12275	Dr. K. Suthindhiran	Consultancy Project for Kupi Environmental Solutions.	The Kupi Environmental Solutions Pvt Ltd, India
33	12423	Dr. Manjubala	APR Applied Pharma Research s.a.,	APR Growing Innovation, Switzerland
34	12568	Dr. T. N. Patel	Molecular Cytogeneticist and Biologist	Supratech Micropath, India
35	12600	Dr. Jabez Osborne	Inhibition of EHP in Marine Ecosystem	Aarpy Bio Solution, India
36	12600	Dr. Jabez Osborne	Disinfection of factory and godown with pre- and post-treatment	Otto Clothing Pvt Ltd, India
37	12600	Dr. Jabez Osborne	Fabrication of collagen patch	Healthium Medtech Ltd, India
38	12600	Dr. Jabez Osborne	Application of various formulation for the restriction of microbial growth	Otto Clothing Pvt Ltd, India
39	12600	Dr. Jabez Osborne	Inhibition of microbes in textile fabric	Otto Clothing Pvt Ltd, India
40	12600	Dr. Jabez Osborne	Inhibition of Microbial growth in textile fabrics	Otto Clothing Pvt Ltd, India
41	12600	Dr. Jabez Osborne	Antimicrobial Activity of Essential Oil	TUORRA, India
42	12600	Dr. Jabez Osborne	Studies on microbial community dynamics during pilot/field-scale bioremediation explosives	DRDO CARS, India
43	12600	Dr. Jabez Osborne	Eradication of Microbes causing damage in textile garments	Otto Clothing Pvt Ltd, India

44	12600	Dr. Jabez Osborne	Antimicrobial activity of the effective molecules against pathogens	Manushyaa Blossom Private Limited, India
45	12600	Dr. Jabez Osborne	Consultancy P A Footwear	Ms P A Footwear P Ltd, INDIA
46	12927	Dr. Anbalagan	Effect of phyto compound PHY-XXI on Nucleolin levels in TAXOL and Cis-Platin resistant HeLa, MCF-7, and MDA-MB231 cell lines	Phyto Specialities Pvt Ltd, India
47	12927	Dr. M. Anbalagan	Understanding the molecular mechanism of anticancer activity mediated by the compound A &B.	Phyto Specialities Pvt Ltd, India
48	12927	Dr. M. Anbalagan	Evaluation of anti-cancer activity for compounds A and B	Phyto Specialities Pvt Ltd, India
49	13290	Dr. R. Sudhakaran	Risk assessment of microplastics in the environmental samples.	Practical Environmental Technologies, India
50	13290	Dr. Sudhakaran	Confirmation of anti-WSSV activity of potential bioactive molecules towards commercialization process	Kyntox Biotech India Pvt Ltd., India
51	13290	Dr. Sudhakaran	Studies on Antiviral and Antibacterial Activities of Novel Combinations.	KYNTOX BIOTECH INDIA PVT LTD, India
52	13290	Dr. Sudhakaran	Preventive and prophylactic Efficacy of Commercial probiotics in Tilapia Fishes Experimentally Infected with *Vibrio parahemolyticus*.	Organic Biotech Pvt Ltd, India
53	14811	Dr. N. Ramesh	Determination of the Minimum Inhibitory Concentration (MIC) of Test Compounds Against Clinical Isolates of *Streptococcus pyrogens*	Vyome Therapeutic Ltd, India
54	18918	Dr. Jeevitha	Characterization of fat developed using oil structuring technology	Fattastic Technologies Pvt Ltd, Singapore

55	19611	Dr. Sankar Ganesh	Preparation of semichemical-based formulation for pigs	MAGAPOR S L, Spain

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- High throughput screening
- Agri & Environmental Biotechnology
- Aquaculture Biotechnology
- Gene therapy and nano therapy
- Bioprocess and downstream processing
- Microbial Biotechnology
- Bioremediation
- Cancer biology

Important labs

- Agriculture and Environmental Biotechnology
- Bio Materials
- Biochemical & Analytical Instrumentation
- Bioprocess & Downstream
- Marine Biotechnology &Bioproducts
- Nano Bioengineering
- Vector Production
- Computational Drug Design
- Protein Engineering
- Plant Biotechnology
- High Throughput Screening
- Instrumental and Food Analysis
- Medical Biotechnology
- Cell & Molecular Biology
- Microbial Biotechnology
- Tissue culture
- Bio-inspired Design
- Science, Innovation, and Society Research

ONGOING PROJECTS

1. Evaluation of carotenoids, antioxidant enzyme, antioxidant compounds protein and photosynthetic pigments in stress-treated grape leaves- United Arab Emirates , United Arab Emirates
2. Inhibition of EHP in Marine Ecosystem- Aarpy Bio Solution, India
3. Gene editing of the virulent gene from E.coli using CRISPR system- Salem Microbes Pvt Ltd, India
4. Disinfection of factory and godown with pre and post treatment- Otto clothing Pvt Ltd, India
5. Fabrication of collagen patch- Healthium Medtech Ltd, India
6. Application of various formulation for the restriction of microbial growth- Otto clothing Pvt Ltd, India
7. Confirmation of Anti-WSSV activity of potential bioactive molecules towards commercialisation process- Kyntox Biotech India Pvt LTD, India
8. Inhibition of microbes in textile fabric- Otto clothing Pvt Ltd, India
9. Preparation of semichemicals-based formulation for pigs-MAGAPOR S L, Spain
10. Inhibition of Microbial growth in textile fabrics- Otto clothing Pvt Ltd, India
11. ETP treatment by phycoremediation-microbes-SOLISTAA Pharmaceuticals, India

COMPLETED PROJECTS

1. Gene editing of the virulent gene from E.coli using CRISPR system- Salem Microbes Pvt Ltd, India
2. Studies on Antiviral and antibacterial activities of Novel Combinations- KYNTOX BIOTECH INDIA PVT LTD, India.
3. Oleogels for prototypes melting at 37c with a good sensory chocolates (project Elixir)- ITC, India
4. Optimizing the extraction molecular characterization bio-activities of chlorella growth factor- E I D Parry India Limited, India
5. AC and Air Purifiers Microbial Quality Analyzed-Eureka Forbes, India
6. Scientific and Technical Consultancy- Eureka Forbes, India
7. Consultancy P A Footwear- Ms P A Footwear Pvt. Ltd, INDIA
8. Viral and Actinomycetes assay in Air conditioning missions and air purifiers- EUREKA FORBES, India
9. Scale up of microbes for liquid bioferilizers-OmniActive Health Technologies, India
10. APR Applied Pharma Research s.a.- APR Growing Innovation, Switzerland
11. Preventive and prophylactic Efficacy of Commercial probiotics in Tilapia Fishes Experimentally Infected with Vibrio parahemolyticus- Organic Biotech Pvt. Ltd, India
12. Disinfection of factory and godown with pre and post treatment- otto clothing Pvt Ltd, India
13. Fabrication of collagen patch- Healthium Medtech Ltd, India
14. Confirmation of Anti-WSSV activity of potential bioactive molecules towards commercialisation process- Kyntox Biotech India Pvt LTD, India
15. ETP treatment by phycoremediation-microbes-SOLISTAA Pharmaceuticals, India
16. Metabolic Engineering of Corynebacterium glutamicum for hyper production of Citric acid-Wisecorner Laboratories Pvt Ltd, India
17. Characterisation of fat developed using oil structuring technology- Fattastic Technologies Pvt Ltd, Singapore
18. Effect of phyto compound PHY-XXI on Nucleolin levels in TAXOL and Cis-Platin resistant HeLa,MCF-7 and MDA-MB231 cell lines- Phyto Specialities Pvt ltd, India
19. Development of Bioceramic 3D scaffolds by extrusion-based printing technique using Cellink BIOX system-Altem Technologies pvt ltd, India
20. Antimicrobial activity of the effective molecules against pathogens- ManushyaaBlossom Private Limited, India
21. Herbal-Nano based Bio application studies- Xcellogen Biotech India Pvt Ltd, India
22. Development of bacteriocin for the food industry application- Salem Microbes Private Limited , India
23. Chemical Characterization Of Plant Extracts- AYUSH, India
24. Research personnel and technical information exchange- Next Big innovation Lab, India

FUTURE PROJECTS

1. Development of biofertilizers and biopesticides
2. Flower waste management strategies
3. Bioplastic production
4. Soil microbiome optimization
5. Sustainable development of biofuels
6. Healthcare and personalized medicines

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Every brilliant experiment, like every great work of art, starts with an act of imagination.

-Jonah Lehrer

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