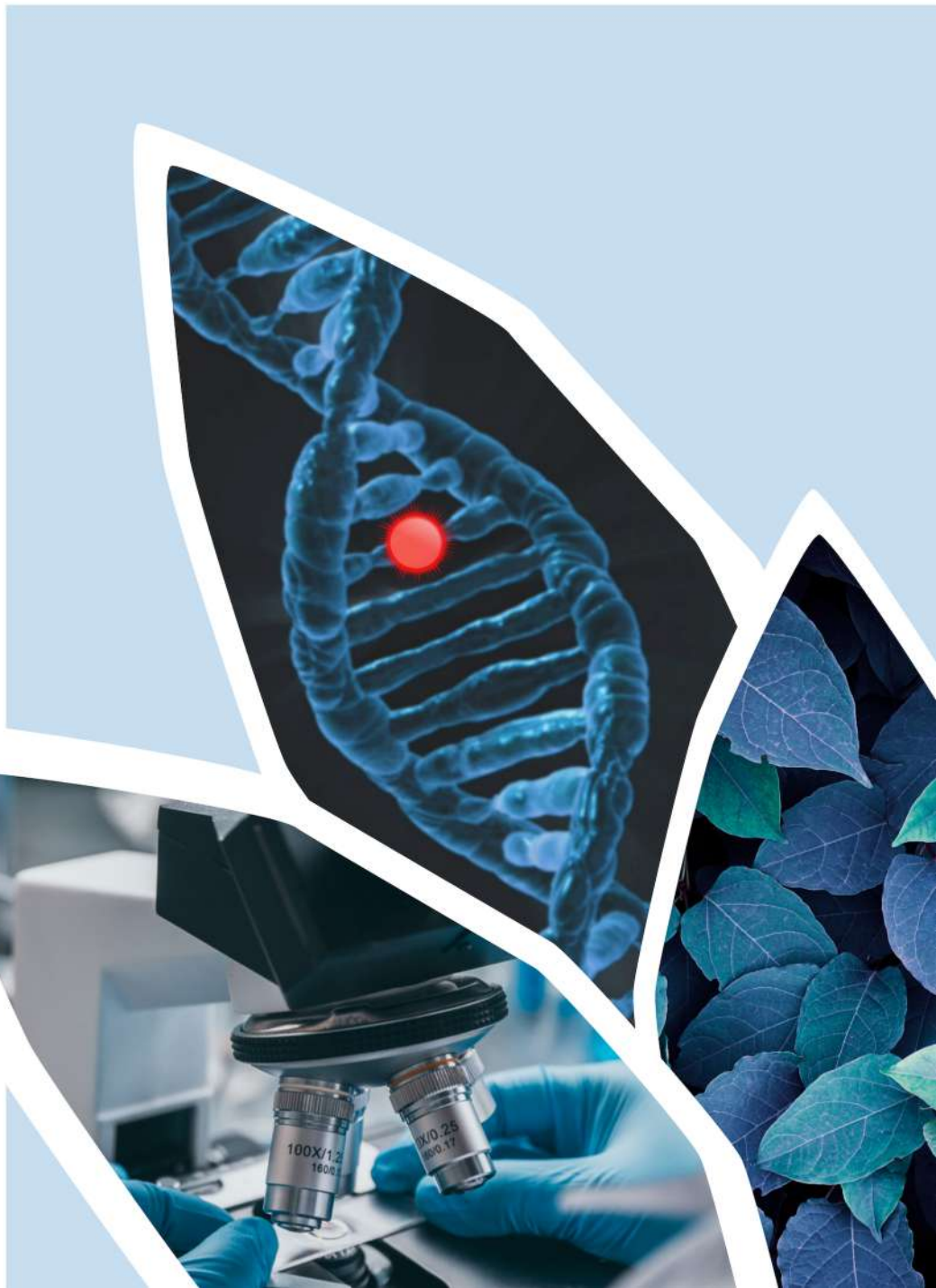
SCIVANTAGE

MAGAZINE DEPARTMENT OF BIOTECHNOLOGY

2024 VOL.2

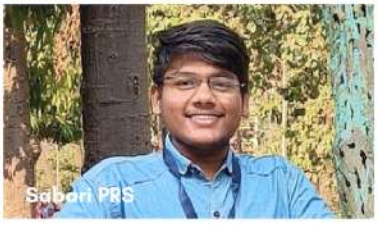
CENTRAL UNIVERSITY
OF TAMIL NADU



EDITORIAL TEAM

Dr. Rajesh Banu

Dr. Meganathan Kannan



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FROM THE DEAN'S DESK

Greetings from the School of Life Sciences!

" Whether you are a seasoned researcher, a dedicated educator, or a passionate student eager to make your mark on the world, know that you are an integral part of this vibrant and dynamic community."

As a Dean, I am overwhelmingly delighted to announce that the Department of Biotechnology (DST-FIST sponsored department) supported by the Department of Biotechnology, Government of India, is launching it's 2nd Edition of Scivantage, the official magazine of the department.

The Department of Biotechnology serves as a hub of innovation and discovery in multiple thrust areas i.e. medical, agricultural, and environmental studies. Through conduct of cutting-edge research, collaborative partnerships, and commitment for academic rigor, we strive to push the boundaries to evolve meaningful contributions to the field of biotechnology.

As we come together to embark on this journey of exploration and inquisition, let us embrace the challenges and opportunities that lie ahead with high degree optimism and determination. Whether you are a seasoned researcher, a dedicated educator, or a passionate student eager to make your mark on the world, know that you are an integral part of this vibrant and dynamic community.

As you navigate into the captivating pages of this annual issue of Scivantage, you will cherish and admire the achievements, milestones, and discoveries that define our collective journey. From groundbreaking research findings to inspiring student success stories, each contribution reflects the spirit of innovation and excellence that distinguishes the department.

I would like to express my deepest gratitude to the faculty, staff, and students who continue to inspire and I motivate us with their dedication, creativity, and passion for discovery. Together, we will continue to push the boundaries of scientific knowledge and shape the future of biotechnology for the future generations and aspirants of the field.

As we look ahead to the opportunities that await us, I am confident that the Department of Biotechnology will continue to thrive and excel, guided by our shared commitment to excellence and innovation.

I wish you all a successful and rewarding academic year ahead!

Warm regards,
Prof. E. M. Shankar
Dean, School of Life Sciences
Central University of Tamil Nadu, Thiruvarur

FROM THE HOD'S DESK

Greetings from the Department of Biotechnology!

" Our dedication to excellence, ethics, and inclusion serves as a compass as we negotiate the challenges of the biotechnological frontier. "

With great pleasure, I would like to greet every one of you and invite you to join us on this exhilarating voyage into the intriguing realm of biotechnology in the current edition of Scivantage. It is an honor for me to offer my thoughts, opinions, and goals as the Head of the Central University of Tamil Nadu's (CUTN) Biotechnology department.

This volume presents a mosaic of research findings, student accomplishments, and essays that reflect the dynamic and multifaceted aspect of research and education presented in biotechnology at CUTN.

Our department is a center for scientific inquiry and intellectual curiosity, contributing any aspect from innovative biomedical research breakthroughs to creative solutions for sustainable agriculture and environmental conservation. Our dedication to excellence, ethics, and inclusion serves as a compass as we negotiate the challenges of the biotechnological frontier.

Our staff, students, and faculty members demonstrate these ideals by being committed to community involvement and teamwork. I cordially encourage you to peruse the stories of impact, invention, and discovery that characterize our department by turning the pages of this magazine.

I anticipate that this publication will act as a tribute to the outstanding accomplishments of our academic community and encourage upcoming generations of biotechnologists to push the limits of their knowledge and creativity.

Finally, I express my heartfelt appreciation to all of the editors, readers, and contributors who have played a role in making this journal possible. To create a more promising future for humanity, let's work together to explore new areas, promote multidisciplinary communication, and equip the upcoming generation of biotechnological leaders.

With warm regards,
Prof. P. Rajaguru
Head, Department of Biotechnology
Central University of Tamil Nadu

PROLOGUE

THE ESSENCE OF THE SCIENTIFIC SPIRIT IS TO REALISE THE VASTNESS OF THE WORLD THAT WE LIVE IN

The Department of Biotechnology (DBT) was established in the year 2012. From the day of inception, the department has been driven by its strong scientific spirit and abounding excellence in the field of research. The exceptional infrastructure and dedicated faculty members equip the students to transcend barriers and push their limits. DBT stands out with its high-impact publications, faculty ratio, discrete areas of research, advanced equipment culminating to provide the students an exemplary space to learn. Being a pioneer in the field of biotechnology, the department has attracted funds from various national and international agencies. DBT is the first department in CUTN supported by DST-FIST.

MISSION / VISION

DEPARTMENT OF BIOTECHNOLOGY

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 learnung for better understanding of mechanistic concepts in biotechnology.

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 innivation in biotechnology for nation-building

> “Empowering discoveries, shaping the future: Where passion meets innovation in biotechnology.”

PROGRAMS & STREAMS

Our department offers a wide variety of opportunities through different streams across different programs.

Integrated M.Sc. (5 Years)

Life Science (2012-2021)
Biotechnology (Started in 2022)

M.Sc.

Biotechnology (DBT, Supported) Started in 2023

Ph.D.

Life Science (2014-2021)
Biotechnology (Started in 2022)

PEOPLE

TEACHING STAFF

HOD **Prof. P. RAJAGURU**
PROFESSOR & HEAD
Proteomics and Biomarker Discovery

Prof. E.M. SHANKAR
PROFESSOR
Infection and Inflammation

Dr. JAYALAKSHMI KRISHNAN
ASSISTANT PROFESSOR
Vector Biology and Neuroimmunology

Dr. DINANKAR CHALLABATHULA
ASSISTANT PROFESSOR
Plant Biology and Stress Physiology

Dr. J. RAJESH BANU
ASSOCIATE PROFESSOR
Environmental Biotechnology and Bioprocessing

Dr. MEGANATHAN KANNAN
ASSISTANT PROFESSOR
Blood and Vascular Biology

Dr. LATCHOUMYCANDANAE CALIVARTHAN
ASSISTANT PROFESSOR
Experimental Pharmacology and Endocrinology

Dr. S. KATHIRESAN
ASSOCIATE PROFESSOR
Plant Genomics and Metabolic Engineering

Dr. INDRANIL CHATTOPADHYAY
ASSISTANT PROFESSOR
Microbial Genomics Biology

Dr. POORNACHANDAR GUGULOTHU
ASSISTANT PROFESSOR
Cancer Therapeutics and Bioprocessing

Dr. Rajesh Parsanathan
DBT-Ramalingaswami Fellow

Dr. Vidhushini.S
Guest faculty

Dr. S. Shantkriti
Guest faculty

Dr.Shweta Jaiswal
Guest faculty

NON-TEACHING STAFF

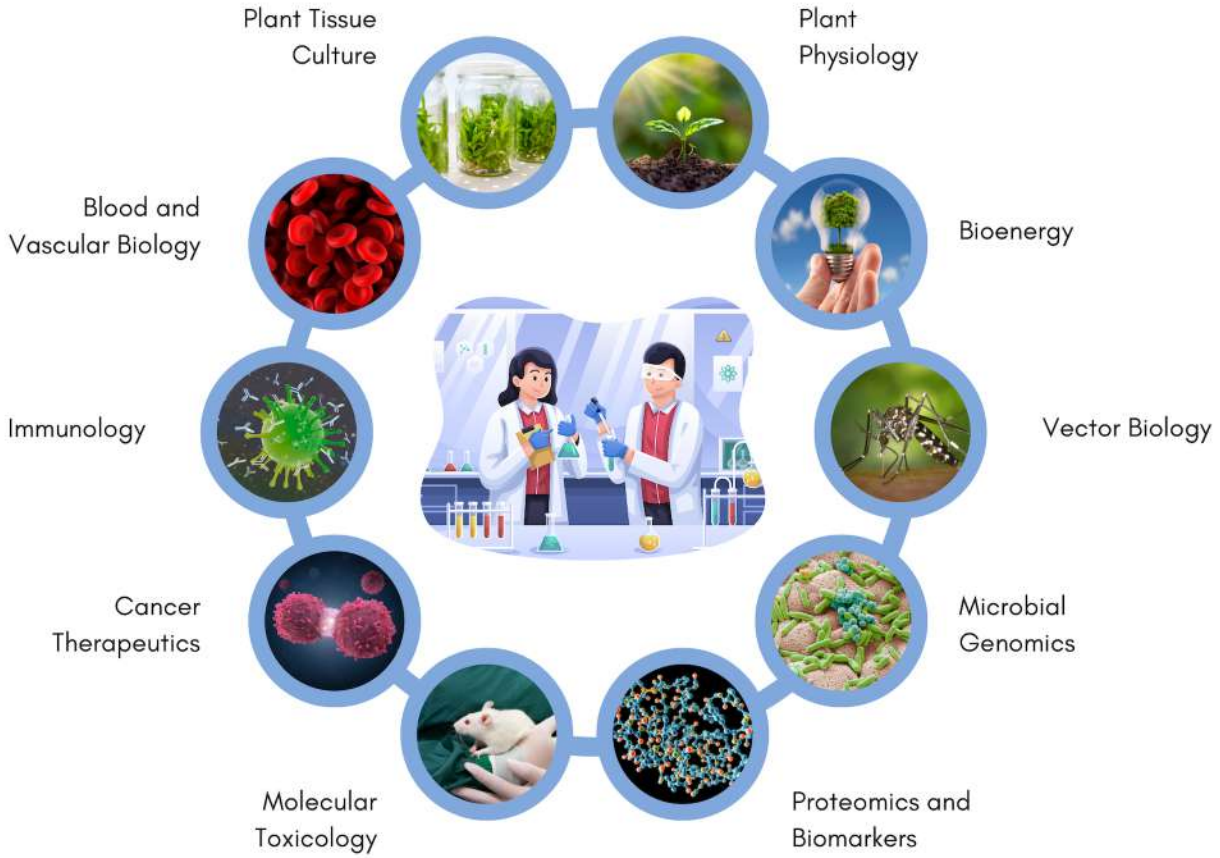
Mr. K. NEHRU M.Sc., M.Phil., B.Ed., DMLT
LABORATORY ASSISTANT

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

Mr. T MURUGANANTHAM
OFFICE ATTENDANT

RESEARCH

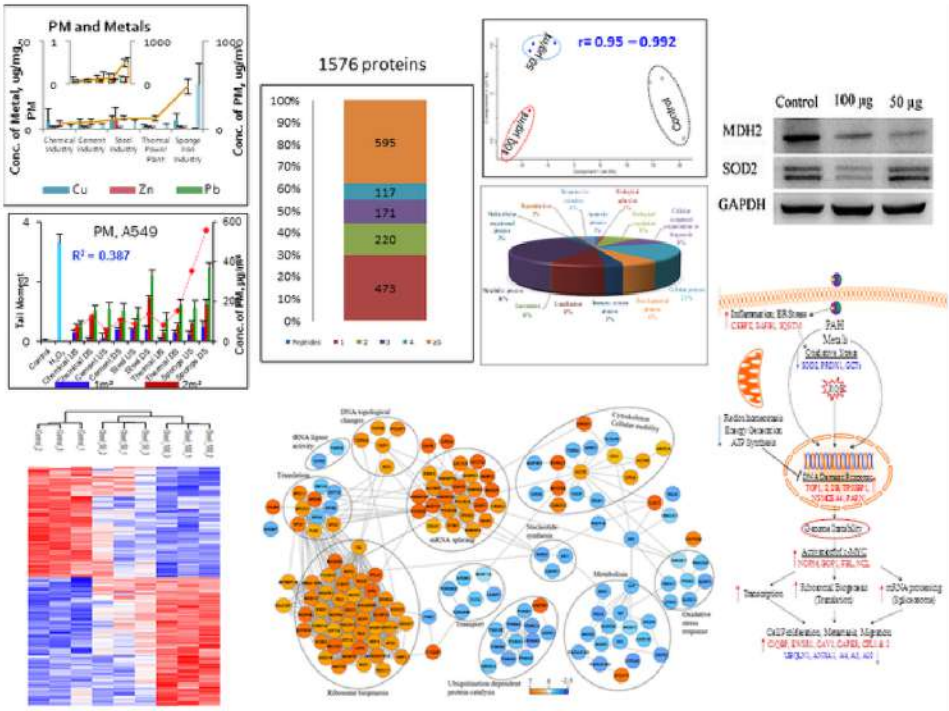
DIVERSITY OF RESEARCH IN THE DBT



The Department of Biotechnology at the Central University of Tamil Nadu (CUTN) prides itself on its diverse research endeavors, spanning multiple disciplines within the biotechnology field. With a dedicated focus on advancing knowledge in various realms of biotechnology, researchers at CUTN are engaged in studies that have far-reaching implications for human health, agriculture, environmental sustainability, and beyond. Researchers in the department are engaged in biomedical studies focusing on various aspects of human health and disease. This includes understanding the molecular mechanisms underlying diseases such as cancer, infectious diseases, metabolic disorders, and neurological conditions. Research efforts encompass areas such as blood and vascular biology, immunology, cancer therapeutics, molecular toxicology and pharmacology, microbial genomics, and vector biology, with the ultimate goal of developing novel diagnostic tools and therapeutic interventions. Bioprocess engineering research explores innovative approaches to improve process efficiency, reduce production costs, and minimize environmental impact, utilizing principles from chemical engineering, microbiology, and biochemistry. The department is actively involved in plant physiology and tissue culture research, aimed at addressing challenges in agriculture and food security.

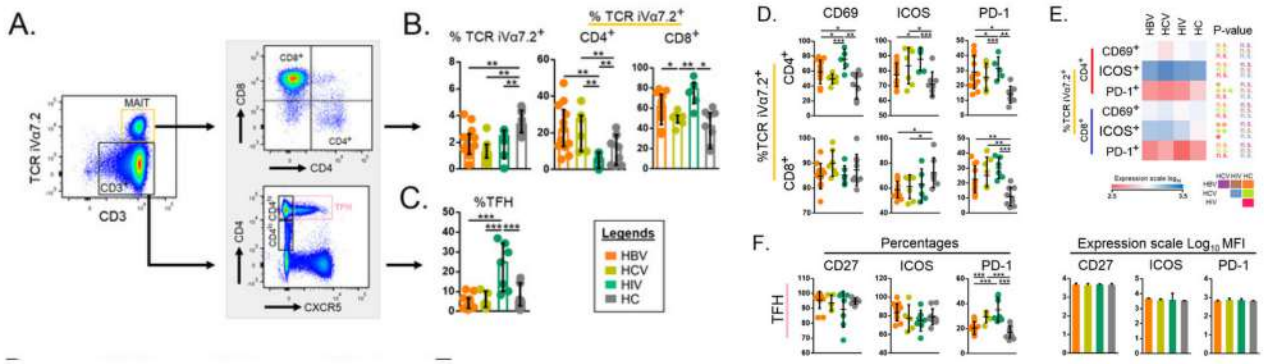
PROTEOMICS AND BIOMARKERS

Since humans and other life forms are being exposed to numerous chemical substances in the environment, understanding the molecular mechanism of toxic effects caused by environmental chemicals on various life forms and ways and means to alleviate their toxic effect are the major areas of research in **Prof. P. Rajaguru**'s Proteomics and Biomarkers Laboratory. Various molecular, genomics and proteomics techniques and bioassays are being applied. This laboratory is involved in conducting studies in collaboration with national and international organizations and other laboratories in the department.



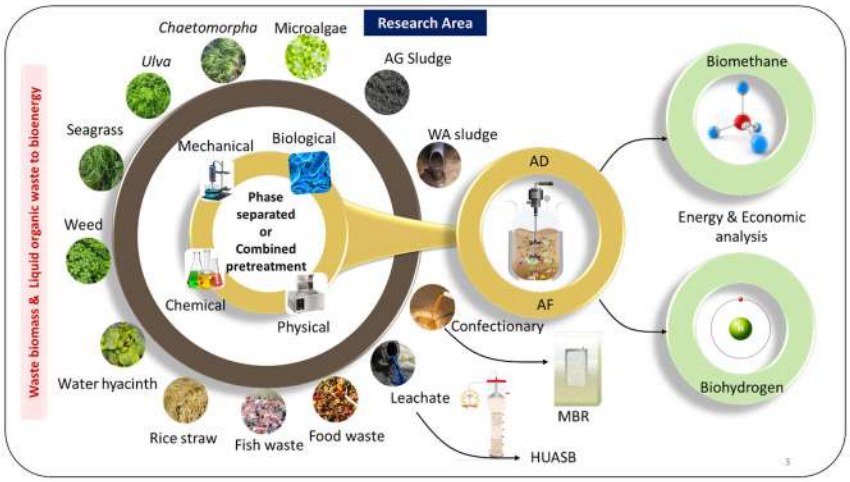
INFECTION BIOLOGY

Infection Biology headed by **Prof. E.M. Shankar**, is working on the basic mechanisms associated with chronic infectious diseases and inflammation. The team is exploring the impact of acute and chronic viral infections on the quality of immune cells, especially in the context of HIV, viral hepatitides and dengue identifying novel mediators of tissue damage assessing their usefulness for disease diagnosis and prognosis. The team is also collaborating with global experts in the field of infectious diseases and immunopathology, and is contributing to surveillance of SARS-CoV-2 viral variants circulating in Tamil Nadu.



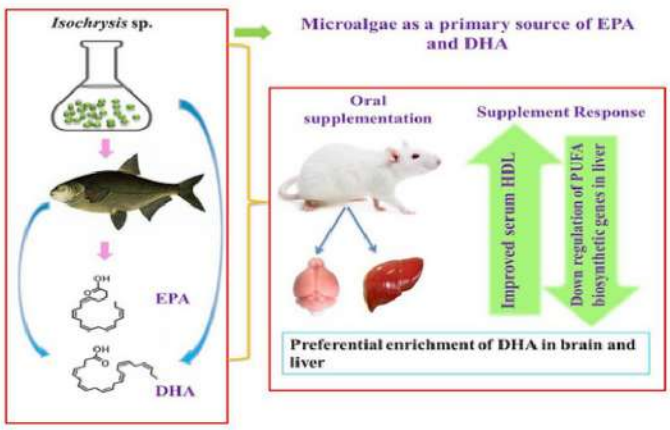
ENVIRONMENTAL BIOTECHNOLOGY AND BIOPROCESSING

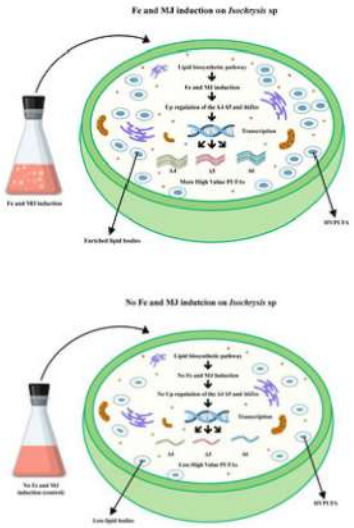
Environmental Biotechnology and Bioprocessing laboratory (EBBL) is headed by **Dr. J. Rajesh Banu**, Associate Professor, and focuses on producing biofuels from different biomass wastes. EBBL is focusing on cutting-edge techniques in environmental biotechnology for biofuel and value-added compound production. It developed different pretreatment methods to improve substrate hydrolysis and patented two. Recently, EEBL developed an energy-efficient microalgae cell wall weakening method for biofuel production. Recently, its focus was on biorefinery, and it received two major research grants from the Department of Biotechnology, India. At present, One DBT-PDF, one DBT-JRF, and 3 research scholars are actively doing research in EBBL.



PLANT GENOMICS AND METABOLIC REGULATION

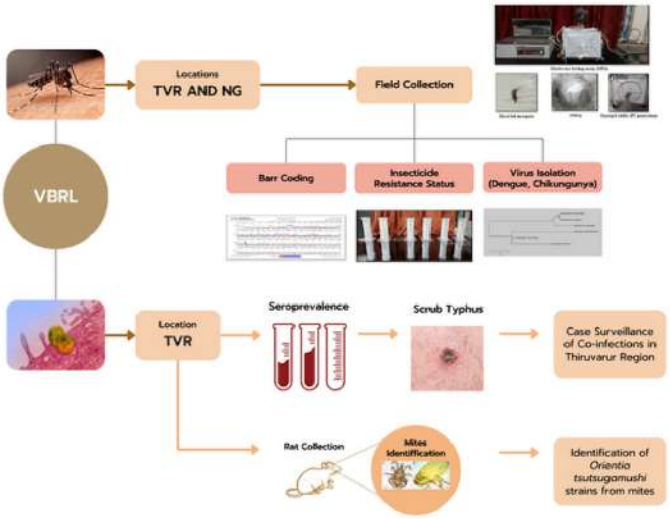
Plant Genomics and Metabolic Regulation (PGMR) laboratory is headed by **Dr. S. Kathiresan**, Associate Professor, and it focuses on the metabolic regulation of lipid biosynthetic pathways in oilseed plants and microalgae. As omega 3/6 fatty acids are an essential food supplement for humans, we concentrate on engineering oilseed crop plants for the production of Arachidonic acid (ARA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) using microalgal genes. In PGMR, studies were also carried out to elevate EPA and DHA levels in microalga using a molecular stress physiology approach. At present, the lab has been funded by two SERB-sponsored research projects with one DBT-JRF and one research scholar.





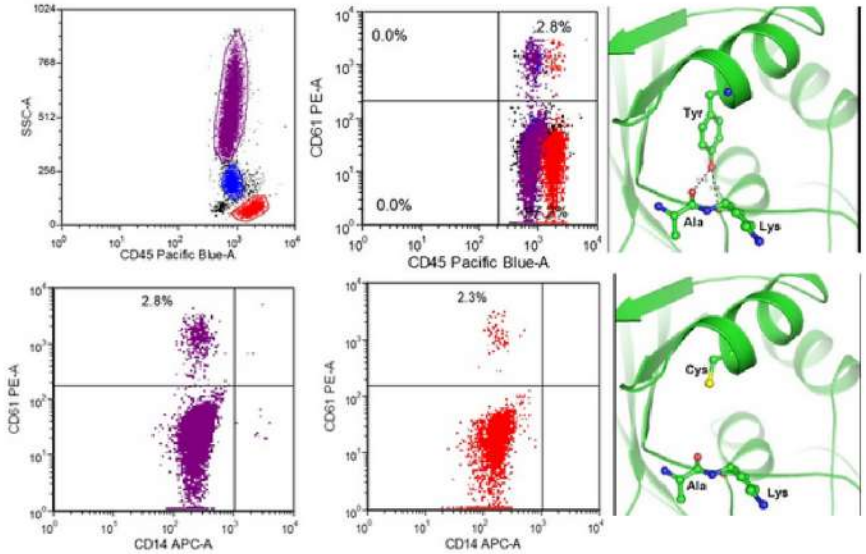
VECTOR BIOLOGY

Vector Biology Research laboratory is headed by **Dr. Jayalakshmi Krishnan**, Assistant Professor with an ICMR Research Associate, one Project Assistant, two Research Scholars, and two IMSc Dissertation students. The VBRL lab equipped with an Insectary house conducts research that mainly focuses on Vector Surveillance of Dengue mosquitoes and Scrub typhus Rodents with molecular epidemiology of disease transmission. Our lab with different collaborations strives hard to uncover novel strategies for the control of Vector Borne Disease Prevention and share our research outputs with the Directorate of Public Health and National Vector Borne Disease Control Programme for implementing modified strategies.



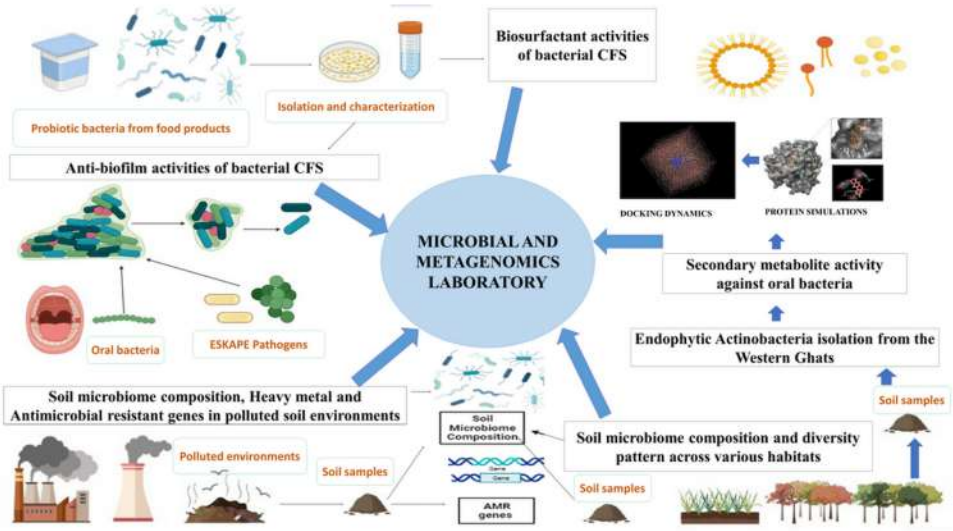
BLOOD AND VASCULAR BIOLOGY

The Blood and Vascular Biology Research Lab, headed by **Dr. Meganathan Kannan**, focuses primarily on molecular genetics of hematological disorders. The current on-going work is on the understanding of platelet signalling mechanisms in various diseases. Also, the lab intensely focuses on other research areas including Hemophilia, Thrombophilia, Sickle cell anemia and other hematological defects.The lab is collaborated with premier institutes such as AIIMS-New Delhi, PGIMER-Chandigarh and IIT-Madras and internationally with Loyola University Medical Center, Chicago, USA and University Medical Center Hamburg, Germany and supported by various national funding agencies such as DBT, SERB and UGC, Govt. of India.



METAGENOMICS

The Metagenomics laboratory, led by **Dr. Indranil Chattopadhyay**, Assistant Professor, primarily focuses on three major arenas of microbial metagenomics. The Actinobacterial research intends to investigate the bioactive characteristics of secondary metabolites from Actinobacteria isolated from the Western Ghats regions against oral commensals through in-silico molecular docking, dynamic approaches, and in-vitro experiments. The probiotic bacterial studies focus on the anti-biofilm and biosurfactant properties of probiotic bacteria isolated from various fermented food products against biofilm-forming oral commensals and ESKAPE pathogens. At present one research associate and four research scholars are working in this lab. Our lab currently has two active grants from ICMR.

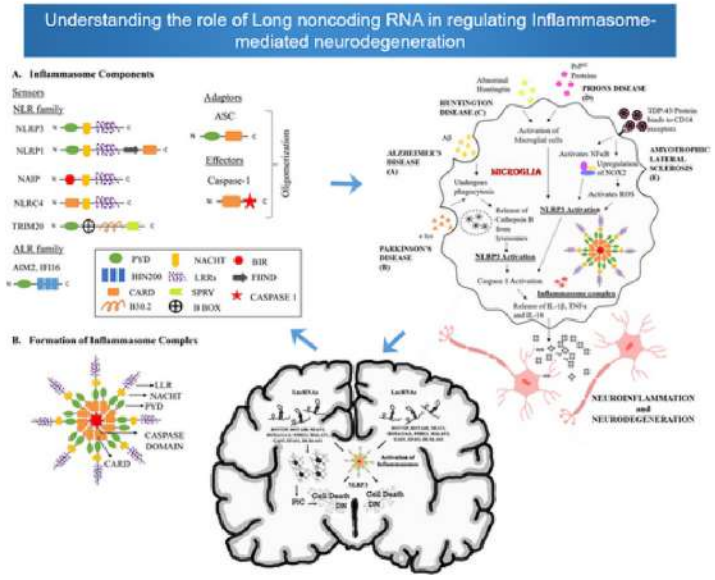


PLANT MOLECULAR STRESS PHYSIOLOGY

The research work in the Plant Molecular Stress Physiology (PMSP) group led by **Dr. Dinakar Challabathula** utilizes various physiological, biochemical, and molecular approaches to unravel the mechanisms involved in abiotic stress tolerance of plants. Recently, we have shown protection of photosynthesis by halotolerant PGPB Staphylococcus sciuri ET101 through redox dissipation pathways activation. Further, exacerbation of drought-induced changes in P. sativum leaves upon restriction of COX and AOX pathways of mETC and drought tolerance improvement in rice cultivars upon accumulation of trehalose was also shown. PMSP lab research is supported by grants from SERB.

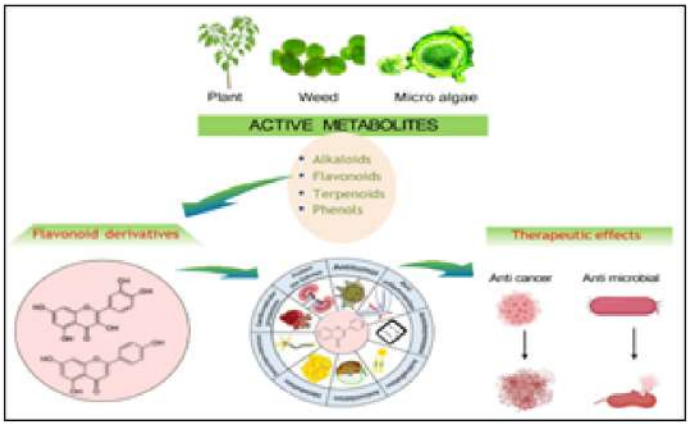
MOLECULAR PHARMACOLOGY AND TOXICOLOGY

Dr. Latchoumycandane Calivarathan heads the Molecular Pharmacology and Toxicology laboratory in the Department of Biotechnology. Dr. Latch's research lab focuses on understanding the molecular basis of disease, especially neurodegenerative diseases. Recent publications shed light on the regulatory role of long noncoding RNAs in inflammasome-mediated neuroinflammation and neurodegeneration in Parkinson's disease. Our lab also focuses on the molecular aspects of wound healing, drug-induced liver injury, and alcoholic renal injury and developing novel drugs for the diseases. Currently, a Senior Research Fellow (UGC-CSIR), Junior Research Fellow (CSIR-JRF), Non-NET University Fellowship, and a part-time Ph.D. research scholar are working in the laboratory.



ANIMAL BIOTECHNOLOGY AND CANCER THERAPEUTICS

Dr. Poornachandar G, an Assistant Professor, leads the Animal Biotechnology and Cancer Therapeutics Laboratory (BCT). It, explores the potential of natural biometabolites, investigates combination studies and drug delivery systems for cancer therapy, and conducts pathway studies in cancer biology. BCT lab's current focus involves developing combination drug delivery systems to target cancer cells and their regulations. The BCT lab recently focused on natural compounds extraction, identification, purification, and determination of natural bioactive compounds for cancer therapy. Recently, BCT received funds from DBT, GoI for applying nano bioplastics in drug delivery.



SPONSORED PROJECTS

S. No	Title of the Project	Funding Agency	Amount in Rs.	Name of the faculty
RESEARCH AND DEVELOPMENT PROJECT				
1	**Influence of A6Des and A6EloGenes on Omega 3/6 Fatty Acid Biosynthesis in Groundnut - A Genetic Engineering Approach**	Department of Science & Technology	44 Lakh	Dr.S.Kathiresan
2	**Evaluation of Antibiofilm Efficacy and Mechanism of Action of Biosurfactants against Oral Biofilm formation by Porphyromonas gingivalis and Fusobacterium nucleatum and their Inflammatory Potentials in Oral Epithelial Cells**	Indian Council of Medical Research	20 Lakh	Dr. Indranil Chattopadhyay
3	**Assessing the Combined impact of probiotic *Lactobacillus* sp. and Antimicrobial Peptides on Carcinogenic Multi-species Oral Biofilm**	Indian Council of Medical Research	35 Lakh	Dr. Indranil Chattopadhyay
4	**Prevalence of substance abuse in University/College students in four metropolitan cities of India**	Indian Council of Medical Research	15 Lakh	Dr Jayalakshmi Krishnan
5	**Elucidating the dynamics of photosynthesis and cell wall remodeling in E. salsugineum, an extremophilic plant during abiotic stress and subsequent recovery phases for crop improvement in the scenario of climate change**	Department of Science & Technology	48 Lakh	Dr. Dinakar Challabathula
6	**A novel bioconversion of volatile fatty acids from waste streams to polyhydroxy alkanoates and concomitant synthesis of biopolymer-based nanoparticles**	Department of Biotechnology, Ministry of Science & Technology, Government of India	42 Lakh	Dr. J. Rajesh Banu
CONSULTANCY PROJECT				
1	**Preparation of teaching aid for food waste valorization**	AIPandits Skill Innovation Pvt. Ltd, Andhra Pradesh.	65,000	Dr. J. Rajesh Banu
2	**A novel method to investigate the impact of biochar on the composting of biodegradable municipal solid waste.**	german cooperation, implemented by giz	8 Lakh	Dr. J. Rajesh Banu

EQUIPMENTS

INSTRUMENTATION FACILITY

Droplet Digital PCR

Digital PCR (dPCR) represents the third generation of PCR, offering precise quantification by dividing the reaction into partitions. Droplet digital PCR (ddPCR) is an alternative and modified approach to real-time PCR. Subsequently, ddPCR found its way into clinical practice, marking a significant milestone in its adoption for medical applications. The principle of ddPCR lies in dividing the DNA or RNA PCR system into numerous small-volume compartments with nanometer precision, where molecules are randomly distributed.

Flow Cytometry

Flow cytometry examines single cells or particles as they pass by one or more lasers while suspended in a buffered salt-based solution. Each particle undergoes analysis for visible light scatter and one or multiple fluorescence parameters. Visible light scatter is assessed in two directions: the forward direction (Forward Scatter or FSC), indicating the cell's relative size, and at a 90° angle (Side Scatter or SSC), indicating the cell's internal complexity or granularity.

Bio-Plex 200 system

The Bio-Plex 200 system with its unmatched capacity to analyze up to 100 biomolecules in one sample, dual lasers, high-throughput fluidics, real-time digital signal processing, and color-coded bead sets revolutionize nucleic acid and protein studies. the machine's inbuilt microplate platform can easily generate about 9,600 data points in 35 minutes which can be easily analyzed by software like Bio-Plex Manager.

BD BACTEC FX

With the combination of cutting-edge fluorescence detection technology, improved media performance, and consistent instrument stability, the BD BACTEC FX blood culture system is the epitome of microbial detection technology, surpassing the benchmarks set by its predecessors. With a barcode scanner at the module, an LCD touch screen, status indicators, and an easy-to-use interface, the system guarantees accurate sample tracking and smooth operation and therefore provides a user-friendly interface.

The Multi N/C 3100 Total Organic Carbon (TOC) analyzer is a cutting-edge instrument used for the quantitative determination of organic carbon content in various liquid samples. Employing state-of-the-art technology, it operates based on the principle of high-temperature catalytic combustion followed by non-dispersive infrared (NDIR) detection. This sophisticated analytical approach enables accurate and reliable measurement of TOC levels across a wide range of sample matrices.

Analytical Ultracentrifugation (Optima XPN-100 Ultracentrifuge) is a sophisticated technique that employs high-speed spinning and gravity forces, with centrifugal forces reaching up to 1000000xg. It's designed with in-built features such as refrigeration and vacuum systems to protect both samples and the instrument from damage due to overheating. Unlike a standard benchtop centrifuge, Ultracentrifuge is particularly effective in separating tiny particles like ribosomes and small polyribosomes based on their size and density.

Quaternary HPLC with Photodiode Array (PDA) detection stands out as a powerful tool, providing enhanced resolution, sensitivity, and spectral information for a wide range of applications. At the heart of Quaternary HPLC lies the principle of liquid chromatography, where compounds are separated based on their differential interactions with a stationary phase and a mobile phase. What sets Quaternary HPLC apart is its utilization of a four-solvent gradient system, allowing precise control over solvent composition and gradient profile.

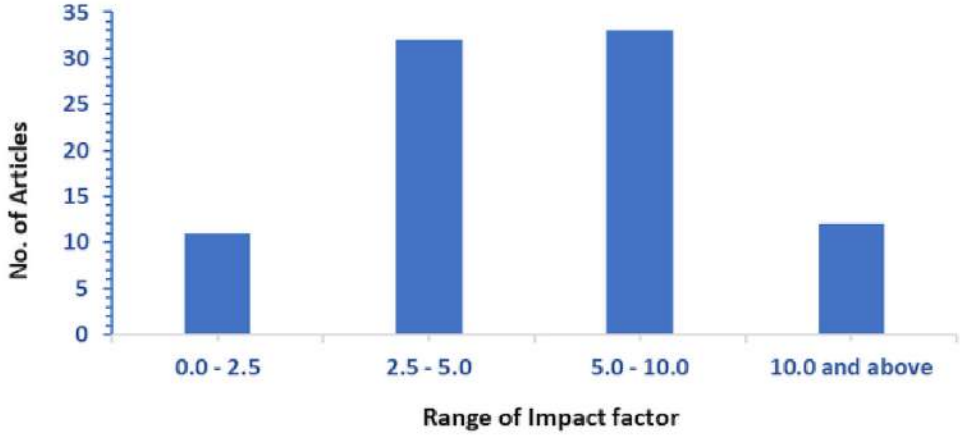
A real-time PCR detection system consists of a thermal cycler equipped with an optical detection module to measure the fluorescence signal generated during each amplification cycle as the fluorophore binds to the target sequence. The CFX96 Touch Real-Time PCR System is a flexible and precise real-time PCR instrument. Its unsurpassed thermal cycler performance and innovative optical design produce accurate, reliable data.

The Radical RXLr-5 is an advanced research-grade fluorescence microscope designed to deliver exceptional performance in various microscopy techniques. It boasts a sophisticated optical system, the RFI (Radical Fluorescence Illumination), that promises high-resolution images and excellent light transmission for both routine observations and specialized applications. One of the key strengths of the RXLr-5 lies in its fluorescence capabilities.

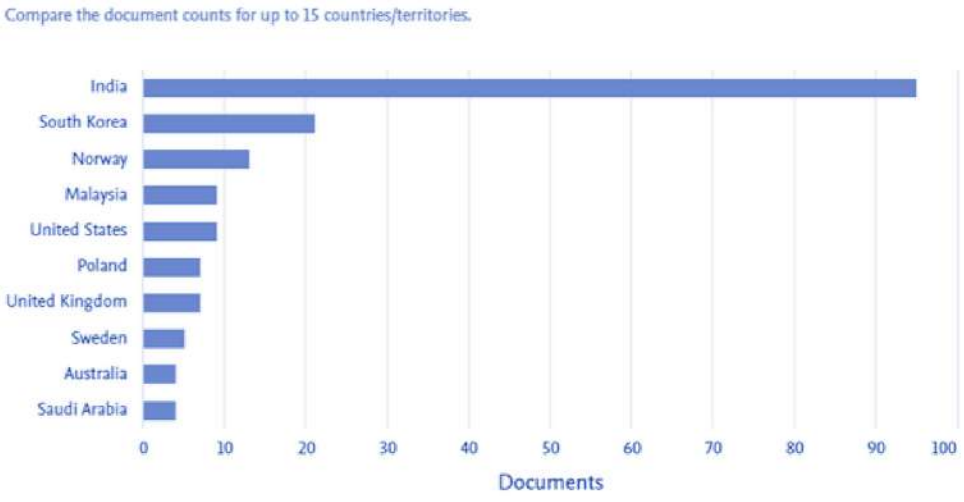
PUBLICATIONS

IMPACT IN SCIENTIFIC RESEARCH

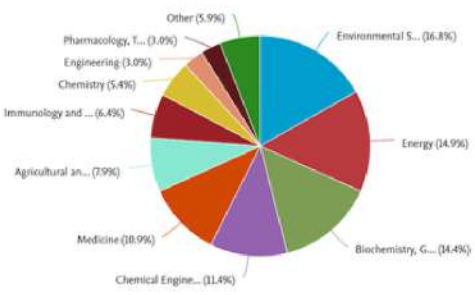
Impact Factor



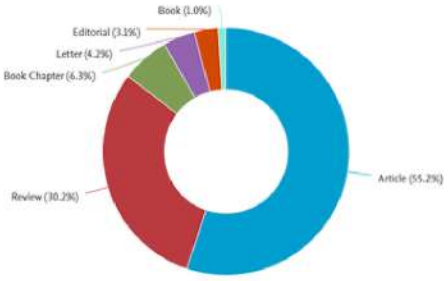
Collaborations



Discipline

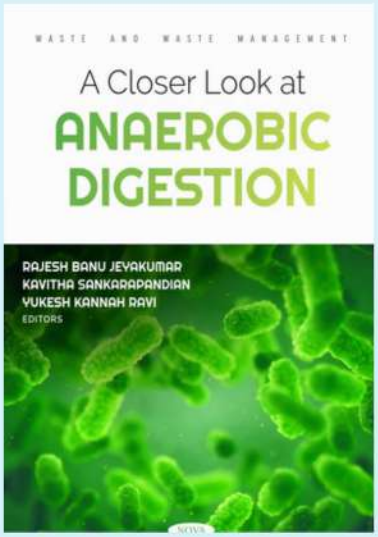


Types



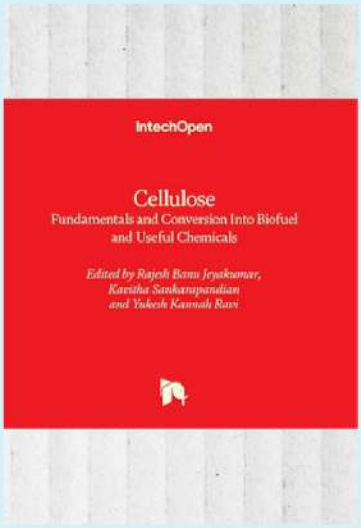
BOOKS PUBLISHED

2023



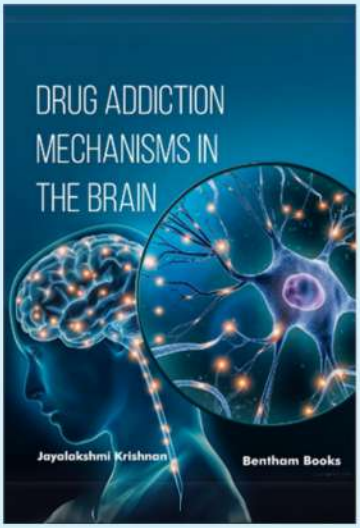
A Closer look at Anaerobic Digestion. 2023

Author:
Dr. J. Rajesh Banu
Publisher:
NOVA Publishers, USA
ISBN number:
9798891133587



Cellulose - Fundamentals and Conversion into Biofuel and Useful Chemicals. 2023

Author:
Dr. J. Rajesh Banu
Publisher:
IntechOpen, London, UK
ISBN number:
9781803552187

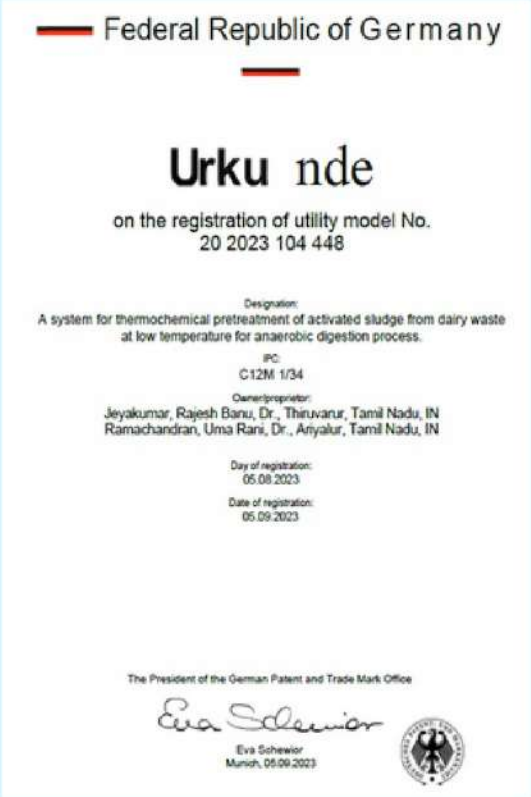


Drug Addiction Mechanisms in the Brain, 2024

Author:
Dr. Jayalakshmi Krishnan
Publisher:
Bentham Science Publishers Pte. Ltd.
Singapore
ISBN number:
9789815223828

PATENTS GRANTED

2023



Federal Republic of Germany

Urku nde

on the registration of utility model No.
20 2023 104 448

Designation:
A system for thermochemical pretreatment of activated sludge from dairy waste at low temperature for anaerobic digestion process.

IPC:
C12M 1/34

Owner/proprietor:
Jeyakumar, Rajesh Banu, Dr., Thiruvarur, Tamil Nadu, IN
Ramachandran, Uma Rani, Dr., Ariyalur, Tamil Nadu, IN

Day of registration:
05.09.2023

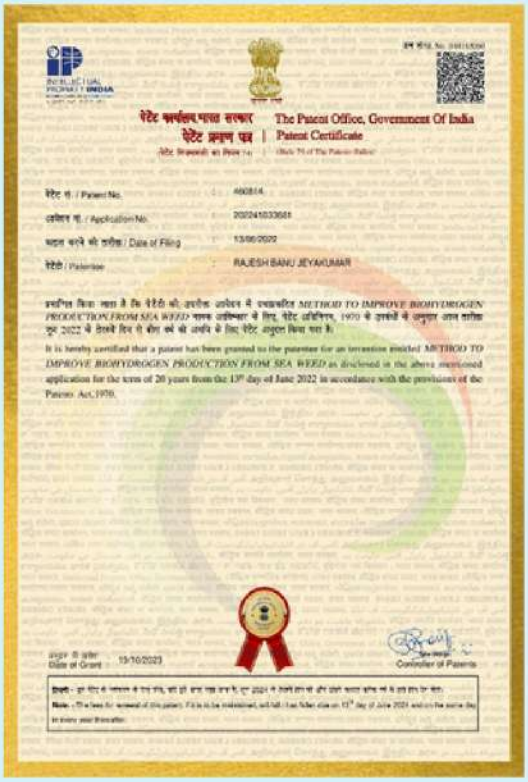
Date of registration:
05.09.2023

The President of the German Patent and Trade Mark Office

Eva Schewior
Munich, 05.09.2023

A system for thermochemical treatment of activated sludge from dairy waste at low temperature for anaerobic digestion

Owner:
Dr. J.Rajesh banu
Granted on:
5th September 2023



The Patent Office, Government Of India
Patent Certificate

Patent No. 460814
Application No. 202241033681
Date of Filing 13/06/2022
Patentee RAJESH BANU JEYAKUMAR

It is hereby certified that a patent has been granted to the patentee for an invention entitled METHOD TO IMPROVE BIOHYDROGEN PRODUCTION FROM SEA WEED as disclosed in the above mentioned application for the term of 20 years from the 13th day of June 2022 in accordance with the provisions of the Patents Act,1970.

Date of Grant 19/10/2023

Controller of Patents

Method to improve biohydrogen production from sea weed

Owner:
Dr. J.Rajesh banu
Granted on:
19th October 2023

FACULTY AWARDS

2023

Prof. E.M. Shankar

Visiting Professor, Department of Microbiology,
Malabar Cancer Center, Thalaserry, Kerala.

Dr. J. Rajesh Banu

2023 Stanford's List of World's Top 2% Scientists

Dr Jayalakshmi Krishnan

First prize for Best Oral Presentation Award
International Colloquium on 'Biovision 2024'-
(ICB-24)

Dr. Indranil Chattopadhyay

2023 Stanford's List of World's Top 2% Scientists

TIGS INKS MOU WITH CUTN

Consistent with the goals and purpose of the collaboration, TIGS and CUTN agree to carry out the following joint research activities including surveillance and identification of vectors and vector-borne diseases from delta districts of Tamil Nadu, detecting and identifying serotypes or serovars of various pathogens (viruses, parasites, bacteria, fungi, and helminths) from vectors and clinical samples using molecular detection techniques. Essential research findings arising from the activities covered under this MoU may be published in national and international journals and presented at national and international scientific meetings, after both parties agree to this in writing.

திருவாரூர் மத்திய பல்கலைக்கழகம்- மரபியல் ஆராய்ச்சி நிறுவனம் இடையே நிதியுதவி ஒப்பந்தம் பல்கலைக்கழக துணைவேந்தர் திருவும்மன் தலைமையில் கையெழுத்தான போது எடுத்த படம்.

விவசாயிகளை தாக்கும் ஸ்க்ரப் டைபஸ் நோய் குறித்து ஆராய்ச்சி:

மரபியல் ஆராய்ச்சி நிறுவனத்துடன் திருவாரூர் மத்திய பல்கலைக்கழகம் ஒப்பந்தம்

TIGS and CUTN can make use of, for their internal purposes, all the information and data generated during collaborative research programs. However, neither of them shall reveal intellectual property of the project, or otherwise, to any third party without the prior written consent of the other institute. If any intellectual property is developed from the collaborative projects between TIGS and CUTN the benefits of that will be shared between these two institutes. At the time of filing for a patent, a separate agreement will be drawn up regarding the commercialization of said patent.

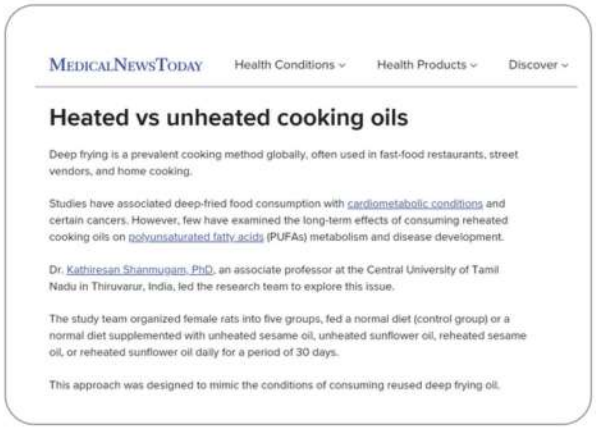
MEDIA COVERAGE

The outcome of **Dr. S. Kathiresan**, Associate professor, research **'Long-term consumption of deep-fried oil with increased neurodegeneration'** has been published in many media sites like ASBMB, Medical News Today, Medical Express, Times of India, US News, Medical Daily, etc.

MEDICAL NEWS TODAY Health Conditions Health Products Discc

Frequently reusing frying oil may accelerate brain damage

Reheating cooking oil may increase neurodegeneration, according to an animal study. Image credit: Guillermo de la Torre/Stocksy



MEDICAL NEWS TODAY Health Conditions Health Products Discover

Heated vs unheated cooking oils

Deep frying is a prevalent cooking method globally, often used in fast-food restaurants, street vendors, and home cooking.

Studies have associated deep-fried food consumption with cardiometabolic conditions and certain cancers. However, few have examined the long-term effects of consuming reheated cooking oils on polyunsaturated fatty acids (PUFAs) metabolism and disease development.

Dr. Kathiresan Shanmugam, PhD, an associate professor at the Central University of Tamil Nadu in Thiruvarur, India, led the research team to explore this issue.

The study team organized female rats into five groups, fed a normal diet (control group) or a normal diet supplemented with unheated sesame oil, unheated sunflower oil, reheated sesame oil, or reheated sunflower oil daily for a period of 30 days.

This approach was designed to mimic the conditions of consuming reused deep frying oil.

A new study found higher levels of neurodegeneration in rats that consumed reused deep fried cooking oils and their offspring compared to rats on a normal diet. Deep frying, which involves completely submerging food in hot oil, is a common method of food preparation around the world.

Results from the study also suggest that the increased neurodegeneration is tied to the oil's effects on the bidirectional communication network between the liver, gut and brain. The liver–gut–brain axis plays a crucial role in regulating various physiological functions, and its dysregulation has been associated with neurological disorders.

Kathiresan Shanmugam, an associate professor from Central University of Tamil Nadu in Thiruvarur, led the research team.

"Deep-frying at high temperatures has been linked with several metabolic disorders, but there have been no long-term investigations on the influence of deep-fried oil consumption

All that oil could be going to your head. Research presented at Discover BMB in San Antonio found higher levels of neurodegeneration in rats that consumed reused deep fried

THE TIMES OF INDIA

Can frequently reusing frying oil accelerate brain damage?

etimes.in | Mar 28, 2024, 11:01 AM IST

As the number of neurodegenerative disorders rises worldwide, scientists are looking into dietary practices to see if there may be any connections to cognitive loss. In the course of this investigation, a recent study highlights a troubling correlation: the extended ingestion of re-heated cooking oils and their possible acceleration of neurodegeneration.

What are the study findings?

The study reveals findings and was presented at Discover BMB 2024, the American Society for Biochemistry and Molecular Biology's annual meeting. When compared to rats fed regular diets, rats given diets high in reheated frying oils showed noticeably higher levels of neurotoxicity. This increased vulnerability to brain damage emphasises how crucial it is to carefully consider eating habits in relation to

EXPERT TRAINED AT DBT

Dr. Arulazhagan Pugazhendi

Head Environmental Microbiology and Biotechnology Unit
Water Pollution Group
Center of Excellence in Environmental Studies and
Department of Marine Biology, Faculty of Marine Sciences
King Abdulaziz University
Jeddah - 21589
Saudi Arabia

Undergone training in Environmental Biotechnology and Bioprocess Laboratory regarding enzymatic pretreatment of substrate and biohydrogen production from 12-07-2023 to 14-07-2023.

Dr. S. Adish Kumar

Head of the Department
Department of Civil
Engineering
Anna University Regional
Campus
Tirunelveli 627007

Undergone hands-on training in all major equipment and methodology in the area of environmental biotechnology and bioprocess under the scheme AICTE-NITTT training in a research laboratory from 26-06-2023 to 25-07-2023

INVITED TALKS BY OUR FACULTY

- Invited talk on "Environment and Human Health." In: World Environment Day - 2023 at Defense Food Research Laboratory (DFRL), Mysore 8th June 2023.(PROF. P.RAJAGURU)
- Invited talk on "Bioterrorism and its impact on public health". In: One day National Seminar on Emerging Infectious Diseases, at Department of Microbiology, Periyar University, Salem, India. 23rd February 2024.(PROF. E.M.SHANKAR)
- Invited talk on "Potential biomarkers of immune reconstitution inflammatory syndrome in HIV/TB coinfection." In: HIVe 2024 Mysuru 9th National HIV Conference, at Asha Kirana, Mysuru, India. 17th - 18th Feb.2024.(PROF. E.M.SHANKAR)
- Invited talk on "Newer insights on surrogate predictive markers of tuberculosis infection." In: International Symposium on Advances in Laboratory Techniques for Biomedical Applications, at Department of Biomedical Science, Alagappa University, Karaikudi, India. 31st Jan. 2024.(PROF. E.M.SHANKAR)
- Invited talk on "Muscle and fitness, Fit India Movement." At Department of Physical Education and Training, Central University of Tamil Nadu, Thiruvarur, India. 24th Dec. 2024.(PROF. E.M.SHANKAR)
- Invited talk on "Immune reconstitution disease in HIV/TB coinfection - Newer Perspectives" In: International Conference on Infectious Diseases, at Antiviral Research Society, Chennai, India. 1-2nd Dec. 2023.(PROF. E.M.SHANKAR)
- Invited talk on "Pegivirus - Naturally trained to fight HIV?, Refresher Course on Biological Sciences." In: UGC - Human Resource Development Centre, at Pondicherry University, Puducherry, India. 11th Sept. 2023.(PROF. E.M.SHANKAR)
- Invited talk on "COVID-19: Pathogenesis and complications - An update." In: Refresher Course on Biological Sciences, at UGC - Human Resource Development Centre, Pondicherry University, Puducherry, India. 11th Sept. 2023.(PROF. E.M.SHANKAR)
- Invited talk on "Human pegivirus - The stealth storyline behind a 'good-boy' virus." In: 8th Module Guest Lecture, at Centre for Biomedical Research, School of Biosciences and Technology, Vellore Institute of Technology, Vellore, India. 25th Aug. 2023.(PROF. E.M.SHANKAR)
- Invited Talk on "Waste Activated Sludge Management and Bioenergy Production" at Department of Environmental Science, Tezpur University, Assam. 03rd Apr. 2024.(Dr. J. RAJESH BANU)
- Invited Talk on "Algal biorefinery" In: BIOTIKOS-the student association of biotechnology at Department of Biotechnology, Sastra Deemed to be University, Thanjavur, Tamil Nadu. 30th Mar. 2024.(Dr. J. RAJESH BANU)
- Invited Talk on "Cost and Energy- Effective Biofuel Production" In: Two Days National Workshop on Materials for Green Energy Technologies (MAGNET - 2024), at Department of Physics, Central University of Tamil Nadu, Thiruvarur.22nd Feb. 2024(Dr. J. RAJESH BANU)
- Invited Talk on "Waste Minimization and Recovery of Biofuels from Solid Waste" In: AICTE-sponsored Faculty Development Program titled "Sustainable Waste Management." at SSM Institute of Engineering and Technology, Dindigul, 7th Feb. 2024.(Dr. J. RAJESH BANU)
- Invited Talk on "Lignocellulosic biomass biorefinery" In: DST SERB-sponsored National seminar on green energy and its sustainable approach from waste biomass to wealth " at Karpaga Vinayaka College of Engineering and Technology, Chengalpattu 8th Feb. 2024.(Dr. J. RAJESH BANU)
- Invited talk on "Advances in pretreatment technologies for energy and cost-effective biofuel production." In: 3rd National Workshop on bioprocessing strategies for Biofuel, Department of Biotechnology, at Sastra University, Tanjavur,29th Dec. 2023.(Dr. J. RAJESH BANU)
- Invited talk on "Reclamation of retting pond water through combinative treatment" In: International Conference on Coconut as An Economic & Ecological Security, Indian Coastal Management CEESICM - 2k23, at Rohini College of Engineering and Technology, Kanyakumari, 15th Sep. 2023.(Dr. J. RAJESH BANU)
- Invited talk on "Sustainable nutrient removal in biological wastewater treatment plant equipped with onsite sludge reduction practices". In: National Frontiers of Engineering- (NatFoE-23), at BIT, Mesra, Ranchi, 25th June 2023.(Dr. J. RAJESH BANU)
- Invited talk on "Microalgal Metabolites: Its Future Potential in Crop Improvement" In: UGC-Sponsored Online Refresher Course in Life Sciences, at UGC-HRDC, Bharathidasan University, Trichy, Tamil Nadu, 04th Aug. 2023.(DR. S. KATHIRESEAN)

- Invited talk on "Microalgal Genes - Biosynthetic Pathway in Oilseed Plants Using Microalgal Genes for Omega 3/6 Fatty Acid Production" In: International Conference on Algae: Food, Feed, Fuels and Fine Chemicals (ICA-F4'23), at National Repository for Microalgae and Cyanobacteria, Bharathidasan University, Trichy, Tamil Nadu, 8th Sept. 2023. (DR. S. KATHIRESEAN)
- Invited talk on "Integrated Disease Management in Cashew" In: Training program on "Improved Production Technology and Value-addition in Cashew to the farmers of Thiruvarankulam block of Pudukottai district, Tamil Nadu. 07th - 08th Dec. 2023.(DR. S. KATHIRESEAN)
- Invited talk on "Recent Trends in Recombinant DNA Technology" at Department of Microbial Technology, School of Biological Sciences, Madurai Kamaraj University, Madurai. 22nd Mar. 2024.(DR. S. KATHIRESEAN)
- Invited talk on "Scrub Typhus causing Trombiculid mite distribution in Rodents/Shrews collected from Thiruvarur District of Tamil Nadu, India" In: International Colloquium on 'Biovision 2024'-(ICB-24) at Department of Zoology, A.D.M College for Women, Nagapattinam. 14th Feb. 2024.(DR. JAYALAKSHMI KRISHNAN)
- Invited talk on "Gene mutation, phenocopy, and inheritance pattern." In: Lecture series 4 on chronological genetic update 2023-2024 at Maharishi Dayanand University, Rohtak, Haryana, 21st Nov. 2023.(DR. JAYALAKSHMI KRISHNAN)
- Invited talk on "Role of flow cytometry and genomics in platelet disorders." In: National Hematology Update XII. At All India Institute of Medical Sciences (AIIMS), New Delhi. 05 Mar. 2023.(DR. MEGANATHAN KANNAN)
- Invited talk on "Quality Conscience: Doing the right thing." In: Quality Week 2023, at Vellore Institute of Technology (VIT), Vellore. 01 Mar. 2023.(DR. MEGANATHAN KANNAN)
- Invited talk on "Ethics in Research." In: Summer training program (STP-2023), at University of Madras, Chennai. 07 Jul. 2023.(DR. MEGANATHAN KANNAN)
- Invited talk on "Salivary oral microbiome in head and neck Cancer by metagenomic approaches." In: International Conference on Bioinformatics in Health and Food Security, at Pondicherry University, 15th Mar. 2024.(DR. INDRANIL CHATTOPADHYAY)
- Invited talk on "Genetic alterations in tobacco and betel quid associated esophageal squamous cell Carcinoma of the high-risk region in India." In: International Conference on Environmental Mutagenesis: Impact on Biodiversity and Human Health in a Changing World, at Central University of Kerala, Kasaragod, 29th Jan. 2024.(DR. INDRANIL CHATTOPADHYAY)
- Invited talk on "Deciphering the molecular mechanisms of desiccation tolerance using resurrection plants." In: India Bioscience, Regional Young Investigators Meeting, at BITS, Pilani Rajasthan, 18th Jan. 2024. (DR. DINAKAR CHALLABATHULA)
- Invited talk on" Importance of mitochondrial oxidative electron transport in protecting photosynthesis under abiotic stress conditions." In: International Workshop and Hands-on training on Chloroplast Bioenergetics, at Department of Plant Sciences, University of Hyderabad, 6th Jan. 2024. (DR. DINAKAR CHALLABATHULA)
- Invited talk on "Photosynthesis in extremophilic plants: deciphering the molecular mechanisms of desiccation tolerance in resurrection plants." In: International Workshop and Hands-on training on Chloroplast Bioenergetics, at Department of Plant Sciences, University of Hyderabad, 8th Jan. 2024. (DR. DINAKAR CHALLABATHULA)
- Invited talk on" Physiological, biochemical and molecular changes in plants as biomarkers of abiotic stress." In: International Workshop and Hands-on training on Chloroplast Bioenergetics, at Department of Plant Sciences, University of Hyderabad, 10th Jan. 2024. (DR. DINAKAR CHALLABATHULA)
- Invited talk on "Alcoholic Renal Inflammatory Injury." In: Recent Advances and Future Trends in Toxicology, at Society of Toxicology, University of Calicut, Calicut, 24th Nov. 2023.(DR. LATCHOUMYCANDANAE CALIVARTHAN)
- Invited talk on "Alcoholic Liver Disease - Connecting Renal Injury to Mortality." In: Research Development Series, at School of Bioscience and Technology (SBST), Vellore Institute of Technology, Vellore, 12th Apr. 2024.(DR. LATCHOUMYCANDANAE CALIVARTHAN)
- Invited talk on "Flavonoid Extracted from Microalgae: Their Promising Role in Cancer Therapy" In: Workshop on Animal Cell culture at GPAVENS Life Sciences Pvt Ltd, AIC-CCMB, Hyderabad, Telangana. 13 and 14 March 2024.(DR. POORNACHANDAR GUGULOTHU)
- Invited talk on "Recent trends in Cancer Biology." In: National Science Day celebrations Telangana University, at Department of Chemistry, Telangana University, 14th Mar. 2024.(DR. POORNACHANDAR GUGULOTHU)
- Invited talk on "The Combination of Alkaloids Extracted from Microalgae: Their Promising Role in Cancer Therapy." at Omega College of Pharmacy, Hyderabad" 03/11/2023.(DR. POORNACHANDAR GUGULOTHU)
- Invited talk on "Combination of Flavonoids extracted from microalgae; Their promising role in Cancer therapy." In: Chemistry colloquium seminar series, at Department of Chemistry, Central University of Tamil Nadu, Thiruvarur, Tamil Nadu. 13th Sep. 2023.(DR. POORNACHANDAR GUGULOTHU)

DBT CAFÉ

DBT cafe is the jewel of the Department of Biotechnology. It is a lecture series designed with the aim to provide an esteem platform flourished with opportunities to share and improve each other with knowledge. The main accomplishment of the DBT cafe is it's capability to integrate all ranks of the scientific community from student to professors only with respect to their knowledge. In the academic year(2023-24) itself the DBT cafe program has shown it's capability to culture a professional environment for learning.

DBT CAFÉ

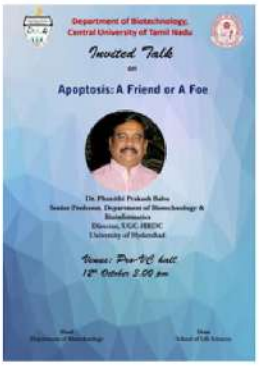
IVM - WITH SPECIAL REFERENCE TO MALARIA

28.02.24

Prof. Pradeep Kumar Srivastava's webinar in the Department of Biotechnology & Bioinformatics on 28.02.24(Wednesday) provided valuable insights into IVM as a powerful tool for combating malaria. The talk focused on adopting a strategic, integrated approach, aiding communities in achieving more sustainable and effective malaria control.

APOPTOSIS: A FRIEND OR A FOE

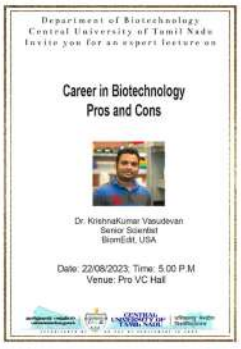
12.10.2023



The talk conducted by distinguished speaker Dr. Phanithi Prakash Babu in the Department of Biotechnology & Bioinformatics on 12.10.2023 (Thursday) provided valuable insights into the concept of Apoptosis. The talk was extremely informative and enlightening, appealing to the motivated and passionate science students. More than 200 students have participated in the session

CAREER IN BIOTECHNOLOGY: PROS AND CONS

22.08.2023



The talk conducted by distinguished speaker Dr. Krishnakumar V in the Department of Biotechnology & Bioinformatics on 22.08.2023 (Tuesday) provided guidance on the future of biotechnology students. The talk provided lots of information about the career paths of aspiring biotechnology students in our department. All the students were inspired and motivated to keeping moving forward.

THE SENATE

EVERY ACCOMPLISHMENT STARTS WITH THE DECISION TO TRY

Student Senate is the organization that was created to provide students experience and training in leadership building skills. It is an organization that is run by students, for the students. It is a governing body that is elected by the student body and is responsible for representing the interests of the students. It works to improve the student experience by advocating for student needs, planning events, and allocating funds. For the academic year of 2023-24 the students of Department of Biotechnology selected the senate members through the process of elections, leading to the emergence of the current student's senate members holding,

President
Ms. Janani K
(5th yr. IMsc Lifesciences)

Vice President
Ms. Celin Jennifer Simon
(4th yr. IMsc Lifesciences)

Secretary
Mr. Aruneshkrishna P
(3rd yr. IMsc Lifesciences)

Treasurer
Mr. Sudharsh S
(3rd yr. IMsc Lifesciences)

Joint Secretary
Ms. Saranya E
(2nd yr. IMsc Biotechnology)

During this academic year, Freshers day, Pongal and Science day were successfully funded and organized by the student senate.

CELEBRATING EXCELLENCE: MAGAZINE AND VIDEO RELEASE CEREMONY AT PRO VC HALL

In a vibrant display of academic and creative prowess, the department organized a grand ceremony on 02.09.2023 at the Pro VC Hall to mark the release of its latest magazine and video. Led by the Honorable Vice Chancellor and Respected Registrar, this event was a testament to the dedication and achievements of the department's faculty and students. The magazine, a compendium of scholarly articles, research findings, and creative expressions, showcased the department's commitment to academic excellence and innovation.

Complementing the magazine release was the unveiling of a captivating video production that captured the essence of the department's ethos and achievements. Through stunning visuals and compelling narratives, the video offered a glimpse into the vibrant academic life and cutting-edge research conducted within the department's walls. The video has also reached 2k+ views in the YouTube. It served as a reminder of the department's commitment to pushing boundaries, inspiring minds, and making a meaningful impact in the world of academia and beyond.

RYZENTRONZ 2K24

On a peaceful winter evening, first-year students were warmly welcomed to the department by Prof. E.M. Shankar and Dr. Rajesh Banu who shared insights about research opportunities and about the entrance process. The atmosphere shifted as fun games brought everyone together, breaking the ice and fostering connections among the students.

The evening had not only provided valuable information but had also created a sense of belonging within the department. With newfound friendships and excitement for the future, the first-year students looked forward to the journey ahead, grateful for the memorable evening that had brought them together.

As the evening progressed, a lively DJ energized the crowd with music, encouraging students to hit the dance floor and celebrate. Meanwhile, the aroma of delicious food filled the air, adding to the festive ambiance. As the event came to a close, students departed with smiles on their faces and memories to cherish.

TEACHER'S DAY

We the research scholars of DBT celebrated the much-awaited Teachers Day on 8th September 2023 to honor the remarkable contributions and tireless efforts of our teachers, guides, and mentors by collectively appreciating and acknowledging them. The event was inaugurated by our beloved Dean and Head of the Department followed by all the Teaching and Non-Teaching staff of the Department. The event started with cake cutting and sharing the thoughts and insights of research and development. The celebration brought back olden memories of teachers and the scholars gifted a small token of love followed by refreshments. Teachers started turning on their volumes and singing 90s songs. There was laughter and joy across the corridors of the department with an ablaze.

Through this celebration, we the family of DBT expressed our heartfelt gratitude and thanks to all the faculties of the department for helping us grow with knowledge and supporting us by all means thanked each other for their support and guidance. The event ended up with photo sessions viewing the enduring bonds between teachers and students.

PONGAL CELEBRATION

Last year, our Department of Biotechnology set the bar high with our inaugural Pongal celebration, and this year, in 2024, we elevated the festivities to even greater heights! The atmosphere was filled with joy and excitement as our staff and students came together to commemorate this vibrant cultural event. Our decorations were nothing short of magnificent, adorned with intricate kolams, towering sugarcanes, and traditional pots, all reflecting the rich essence of Pongal.

This year, we introduced two spirited competitions among the different batches in our department. The first was the Pongal cooking competition, followed by the Rangoli competition, both meticulously judged by our esteemed staff members. The energy was palpable as students poured their hearts into these competitions, collaborating with classmates and showcasing their talents. The air was filled with enthusiasm and encouragement as teams worked tirelessly, each vying for the coveted title.

Adding to the excitement were the lively games such as Uriyadi and Tug of War, which provided moments of laughter and bonding. Uriyadi, in particular, brought out peals of laughter as participants struggled to aim for the elusive pot amidst the uproar of cheers and jeers. And in the Tug of War, both boys and girls exhibited unwavering strength and determination, leaving everyone exhausted yet exhilarated.

The climax of the day was the felicitation ceremony, where the winners of the competitions were honoured with prizes, celebrating their hard work and dedication. It was a day filled with laughter, camaraderie, and joy, leaving everyone with cherished memories and beaming smiles.

This year's Pongal celebration was truly a testament to the unity and spirit of our department, showcasing the vibrant tapestry of cultures that make us who we are. We look forward to many more joyous celebrations in the years to come!

NATIONAL SCIENCE DAY

The Department of Biotechnology at Central University of Tamil Nadu buzzed with excitement on February 28th as we commemorated National Science Day! The day unfolded with a stimulating program designed to ignite scientific curiosity and foster collaboration among students.

Morning Sessions: Setting the Stage for Scientific Exploration

The day commenced with an insightful invited talk that captivated the audience until the mid-morning break. Following the intellectual discourse, students showcased their research endeavors through a vibrant 'poster presentation session'. Five diverse topics were explored, brimming with innovative ideas that sparked discussions and exchanged knowledge.

Sci-whiz Quiz: Testing Scientific Mettle

Running parallel to the poster presentations was the electrifying Schiwhiz Quiz competition. With four rounds, including the preliminaries, the quiz tested the scientific prowess of the participants, fostering a spirit of healthy competition and camaraderie.

Afternoon session

The afternoon witnessed the much-anticipated 'treasure hunt'(Science Quest). This captivating event drew many enthusiastic participants from various departments across the Central University of Tamil Nadu. The treasure hunt provided an exceptional platform for teamwork, problem-solving skills, and a dash of friendly competition, followed by the last event for the day...

Event X: Pioneering the Future of Science

Marking a first for the department, we introduced a groundbreaking event titled 'Event X.' This unique concept challenged participants to select a problem statement from a set of five and devise ingenious solutions. The session resonated with the spirit of innovation and problem-solving that lies at the heart of scientific discovery.

A Riveting Conclusion for the exclusive day: Recognizing Excellence

As the day drew to a close, a Grand prize distribution ceremony, sponsored by Eshwar Biosciences and Priya Scientific, acknowledged the outstanding achievements of the participants in all the events. Certificates were presented to commemorate their accomplishments.

The National Science Day celebrations at the Department of Biotechnology were a resounding success, thanks to the tireless efforts of the student senate and the unwavering dedication of the 3rd-year IMSc Life Sciences students. The day served as a catalyst for igniting a passion for science, fostering collaboration, and unearthing the brilliance of our budding scientists.

IV TRIP

UNVEILING THE MARVELS OF GENETICS AND BIODIVERSITY

Step into a realm where science and nature intertwine, as we recount a mesmerizing IV trip from the hallowed halls of CUTN Thiruvarur to the captivating landscapes of RGCB Trivandrum, Kerala. Departing amidst the golden hues of evening on March 26, 2024, our journey unfolded with a tapestry of experiences. From delving into the intricacies of genetics through an engaging lecture to traversing the corridors of research excellence during our tour of RGCB's state-of-the-art facilities, each moment was a symphony of learning and discovery. Our culinary senses were delighted as we indulged in a sumptuous lunch, surrounded by the buzz of scientific discourse. At CSIR NIIST, innovation took center stage, from witnessing the transformation of agricultural waste to exploring the frontiers of bioethanol production and 3D food printing.

As the sun dipped below the horizon, we found solace in the serene embrace of Kovalam Beach, a moment of tranquility amidst our intellectual odyssey. The following day, the Trivandrum Zoo beckoned, offering a glimpse into the rich tapestry of biodiversity that graces our planet. En route to Kanyakumari, we paused to admire the grandeur of the Thiruvalluvar Statue, a testament to the enduring legacy of art and culture. With hearts brimming with knowledge and souls enriched by experience, we returned to Thiruvarur, our minds alight with the wonders of genetics and biodiversity. Join us on this enchanting voyage of exploration and enlightenment, where each moment is a brushstroke on the canvas of discovery.

ROADMAP OF IV

DEPARTMENT OF BIOTECHNOLOGY, CUTN

RAJIV GANDHI CENTRE FOR BIOTECHNOLOGY, TRIVANDRUM

THE ZOOLOGICAL PARK, TRIVANDRUM

CSIR - NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY (NIIST) , TRIVANDRUM

DBT FAMILY

IMSc 1st Year

IMSc 2nd Year

IMSc 3rd Year

IMSc 4th Year

IMSc 5th Year

MSc 1st Year

Research Scholars

Staff

GATE 2024 Qualifiers


Sredha S Sunil
AIR 435


Adithya K


Balasanker P


Fathima Nasheedha


Harikrishna K


Harshita Nainar


Joel Jaison


Keerthana M


Kirthana A


Nandana R


Nishok GP


S Pavithra


Rishaba Byju


Sabari PRS


Sahil Raman Tanti


Sochanphy Keishing


Syed Mohammad Abbas


Thejal Ann Liz


Vannamathi M


Vedasmiritha

JAM 2024 Qualifiers

Sahil Raman Tanti

Aruneshkrishna P

Sabari PRS
AIR -97

Sudharsh S

CSIR-NET 2023 Qualifiers

Anushree
AIR88

Karishma S Jith
AIR167

Pooja Radhakrishnan
AIR70

Prathyusha
QUALIFIED FOR ASSISTANT PROFESSOR

Renjith V S
LS AIR 53

JGEEBILS

Qualifiers

Sredha S Sunil

Anushree

Pooja Radhakrishnan

NPTEL CERTIFICATES

Vedasmirtha T S

Nishok G P

Aruneshkrishna P

Abishek S Nair

V Dhanyalakshmi

Roshan K S

Sabari P R S

M Priyadharshini

PUBLICATIONS

Janani K

Sivadoss Raju, Baranidharan B, Shanthakumar M, Sudharshini Subramaniam, Somasundaram A, Senthil Kumar M, Rajeshkumar M, Kumaresan A, Sasikala P, Dinesh Kumar, Arthy Devi P, Srinithi A, Janani K, Pavithra, Kannan M, Shankar E M, Selvavinayagam T S(2024). Evaluation of Commercially Available Hb Meters (Poct Devices) Both Invasive and Non-Invasive Type With Haematology Analyzer. Tamil Nadu Journal of Public Health and Medical Research, 3(4), 52-56. (Article ID: 2023:03:04:10).

Sudharsh S

Sudharsh, S., Lavanya, V., Gondi, R., Roy, C. L., Kannan, M., & Banu, J. R. (2024). Effect of bacterial pretreatment on solid sago waste for enhanced biomethane generation. Bioresource Technology Reports, 101774.

Rishabha Byju

Parsanathan, R., Byju, R., & Prabakaran, D. S. (2024). Exploring salivary gene expression clusters: A bioinformatics approach for advanced diagnosis and prognosis in head and neck squamous cell carcinoma. Oral Oncology Reports, 100300.

S. Pavithra

Sivadoss Raju, Baranidharan B, Shanthakumar M, Sudharshini Subramaniam, Somasundaram A, Senthil Kumar M, Rajeshkumar M, Kumaresan A, Sasikala P, Dinesh Kumar, Arthy Devi P, Srinithi A, Janani K, Pavithra, Kannan M, Shankar E M, Selvavinayagam T S(2024). Evaluation of Commercially Available Hb Meters (Poct Devices) Both Invasive and Non-Invasive Type With Haematology Analyzer. Tamil Nadu Journal of Public Health and Medical Research, 3(4), 52-56. (Article ID: 2023:03:04:10).

Lavanya V

Sudharsh, S., Lavanya, V., Gondi, R., Roy, C. L., Kannan, M., & Banu, J. R. (2024). Effect of bacterial pretreatment on solid sago waste for enhanced biomethane generation. Bioresource Technology Reports, 101774.

CONFERENCES

Aysha Shibla

Aysha Shibla (2024) "Targeting the Nipah Virus G Protein-Ephrin B2 Receptor Interaction: Insights from Structural and Computational Analyses for Drug Repurposing and Multi-epitope Vaccine Designing" International conference on bioinformatics in health and food security 2024 held at Pondicherry University , Mar 14.

Gayathri Menon

Gayathri Menon(2024)"Electrospun Scaffolds with Cassia auriculata Leaf Extract Accelerate Wound Healing in Rats" International conference on Innovations in Life Sciences held at SRM University Chennai, Feb 12-13.

Gayathri Menon(2024) "Developing Electrospun Scaffolds with Cassia Auriculata Leaf Extract for Wound Healing Applications" Biotechnological Advancements on Sustainable Environment 2024 held at Vel Tech High Tech Engineering College, Chennai.

Rabia

Rabia(2024) "In silico prediction of endocrine disruption by using phthalates and bisphenol" International conference on bioinformatics in health and food security 2024 held at Pondicherry University , Mar 14.

Rishaba Byju

Rishaba Byju (2023) "Impact of Static Magnetic Field on Angiogenesis and Cell Migration" Seminar on Medical Entrepreunership held at SBMCH, Chennai held at Oct 28.

Rishaba Byju (2024) "Decoding the impact of G6PD Expression on Breast Cancer Prognosis: A Global Bioinformatics approach" International Conference on Bioinformatics in Health and Food security held at Pondicherry University, Mar 14.

Vannamathi M

Vannamathi M(2024)"In Silico Design of Actinobacterial Derived Peptides: New Putative Antimicrobial Therapeutic Candidate for Oral Bacteria" International Conference on Microbiology Research: Current challenges and Future Perspectives (ICMR:CCFP - 2024) held at Bharathidasan University, Trichy, Jan 9-11.

Vedasmirtha T S

Vedasmirtha T S (2024) "Acetaminophen-induced renal injury: Developing a combination therapy using N-acetylcysteine and Asiatic acid" Innovations in Life Sciences held at SRM University Chennai, Feb 12-13.

Vibisha V

Vibisha V (2024)"Designing potent antibacterial peptides from probiotics against Pseudomonas aeruginosa PAO1: An in silico approach" International Conference on Microbiology Research: Current challenges and Future Perspectives (ICMR:CCFP - 2024) held at Bharathidasan University, Trichy, Jan 9-11.

Vibisha V(2023) ""Designing potent antibacterial peptides from probiotics against Pseudomonas aeruginosa PAO1: An in silico approach" International Conference On Infectious Disease And Antimicrobial Resistance (ICIDAR -2023) 4th Microsummit held at Saveetha Dental colleges and hospitals, Chennai, July 27-29.

Harshita Nainar

Harshita Nainar and Lavanya V(2023) "Biomethane Production from Sago Waste" MicCon-23 held at Madurai Kamarajar University, Sep 16.

Karunya V

Harshita Nainar and Karunya V(2023) "Biomethane Production from Sago Waste" MicCon-23 held at Madurai Kamarajar University, Sep 16.

Preetha R

Preetha R (2023)"enhancing biogas production from sago waste through thermochemical pretreatment" MicCon-23 held at Madurai Kamarajar University, Sep 16.

Sabari P R S

Sabari P R S(2024)" Disrupting Cardiovascular Dynamics: Unraveling the Impact of Lithium Chloride on Moina sp. Heart Beat and Cardiac Function" Genvision2024 held at IIT-Bombay, Jan 13-14.

Sudharsh S

Sudharsh S (2023) " Biological liquefaction of sago waste for eco friendly and cost effective biomethane production" 3rd International Conference on Pollution and clean technologies.

Sudharsh S and Lavanya V(2023) "Effect of bacterial pretreatment on solid sago waste for enhanced biomethane generation"MicCon-23 held at Madurai Kamarajar University, Sep 16.

Sudharsh S(2024)"Unified impact on solubilization of sago waste for cost and energy effective biofuel generation using microwave and bacterial pre-treatment" ESE-24 held at SRM University, Andhra Pradesh, 14-15 Feb.

Lavanya V

Lavanya V and Sudharsh S(2023) "Effect of bacterial pretreatment on solid sago waste for enhanced biomethane generation"MicCon-23 held at Madurai Kamarajar University, Sep 16.

WORKSHOPS

Janani K

Attended the workshop on Anti-microbial Stewardship held on Jul 27, 2023

Thejal Ann Liz

Nano Science and Technology Sri Ramakrishna Engineering College - Skill Building Workshop on "Wet Chemical Synthesis of Nano Materials" from Feb 28 to Mar 1, 2024

Sourabh Rajendra Bhujbal

One Month International Workshop - Genome Informatics from Jan 6 - Feb 4, 2024

Bijoy K P

One Month International Workshop - Genome Informatics from Jan 6 - Feb 4, 2024.

Abhishek S Nair

Ensembl Plants Browser and REST API workshop from Jan 15-26, 2024.

V Dhanyalakshmi

Online workshop on 'Biomarker Discovery in Proteomics' under the Omics to Health Analytics series IIT BOMBAY from Sep 28- Oct 2, 2023.

Neha G

Attended workshop on 'In-silico Tools for Molecular Biology.'

Sudharsh S

- Workshop on Protein Expression and Purification organized by the Department of Biotechnology, IIT Madras on 22nd and 23rd December, 2023.
- Online workshop on 'Biomarker Discovery in Proteomics' under the Omics to Health Analytics series IIT BOMBAY from Sep 28- Oct 2, 2023.

Sabari P R S

- Online workshop on 'Biomarker Discovery in Proteomics' under the Omics to Health Analytics series IIT BOMBAY from Sep 28- Oct 2, 2023.
- Protein Expression and Purification workshop by IIT MADRAS from Dec 22-23, 2023.

Syed Mohammad Abbas

- ONLINE 5 DAY WORKSHOP ON 'In-sillico tools for Molecular cloning' under the Bioshristi Life science pvt. ltd. Chennai from Nov 01-05, 2023
- Protein Expression and Purification workshop by IIT MADRAS from Dec 22-23, 2023.

NCC AND SPORTS AWARDS

Mudavath Shiva

Selected for a special camp in NCC Training Program

S. Supriya Selvi

Kumbakonam Cervical Cancer Awareness Marathon (4th position)

District Level Red Ribbon Club 5Km Marathon (1st prize) and went for state level.

AWARDS

ACADEMIC

Rishaba

Best e-poster award at SBM on Oct 28, 2023 and Best oral poster presentation award at PU on Mar 4, 2023.

Vedasmiritha TS

Best Poster Presentation award SRM University Chennai 12th February 2024.

Sudharsh S

Best Poster Presentation award SRM University, Andhra Pradesh, 14-15 February 2024.

J. Satish Naik

Genvision2024 Debate competition gold medal at IIT BOMBAY, Jan 13-14, 2024.

Sourabh and Team

Second Prize in Quiz - AMR Awareness Week - by Dep. Of Microbiology CUTN on Nov 20, 2023.

Neha G

National finalist from South zone in national environmental youth parliament on Jan 20-21, 2024.

Sarnya E

Second prize in Short Story Writing competition on the occasion of International Women Day on Apr 8, 2024.

Sudharsh S and Team

First Prize in AMR Quiz conducted in the Department of Microbiology, CUTN on Nov 20, 2023.

Internships.

INSA - Fellowships

Bijoy K P

IISER Mohali, Punjab

Renifa Angelina Christopher

INSA Summer Research Fellowship Program - IIT Ropar

Sabitri Dash

Institute of Science & Technology, Chennai

Kumari Minu

CSIR-Institute Of Genomics And Integrative Biology Delhi

Priyadharshini S

SRM Institute of Science and Technology, Chennai

Others

S. Pavithra

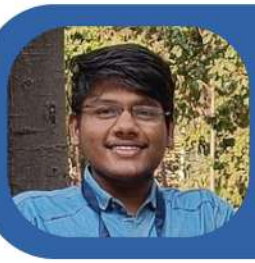
Department of Microbiology, Bharathidasan University, Trichy

Janani K

Department of Microbial Biotechnology, Bharathiar University, Coimbatore

Sneha P

Rajeev Gandhi Centre of Biotechnology , Trivandrum



Sabari P R S

Integrative BioMed Laboratory, CUTN

Santhoshkumar V

MicroLabs, Hozur, Tamil Nadu

PLACEMENTS

THE SHINING STARS

Naji Naseef

PhD at Saveetha Institute of Medical and Technical Sciences (SIMATS)

Vijetha Valsa

Project technical support at ICMR-NIE, Chennai

Renjisha Venugopal

Marketing & Customer Relations Associate at Prayaga Scientific Laboratories Pvt. Ltd.

Desavath Chinna Naik

Technical Assistant at ICMR-National Institute for Research in Reproductive and Child Health

Suresh M

Biology Faculty at Shree Swami Narayan Gurukul International School, Nagpur

Keerthana M

Biology Teacher at Amrita Vidyalayam, Nagapattinam

Bhukya Ramesh

Laboratory attendant at ICMR- National Institute of Nutrition

K. Chinni Babu

Biology Faculty at Velammal Bodhi Academy

Ajaykrishna

PhD in Environmental Sciences at SRM University, Andhra Pradesh

PUBLICATIONS

A R Mohammed Anshad

Selvavinayagam, S. T., Suvaithenamudhan, S., Yong, Y. K., Hemashree, K., Rajeshkumar, M., Kumaresan, A., Anshad, A. R., ... & Raju, S. (2024). Genomic surveillance of omicron B. 1.1. 529 SARS-CoV-2 and its variants between December 2021 and March 2023 in Tamil Nadu, India—A state-wide prospective longitudinal study. Journal of Medical Virology, 96(2), e29456. (IF 12.7)

Selvavinayagam, S. T., Karishma, S. J., Hemashree, K., Yong, Y. K., Suvaithenamudhan, S., Rajeshkumar, M., Anshad, A. R., ... & Raju, S. (2023). Clinical characteristics and novel mutations of omicron subvariant XBB in Tamil Nadu, India-a cohort study. The Lancet Regional Health-Southeast Asia, 19.

S K Farhat

Suryanarayana R, Renjisha Venugopal T, Farhat SK, Sathya Jeevitha B, Rajalakshmi A, Parsanathan R, Jayalakshmi K. A Novel Determination of Trehalase Accumulation with Plant Extracts Against Aedes albopictus from Thiruvarur District of Tamil Nadu. XIV Annual Conference of Indian Society for Malaria & Other Communicable Diseases (ISMOCD). 2023;7-24.(IF 1.54)

Chitrali Laha Roy

Selvavinayagam, S. T., Anusree, A., Yong, Y. K., Frederick, A., Murali, L., Kalaivani, V., Aswathy, B., Rajeshkumar, M., Roy, C. L.,....& Raju, S. (2024) Platelet-Large Cell Ratio and Erythrocyte Sedimentation Rate are Surrogate Predictors of Latent Tuberculosis Infection. SSRN. https://dx.doi.org/10.2139/ssrn.4692704.

Sudharsh, S., Lavanya, V., Gondi, R., Roy, C. L., Kannan, M., & Banu, J. R. (2024). Effect of bacterial pretreatment on solid sago waste for enhanced biomethane generation. Bioresource Technology Reports, 101774. (IF 5.06)

Aiswarya Sudheer C. K.

Rajeev, A., Sudheer, A., & Chattopadhyay, I. (2024). Probiotics as a Sustainable Approach in Health Enrichment. Journal of Pure & Applied Microbiology, 18(1). (IF 0.8)

Sathya Jeevitha B

Suryanarayana R, Renjisha Venugopal T, Farhat SK, Sathya Jeevitha B, Rajalakshmi A, Parsanathan R, Jayalakshmi K. A Novel Determination of Trehalase Accumulation with Plant Extracts Against Aedes albopictus from Thiruvarur District of Tamil Nadu. XIV Annual Conference of Indian Society for Malaria & Other Communicable Diseases (ISMOCD). 2023;7-24.(IF 1.54)

Rajeev Kumar Bhaskar

Shivaranjini, C., Kumar, M. D., Tamilarasan, K., Bhaskar, R. K., Al-Qaradawi, S. Y., & Banu, J. R. (2024). Low temperature coupled with mechanical liquefaction of seaweed for energy and economically efficient anaerobic digestion. Algal Research, 103474. (IF 5.1)

Rashmi Gondi

Gondi, R., Ramachandran, S., Kavitha, S., Ravi, Y. K., Kumar, G., Al-Qaradawi, S. Y., & Banu, J. R. (2024). Surfactant-mediated sonic hydrolysis of marine macroalgae Ulva fasciata for biohydrogen production. International Journal of Hydrogen Energy, 52, 511-520.(IF 7.0)

Gondi, R., Ravi, Y. K., Kavitha, S., Al-Qaradawi, S. Y., Challabathula, D., Kumar, G., & Banu, J. R. (2023). Cost-effective bio-methanation via oxalic acid coupled sonication pretreatment of Gracilaria salicornia. Biomass and Bioenergy, 175, 106876.(IF 5.2)

I. K. Nidhin

Bera, I., Nidhin, I. K., Hembrom, M. E., Das, K., & Chattopadhyay, I. (2023). Metagenomics offers insights into the rhizospheric bacterial diversity of mushrooms from a tropical forest and temperate forest of India. Ecological Genetics and Genomics, 29, 100203.

Dr. Zarin Taj

Taj, Z., Bakka, K., & Challabathula, D. (2024). Halotolerant PGPB Staphylococcus sciuri ET101 protects photosynthesis through activation of redox dissipation pathways in Lycopersicon esculentum. Plant physiology and biochemistry : PPB, 208, 108482. https://doi.org/10.1016/j.plaphy.2024.108482. (IF 6.5)

Taj, Z., Chattopadhyay, I. (2024).In Silico Prediction and Molecular Simulation of Antimicrobial Peptide Variants From Lactobacillus sp. Against Porphyromonas gingivalis and Fusobacterium nucleatum in Oral Squamous Cell Carcinoma. Peptide Science. e24348. https://doi.org/10.1002/pep2.24348. (IF 2.4)

Narmadhaa S

Sivagurunathan, N., Rahamathulla, M. P., Al-Dossary, H., & Calivarathan, L. (2023). Emerging Role of Long Noncoding RNAs in Regulating Inflammasome-Mediated Neurodegeneration in Parkinson's Disease. Molecular neurobiology, 10.1007/s12035-023-03809-7. Advance online publication.(IF 5.59)

CONFERENCES

A R Mohammed Anshad

A R Mohammed Anshad, Amudhan Murugesan, E M Shankar(2024) "Cytokine Dynamics and Immune Response Modulation in Dengue Fever: An Exploratory Analysis" Global Immunology Summit-2024 held at Translational Health Science & Technology Institute Faridabad, 15 - 17 Feb.

S K Farhat

S K Farhat and Jayalakshmi Krishnan(2024) "Seroprevalence of Scrub typhus in Tamil Nadu" 5th International Conference on Recent Trends in Microbiology 2024 held at Department of Microbiology, Alagappa University, Karaikudi, 26 - 27 Feb

S K Farhat and Jayalakshmi Krishnan(2024) "Seroprevalence and Risk factor analysis of Scrub typhus disease in Thiruvarur district of Tamil Nadu" International Colloquium on Biovision 2024 held at Department of Zoology, A.D.M College for Women, 14 Mar

Meenu Maniradhan

Meenu Maniradhan, Narmadhaa Sivagurunathan, Latchoumycandane Calivarathan "Developmental exposure to BPA and Reproductive Toxicity in Wistar Rats" International Conference on Molecular Medicine, Reproduction and Endocrinology 2023 held at Navrachana University, Vadodhara, 14 - 16 Sep

Meenu Maniradhan, Narmadhaa Sivagurunathan, Vigil S Anbiah, Latchoumycandane Calivarathan "BPA-induced testicular dysfunction: ameliorative effect of Selenium" International Conference on Frontiers in Basic Biology, Biotechnology & Bioinformatics 2024 held at University of Hyderabad, 15 - 18 feb

Aiswarya Sudheer C. K.

Aiswarya Sudheer C.K., I.K. Nidhin, Indranil Chattopadhyay "Application of Lactobacillus fermentum towards effective management of biofilm threat by Staphylococcus aureus and Pseudomonas aeruginosa PAO1" International Conference on Emerging Trends in Genomics and Biomedicine held at University of Kerala, Trivandrum, 15-17 Nov

Aiswarya Sudheer C.K., I.K. Nidhin, Indranil Chattopadhyay "Application of Lactobacillus fermentum towards effective management of biofilm threat by Klebsiella pneumoniae and Acinetobacter baumannii" International Conference on Microbiological Research: Current Challenges and Future Perspectives held at Bharathidasan University, Tiruchirappalli, 9-11 Jan

Sathya Jeevitha B

Sathya Jeevitha B, Govindarajan Renu, Narendar R, Farhat SK, Rajalakshmi A, Jayalakshmi Krishnan "A Pilot Study on the Distribution of Mite Species in Rodents Causing Scrub Typhus from a Delta District of Tamil Nadu, India." 5th International Conference on Recent Trends in Microbiology 2024 held at Department of Microbiology, Alagappa University, Karaikudi, 26 - 27 Feb.

Irene Mary Praveen

Irene Mary Praveen, Narmadhaa Sivagurunathan, Vaitheeswari Balakrishnan, Vigil S. Anbiah and Latchoumycandane Calivarathan "Ginkgolide B ameliorates MPTP-induced mitochondrial Complex I dysfunction in Parkinson's disease" International Conference on Frontiers in Basic Biology, Biotechnology and Bioinformatics 2024 held at Central University of Hyderabad, 15 - 18 Feb.

Manjari Datta

Manjari Datta, Zarin Taj, Vannamathi M, Indranil Chattopadhyay "Inhibitory activity of antimicrobial peptide extracted from lactic acid bacteria against ESKAPE pathogens" International conference on new horizons in Biotechnology held at CSIR-NHBT, 26 - 29 Nov.

Ramavath Vasanthrao

Ramavath Vasanthrao, I. K. Nidhin, Indranil Chattopadhyay "Compositional variation in soil microbiome of poultry and cattle shed soil environment" International Conference on Microbiological Research and Current Challenges: Future prospectives 2024 held at Bharathidasan University, 9 - 11 Jan.

I. K. Nidhin

I. K. Nidhin, Indranil Chattopadhyay "Investigation of Plant-Beneficial Function Contributing (PBFC) Genes from the Genomes of Major Bacteria in a Tropical Forest Soil Microbiome"7th International conference -Biospectrum 2023 -Emerging Trends and Innovations in Biotechnology held at MACFAST, Thiruvalla, 30 Nov-2 Dec

I. K. Nidhin, Kanad Das, Indranil Chattopadhyay "Varying Bacterial Composition of Mushroom Rhizospheric Soil Microbiomes in Tropical and Temperate Forests" IInternational Conference on Microbiological Research: Current Challenges and Future Perspectives held at Bharathidasan University, Tiruchirappalli, 9-11 Jan

I. K. Nidhin, Ramavath Vasanthrao, Indranil Chattopadhyay "Unraveling the soil metabolites and pollutants in degraded agricultural lands using GC-MS analysis" 11th ICIST 2024 held at Sathyabama Institute of Science and Technology, 1-3 Feb

Saranya B

Saranya B, Kartheeswaran D and Kathiresan S "Delta 5 Desaturase (Δ5Des) - A High Value PUFA Biosynthetic Gene: Its Cloning Strategies for the Plant based Expression" International Conference On Bioinformatics In Health And Food Security held at Department of Bioinfomatics, PU, 14-16 Mar.

Dr. Zarin Taj

Zarin Taj and Indranil Chattopadhyay(2023) "Molecular Docking and Molecular Dynamic Simulation (MDS) Investigation of Actinobacterial based Bioactive Compounds against Fusobacterium nucleatum aggravated Oral Squamous Cell Carcinoma (OSCC)" Indian Conference on Bioinformatics held at Vellore Institute of Technology, 24 Nov.

Kartheeswaran D

Kartheeswaran D, Saranya B, Kathiresan S "Mobilization of Delta-6-Elongase (6Elo) to a Plant based Vector for the Production of High Value PUFA in Oilseed Plants" International Conference On Bioinformatics In Health And Food Security held at Department of Bioinformatics, PU, 14-16 Mar.

Narmadhaa S

Narmadhaa Sivagurunathan, Meenu Maniradhan, Vijitha Valsa, Suresh M, Vigil S. Anbiah, Latchoumycandane Calivarathan "Asiatic acid and n-acetylcysteine alleviate acetaminophen-induced hepatotoxicity" 3rd International Conference on Frontiers in Biological Sciences held at NIT Rourkela, Orissa, 5-7 Oct

Narmadhaa Sivagurunathan, Meenu Maniradhan, Vijitha Valsa, Suresh M, Vigil S. Anbiah, Latchoumycandane Calivarathan "Asiatic Acid Augments N-Acetylcysteine-mediated Hepatoprotection Against Acetaminophen-induced Liver Injury" BIOANVESHANA 2024 held at University of Hyderabad, Telangana, 15-18 Feb

WORKSHOPS

S K Farhat

Participated in a 4 days (09-13 Oct 2023) National level Training/Workshop on Malaria & other Vector Borne Diseases Entomology, conducted by the National Center for Vector Borne Diseases Control, Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India.

Sathya Jeevitha B

Participated in a4 days (09-13 Oct 2023) National level Training/Workshop on Malaria & other Vector Borne Diseases Entomology, conducted by the National Center for Vector Borne Diseases Control, Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India.

Rajeev Kumar Bhaskar

Participated in 10 Days (5-10 Mar 2024) National Level Hands-On Training Workshop in Fluorescence Spectroscopy, Confocal Fluorescence/Raman Microscopy and Cellular Imaging Organized by CSIR-NIIST Thiruvananthapuram funded by DST SERB Govt of India

Marykutty Sebastian

Participated in 6 days (4-10 Jan 2024) International Workshop and Hands-On Training on "Chloroplast Bioenergetics" Organized by the Department of Plant Sciences University of Hyderabad funded by SERB Govt of India

Narmadhaa S

Participated in 6 days(29 Jan-3 Feb 2024) Workshop/ Training on "Modern Biology in Health Research" organized by Mahatma Gandhi Medical Advanced Research Institute.

PHD AWARDED

Dr. Akhil Mohanan

Dr. Rajalakshmi Anbalagan

Dr. Samarjit Maharana

SCHOLARS' ACHIEVEMENTS

Mrs. Aiswarya Sudheer C.K.

Awarded 1st Best Poster Presentation at IU-CGGT-University of Kerala, Trivandrum, (Nov 2023)

Mr. I.K. Nidhin

Awarded as Best Oral Presentation at Bharathidasan University (BDU), Trichy, (Jan 2024)

Mr. Kartheeswaran D

GATE Qualified in Biotechnology (March 2024)

Mrs. Meenu Maniradhan

Awarded as 1st and 2nd Best Oral Presentation at Navrachana University, Vadodara (Sep 2023) and University of Hyderabad, Hyderabad (Feb 2024)

Mrs. S.K. Farhat

Awarded as Best Oral Presentation at the Department of Zoology, A.D.M College for Women (March 2024)

Conclusion.

As we close this issue, we want to express our heartfelt gratitude to you, our readers, for your unwavering support. Your feedback and engagement drive us to continue providing insightful, thought-provoking content. We look forward to bringing you more captivating stories and perspectives in the next volume.

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2024

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