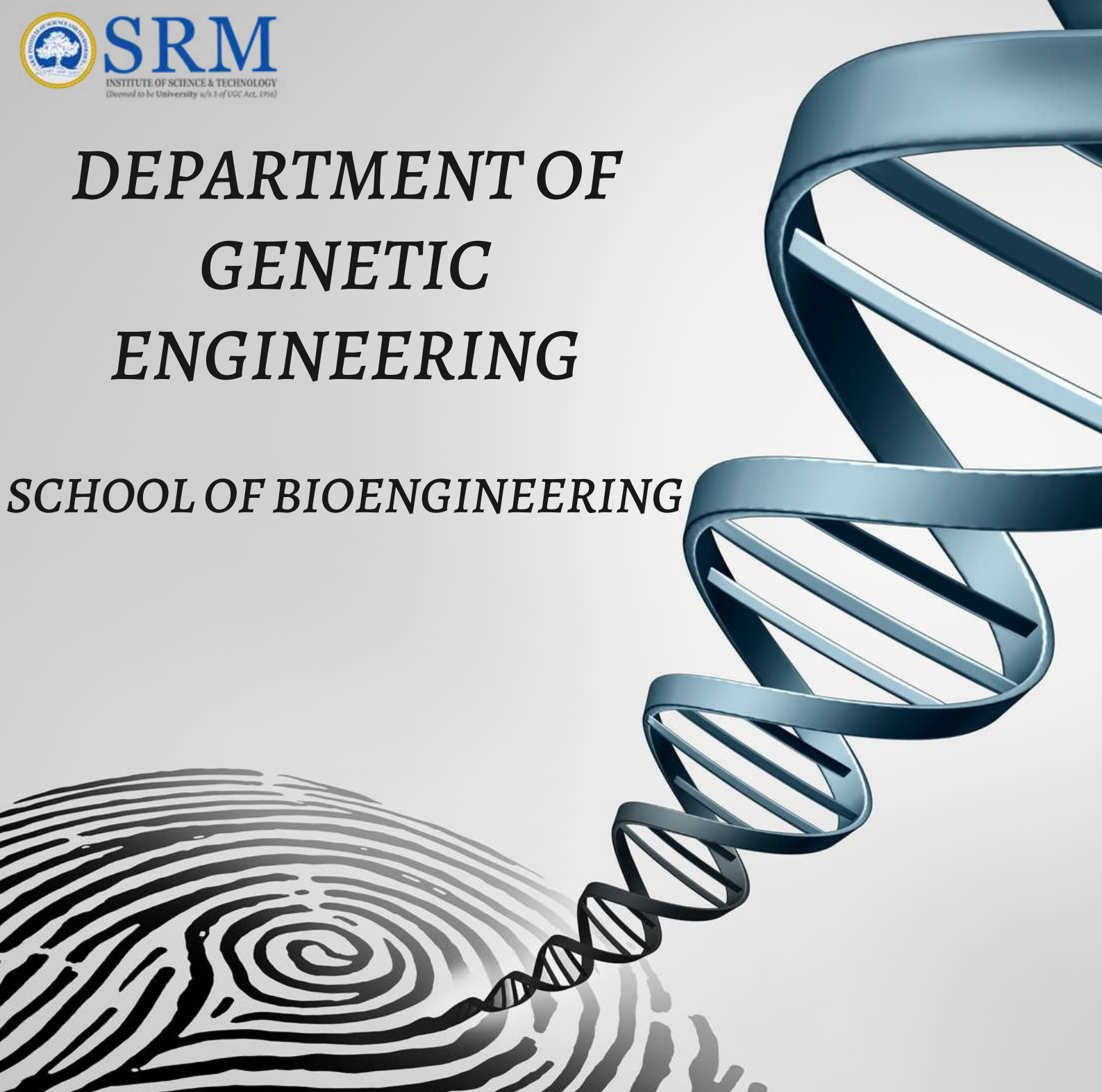


*DEPARTMENT OF
GENETIC
ENGINEERING*

SCHOOL OF BIOENGINEERING



THE GENETICIST

VOLUME TWO
ISSUE 1

JULY TO DECEMBER
2022

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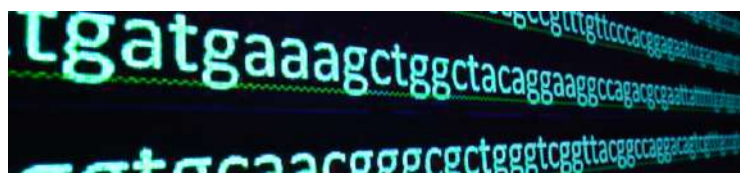
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“

"Gratitude makes sense of our past, brings peace for today, and creates vision for tomorrow"

— Melody Beattie

”

I am happy that the Department of Genetic Engineering, School of Bioengineering, SRM Institute of Science and Technology has taken steps to bring out the second volume of the newsletter, "The Geneticist". The Department of Genetic Engineering is an vibrant department at SRMIST and this newsletter highlights the achievements of the undergraduate and postgraduate students, research scholars and faculty. This kind of projection will encourage competitive spirit among students and faculty so that they can reach a new

milestone in genetic engineering research. This will also motivate youngsters to learn new developments in biological research and come out innovative ideas for exploration and validation. In addition, this will also make faculty and students from other disciplines to know more about the academic and research activities in the Department of Genetic Engineering and initiate multidisciplinary research. I congratulate the team responsible for bringing out the newsletter "The Geneticist" and wish this endeavor all the best.



Dr. M. Vairamani

Chairperson

School of Bioengineering
SRM Institute of Science
& Technology

“

“Don't be pushed around by the fears in your mind. Be led by the dreams in your heart.”

— Roy T. Bennett

”

We are pleased to share the first issue of the second volume THE GENETICIST. Genetic Engineering is one of the specialized fields of study that fuels high-quality research, both basic and applied, involving human, animal, plant, and microorganisms. The E-newsletter showcases the high-quality research work to improve reader access, promote interdisciplinary collaborations, and acclaim more recognition to the faculty, scholars, the department and eventually the Institute. I firmly believe that this small step forward would motivate the faculty to form alliances, collaborate

cross-discipline, attract external funds, and deliver through patents and products. I would also like to take this opportunity to thank the contributors of the newsletter. I wish our readers the very best in all their endeavours!



Dr. M. Ramya
Head, Department of
Genetic Engineering
School of Bioengineering
SRM Institute of Science
&Technology

EDITOR'S DESK

Dear Readers,

We take immense pleasure in announcing the release of the first issue of the second volume of THE GENETICIST, that showcases the activities and achievements of our students and faculty in the last six months (July 2022- December 2022)

This magazine delivers the contribution of students and faculty members towards teaching, research and consultancy. It also highlights the numerous accomplishments by the members of the department in research article publication, acquiring grants and fellowship, patenting and IPR.

We thank Chairperson, School of Bio-engineering, HOD, staff and students of Department of Genetic engineering for their contributions and support in framing this magazine.

Happy Reading!

Dr. G. Ganesan and Dr. Sitaram Harihar



THE TEAM BEHIND THIS EDITION



**Manvi
Shrimal**



Shriya P



**Kritika
Malhotra**



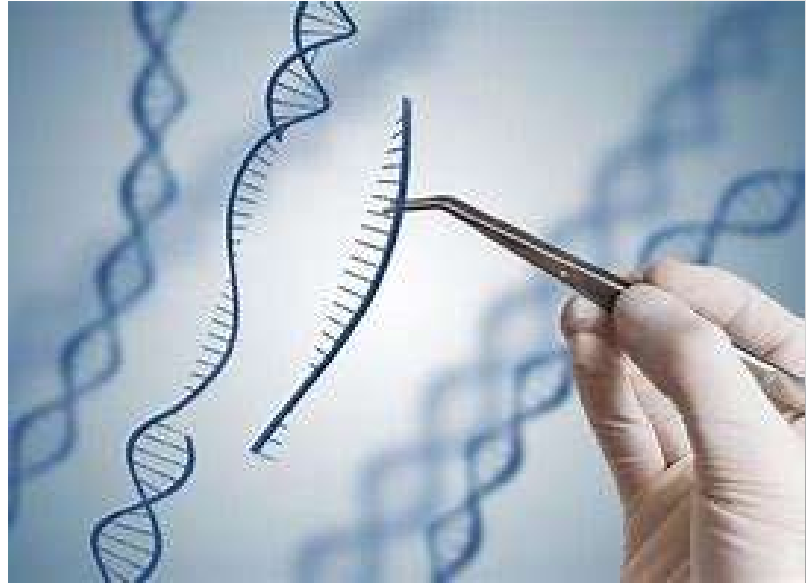
**Dr. G.
Ganesan**



**Dr. Sitaram
Harihar**

ABOUT THE DEPARTMENT

The world has come to realize the importance of Genetic Engineering in diagnosis of genetic disease, identification of pathogenic mutations, creating genetically modified organisms and producing better varieties of crops with higher yield. The rapid scientific progress that led to the development of DNA sequencing technologies and gene editing approaches have emphasized the necessity to combine the classical field, such as, genetics with fast emerging fields, like genomics and genome editing. Genetic Engineering is the backbone of biotechnology and the opportunities for a genetic engineer in clinical and applied genetics today and in the future are boundless. Started in the year 2004, the department aims to produce genetic engineers who excel in the field of genomics and gene editing. The department has brought together state of the art laboratories and a highly experienced and dedicated team of faculty. The department takes immense care to impart knowledge in a highly interactive mode, hands-on training in advanced molecular biology techniques and cutting-edge research opportunities.



VISION AND MISSION



To emerge as a center of excellence in genetic engineering and to provide research oriented holistic learning experience that enables the graduates blossom into intellectually capable, professionally committed and socially responsible individuals.

- Built-in mechanism to inculcate professional commitment, ethical values and social relevance.
- Designing continually evolving curriculum with emphasis on research-oriented learning and creative thinking towards basic and applied research.
- Attracting faculty, students and scholars with strong desire for research and providing them with inspiring research environment to excel in thrust areas of the department.



RESEARCH LABS AND FACILITIES

The Department has various state-of-the-art equipment which enable the faculties, research scholars, M.Tech and B.Tech. students to conduct their research in various fields like cancer biology, stem cell technology, microbial genetics, developmental biology, and plant genetic engineering. These equipments are also utilized by other department scholars and academicians as part of the consultancy services offered by the Department of Genetic Engineering.

Teaching Labs

- Bio separation Lab
- Genetic Engineering Lab

Research Labs

- Scholar Lab I
- Scholar Lab II
- Common Research Facility
- Stem Cell Biology Lab

Funded Labs

- Genomics Lab
- Immuno Genetics Lab
- Membrane Protein Interaction Lab
- Molecular Genetics Lab
- Plant Virology Lab
- Sponsored Research Lab
- Zebrafish Genetics Lab
- Cancer Biology Lab
- Computational Biology Lab

LIST OF SOPHISTICATED INSTRUMENTS AVAILABLE FOR RESEARCH AND CONSULTANCY SERVICES

- Karyotyping System and Olympus Microscope - BioGen Technologies
- Fluorescence Spectrometer - Hitachi F4700
- Real Time PCR - Applied Biosystems
- Air Jacket CO2 Incubator - Nectranova
- Particle Delivery System (GeneGun) - Biorad
- Plant Growth Chamber - Sanyo
- FPLC - Bio Rad Laboratories
- Inverted Trinocular Fluorescence Microscope - Nikon ts2fl
- Vacuum Concentrator - Eppendorf
- HPLC - Waters
- Biosafety Class-II Laminar Air Flow - Esco
- Zebrafish Aquarium System - Tecniplast
- Micromanipulator - Wpi
- Nanodrop - Thermo Scientific
- Electroporator - Bio Rad Laboratories
- PCR Machines - Agilent, Eppendorf, Applied Biosystems
- Stereozoom Microscope- Weswox STM-80
- Inverted Tissue Culture Trinocular Microscope- Magnus

RESEARCH PUBLICATIONS

Kudos to the students and faculties, Genetic Engineering for their dedication to innovative research and sincere efforts to publish them in highly acclaimed journals. The Department's research is summarized below Kudos to the students and faculties, Genetic Engineering for their dedication to innovative research and sincere efforts to publish them in highly acclaimed journals.

Total Papers	49
Corresponding author	31
Co-author	18
High IF	13.4
Average Impact Factor	4.2

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01

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42

KN ARULJOTHI, K KUMARAN, SOWMYA SENTHIL, AB NIDHU, NASHITA MUNAFF, VB JANITRI, RANGASAMY KIRUBAKARAN, SACHIN KUMAR SINGH, GAURAV GUPT, KAMAL DUA, ANAND KRISHNAN (2022) IMPLICATIONS OF REACTIVE OXYGEN SPECIES IN LUNG CANCER AND EXPLOITING IT FOR THERAPEUTIC INTERVENTIONS. MEDICAL ONCOLOGY. (2022) IF: 3.732
DOI.ORG/10.1007/S12032-022-01900-Y

RESEARCH PUBLICATIONS

JULY-DECEMBER 2022

43

IAL-KHDHAIRAWI, AHMAD, DANISH SANURI, RAHMAD AKBAR, SU DATT LAM, SHOBANA SUGUMAR, NAZLINA IBRAHIM, SYLVIA CHIENG, FAREED SAIRI. MACHINE LEARNING AND MOLECULAR SIMULATION ASCERTAIN ANTIMICROBIAL PEPTIDE AGAINST KLEBSIELLA PNEUMONIAE FROM PUBLIC DATABASE. COMPUTATIONAL BIOLOGY AND CHEMISTRY (2022) IF: 3.737
DOI.ORG/10.1016/J.COMPBIOLCHEM.2022.107800

44

PARESH PRABHU, MEDHA RAO, GOKULAKRISHNAN MURUGESAN, MANOJ KUMAR NARASIMHAN, THIVAHARAN VARADAVENKATESAN, RAMESH VINAYAGAM, NGUYEN THUY LAN CHI, ARIVALAGAN PUGAZHENDHI, RAJA SELVARAJ (2022) SYNTHESIS, CHARACTERIZATION AND ANTICANCER ACTIVITY OF THE GREEN-SYNTHESIZED HEMATITE NANOPARTICLES. ENVIRONMENTAL RESEARCH. (2022) IF: 8.413
DOI: 10.1016/J.ENVRES.2022.113864

45

CHANDRAKUMAR SUBRAMANIAN, SOLAIPRIYA SOLAIRAJA, NAGESWARA RAO DUNNA, SIVARAMAKRISHNAN VENKATABALASUBRAMANIAN (2022) TOXICITY, SAFETY, AND PHARMACOTHERAPEUTIC PROPERTIES OF URSOLIC ACID: CURRENT STATUS, CHALLENGES, AND FUTURE PERSPECTIVES AGAINST LUNG CANCER. CURRENT BIOACTIVE COMPOUNDS. (2022)
DOI: 10.2174/1573407219666221024142326

46

KEVINA SONAWALA, SATISH RAMALINGAM, IYAPPAN SELLAMUTHU (2022) INFLUENCE OF LONG NON-CODING RNA IN THE REGULATION OF CANCER STEM CELL SIGNALING PATHWAYS. CELLS. (2022) IF: 7.666
DOI: 10.3390/CELLS11213492

47

RAJIB DHAR, BIKRAMJIT BHATTACHARYA, DEBASHMITA MANDAL, ARIKKETH DEVI, NANASAHEB D THORAT (2022) EXOSOME-BASED CANCER VACCINE: A CUTTING-EDGE APPROACH – CORRESPONDENCE. INTERNATIONAL JOURNAL OF SURGERY. (2022) IF: 13.4
DOI: 10.1016/J.IJSU.2022.106993

48

WILLIAM ROSTAIN, TOM ZAPLANA, MAGALI BOUTARD, CHLOÉ BAUM, SIBYLLE TABUTEAU, MARY SANITHA, MOHANDASS RAMYA, ADAM GUSS, LAURENCE ETTWILLER, ANDREW C TOLONEN. TUNING OF GENE EXPRESSION IN CLOSTRIDIUM PHYTOFERMENTANS USING SYNTHETIC PROMOTERS AND CRISPR. ACS SYNTHETIC BIOLOGY. (2022) IF: 5.249
DOI: 10.1021/ACSSYNBIO.2C00385

RESEARCH PUBLICATIONS

JULY-DECEMBER 2022

49

RAVI GOR, ILANGO VAN RAMACHANDRAN, SATISH RAMALINGAM.
TARGETING THE CANCER STEM CELLS WITH PHYTOCHEMICALS IN
ENDOCRINE CANCERS. CURRENT TOPICS IN MEDICINAL CHEMISTRY (2022).

IF: 3.57

DOI: 10.2174/1567205020666221114112814

BOOK CHAPTERS

01

DR. DEVI, ANJALI P. PATNI, MURUGESAN AMIRTHA VARSHINI PUBLISHED A BOOK CHAPTER TILTED HANDBOOK OF ANIMAL MODELS AND ITS USES IN CANCER RESEARCH- USE OF STEM CELLS ON ANIMAL MODEL OF CANCER RESEARCH. ISBN 978-981-19-1282-5

02

ANIRUDH SANTOSHKUMAR, SRIJIT RAY, SAMYUKTA NARAYANAN, DHRUV KUMAR AND SITARAM HARIHAR (2022). MITOPHAGY IN CANCER AND CANCER STEM CELLS: A ROLE IN METABOLIC REPROGRAMMING, ELSEVIER, CHAPTER-9, ISBN - 9780323998796

03

MEGALA JAYARAMAN, DIVEYAA SIVAKUMAR, PARIJAT DUTTA, KHYATI ARORA, HANUMANTH RAO BALAJI RAGHAVENDRAN, AND KAYALVIZHI NAGARAJAN. A STUDY ON THE ROLE OF PHYTOCHEMICALS IN THE PRECLINICAL NEURONAL CANCER MODEL, IN: HANDBOOK OF ANIMAL MODELS AND ITS USES IN CANCER RESEARCH. ISBN - 978-981-19-1282-5

04

ANDRABI, Q., RAMACHANDRAN, I., RAMACHANDRAN, IK., AND RAMALINGAM, S. RNA- INTERFERENCE IN EXPERIMENTAL ANIMAL MODELS: ITS APPLICATION IN CANCER RESEARCH AND THERAPY, IN: HANDBOOK OF ANIMAL MODELS AND ITS USES IN CANCER RESEARCH. SPRINGER NATURE. ISBN - 9789811938238

05

RAJA, N.S., DASH, M. (2022). APPLICATION OF NANOPARTICLES IN SOFT TISSUE ENGINEERING. IN: AFAQ, S., MALIK, A., TARIQUE, M. (EDS) APPLICATION OF NANOPARTICLES IN TISSUE ENGINEERING. SPRINGER, SINGAPORE. ISBN: 978-981-16-6197-6

06

ANJALI P. PATNI, DANNIE MACRIN, DIBYO MAITI, AND ARIKKETH DEVI (2022). 3D AND 4D NANOPRINTING FOR TISSUE REGENERATION IN: APPLICATION OF NANOPARTICLES IN TISSUE ENGINEERING. ISBN 978-981-16-6197-6

RESEARCH DEVELOPMENTS

DC, CV and Synopsis Meeting

01

MS. SRAVYA - DR. SWAPNA GEETANJALI- SYNOPSIS MEETING - 06.07.22

- 1.DR. SELVARAJAN R (ICAR- NATIONAL RESEARCH CENTRE FOR BANANA)
- 2.DR. MAKESH KUMAR (ICAR- CENTRAL TUBER CROPS RESEARCH INSTITUTE)

02

MR. RAJIB DHAR - DR. DEVI - CV MEETING - 06.07.22

- 1.DR. JACOB THANISLASS (RAJIV GANDHI INSTITUTE OF VETERINARY EDUCATION AND RESEARCH)
- 2.DR. SURAJIT PATHAK (CHETTINAD ACADEMY OF RESEARCH AND EDUCATION)
- 3.DR. SUDHANDHIRAN GANAPASAM (UNIVERSITY OF MADRAS)

03

MS. ANUSHA M. DR. M. PARANI - DC MEETING ON 03.08.22.

- 1.DR. S. KATHIRESAM, CENTRAL UNIVERSITY OF TAMILNADU
- 2.DR. KALAISELVI SENTHIL - AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN

04

MRS. KRISHNAVENI S - DR. SITARAM HARIHAR - CV MEETING- 16/8/22

- 1.PROF. SOLOMON FD PAUL (SRI RAMACHANDRA INSTITUTE FOR HIGHER EDUCATION AND RESEARCH)
- 2.PROF. ADAIKKALAM VELLAICHAMY (CENTRE FOR BIOTECHNOLOGY, ANNA UNIVERSITY)
- 3.DR. MATHIVANAN JOTHI (NATIONAL INSTITUTE OF MENTAL HEALTH AND NEUROSCIENCE (NIMHANS))

05

MR. KUMARAN - DR. ARULJOTHI - DC MEETING ON 10/8/22

1. DR. VETRISSELVI, PROFESSOR, SRI RAMACHANDRA MEDICAL COLLEGE
2. DR. N RAVI SUNDARESAN, ASSOCIATE PROFESSOR,, DEPARTMENT OF MICROBIOLOGY AND CELL BIOLOGY, INDIAN INSTITUTE OF SCIENCE

06

MR. MURSALEEN BABA - DR. HABEEB. S. K. M DC MEETING

- 1.PROF. SHANDAR AHMAD FROM JNU, NEW DELHI AND
- 2.PROF. SABITHA K FROM ADYAR CANCER INSTITUTE, CHENNAI

RESEARCH DEVELOPMENTS

DC, CV and Synopsis Meeting

07

MS. LIZHA MARY L- DR. R SATHISH- SYNOPSIS MEETING ON 07/10/22.

1. DR. MANOJ GARG, PROFESSOR AND ASSISTANT DIRECTOR IN AMITY UNIVERSITY AND
2. DR. ILANGO VAN, DEPARTMENT OF ENDOCRINOLOGY, DR. ALM, PG INSTITUTE OF BASIC MEDICAL SCIENCES, UNIVERSITY OF MADRAS- 2

08

MS. HIMAJA K - DR. USHA- CV MEETING ON 14/10/22

- 1.DR. ILANGO VAN, ASSOCIATE PROFESSOR, UNIVERSITY OF MADRAS
- 2.DR. ARUN V, ASSOCIATE PROFESSOR, SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION AND RESEARCH.
- 3.DR. GAYATHRI VENKATARAMAN, PRINCIPAL SCIENTIST, MS SWAMINATHAN RESEARCH FOUNDATION

09

MR. ARAVINDHAN G- DR. KIRANKUMAR- DC MEETING ON 07/10/22

1. EMMANUVEL RAJAN, PROFESSOR IN BHARATHIDASAN UNIVERSITY AND
2. DR. SUDHANDHIRAN, PROFESSOR IN UNIVERSITY OF MADRAS

Pre-PhD Presentation

01

NAME OF THE STUDENT: LIZHA MARY L

TITLE: TARGETING CANCER STEM CELLS FOR COLON CANCER TREATMENT

DATE OF PRE-PHD: 23.08.2022

RESEARCH SUPERVISOR: DR. R. SATISH

MOU SIGNED

01

A MEMORANDUM OF UNDERSTANDING WAS SIGNED BETWEEN SRM IST AND BIOZONE RESEARCH TECHNOLOGIES TO CARRY OUT THE COLLABORATIVE PROJECT TITLED 'FIELD EVALUATION OF WATER USE EFFICIENT GROWTH PROMOTING BACTERIA-PLANT ASSOCIATION FOR INCREASED BIOMASS' WITH DR. REX ARUNRAJ AS THE PRINCIPAL INVESTIGATOR FROM SRM IST.

RESEARCH GRANTS AND FELLOWSHIP

Investigator	Title of the Project	Funding agency	Amount (lakhs)
Dr. Kirankumar (Coordinator & PI) & Dr.Satish (PI)	Developing cancer models using CRISPR-Cas9 technique in zebrafish	DBT	94.42 (175.00)
Dr.Satish (PI) & Dr.N.Selvamurugan (Co-PI)	RNA Binding Protein Pumilio-1 In Colon Cancer Progression and Metastasis	DST SERB	53.00 (61.92)
Dr.Kirankumar (PI)	A zebrafish model for VHL and hypoxia signaling in tumorigenesis	DST SERB	39.16 (46.00)
Dr. M. Parani	EDII-I-I Innovation Voucher Programme	Entrepreneurship Development and Innovation Institute, Chennai - Micha Life Sciences	2.50
Dr.M.Ramya (PI) Dr.Rathinasabapathi (Co PI)	Development of Point of care Apta-sensor for Early and Rapid Detection of Leptospirosis	ICMR	(17.5) 32.6
Ms. Lizha Mary (ICMR RA) Mentor (Dr. Satish) Fellowship	Targeting Cancer Stem Cells for Colon Cancer Treatment	ICMR	3.14
Dr.Sitaram (PI) & Dr.Kirankumar (CoPI)	A Proof-of-Principle Study for Metastasis Suppressor Gene Induced Tumor Dormancy in Triple-Negative Breast Cancer	ICMR	37.65
Mr. Ananthakrishna Tantry (Inspire Fellow) Mentor (Dr. Kirankumar) Fellowship	Role of Tubb5 in Zebrafish Brain Development	DST INSPIRE	4.80

RESEARCH GRANTS AND FELLOWSHIP

Investigator	Title of the Project	Funding agency	Amount (lakhs)
Dr. Habeeb SKM (PI)	Genomic profiling of Covid-19 variants, Virtual Screening and Molecular Dynamics Simulation of Known Therapeutic Peptides Against Covid-19 for Peptide Re-purposing	SATU 2022	
Dr. S Shobana	Structure-based identification and optimization of selective JAK inhibitors as a potential candidate for treating alopecia	SATU 2022	
Dr. Rexarunraj	Field Evaluation of water use efficient growth promoting bacteria-plant association	Biozone Research Technologies, Research Institute, Kolapakkam	1.21

SRM EXCELLENCE GRANT

Investigator	Title of the Project	Amount (lakhs)
Dr. P. Senthilkumar	Identification of miRNAs expressed upon UV stress and its role on photosynthesis in orzya sativa a.	2.5

PATENT PUBLICATIONS

TITLE: A METHOD FOR DETECTING TARGET MATERIAL BY USING SINGLE STRANDED DNA APTAMERS

THIS PATENT WAS PUBLISHED BY DR. RAMYA MOHANDASS AND HER SCHOLAR ARCHANA VISHWAKARMA.

**APPLICATION NO. : 202241038353 A
PATENT FILING DATE: 04/07/22
PUBLICATION DATE: 22/07/22**



A METHOD FOR DETECTING TARGET MATERIAL BY USING SINGLE STRANDED DNA APTAMER

ARCHANA VISHWAKARMA

DR. RAMYA MOHANDASS



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241038353 A

(19) INDIA

(22) Date of filing of Application :04/07/2022

(43) Publication Date : 22/07/2022

(54) Title of the invention : A METHOD FOR DETECTING TARGET MATERIAL BY USING SINGLE STRANDED DNA APTAMER

STUDENTS SCHOLARSHIP/ FELLOWSHIP

In 2022, thirteen students from the Department of Genetic Engineering received Scholarship/Fellowship.

Full Time (PhD)	69
Part time (PhD)	4
JRF	3
SRF	1
DST INSPIRE Fellow	2
Research Associate	2
Project assistant	1

STUDENTS SCHOLARSHIP/ FELLOWSHIP

GATE Scholars doing PhD: 10

Name of the Scholar	GATE	Guide	Year
Gor ravi manishkumar	GATE	Dr.R.Satish	2019
Prasanna Venkatesh	GATE	Dr. Rexarunraj	2021
Shinde Nikhil Dhanaji	GATE	Dr.Raja	2019
Saranya E	GATE	Dr.M.Ramya	2019
Yogesan M	GATE	Dr.M.Ramya	2020
Amirtha Varshini M	GATE	Dr.A.Devi	2021
Anusha M	GATE	Dr.M.Parani	2019
Ganaprakash J	GATE	Dr. Swapnageetanjali	2020
Safana Farveen	GATE	Dr. KN. Rajnish	2022
Kumaran K	GATE	Dr. N. Aruljothi	2022

DST Inspire Fellowship

AnanthaKrishna Tantry M S

Sivasankari

CONSULTANCY

The Department of Genetic Engineering also promotes research and consultancy services in the areas of human genetics, animal sciences, plant sciences and microbial sciences.

Category 1 and Category 2 consultancy:

1. Dr. Manoj Kumar has generated Rs. 1520/- towards the services offered for the usage of Lyophilizer.
2. Dr. Raja Natesan has generated Rs. 531/- towards the services offered for the usage of Fluorescence Spectrometer.

A total revenue of Rs. 2,051 was generated by the Department of Genetic Engineering, SRM IST for the period from July to December 2022 through consultancy.

STUDENTS EVENTS PARTICIPATION IN CONFERENCE / WORKSHOP / WEBINAR

Department of Genetic Engineering promotes students and faculties to attend conferences and workshop to update their knowledge in R&D. In 2022, M.Tech students and Research Scholars have participated in several conference and workshops conducted by different institution

Student Name	Reg.No	Event Name	Date
Vedant Gaud	RA2112024010003	Online Summer Program, Taipei Medical University	JULY 2022
Prayukta Padelkar	RA2112024010013	Drug Discovery and Development, DE<code>LIFE	JULY 2022
Manvi S	RA2011037010059	Internship - Dept. of Endominology, University of Madras	01.08.22-09.08.22
Nithin Karthic B	RA2011037010063	Internship - Dept. of Endominology, University of Madras	01.08.22-09.08.22
Akash Roy	RA1911037010061	Workshop on skill Development Course of CSIR-IICB	22.08.22-02.09.22

CONFERENCES & SCIENTIFIC ACTIVITIES OF RESEARCH SCHOLARS AND M. TECH STUDENTS

Name	Guide	PG/PhD	Activity	Date	Outcome
Sree kathyayani	Dr J Megala	PhD	International Conference on Dynamics of Biotechnology, Stell Maris College	2/8/22 - 3/8/22	Paper Presentation
Jenisha, Vetriselvi, Prasanna	Dr. Rex Arunraj	PhD		2/8/22 - 3/8/22	Paper Presentation
Jayanthi P/ Gnanaprakash J/ Neha Angelin	Dr. Swapna	PhD		2/8/22 - 3/8/22	Best Poster Presentation - Award
Amirtha Varshini M	Dr. Devi	PhD		2/8/22 - 3/8/22	Paper Presentation
Julie Rebecca Joseph Mathari	Dr. Habeeb	PhD	Indo-US International Conference on Applications of Nanotechnology in Biology, Biotechnology and Biopharmaceutics, Crescent Institute of Science and Technology	11/8/22 - 12/8/22	Paper Presentation
Deepth Anithkumar Vaishnavi	Dr. Senthilkumar	PhD	International conference on Dynamics Biotechnology	2/8/22 - 3/8/22	Paper Presentation

CONFERENCES & SCIENTIFIC ACTIVITIES OF RESEARCH SCHOLARS AND M. TECH STUDENTS

Shafana Dharshali	Dr. Rajnish	PhD	International conference on Dynamics Biotechnology	2/8/22 - 3/8/22	Paper Presentation
Karthikeyan	Dr. Rathinasabapathi	PhD		2/8/22 - 3/8/22	Oral Presentation
Calmly	Dr. Shobana	PhD		2/8/22 - 3/8/22	Best Poster Presentation - Award
Bavya	Dr. Thirumurthy	PhD		2/8/22 - 3/8/22	Paper Presentation
Sivadharshini	Dr. Ramya	PhD		2/8/22 - 3/8/22	Paper Presentation
Pratiba V	Dr. J Megala	PhD	International conference on Advances in Molecular Diagnostics Precision Medicine	15/9/22- 17/9/22	
Sree Kathyayini	Dr. J Megala	PhD		15/9/22- 17/9/22	
Lakshmi S	Dr. J Megala	PhD		15/9/22- 17/9/22	
Karthikeyan	Dr. Rathinasaba pathi	PhD		15/9/22- 17/9/22	
Archana R	Dr. Raja	PhD		15/9/22- 17/9/22	

CONFERENCES & SCIENTIFIC ACTIVITIES OF RESEARCH SCHOLARS AND MTECH STUDENTS

Tanuja	Dr. M. Parani	PhD	International conference on Advances in Molecular	15/9/22-17/9/22
Ravichandran	Dr. M Parani	PhD	Diagnostics Precision Medicine	15/9/22-17/9/22



Ms. Archana Vishwakarma of the Department of Genetic Engineering at SRM University, Kattankulathur was one of three researchers who received the young scientist award for her work on Aptamer-based Leptospirosis detection from the Nobel Laureate Dr. Ada Yonath.

SEMESTER ABROAD PROGRAM

Semester Abroad Program (SAP) is one such program where SRMIST is recognized across the globe by providing its student's unique international exposure and global opportunities to enhance their skills by working with eminent professors of the universities and accelerate their personal and career growth in India and Overseas. Also, it provides an opportunity to work in cross-cultural and multi-national environment. We are proud to say that about 303 students have availed SAP from our department and this would not be possible without our faculty members, who made their effort in making the collaborations successful. We believe that SAP will add a new dimension to our student's research interests and develop expertise in various techniques which in turn will empower them with self-confidence and to become independent researchers.



**Aditya
Chandrasekar**

SAPIANS 2022



**Satabdi
Mohanty**

Name	Degree	Year	Institution	Country
Aditya Chandrasekar	B.Tech	2022	Harvard University	USA
Shreya Kewalramani	B.Tech	2022	Harvard University	USA
Satabdi Mohanty	B.Tech	2022	Harvard University	USA

PLACEMENTS

Campus Placements: 12 students from the Department of Genetic engineering were placed majorly in business analytics companies. The average and the highest pay package of 5.79 lakhs and 14.25 lakhs per annum respectively.

Name of Student	Course	Placed in Company	Job Profile Title	CTC (lakhs)
Aditi Gupta	B. Tech - Genetic Engineering	Fractal Analytics	Imagineer	14.25
Priya Ray	B. Tech - Genetic Engineering	unschool	Business Development Associate	6.5
Yuvraj Dasgupta	B. Tech - Genetic Engineering	Leadsquared	Sales Development Representative	6
Manshee Singh	B. Tech - Genetic Engineering	TheMathCompany	Analyst	5.5
Satabdi Mohanty	B. Tech - Genetic Engineering	Cognizant	GenC Pro - 2023 Campus Phase- 1	5.4
Khushi Gupta	B. Tech - Genetic Engineering	Zifo RnD Solutions	GET	4.76
Chayanita Kumari	B. Tech - Genetic Engineering	Zifo RnD Solutions	GET	4.76
Saumya U Upadhyay	B. Tech - Genetic Engineering	HCL Technologies	GET	4.25
Khushi Gupta	B. Tech - Genetic Engineering	HCL Technologies	GET	4.25
Sweta K K	B. Tech - Genetic Engineering	HCL Technologies	GET	4.25
Logeshwaran K	B. Tech - Genetic Engineering	Intellipaat Software Solutions Pvt Ltd	Business Development Trainee	3.84
S P Suvaasni	B. Tech - Genetic Engineering	Tata Consultancy Services	GET/PGET - NQT - NINJA	NA

PROFESSIONAL MEMBERSHIPS

The faculty of Genetic Engineering department have registered the membership in different professional body as lifetime member/Annual member.

Sr.no	Name of the faculty	Name of the professional body in which membership was obtained	Annual /Life Membership
1	V. Sivaramakrishnan	Indian society of chemists and biologists (India)	Life Member
2	Habeeb. S. K. M	Society of Biological Chemists (India)	Life Member
3	Thirumurthy M	Society of Biological Chemists (India)	Life Member
4	Raja N S	Society of Biological Chemists (India)	Life Member
5	Anand T	Society of Biological Chemists (India)	Life Member
6	Rajnish N	Society of Biological Chemists (India)	Life Member
7	Satish	Society of Biological Chemists (India)	Life Member
8	Rex Arunraj	Society of Plant Biochemistry and Biotechnology	Life Member
9	Aruljothi N	European Association for Cancer Research	Life Member
10	Raja N S	Indian Association of Cancer Research	Life Member
11	Rathinasabapathi	The Institution of Engineers (India) - life time member	Life Member
12	Manoj Kumar	Tamilnadu Pharmacy Council (India)	Life Member
13	Rathinasabapathi	The Indian society of human genetics	Life Member
14	Sitaram Harihar	Indian Association of Cancer Research	Life Member

PROFESSIONAL MEMBERSHIPS

Sr.no	Name of the faculty	Name of the professional body in which membership was obtained	Annual /Life Membership
15	Anand T	International Association of engineers and computer scientist	Life Member
16	Swapna Geetanjali A	Indian Phytopathological Society	Life Member
17	Usha B	The PCOS Society	Life Member
18	Devi.A	The Indian Society of Human Genetics	Life Member
19	Selvarajan E	Indian Socety for Technical Eduction	Life Member
20	Selvarajan E	The Biotech Research Socety of India	Life Member
21	Iyappan	The Indian Society of Human Genetics	Life Member
22	M. Parani	Society for Plant Biochemistry and Biotechnology (Life Member, No. L397)	Life Member
23	M. Parani	Society of Biological Chemists (India)	Life Member
24	M. Parani	Indian Society for DNA Fingerprinting & other DNA Technologies (Life Member, L364)	Life Member
25	M. Parani	Indian Society of Human Genetics (Life Member, No. L/1634/2012)	Life Member
26	M. Parani	Indian Science Congress Association (Life Member, No. L31142)	Life Member
27	M. Ramya	Microbiology Society of India	Life Member
28	M. Ramya	Indian Science Congress Association (Life Member, No. L31142)	Life Member
29	Anand T	Indian Science Congress Association	Annual Member
30	Aruljothi N	Indian Science Congress Association	Annual Member

PROFESSIONAL MEMBERSHIPS

Sr.no	Name of the faculty	Name of the professional body in which membership was obtained	Annual /Life Membership
31	Devi A	Indian Science Congress Association	Annual Member
32	Ganesan G	Indian Science Congress Association	Annual Member
33	Habeeb SKM	Indian Science Congress Association	Annual Member
34	Iyappan S	Indian Science Congress Association	Annual Member
35	Kirankumar S	Indian Science Congress Association	Annual Member
36	Manojkumar N	Indian Science Congress Association	Annual Member
37	Megala J	Indian Science Congress Association	Annual Member
38	Purushothaman N	Indian Science Congress Association	Annual Member
39	Raja N S	Indian Science Congress Association	Annual Member
40	Rajnish KN	Indian Science Congress Association	Annual Member
41	Rathinasabapathi P	Indian Science Congress Association	Annual Member
42	Rexarunraj D	Indian Science Congress Association	Annual Member
43	Satish R	Indian Science Congress Association	Annual Member
44	Selvarajan.E	Indian Science Congress Association	Annual Member
45	Senthilkumar P	Indian Science Congress Association	Annual Member
46	Shobana S	Indian Science Congress Association	Annual Member

PROFESSIONAL MEMBERSHIPS

Sr.no	Name of the faculty	Name of the professional body in which membership was obtained	Annual /Life Membership
47	Sitaram Harihar	Indian Science Congress Association	Annual Member
48	Sivaramakrishnan V	Indian Science Congress Association	Annual Member
49	Swapna Geetanjali A	Indian Science Congress Association	Annual Member
50	Thirumurthy M	Indian Science Congress Association	Annual Member
51	Usha B	Indian Science Congress Association	Annual Member

ONLINE COURSES / FDP/ OTHER

Name of Faculty	Title of FDP/ Conference	Date	Conducted by	Outcome
Dr. Senthilkumar Dr. Aruljothi	DST-STUTI sponsored FDP on "Insights and hands-on training program on techniques in biotechnology	21/7/22-27/7/22	Shoolini University, Solan, Himachal Pradesh	Participated
Dr. Senthilkumar Dr. Satish Dr. Devi Dr. M Ramya Dr. Aruljothi Dr. J Megala Dr. N Manojkumar Dr. Swapna Geetanjali	FDP on Managing Stress for Effective Living	27/6/22-1/7/2022	NITTTR	Participated
Dr. Usha	Four weeks online course "Science of Exercise" on Coursera	1/7/22-20/7/22	University of Colarado	
Dr. Parani	Two weeks online-internship on CRISPR Cas9 Genome Editing Internship		Biotechnika	
Dr. J Megala Dr. Swapna Geetanjali	FDP on Futuristic interventions in Biotechnology: The Road Map ahead	4/7/22 - 8/7/22	Amity University	Participated
Dr. E Selvarajan	5 DAY Faculty Development Program on Interdisciplinary Translational Science & Engineering	25/7/22 - 30/7/22	VIT University, Vellore	Participated

ONLINE COURSES / FDP/ OTHER

Name of Faculty	Title of FDP/ Conference	Date	Conducted by	Outcome
Dr. Swapna	International conference on Dynamics Biotechnology	2/8/22 - 3/8/22	Stella Marys College, Chennai	Best Poster Presentation Award
Dr. J Megala	International conference on Dynamics Biotechnology	2/8/22 - 3/8/22	Stella Marys College, Chennai	Best Poster Presentation Award
Dr. Devi	International conference on Dynamics Biotechnology	2/8/22 - 3/8/22	Stella Marys College, Chennai	Best Poster Presentation Award
Dr. Habeeb	FDP on Emerging Innovative Paradigms in Healthcare and Life Sciences	17/8/22 - 23/8/22	Reva University, Bengaluru	Participated
Dr. Habeeb Dr. Thirumurthy Dr. Shobana Dr. Anand	Three Days Workshop on Quantum Computing	3/8/22 - 5/8/22	SRM IST, KTR	Participated
Dr. Habeeb Dr. Anand Dr. Sivaramakrishnan Dr. Selvarajan E	JCR Certification Series - Orientation Program	19/7/2022	Clarivate	Certificate
Dr. Kirankumar	Workshop on Zebrafish as a Tool for Neurotoxicity Research	16/8/22 - 18/8/22	RUSA sponsored Workshop, Bharathiyar University, Coimbatore	Participation Certificate

ONLINE COURSES / FDP/ OTHER

Name of Faculty	Title of FDP/ Conference	Date	Conducted by	Outcome
Dr. Raja	E-content Development	One week	Teaching Learning centre, Ramanujan college	Certificate
Dr. Devi	Science of Stem Cells	4 weeks	American Museum of Natural History, Coursera	Certificate
Dr. Ramya, Dr. Devi, Dr. Parani, Dr. Manojkumar, Dr. Senthilkumar, Dr. Rathinasabapathy, Dr. Anand, Dr. Megala	International conference on Advances in Molecular Diagnostics Precision Medicine	15/09/22- 17/09/22	Anna University, Chennai	Certificate
Dr. Ganesan	X-Reality Technologies using UNITY	7/12/22- 23/12/22	SRM IST, Tamil Nadu	Certificate
Dr. Sivaramakrishnan Dr. Raja , Dr. Senthilkumar, Dr. B. Usha	Universal Human Values	5 days	AICTE	Certificate

JOURNALS REVIEWER & EDITOR / AWARDS/ RECOGNITIONS

The following faculty have reviewed the scientific article for various publication houses as given below.

Role/ Award	Journal/ Organization	Publisher/ Institute	Faculty
Guest Editor	Molecules	MDPI	Dr. Selvarajan
Keynote Address		MAHSA University	Dr. Ramya
UG Project Viva Voce Examiner and Evaluator		Ramachandra University	Dr. Habeeb. S.K.M.
External Member		IITM	Dr. Sitaram
Question paper setter for final written examination M.Tech (FT)		TANUVAS	Dr E.Selvarajan
Reviewer	World Journal of Surgical Oncology	Springer	Dr. Sitaram
Reviewer	Chemosphere Journal	Elsevier	Dr. Manoj
Reviewer	Archives of Oral Biology	Elsevier	Dr. Rajnish
Azadi Ka Amrit Mahotsav	Ministry of Culture - Government of India	Ministry of Culture - Government of India	Dr. Sivaramakrishnan

JOURNALS REVIEWER & EDITOR / AWARDS/ RECOGNITIONS

Role/ Award	Journal/ Organization	Publisher/ Institute	Faculty
JCR Citation	Clarivate	Clarivate	Dr. Sivaramakrishnan
Reviewer	Indian Phytopathology	Indian Phyto pathological Society	Dr. Swapna Geetanjali
Reviewer	Cancers	MDPI	Dr. Selvarajan
Guest Editor	Environmental Science and Pollution Research	Springer	Dr. Selvarajan
Reviewer	PeerJ	SAGE Publications	Dr. Selvarajan
Reviewer	Process Biochemistry	Elsevier	Dr. Selvarajan
Guest Editor	Frontiers in Agronomy	Frontiers	Dr. Ganesan
Distinguished Adjunct Professor	Saveetha University	Saveetha University	Dr. Parani
Journal Reviewer	BMC Plant Biology; International Journal of Molecular Sciences; Frontiers in Plant Science	BMC; MDPI; Frontiers	Dr. SenthilKumar
Certificate of Appreciation - Research Publications 21-22	SRM IST	SRM IST	All faculty

JOURNALS REVIEWER & EDITOR / AWARDS / RECOGNITIONS

Role/ Award	Journal/ Organization	Publisher/ Institute	Faculty
Journal Reviewer	Biofuels Journal	Taylor & Francis	Dr. Manojkumar
Journal Reviewer	CNS & Neurological Disorders - Drug Targets	Bentham	Dr. Kirankumar
Reviewer of Research Proposal	National Science Centre, Poland	National Science Centre, Poland & Grants Innovation and Product Development South African Medical Research Council	Dr. Devi
External Examiner	SRIHER	SRIHER	Dr. Devi & Dr. Habeeb
Delivered Invited Talk	CCMB CSIR Institute - Hyderabad	CCMB	Dr. Sivaramakrishnan
Delivered Invited Talk	CCMB CSIR Institute - Hyderabad	CCMB	Dr. R. Satish
Reviewer	Animal Sciences	Biomed Central	Dr. Rathinasabapathy
Examiner	Practical Examiner	Vel University	Dr. Sivaramakrishnan

EVENTS PAGE

Dr. G. Ganesan, organized an invited talk delivered by Dr. Ashwanth C Francis, Assistant Professor, Florida State University on the topic Quantitative imaging of HIV-1 transport and nuclear compartmentalization in living cells on 15th July 2022.



Dr. Selvarajan E, organized an invited talk that was delivered by Dr. S. S. Easwaran, Academic Dean, Biocon Academy, Bengaluru on the topic How to Prepare for Biotech Careers on 13th July 2022.



Dr. Rex Arunraj, Dr. Iyappan, Ms. Vetrisevi, Ms. Jenisha, and Mr. Prasanna organized a two-day hands-on-training on recombinant DNA technology for school teachers on 7th and 8th of July 2022.



Dr. Ramya E. organized a talk titled Exploring Research and Education in Germany on 8th July 2022. The event was organized as part of the DAA initiative, and the talk was delivered by Ms. Pragati (B.Tech Genetic Engineering, 2013-2017) Doctoral Researcher, Max Delbrück Center for Molecular Medicine in the Helmholtz Association, Berlin Germany.



Dr. Rajnish organized an offline lecture on 26/8/2022 on the title Viral Hepatitis - HBV and HCV, delivered by Dr. Jason Blackard, Professor, Internal medicine University of Cincinnati College of Medicine, USA.



Dr. Senthilkumar organized an offline lecture on 19/8/2022 on the title Design Thinking, delivered by Dr. K.Sankaramoorthy Convener, SIIC, SRMIST.

Dr. Senthilkumar organized an offline lecture on 22/8/2022 on the title Exploring the journey of idea to patent commercialization, delivered by Dr. Vijay Rathan Lingaa, Techno-Legal Advisor, SIIC, SRMIST.


Dr. Swapna Geetanjali, organized and conducted a workshop on Cloning of viral genome by rolling circle amplification on 11/8/2022 - 12/8/2022. The event had 37 external participants other than the internal participants who were all provided with hands-on training.



Dr. Sivaramakrishnan organized and conducted an Expert Lecture on 8/9/22 by Dr. Ilangovan Ramachandran, University of Madras and Dr. Ayyavu Mahesh Centre for stem cell and cancer genomics AMI BioScience, Coimbatore.


EVENTS PAGE

Dr. Parani organized an Expert lecture delivered by Dr. Varaprasad Kansas State University, USA on 22/9/22.



Department of Genetic Engineering
Organizes an invited talk on

**Current Status of
Climate Change and Sustainable Agriculture**



Dr. P.V. Vara Prasad, PhD
Director, Sustainable Intensification Innovation Lab
University Distinguished Professor, Crop Ecophysiology
Kansas State University, USA

Date: 22.09.2022 Time: 11.00 am

Prof. G. N. Ramachandran Hall
School of Bioengineering

ALL ARE INVITED

Dr. B. Usha organised the 2nd National Symposium on PCOS on 30/9/22. Dr. Rajapriya Ayyappan Srinivaspriya hospital, Chennai was invited as a guest lecturer.



On 22/9/22, faculty members of the Dept. of Genetic Engineering were felicitated by the Dean, School of

Bioengineering for their contributions to research.



The Genetic Engineering Association celebrated World Rabies Day on 28/9/22 along with members of the Genetic Engineering Dept.



The Genetic Engineering Association organized a ResearchWrap session on CRISPR-Cas9 mediated knock in stop codon cassette in zebrafish APC by Dr.V.Hemagowri, on 11/10/22.



The Genetic Engineering Association celebrated October as Breast Cancer Awareness month along with members of the Dept. Students visited classrooms of various departments around the campus to spread awareness about the importance of heredity, screening and prevention in Breast Cancer.



The Genetic Engineering Dept. organised an invited lecture by Dr. Rajasingh Johnson, Associate Professor, University of Tennessee, USA, titled "Is umbilical cord-derived stem cells needed to be stored for future therapy?". The talk took place on 21/10/22.



Department of Genetic Engineering

Special Invited Talk
Dr. Rajasingh Johnson
Associate Professor
College of Dentistry
Department of Bioclinical Research
The University of Tennessee Health Science Center
Memphis, Tennessee 38163
United States of America



"Is umbilical cord-derived stem cells needed to be stored for future therapy?"

Date: 21.10.2022
Time: 11:00 AM
Venue: Dr. G. N. Ramachandran Hall

Co-sponsor: Dr. Sathish Ramalingam
Assistant Professor
Department of Genetic Engineering
SRMIST

The Genetic Engineering Association organized "De Novo Bio," a conclave for biotech startups, on 4/11/22. Founders and interns of biotech startups Climec Labs, Kreator 3D, and ZeroMeat explained their technologies to the attendees. They also addressed entrepreneurship in biotech.



EVENTS PAGE

A hands-on workshop on Molecular Diagnosis of microbial pathogens was conducted on 10/11/22 by Dr.M. Ramya and AURA Biotechnologies.

DIAGNOSIS OF MICROBIAL PATHOGENS **10 NOVEMBER 2022**

Highlights:

- A masterclass in the molecular methods available for rapid, specific, and sensitive detection of pathogens
- Hands-on laboratory experience in nucleic acid-based amplification methods

Registration Fees: Rs.1000/-
Inclusive of training material, certificates & refreshments

Register Here:
<https://forms.gle/Tn3arZ8V23ltoCSX8>

Limited seats!

Organiser:
Dr. M.Ramya
Professor
Dept. of Genetic Engg.
SRM Institute of Science & Technology
Kattankulathur, Tamilnadu - 603203

The Department of Genetic Engineering organized a Hands on Workshop on Shotgun Sequencing and Complete Chloroplast Genome Assembly in two batches (28-30th Nov 2022 and 1-3rd Nov 2022) by Dr. Parani. .



Dr. Habeeb organized a 6-day FDP on In-Vitro and In-Silico Protocols in Metagenomics in hybrid mode from 28/11/2022 to 03/12/2022. The FDP involved hands-on training on several aspects of 16s rRNA amplicon-based metagenomics and its data analysis.

IN-VITRO & IN-SILICO PROTOCOLS IN METAGENOMICS
Hybrid Mode **

About the Faculty Development Program
The program is to provide advanced level training on the approaches that are employed in metagenomic research. It covers Genomics and Bioinformatics which can equip the faculty to practice inter-disciplinary and collaborative research in the future. The training will also be useful to the student community through the participating faculty.

FDP on In-Vitro & In-Silico Protocols in Metagenomics			
Registration & Orientation	DNA Isolation -Workshop	Quantitative & Qualitative Analysis - Gel Electrophoresis	
PCR Amplification Setup & Primer Designing		Library Preparation Lecture, Gel Electrophoresis	
Invited Lecture: Conventional & Modern Microbiology	Lecture on NGS & Metagenomics	Hands-on Linux and Bioinformatics - Lecture	
Installing QIIME	Data Resources for QIIME	Quality control, Denoising & Feature table	
BLAST, Databases, OTU & Phylogeny		Taxonomic analysis	Alpha & Beta Diversity
MORAST		Research Discussion & Validation	
*Schedule/topic may change if required, final schedule will be emailed to the registered participants			
Eligibility Faculty / PhD Scholars / RA		Organizer Dr. S. K. M. Habeeb Associate Professor habeedm@srmist.edu.in	
Limited Seats / First Come First Serve			

SRM Global Meet with Alumni was conducted on 26/11/22 and 27/11/22.

DIRECTORATE OF ALUMNI AFFAIRS PRESENTS
SRM GLOBAL MEET '22

Event Dates: 26th November (Friday) & 27th November (Saturday)
Time: 9:00 PM IST onwards (Saturday) & 10:00 AM IST onwards (Sunday)

Eligibility: Faculty / PhD Scholars / RA
Limited Seats / First Come First Serve

Organizer: Dr. S. K. M. Habeeb, Associate Professor, habeedm@srmist.edu.in

National level Workshop on "Real Time PCR workshop for gene expression analysis" was Organised by SRMIST & Thermo Fisher Scientific Inc.USA on 9/12/22 and 10/12/22.

Kattankulathur, Tamil Nadu
B507 - Genetic Engineering Lab, Department of Genetic Engineering, School of Bioengineering, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu 603203
Lat 12.821785°
Long 80.043615°
12/12/22 10:02 AM GMT +05:30

The Genetic Engineering Dept. organised an invited lecture by Prof. Natarajan Muthusamy, from the Comprehensive Cancer Center, The Ohio State University, USA, on the 20th of December. He delivered a lecture on "Leukemia-Initiating HSCs in Chronic Lymphocytic Leukemia: Myth or Reality?"

Kattankulathur, Tamil Nadu, India
SRM Institute of Science and Technology, R2F SRM Nagar, Kattankulathur, Tamil Nadu 603203
Lat 12.824726°
Long 80.045008°
20/12/22 11:17 AM GMT +05:30

E-CONTENT

A total of 10 teaching videos were developed by the department faculty and were uploaded on the department YouTube channel SRM Genetic Engineering from July to December 2022.

Sl. No	Subject	YouTube Link
01	Animal Biotechnology	https://youtu.be/3MBiDfAkQhc
02	Bioprocess Engineering	https://youtu.be/1c9AqStaMOQ
03		https://youtu.be/Fm2vSjZRkzs
04	Immunology	https://youtu.be/MPd69sOEOSQ
05	Microbiology	https://youtu.be/NcNdG6rwUNs
06		https://youtu.be/ZP_S9puG03Q
07	Molecular Biology	https://youtu.be/zXyYL5giQmA
08		https://youtu.be/El1oclmU7wI
09	Plant Biotechnology	https://youtu.be/YQ8U61Sr8Jo
10		https://youtu.be/aYTVBoGbB30

FACULTY MEMBERS



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