

# **BIO BROADCAST**

## SCHOOL OF BIO SCIENCES AND TECHNOLOGY

Quarterly Newsletter I JUL 2021 - SEP 2021 I ISSUE 9



## **DEAN'S MESSAGE**

It gives me immense joy to bring the ninth issue of SBST - Newsletter Bio-Broadcast with latest updates and information about our school. This issue provides exciting developments from our school from July to Sept of 2021. During this period there have been a lot of achievements from students and faculty members in terms of publications, research project approval from various national and international funding agencies, patents filed, and receiving awards. In addition to the effective teaching and learning through online, our faculty have participated in international events, publications and secured R&D projects. I am happy to inform you that our faculty team organized various faculty-developed programme, virtual seminars, and guest lectures.

Sincerely

Dr. Pragasam V
Professor and Dean
School of Bio Sciences and Technology
Vellore Institute of Technology
Vellore - 632 014, TN, India



#### **INSIDE THIS ISSUE**

EVENTS

PATENTS & GRANTS

FACULTY OUTREACH

FACULTY PARTICIPATION

EXPERT LECTURES

JOURNAL CLUB

PUBLICATIONS (IF > 3)

STUDENT ACHIEVEMENTS

STUDENTS CORNER

#### **EVENTS**

The School of Bio Sciences and Technology organized a Webinar on "Emerging Opportunities in Biotechnology" held on 25th September 2021. The webinar was conducted in the online platform MS Teams with the participation of enthusiastic students of about 248 members.

- Dr. Gowthaman Ramasamy, Co-Founder, CEO, Kultivate India Software, Agri-Tech Startup, Coimbatore delivered his lecture on Career choice for the next decade.
- Mr. Dinesh Kumar. M, Founder, and CEO, Right Salt Technologies, Tiny Dot foods, Chennai delivered his lecture on Bio-entrepreneurship in the food industry.
- Dr. S. Saravanan, Research Institute of Biotechnology, & The Gene Tech, Government Industrial Estate, Salem delivered his lecture on Sustainable Agriculture in the Modern Era.
- Dr. Prakash Srinivasan Timiri Shanmugam, ERT Senior Toxicologist at Avanos Medical, Alpharetta, Georgia, United State delivered his lecture on Career opportunities in toxicology and an introduction to the biocompatibility of medical devices.

### **PATENTS & GRANTS**

Heartiest Congratulations to **Dr. Ramanathan Karuppasamy and Dr. Shanthi Veerappapillai** of SBST for filing a patent entitled "Nebivolol for the management of anaplastic lymphoma kinase positive Non-Small-Cell Lung Cancer". We wish them all the success in their achievement.



Success is where preparation and opportunity meet!

-Bobby Unser

We congratulate Dr. Venkataraman, Associate Professor, SBST on receiving an ICMR sponsored project entitled "Significance of Sulfur Signaling in Hepato-Pancreas protection of Alcoholics, An observational preclinical animal model study of Organ-protective"

Principal Investigator: Dr. Venkataraman,

**Assoc Prof, SBST** 



#### **FACULTY OUTREACH**

- Dr. Vino S delivered a DBT Star college scheme orientation lecture on "Vaccines: Boon or Bane" at Nirmala College for Women, Coimbatore on 4th August 2021.
- Dr. Sajitha Lulu S contributed as a resource person in AICTE training and learning (ATAL) academy online FDP on "Molecular modeling and In-silico drug designing" from 23rd Aug to 27th Aug 2021 at St. Joseph's College of Engineering.
- Dr. Gothandam K.M. served as a keynote speaker and delivered a lecture on "Carotenoids as a functional food" at the international conference on prospects on biological sciences and biotechnology from 23rd to 24th Sep 2021, organized by the Dept. of Biotechnology, Sri Shakthi Institute of Science and Technology, Coimbatore, Tamil Nadu, India.
- Dr. Abhilash V.G. delivered a lecture titled "Genetic Basis of Androgen insensitivity syndrome (Testicular Feminization Syndrome) in a conference "Integrated biotechnological tools and concepts" on 23rd and 24th Sep 2021, organized by SRM Institute of Science and Technology, Tamil Nadu, India.
- Dr. Ramesh N. served as a keynote speaker in the 3rd International conference on physics and mathematics for biological science", Organized by University of Jember, 2021.
- Dr. Ramesh N. has delivered a lecture titled "Exploring Small Live Animal Infection Models to Study the Efficacy of Phage Therapy", in the meeting of Thursday Truth Seekers (TTS), held on 5th August 2021 on behalf of 'WHO Collaboration Centre for Research in Surgical Care Delivery in LMIC' and 'Indian initiative for Management of Antimicrobial Resistance (IIMAR)'.
- Dr. Ramesh N. has delivered a lecture titled "Status on Antibiotic resistance and bacteriophage therapy" in a national webinar conducted by Achariya Arts and Science College, Puducherry, on 3rd Aug 2021.
- Dr. Ramesh N. has delivered a lecture titled "Exploring Small Live Animal Infection Models to Study the Efficacy of Phage Therapy" in the virtual conference conducted on 22-24 July 2021, by the Society for Bacteriophage and Therapy.
- Dr. Ramesh N has participated as a resource person and delivered a talk on "Trends in Antibiotic Resistance and Bacteriophage Therapy" on 05th August 2021 in a National Webinar organized by Chebrolu Hanumaiah Institute of Pharmaceutical Sciences, Guntur in Association with Indian Pharmaceutical Association, Education Division.
- Dr. Anand Prem Rajan served as Resource person in 5 day FDP on 'New Era of Biotechnological Research' and delivered Lecture 'Geomicrobiology and its Industrial Applications' for Sree Narayana Guru College. On 24th September 2021.

#### **FACULTY PARTICIPATION**

- Dr. Vino S completed the three months (15th March to 15th June) intensive training certificate course on Clinical Research and Development offered by the Bangalore BioInnovation Centre.
- Dr. Vino S participated in the SPARC Indo-Singapore online workshop on Cardiovascular Diseases: An Insight to New Advances and their Translational Application from 24th to 29th September 2021 organized by Jamia Millia Islamia, India, and NUS, Singapore.
- Dr. Trupti Patel has completed a hands-on training program on "Molecular techniques to monitor and investigate antimicrobial resistance (AMR) from 15th Sep to 24th Sep 2021 conducted jointly by Royal Veterinary College, UK, Gujarat Biotechnology Research Centre, India and Anand Agricultural University, India.
- Dr. Ramesh N. has presented a poster titled "Therapeutical characterization and functionality of a novel antibacterial endolysin, Lys1140, against multidrug-resistant priority pathogens" at the 31st ECCMID, the European Congress of Clinical Microbiology and Infectious Diseases that took place online from 9 12 July 2021.
- Dr. Ramesh N. has completed online IPC masterclass 4.0 on "COVID-19: Learnings from the past waves to prepare for the next" jointly organized by the Infection Control Academy of India and the University of Hyderabad from June 8 to Jul 6, 2021.
- Dr. Ramesh N. has completed an online training program on "BSL-3 laboratory training and handling practices for Mycobacterium tuberculosis" held from 19th to 25th July 2021.

#### **EXPERT LECTURES - INTERNATIONAL**

- Dr. K M Gothandam organized a guest lecture by Dr. Sambasivam Periyannan, Scientist, Agriculture & Food, CSIRO, Canberra, ACT 2601, Australia on the topic "Biotechnological approaches for effective crop disease management."
- Dr. Radha Saraswathy organized a guest lecture by Dr. Vivek Kumar, Principal Investigator, R&D, Shanghai Proton and Heavy Ion Center, Shanghai, China on the topic "How to set up an Experiment- Considerations to take into account."

#### **EXPERT LECTURES - NATIONAL**

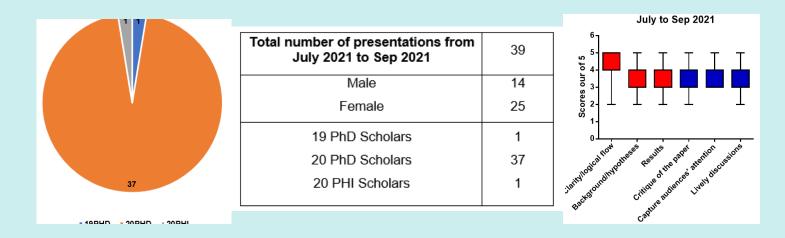
- Dr. K Ramanathan organized a guest lecture by Dr. J. Bastin Robin, Chief Data Scientist, Clever Insights company, Bengaluru on the topic "Data-Driven Decision Making."
- Dr. Radha Saraswathy organized a guest lecture by Mrs. Valsa Augustine, Clinical Psychologist, Schieffelin Institute of Health-Research & Leprosy Centre, Karigiri, Vellore on the topic "Are we letting technology control our behavior."
- Dr. K. Ramanathan organized a guest lecture by Mr. Neelanjan Sinha, Product Head, Authorcafe, Chennai on the topic "Effective Research writing and communication with Authorcafe."
- Dr. K. Ramanathan organized a guest lecture by Mr. Sangeeth Cecil, Lead Scopus Author Feedback Team and Mendeley Advisor, Elsevier, Chennai on the topic "Introduction to Mendeley Reference manager and Mendeley Data."
- Dr. Radha Saraswathy organized a guest lecture by Preeja Sreedhar, Leadership Coach, Mu Sigma, Bengaluru on the topic "Technostress and emotional well-being of professionals in the current times."
- Dr. Radha Saraswathy organized a guest lecture by Dr. Q. Annie Hasan Ph.D. FNASc., Senior Consultant & HOD, Department of Genetics & Molecular Medicine, Kamineni Hospitals, Hyderabad Telangana & Research director of Kamineni Group on the topic "Ethical, Legal and Socio-cultural issues in Genetic Counseling."
- Dr. Anupam Hazra organized a guest lecture by Ankita Kumari S., National Head Genomics, Biokart India Pvt. Ltd., Bengaluru on the topic "Metagenomics Sequencing."
- Dr. Anupam Hazra organized a guest lecture by Prof. Nilkanta Chakrabarti, HOD, Dept of Physiology, the University of Calcutta on the topic "Current understanding of Alzheimer's and Parkinson's Disease."
- Dr. Anupam Hazra organized a guest lecture by Prof. Nilkanta Chakrabarti, HOD, Dept of Physiology, the University of Calcutta on the topic "Neuroscience of cognitive functions."
- Dr. K M Gothandam organized a guest lecture by Mr. Jagadish Bennale, Application Scientist, Beckman Coulter, Pune on the topic "Microbioreactor next evolution in bioprocessing technology with High Throughput Technology Platform in Upstream Processing."

The School of BioSciences and Technology organized 10 National expert guest lectures from the academia, the biotech industries and alumni on various emerging topics, which was organized by the SBST faculty members. The Guest lecture was conducted in Online platform MS Teams with the participation of the enthusiastic students in gaining updated knowledge in the field of Biotechnology.



#### **JOURNAL CLUB**

In each journal club meeting, a moderator evaluates the presenters by six criteria on a scale of 1 to 5. Overall analysis of the evaluations done for presentations done between July, 2021 to September, 2021 is given below.



Areas such as critical analysis of the paper, a vibrant presentation to capture diverse audiences' attention and ability to generate lively discussions were the key identifiers that need improvement.

## **PUBLICATIONS (IF > 3)**

- Srinivasan, R., Subramanian, P., Tirumani, S., Gothandam, K. M., & Ramya, M. (2021). Ectopic expression of bacterial 1-aminocyclopropane 1-carboxylate deaminase in Chlamydomonas reinhardtii enhances algal biomass and lipid content under nitrogen deficit condition. Bioresource Technology, 341, 125830. DOI: 10.1016/j.biortech.2021.125830. IF: 9.642.
- Sridharan R., Krishnaswamy V., Kumar P.S., Vidhya T.A., Sivamurugan V., Kumar D.T., Doss C.G.P., & Vo D.- V.N. (2021). Analysis and effective separation of toxic pollutants from water resources using MBBR: Pathway prediction using alkaliphilic P. mendocina. Science of The Total Environment, 797, 149135. DOI: 10.1016/j.scitotenv.2021.149135. IF: 7.963.
- Samuel, M. S., Selvarajan, E., Chidambaram, R., Patel, H., & Brindhadevi, K. (2021). Clean approach for chromium removal in aqueous environments and role of nanomaterials in bioremediation: Present research and future perspective. Chemosphere, 284, 131368. DOI: 10.1016/j.chemosphere.2021.131368. IF: 7.086.
- Madan T., Biswas B., Varghese P.M., Subedi R., Pandit H., IdiculaThomas S., Kundu I., Rooge S., Agarwal R., Tripathi D.M., Kaur S., Gupta E., Gupta S.K., & Kishore U. (2021). A recombinant fragment of Human surfactant protein D binds Spike protein and inhibits infectivity and replication of SARS-CoV-2 in clinical samples. American Journal of Respiratory Cell and Molecular Biology, (ja). DOI: 10.1101/2020.12.18.423415. IF: 6.914.
- Goutam Mukherjee A., Ramesh Wanjari U., Chakraborty R., Renu K., Vellingiri B., George A., C.R. S.R., Valsala & Gopalakrishnan A. (2021). A review on modern and smart technologies for efficient waste disposal and management. Journal of Environmental Management, 297, 113347. DOI: 10.1016/j.jenvman.2021.113347. IF: 6.789.
- Kumarasamy C., Tiwary V., Sunil K., Suresh D., Shetty S., Muthukaliannan G.K., Baxi S., Jayaraj R. (2021). Prognostic Utility of Platelet-Lymphocyte Ratio, Neutrophil-Lymphocyte Ratio and Monocyte-Lymphocyte Ratio in Head and Neck Cancers: A Detailed PRISMA Compliant Systematic Review and Meta-Analysis. Cancers, 13(16), 4166. DOI: 10.3390/cancers13164166. IF: 6.639.
- Shaw P., Senthilnathan R., Krishnan S., Suresh D., Shetty S., Muthukaliannan G.K., Mani R.R., Sivanandy P., Chandramoorthy H.C.K., Gupta M.M., Baxi S., Jayaraj R. (2021). A Clinical Update on the Prognostic Effect of microRNA Biomarkers for Survival Outcome in Nasopharyngeal Carcinoma: A Systematic Review and Meta-Analysis. Cancers, 13(17), 4369. DOI: 10.3390/cancers13174369. IF: 6.639.
- Choudhury, A. A., & Rajeswari, V. D. (2021). Gestational diabetes mellitus-A metabolic and reproductive disorder. Biomedicine & Pharmacotherapy, 143, 112183. DOI: 10.1016/j.biopha.2021.112183. IF: 6.529.

# **PUBLICATIONS (IF > 3)**

- Mahalaxmi I., Jayaramayya K., Venkatesan D., Subramaniam M.D., Renu K., Vijayakumar P., Narayanasamy A., Gopalakrishnan A.V., Kumar N.S., Sivaprakash P., Sambasiva Rao K.R.S., & Vellingiri B. (2021). Mucormycosis: An opportunistic pathogen during COVID-19. Environmental Research, 111643. DOI: 10.1016/j.envres.2021.111643. *IF:* 6.498.
- Archana, K. M., Rajalakshmi, S., Kumar, P. S., Krishnaswamy, V. G., Rajagopal, R., Kumar, D. T., & Doss, C. G. P. (2021). Effect of shape and anthocyanin capping on antibacterial activity of Cul particles. Environmental Research, 200, 111759. DOI: 10.1016/j.envres.2021.111759. *IF:* 6.498.
- Miryala, S. K., Basu, S., Naha, A., Debroy, R., Ramaiah, S., Anbarasu, A., & Natarajan, S. (2021). Identification of bioactive natural compounds as efficient inhibitors against Mycobacterium tuberculosis protein-targets: A molecular docking and molecular dynamics simulation study. Journal of Molecular Liquids, 341, 117340. DOI: 10.1016/j.molliq.2021.117340. IF: 6.165.
- Mahalaxmi, I., Subramaniam, M. D., Gopalakrishnan, A. V., & Vellingiri, B. (2021). Dysfunction in Mitochondrial Electron Transport Chain Complex I, Pyruvate Dehydrogenase Activity, and Mutations in ND1 and ND4 Gene in Autism Spectrum Disorder Subjects from Tamil Nadu Population, India. Molecular Neurobiology, 1-9. DOI: 10.1007/s12035-021-02492-w. IF: 5.590.
- Kamarudheen, N., Khaparde, A., Gopal, S., & Rao, K. B. (2021). Unraveling a natural protease inhibitor from marine Streptomyces griseoincarnatus HK12 active against Chikungunya virus. Microbiological Research, 252, 126858. DOI: 10.1016/j.micres.2021.126858. IF: 5.415.
- Manochkumar, J., Doss, C. G. P., El-Seedi, H. R., Efferth, T., & Ramamoorthy, S. (2021). The neuroprotective potential of carotenoids in vitro and in vivo. Phytomedicine, 91, 153676. DOI: 10.1016/j.phymed.2021.153676. IF: 5.34.
- Kalathinathan, P., Pulicherla, K., Sain, A., Gomathinayagam, S., Jayaraj, R., Thangaraj, S., & Muthukaliannan, G. K. (2021). New alkali tolerant β-galactosidase from Paracoccus marcusii KGP-A promising biocatalyst for the synthesis of oligosaccharides derived from lactulose (OsLu), the new generation prebiotics. Bioorganic Chemistry, 115, 105207. DOI: 10.1016/j.bioorg.2021.105207. IF: 5.275.
- Pathak A., Pandey V., Raj Pokharel Y., Devaraji V., Ali A., Haider K., Saad S., Dewangan R.P., Siddiqui N., Shahar Yar M. (2021). Pharmacophore based drug design and synthesis of Oxindole bearing hybrid as anticancer agents. Bioorganic Chemistry, 105358. DOI: 10.1016/j.bioorg.2021.105358. IF: 5.275.
- Swathi Pon Sakthi Sri V., Manikandan A., Mathankumar M., Tamizhselvi R., George M., Murugaiah K., Kashmery H.A., AlZahrani S.A., Puttegowda M., Khan A., Asiri A.M. (2021). Unveiling the photosensitive and magnetic properties of amorphous iron nanoparticles with its application towards decontamination of water and cancer treatment. Journal of Materials Research and Technology, 15, 99-118. DOI: 10.1016/j.jmrt.2021.07.145. IF: 5.039.
- Katturajan, R., & Price, S. E. (2021). A role of connexin 43 on the drug-induced liver, kidney, and gastrointestinal tract toxicity with associated signaling pathways. Life Sciences, 119629. DOI: 10.1016/j.lfs.2021.119629. IF: 5.037.
- Sundaresan, S., John, S., Paneerselvam, G., Andiapppan, R., Christopher, G., & Selvam, G. S. (2021). Gallic acid attenuates cadmium mediated cardiac hypertrophic remodelling through upregulation of Nrf2 and PECAM-1signalling in rats. Environmental Toxicology and Pharmacology, 87, 103701. DOI: 10.1016/j.etap.2021.103701. IF: 4.860.
- Varghese, R., & Ramamoorthy, S. (2021). Unraveling the versatility of CCD4: Metabolic engineering, transcriptomic and computational approaches. Plant Science, 110991. DOI: 10.1016/j.plantsci.2021.110991. IF: 4.729.
- Vyavahare G., Gurav R., Patil R., Sutar S., Jadhav P., Patil D., Yang Y.-H., Tang J., Chavan C., Kale S., Jadhav J. (2021). Sorption of brilliant green dye using soybean straw-derived biochar: characterization, kinetics, thermodynamics and toxicity studies. Environmental Geochemistry and Health, 1-14. DOI: 10.1007/s10653-020-00804-y. IF: 4.609.
- Aljindan, R. Y., Al-Subaie, A. M., Al-Ohali, A. I., & Kamaraj, B. (2021). Investigation of nonsynonymous mutations in the spike protein of SARS-CoV-2 and its interaction with the ACE2 receptor by molecular docking and MM/GBSA approach. Computers in biology and medicine, 135, 104654. DOI: 10.1016/j.compbiomed.2021.104654. IF: 4.589.

## **PUBLICATIONS (IF > 3)**

- Kumar, S. U., & Doss, C. G. P. (2021). Residue interaction networks of K-Ras protein with water molecules identifies the potential role of switch II and P-loop. Computers in Biology and Medicine, 104597. DOI: 10.1016/j.compbiomed.2021.104597. IF: 4.589.
- Srivastava, P., Gunawan, C., Soeriyadi, A., Amal, R., Hoehn, K. L., & Marquis, C. P. (2021). In vitro coronal protein signatures and biological impact of silver nanoparticles synthesized with different natural polymers as capping agents. Nanoscale Advances. DOI: 10.1039/d0na01013h. IF: 4.553.
- Kumar S.U., Rajan B., Kumar D.T., Cathryn R.H., Das S., V. Zayed H., Emmanuel Jebaraj Walter C., Ramanathan G., & Priya Doss. C G. (2021). Comparison of potential inhibitors and targeting fat mass and obesity-associated protein causing diabesity through docking and molecular dynamics strategies. Journal of Cellular Biochemistry. DOI: 10.1002/jcb.30109. IF: 4.429.
- Singh M., Agarwal S., Tiwari R.K., Chanda S., Singh K., Agarwal P., Kashyap A., Pancham P., Mall S., Rachana R., & Sharma S. (2021). Neuroprotective Ability of Apocynin Loaded Nanoparticles (APO-NPs) as NADPH Oxidase (NOX)-Mediated ROS Modulator for Hydrogen Peroxide-Induced Oxidative Neuronal Injuries. Molecules, 26(16), 5011. DOI:10.3390/molecules26165011. IF: 4.411.
- Maddila S.C., Voshavar C., Arjunan P., Chowath R.P., Rachamalla H.K.R., Balakrishnan B., Balasubramanian P., Banerjee R., & Marepally S. (2021). Cholesterol Sequestration from Caveolae/Lipid Rafts Enhances Cationic Liposome-Mediated Nucleic Acid Delivery into Endothelial Cells. Molecules, 26(15), 4626. DOI: 10.3390/molecules26154626. IF: 4.411.
- Parameswari, R., & Sridharan, T. B. (2021). Cigarette smoking and its toxicological overview on human male fertility—a prospective review. Toxin Reviews, 40(2), 145-161. DOI: 10.1080/15569543.2019.1579229. IF: 4.266.
- Katturajan, R., Mahaboobkhan, R., Vijayalakshmi, S., & Prince, S. E. (2021). Molecular toxicity of methotrexate in rheumatoid arthritis treatment: A novel perspective and therapeutic implications. Toxicology, 152909. DOI: 10.1016/j.tox.2021.152909. IF: 4.221.
- Rajeswari, V. D., Khalifa, A. S., Elfasakhany, A., Badruddin, I. A., Kamangar, S., & Brindhadevi, K. (2021). Green and ecofriendly synthesis of cobalt oxide nanoparticles using Phoenix dactylifera L: antimicrobial and photocatalytic activity. Applied Nanoscience, 1-9. DOI: 10.1007/s13204-021-02038-5. IF: 3.674.
- Rajeswari, V. D., Eed, E. M., Elfasakhany, A., Badruddin, I. A., Kamangar, S., & Brindhadevi, K. (2021). Green synthesis of titanium dioxide nanoparticles using Laurus nobilis (bay leaf): antioxidant and antimicrobial activities. Applied Nanoscience, 1-8. DOI: 10.1007/s13204-021-02065-2. IF: 3.674.
- Nguyen, T. C. V., Rajeswari, V. D., Al-Kheraif, A. A., & Brindhadevi, K. (2021). Study of antimicrobial properties of Piper betel coated nanozirconium on cotton gauze. Applied Nanoscience, 1-7. DOI: 10.1007/s13204-021-01987-1. IF: 3.674.
- Sarkar P., Jayaraj P., Patwardhan K., Yeole S., Das S., Somaiya Y., Desikan R., & Thirumurugan K. (2021). In silico analysis to link insulin resistance, obesity, and ageing with Alzheimer's disease. DOI: 10.1007/s12031-021-01875-x. IF: 3.444.
- Mukherjee, S., & Sudandiradoss, C. (2021). Transcriptomic analysis of castration, chemo-resistant and metastatic prostate cancer elucidates complex genetic crosstalk leading to disease progression. Functional & Integrative Genomics, 21(3), 451-472. DOI: 10.1007/s10142-021-00789-6. IF: 3.41.
- Kapoor, L., & Ramamoorthy, S. (2021). Strategies to meet the global demand for natural food colorant bixin: A multidisciplinary approach. Journal of Biotechnology, 338, 40-51. DOI: 10.1016/j.jbiotec.2021.07.007. IF: 3.307.
- Jayaraj, R., Kumarasamy, C., Gothandam, K. M., Senthilnathan, R., & Shetty, S. S. (2021). Clinical comments on "Mental disorder prevalence among populations impacted by coronavirus pandemics: A multilevel meta-analytic study of COVID-19, MERS & SARS". General Hospital Psychiatry, 72, 141. DOI: 10.1016%2Fj.genhosppsych.2021.06.001. IF: 3.238.
- Vijayasarathy, S., Gayathri, P., & Suneetha, V. (2021). Fermented Foods and Their Abating Role in Gastric Ulcers. Journal of the American College of Nutrition, 1-5. DOI: 10.1080/07315724.2021.1962768. IF: 3.169.

Coming together is beginning Keeping together is progress Working together is Success - Henry Ford

#### STUDENT ACHIEVEMENTS

BRSI-VIT (The Biotech Research Society, India) chapter students have won the "IDEAS FOR LIFE" competition conducted by Theracues Innovation Pvt. Ltd, Bangalore on 25-08-2021. The competition was conducted on two levels, and the winners were selected based on the innovation and the idea's feasibility. In addition, ideas for Life competition winners have been offered grants for developing a prototype. The proposal title is "Developing a Breathable and filtration-efficient mask," The team members are Akila Swaminathan-18BBT0148, Vijaysarathy S-18BBT0032, and Shreya Venkatsubramanian-18BBT0181.







Congratulations...

## STUDENTS CORNER

How high-fat diets allow cancer cells to go unnoticed: A high-fat diet increases the incidence of colorectal cancer. Cold Spring Harbor Laboratory Fellow Semir Beyaz and collaborators from Harvard Medical School and Massachusetts Institute of Technology have discovered that in mice, fat disrupts the relationship between intestinal cells and the immune cells that patrol them looking for emerging tumors. Reconfiguring the gut microbiome may be a way to heal the relationship. "This interaction between diet, microbes and immune recognition has the potential to help us explain how lifestyle factors can contribute to tumor initiation, progression, or response to therapy."

Cancer cells use many tricks to avoid being recognized as abnormal by the immune system, but Beyaz hopes he's found several ways to outwit them.





MAGESHWARAN MARAN- 18MSI0030 SANJAY G-18MSI0044



#### **PROGRAMMES OFFERED**

B.TECH. BIOTECHNOLOGY

M.TECH. BIOTECHNOLOGY

M.SC., INTEGRATED BIOTECHNOLOGY (5 YEARS)

M.SC., INTEGRATED FOOD SCIENCE AND TECHNOLOGY (5 YEARS)

M.SC., BIOTECHNOLOGY

M.SC., APPLIED MICROBIOLOGY

M.SC., BIOMEDICAL GENETICS

DOCTOR OF PHILOSOPHY (PH.D.)

INTEGRATED PH.D.

## **EDITORIAL TEAM**

Dr. Jayanthi Abraham

Dr. Vino S.

Dr. Arnold Emerson I.

Dr. Trupti Patel N.

Dr. Danie Kingsley J.

Dr. Gayathri Gopinath M.

Dr. Balaji Balakrishnan

**CONTACT:** 

Dr. PRAGASAM V

Dean, SBST

Share your insights and inputs to newsletter.sbst@vit.ac.in

**NANCY KWATRA** 

**DESIGN & DEVELOPMENT**