

## **JSSAHER / DBT BUILDER Project**

JSSAHER has also been selected by DBT for implementing their DBT BUILDER (Boost to University Interdisciplinary Life Science Departments for Education and Research) programme. DBT BUILDER promotes the interdepartmental cross-talk with the vision to solicit a large number of post-graduate students to nurture them and make them competent enough for the globally competitive and emerging bio-economy. JSSAHER's DBT BUILDER project has swung into momentous action by identifying three emerging research domains of novel biomarkers and therapeutics, nanotheranostics and spatial health informatics for prevention and management of cardiovascular diseases that has attracted highly qualified and experienced research scholars. The Rs. 5 crore grant by DBT has enabled researchers to pursue their research for a period of 5 years.

### **EQUIPMENTS & FACILITIES AVAILING:**



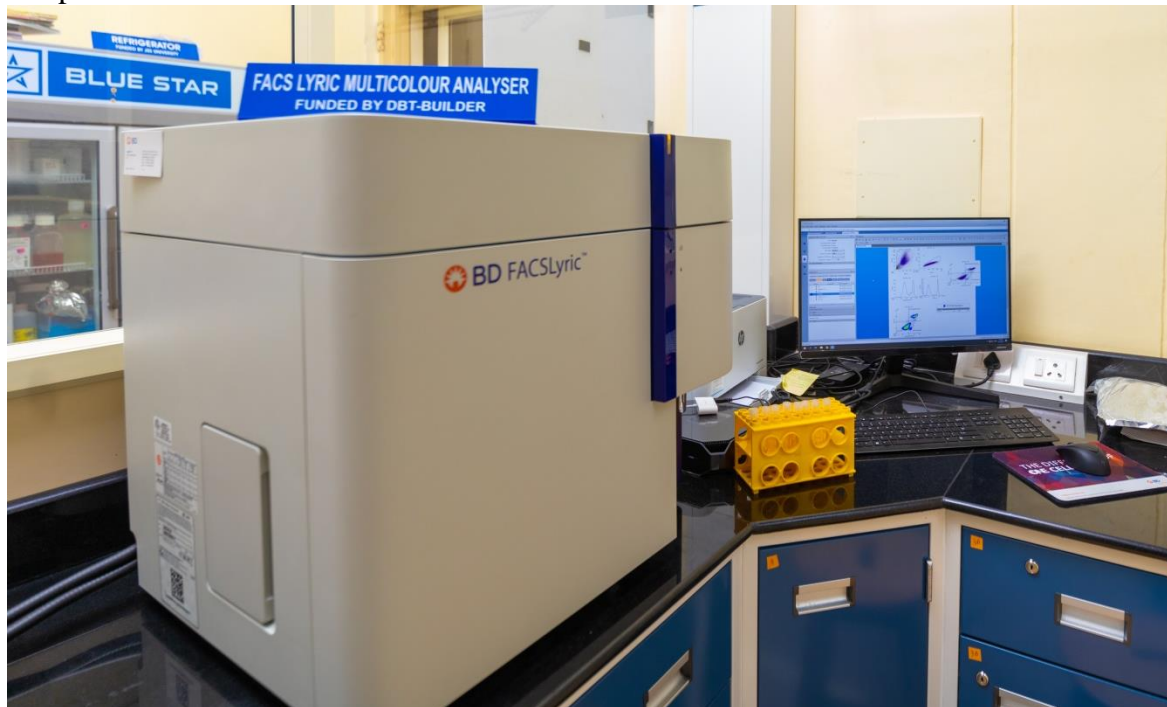
#### **LC-HRMS (Liquid Chromatography High Resolution Mass Spectrometry):**

The TripleTOF® 6600 system is designed for the qualitative and quantitative analysis of chemical species.

The TripleTOF® 6600 system includes the following components:

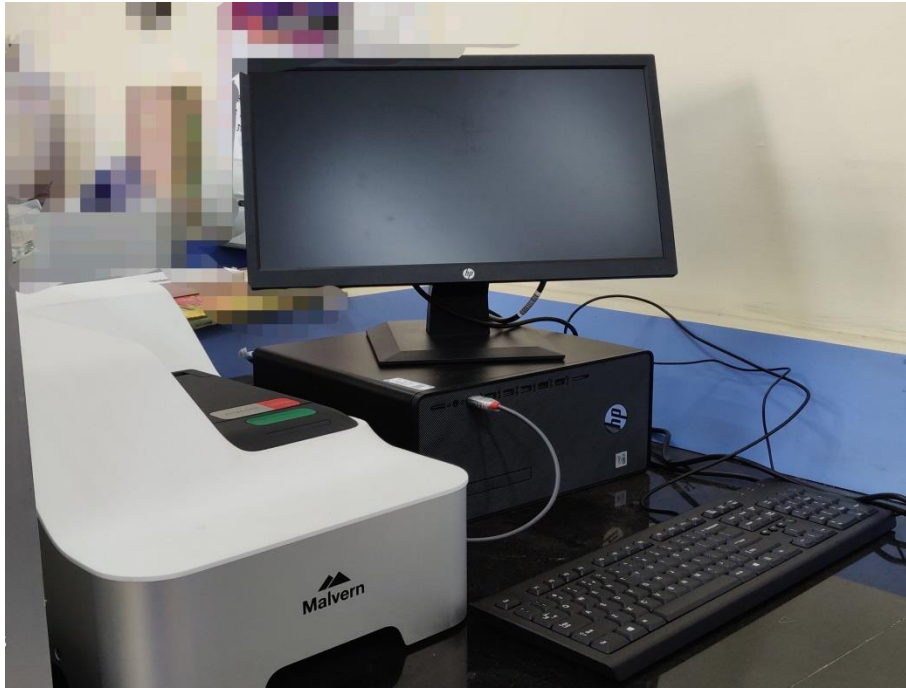
- A TripleTOF® 6600 mass spectrometer with a roughing pump.
- A DuoSpray™ ion source. Refer to the DuoSpray™ Ion Source Operator Guide.
- A SCIEX-supplied computer and monitor with the Analyst® TF software for instrument optimization, acquisition method development, and data acquisition.
- The optional calibrant delivery system (CDS). Advanced Qualitative approaches made easy with the Triple TOF 6600+ system. Helps in achieve the optimum of Quantitative performance. Built and optimized for large-scale quantitative mass spectrometry, the Triple TOF 6600+ system offers sensitive and robust quantitation using dedicated low flow source technology. Redesigned TOF entrance optics, along with software improvements within the

forthcoming Analyst<sup>®</sup> TF Software 1.8, deliver optimized ion beam control, detector tuning and scheduled ionization to decrease the risk of downtime over long term usage. Combined with the characteristically fast scanning capability of previous TripleTOF platforms, SWATH<sup>®</sup> Acquisition and the ultimate approach for data-independent digital archiving of samples.



**BD FACS Lyric:**

BD FACSLyric<sup>™</sup> Flow Cytometry system – a next generation flow cytometer  
Built on a foundation of excellence, experience and expertise, the Flow Cytometry system is a new standard for cell analysis, transforming the way the lab does the flow cytometry. The system has 3 lasers- blue, red and violet, 10 Fluorescence channels. Automated single tube QC with BD<sup>™</sup> CS&T beads. 35,000 events per second maximum acquisition rate; no limit on number of events acquired.



### **ZetaSizer:**

Zetasizer Advance is the successor to the highly successful and market-leading Zetasizer Nano. Each of the three models in the Zetasizer Advance Range offers particle size, particle charge (zeta potential) and molecular weight analysis. In addition, each benefits from advances including Adaptive Correlation, M3-PALS zeta potential analysis, constant current zeta mode and our deep learning-based data quality advice system.

Each of the three models is available as a Blue Label or Red Label variant:

- Choose Blue Label for routine sample investigation such as metallic colloids, metal oxides and pigments.
- Choose Red Label for more challenging sample types, such as proteins, surfactant solutions and low solid content samples.



**Rotavapor® R300:**

The Rotavapor® R-300 is a convenient and efficient rotary evaporation. It meets the highest expectations of convenience and versatility in rotary evaporation. Its modular design allows the R-300 to be extended to a fully integrated system where a central interface regulates each component. The "Smart distillations" of the Rotavapor® R-300 enable an automated, unattended process with optimized system parameters to take place. Users can flexibly program their own SOPs into the system and then monitor their distillations remotely via an app.



### **Nitrogen Evaporator: SPE Positive Pressure Manifold**

Nitrogen Evaporator Model: AT-EV-100 is a Precision Sample Concentrator by Nitrogen Purging. It is a newly designed Sample Concentrator for multiple sample pre-concentration of in organic media. A Table Top Model. The unit can be set to a constant Flow and constant Temperature to ensure good evaporation. Nitrogen Evaporator sample concentrate is a fast & convenient way of concentrating multiple sample at once. This in combination with the heat from the Nitrogen Gas Purging below produced ideal condition for fast & efficient Evaporator.

### **RESEARCH THEME**

- Novel Biomarker and Therapeutics Research Group: Metabolic disorders and cardiopulmonary disease.
- Nanotheranostics Research group for CVD disease management.
- Spatial health informatics and management.

## **OBJECTIVES & FACULTY IN-CHARGES**

### **Objective I: BIOMARKER & THERAPEUTICS**

Principal Investigator: Dr Rajesh Kumar T

Co-PI: Dr Akila P, Dr Prasanna KS, Dr Divya S, Dr Sunil Kumar S, Dr Manjappa M, Dr Srinath KM, Dr Siddesha JM, Dr Sumana MN, Dr Jamuna Bai A and Dr Archer Ann Catherine.

### **Objective II: NANOTHERANOSTIC**

Principal Investigator: Dr. K.Gowthamarajan

Co-PI: Dr. MVSST SubbaRao , Dr G V Pujar, Dr Praveen T.K, Dr Asha S and Dr Saravanababu.C.

### **Objective III: SPATIAL HEALTH INFORMATICS & HEALTH**

Principal Investigator: :Dr Madhu B

Co-PI: Dr. Mahesh PA, Dr Shivaraju HP, Dr. Chandan S and Dr. Kiran Kumar MN.

## **MANPOWER:**

## **CO-ORDINATOR**



Dr. Prashant M Vishwanath  
Dean (Research)  
JSS Academy of Higher Education & Research  
Email Id: [prashantv@jssuni.edu.in](mailto:prashantv@jssuni.edu.in)

## PRINCIPAL INVESTIGATORS



Dr. Rajesh Kumar  
Thimmulappa  
Professor  
Department of Biochemistry  
JSS Medical College  
Email Id:  
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Dr. Gowthamarajan  
Kuppasawmy  
Professor & HOD  
Department Of Pharmaceutics  
JSS College of Pharmacy, Ooty  
Email Id:  
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Dr. Madhu B  
Deputy Dean (Research)  
JSS Academy of Higher  
Education & Research  
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Id: [madhub@jssuni.edu.in](mailto:madhub@jssuni.edu.in)

## FACULTY & JUNIOR RESEACRH FELLOW



Dr. Arshia Angural  
Assistant Professor (Research)  
Department of Medical Genetics  
JSS Medical College & Hospital  
Email Id: [arshiaangural@jssuni.edu.in](mailto:arshiaangural@jssuni.edu.in)

## Education details:

### ▪ Ph.D. Biotechnology

School of Biotechnology, Shri Mata Vaishno Devi University, Jammu and Kashmir, India

The title of doctoral thesis is “*Identification and Characterization of Rare Human Genetic Disorders in Consanguineous Population of Jammu & Kashmir*”.

Mentors: Dr. Swarkar Sharma, Ph.D., and Prof. Vijeshwar Verma, Ph.D.

### ▪ M.Sc. Medical Biotechnology

Manipal Life Sciences Centre, Manipal University, Karnataka, India

The title of research project dissertation is “*Study of genetic variations in host factors and their interaction for malaria susceptibility and resistance to parasite*”.

Mentor: Dr. Saadi Abdul Vahab, Ph.D

**Areas of interest:** Clinical Genetics, Genetics of Rare Diseases especially Neurodegenerative Disorders, Pharmacogenetics, Genomics, Newborn Screening.

**Complete list of publications with impact factor in chronological order:** *h-index* = 6

- 2023
- Birla, S., **Angural, A.**, Madathumchalil, A., Shende, R. V., Shastry, S. V., Mahadevappa, M., Shambhu, S. K., Vishwanath, P., and Prashant, A. “Redefining the polypill: pros and cons in cardiovascular precision medicine.” *Frontiers in Pharmacology*. 14:1268119. (**IF** = **5.6**; doi: 10.3389/fphar.2023.1268119)
  - Spolia, A., **Angural, A.**, Sharma, V., Shipra, Razdan, S., Dhar, M. K., Mahajan, A., Verma, V., Pandita, K. K., S. Sharma, and E. Rai. “Cost-effective Whole Exome Sequencing discovers pathogenic variant causing Neurofibromatosis type 1 in a family from Jammu and Kashmir, India.” *Scientific Reports* 13: 7852. (**IF** = **4.6**; doi: 10.1038/s41598-023-34941-y)
  - **Angural, A.**, Birla, S., Srinivas, A., Prasanth, A. and Hattur, B.G. “Birth Defects: A Call for Action.” *NAM S&T Centre – Fact File* 1-4 (Document No.: STI-FE/02/2023).
- 2022
- Spolia, A., Shipra, **Angural, A.**, Singh, H., Verma, V., Pandita, K.K., Sharma, S. and Rai, E., 2022. Genetic Characterisation of Pantothenate Kinase Associated Neurodegeneration (PKAN) in a Consanguineous Family from Jammu and Kashmir, India. *International Journal of Human Genetics*, 22(3), pp.225-232.
- 2021
- **Angural, A.**, K. Ponnusamy, D. Langeh, M. Kumari, A. Spolia, E. Rai, A. Sharma, K.K. Pandita and Sharma, S. “Missense Variation in *TPPI* Gene causes Neuronal Ceroid Lipofuscinosis Type 2 in a Family from Jammu and Kashmir-India.” *Preprints* 2021070661 (doi: 10.20944/preprints202107.0661.v1)
- 2020
- **Angural, A.**, A. Spolia, A. Mahajan, V. Verma, A. Sharma, P. Kumar, M. K. Dhar, K. K. Pandita, E. Rai and S. Sharma. “Review: Understanding Rare Genetic Diseases in Low Resource Regions Like Jammu and Kashmir - India.” *Frontiers in Genetics* 11: 415. (**IF** = **3.7**; doi: 10.3389/fgene.2020.00415)
- 2019
- **Angural, A.**, I. Sharma, P. Pandoh, V. Sharma, A. Spolia, E. Rai, V. Singh, S. Razdan, K. K. Pandita and S. Sharma. “A case report on a novel MT-ATP6 gene variation in atypical mitochondrial Leigh syndrome associated with bilateral basal ganglia calcifications.” *Mitochondrion* 46: 209-213. (**IF** = **4.4**; doi: 10.1016/j.mito.2018.06.005)
- 2018
- Sharma, V., I. Sethi, I. Sharma, G. Singh, A. Mahajan, **A. Angural**, A.J.S. Bhanwer, M. K. Dhar, K. K. Pandita, V. Singh, E. Rai and S. Sharma. “Replication of *MACF1* gene variant rs2296172 with type 2 diabetes susceptibility in the Bania population group of Punjab, India.” *International Journal of Diabetes in Developing Countries* 38: 387-390. (**IF** = **0.9**; doi: <https://doi.org/10.1007/s13410-017-0598-6>)



- 2017
- **Angural, A.**, I. Singh, A. Mahajan, P. Pandoh, M. K. Dhar, S. Kaul, V. Verma, E. Rai, S. Razdan, K. K. Pandita and S. Sharma. “A variation in *PANK2* gene is causing Pantothenate kinase-associated Neurodegeneration in a family from Jammu and Kashmir-India.” *Scientific Reports* 7: 4834. (IF = 4.6; doi: 10.1038/s41598-017-05388-9)
  - Rai, E., **A. Angural**, A. Sapolia, S. Razdan, K. K. Pandita, and S. Sharma. “Geographic Isolation and Endogamous Practices Provide Higher Risk of Genetic Disorders in Jammu and Kashmir.” *Canadian Journal of Biotechnology* 1 (Special), 250. (abstract publication; doi: <https://doi.org/10.24870/cjb.2017-a234>)
  - Sharma, V., I. Sethi, I. Sharma, A. Mahajan, **A. Angural**, A.J.S. Bhanwer, M. K. Dhar, K. K. Pandita, V. Singh, E. Rai and S. Sharma. “MACF1 gene variant rs2296172 is associated with type 2 diabetes susceptibility in the Bania population group of Punjab-India.” *Canadian Journal of Biotechnology* 1 (Special), 79. (abstract publication; doi: <https://doi.org/10.24870/cjb.2017-a66>)
  - Sharma, V., I. Sharma, I. Sethi, A. Mahajan, G. Singh, **A. Angural**, A.J.S. Bhanwer, M.K. Dhar, V. Singh, E. Rai and S. Sharma. “Replication of Newly Identified Type 2 Diabetes Susceptible Loci in Northwest Indian Population.” *Diabetes Research and Clinical Practice* 126: 160-163. (IF = 5.1; doi:10.1016/j.diabres.2017.02.013)
- 2016
- Rai, E., A. Mahajan, P. Kumar, **A. Angural**, M. K. Dhar, S. Razdan, K. Thangaraj, C. A. Wise, S. Ikegawa, K. K. Pandita and S. Sharma. “Whole Exome Screening Identifies Novel and Recurrent WISP3 Mutations Causing Progressive Pseudorheumatoid Dysplasia in Jammu and Kashmir-India.” *Scientific Reports* 6: 27684. (IF = 4.6; doi: 10.1038/srep27684)
- 2013
- Saadi, A. V., H. Gupta, **A. Angural**, S. K. Dhanya, S. Mony, D. Oberoi, S. C. D'Souza, R. C. Sahoo, M. H. Hande, P. M. Gopinath and K. Satyamoorthy. “Single nucleotide polymorphisms of ADRB2 gene and their association with susceptibility for Plasmodium falciparum malaria and asthma in an Indian population.” *Infection, Genetics and Evolution* 20: 140-147. (IF = 4.4; doi: 10.1016/j.meegid.2013.08.026)
  - Gupta, H., S. C. Sakharwade, **A. Angural**, A. Kotambail, G. K. Bhat, M. H. Hande, S. C. D'Souza, P. Rao, V. Kumari, A. V. Saadi and K. Satyamoorthy. “Evidence for genetic linkage between a polymorphism in the GNAS gene and malaria in South Indian population.” *Acta Tropica* 128(3): 571-577. (IF = 2.7; doi: 10.1016/j.actatropica.2013.08.005)

#### Grant details, if any:

- Awarded travel grant “International Travel Scheme” (ITS) from DST-SERB for attending and presenting research work at the American Society of Human Genetics Annual Meeting 2019, Houston, USA (15<sup>th</sup> October to 19<sup>th</sup> October, 2019).

#### Achievements:

- Awarded 3<sup>rd</sup> position in BIOBIZ contest in TITIKSHA (technical fest), SMVDU (2016).
- Qualified CSIR-UGC National Eligibility Test (NET) for Lectureship in Life Sciences, India (June, 2013).
- Qualified national-level examination “Graduate Aptitude Test in Engineering” (GATE) in Biotechnology, India (2013).

#### Memberships:

- Membership for the Indian Society of Human Genetics.
- Annual Membership for the American Society of Human Genetics (2019).



Dr. Rashmi D  
Assistant Professor (Research)  
Department of Biochemistry  
JSS Medical College, JSS Academy of Higher Education & Research  
Email Id: [rashmid@jssuni.edu.in](mailto:rashmid@jssuni.edu.in)

**Education details:**

- Ph.D. Microbiology  
**Department of Microbiology & Biotechnology, Bangalore University**  
The title of doctoral thesis is “*Isolation and Characterisation of Bacteriocin from Food Borne Bacteria*”  
Mentor: Dr. T Sharmila, Ph.D
- M.Sc. Microbiology  
**Department of studies in Microbiology, University of Mysore, Mysore**  
The title of research project dissertation is “*Isolation and Characterization of Proteolytic Bacteria from Poultry Intestine*”.  
Mentor: Dr. N.M. Sachindra, Scientist  
MFPT, CFTRI –Central Food Technological Research Institute, Mysore.

**Areas of interest:** Immunology, Molecular analysis of Biomarker & bioactive compounds. Food & fermentation technology.

**Teaching experience: Guided students for the project during the curriculum**

2022	<b>Project 1:</b> Production of non-alcoholic beverage & characterisation of bioactive compound. <b>Project 2:</b> Study on the effect of stress parameters on the production of L-Asparaginase enzyme.
2021	<b>Project 1:</b> A survey on the theoretical and practical approach of using Biofertilizers and Biopesticides. <b>Project 2:</b> Antimicrobial activity of florets of <i>Musa acuminata</i> on <i>Escherichia coli</i> , <i>Pseudomonas</i> and <i>Bacillus</i> .
2020	<b>Project 1:</b> Study on antimicrobial assay of solvent and water extractions of <i>Bacopa monnieri</i> and <i>Moringa oleifera</i> .
2019	<b>Project 1:</b> Studies on proteolytic enzyme activity from probiotic non lactic acid

	bacteria. <b>Project 2:</b> Studies on screening of paint degrading microorganisms isolated from wall scrapings.
<b>2017</b>	<b>Project 1:</b> Combinatorial study of bacteriocin with essential oils on the effect of pH and their antagonistic activity against food borne pathogens.

#### Publications:

- **Rashmi D et al.** 2021, Antimicrobial Activity of Florets of *Musa acuminata* Against *Escherichia coli*, *Pseudomonas* And *Bacillus*. **International Journal of Recent Scientific Research**. 12(10), pp. 43416-43419. October, 2021. **Impact Factor: 7.383**
- DOI: <http://dx.doi.org/10.24327/ijrsr.2021.1210.6279>.
- **Rashmi. D**, Athira. K, Lahari Basavaraju, Sejal Kumar, Study on proteolytic enzyme from probiotic non lactic acid bacteria isolated from sheep milk. **International Journal of Public Mental and Neurosciences** Volume 5, Issue 2, 2021. **Impact factor: 1.629**.
- G., Yamuna and O., Anooj and K., Roopika and Rani, Sabitha and **D, Rashmi**, Studies on Screening of Paint Degrading Microorganisms Isolated from Wall Scrapings. **Asian Journal of Applied Science and Technology (AJAST)** Volume 5, Issue 3, Pages 126-137, July-September 2021, **Impact factor: 5.134**
- **Rashmi. D.**, Suguna. S R., Tessy Anu Tomas., Helen.D., Komal., Nazia Imam, Sharmila.T. Combinatorial Study of Bacteriocin from *Acinetobacter variabilis* with Essential Oils against Food Borne Pathogens. **Journal of Emerging Technologies and Innovative Research**, Vol 5 (6): 1-9, June- 2018. **Impact factor: 5.87**
- **Rashmi, D.**, Sharmila, T., Patil, S., Apine, O., Sistla, S., & Jadhav, J. (2018). (D et al., 2018). Isolation Detection and Characterization of Syringolin A produced from the Probiotic Strain *Bacillus cereus* Isolated from Donkey Milk. **Journal of Analytical Chromatography and Spectroscopy**, 1(2). EnPress Publisher. **Impact factor: 1.665**
- **Rashmi, D.**, Srinivas Sistla, and Sharmila, T. Study of antagonistic properties of bacteria from cow's milk by real-time surface plasma resonance biosensor (BIAcore). **Journal of Pharmaceutical, Chemical and Biological Sciences**, 2018; 5 (4): 365-370. **Impact factor: 5.923**
- **Rashmi, D.**, Srinivas Sistla, and Sharmila, T. Study of antagonistic properties of bacteria from pulses by real-time surface plasma resonance biosensor (Biacore). **Asian Journal of Pharmaceutical Science and Technology**, 2018; 1; 10-15. **Impact factor: 2.43**
- **Rashmi, D.** and Sharmila, T. Probiotic non lactic acid bacteria: study of bacteriocin for the antagonistic activity. **International Journal of Advance Research**, 2017; 5 (4): 1427-1433. **Impact factor: 7.08**

#### Memberships:

- **Life Member for Association of Microbiologists of India (AMI)** from 2014.



Dr. M.C. Manjunatha  
Assistant Professor (Research)  
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*Dr. M.C. Manjunatha*, is working as Assistant Professor in DBT-BUILDER Project, JSS-AHER, Mysuru since 22<sup>nd</sup> June 2022. He has a teaching experience of 6+ years and research experience of over 11 years. He has authored & co-authored for **88** Research papers published in National/ International UGC-recognized, Web of Science & Scopus Journals with **519 citations & h-index of 12**. He has presented over **40** research findings in National/ International Seminars/ Conferences in Chandigarh, Pune, Raipur, Vishakapatnam, Hyderabad, Belgaum, Gulbarga, Tumkur, Shimoga, Surathkal & Mysuru. Besides, he has undergone many trainings & workshops in *GSI*, Hyderabad, Chitradurga, Jaipur; *ONGC* in Chennai; *NIT* in Raipur; *AMD & INCOIS* in Hyderabad; *KSCST, KSNDMC, IISc, VKIT* in Bengaluru; *ATME, VVCE & University of Mysore*, Mysuru.

Currently, he is serving as Editorial/Review Board Member for many Scopus & reputed Journals like Current World Environment, Journal of Mountain Science, and International Journal of Geoinformatics etc. He has actively representing several Scientific Professional bodies as **LIFE-MEMBER** in **Mineralogical Society of India & DoS in Geology Alumni Association** in Mysuru; **Indian Science Congress Association** in Kolkata, **International Association for Engineering & Management Education (IAEME)**, Chennai, Asian Council for Science Editors, Dubai and Science Publishing Group, New York.

He is also serving as Board of Studies (BoS) member for University of Mysore, VidyaVardhaka College of Engineering, Mysuru & Govt. First Grade college, K.R. Nagar and nominated for *Editor-in-Chief* for **International Journal of Remote Sensing, Taylor & Francis, United Kingdom**. He has published a Chapter entitled “Geospatial Technology in Sustainable Forest Management of Molakalmuru Taluk, Chitradurga district, Karnataka, India” in Remote Sensing and Geographic Information Systems for Policy Decision Support, Springer International Publishing House, ISBN: 978-981-16-7731-1, Pp: 263-294 and a UG/PG textbook published titled “Remote Sensing and GIS, Principles & Applications (9-789395-468596), Academic Guru Publishing House, Pp: 1-224.

#### **Area of Research & Specialization:**

RS & GIS applications, Hyperspectral Signature analysis, Groundwater exploration & its prediction, Groundwater Quality analysis, Climate change impacts over Groundwater fluctuations, Wasteland studies, landfill sites selection, Land Use/ Land Cover classification studies & its change detection analysis, Disaster Management and epidemiological study.



Dr. Kalaiselvi A  
Assistant Professor (Research)  
Email Id: [dr.kalaiselvikarthik@gmail.com](mailto:dr.kalaiselvikarthik@gmail.com)

Doctor of Philosophy in Nanotechnology  
Currently working on Nanotheranostics for Cardiovascular Diseases - DBT (BUILDER)



Mr. Siddharth Birla  
JRF DBT-BUILDER  
JSS Medical College & Hospital  
Email Id:

**Education Details:** M.Sc. Applied Genetics (Bangalore North University)

**Research Interests:**

Genetics of genetic disorders, Pharmacogenomics and Therapeutics of genetic disorders

**Technical Skills:**

- Molecular extraction techniques including DNA and RNA extraction from blood, PBMCs, dry blood spots, Sanger sequencing & PCR
- LC-MS/MS for New Born Screening (quantitative analysis)

- Fluorescence *in situ* hybridization technique
- *Drosophila* husbandry
- Microbiological techniques including bacterial culture
- Bioinformatics skills including retrieval of biological sequences, primer designing, sequence alignment and analysis, phylogenetic analysis
- Basic computer operations, Linguistic skills include Hindi and English

### Publications:

- 2023
- **Birla S**, Angural A, Madathumchalil A, Shende RV, Shastry SV, Mahadevappa M, Shambhu SK, Vishwanath P and Prashant A (2023) Redefining the polypill: pros and cons in cardiovascular precision medicine. *Front. Pharmacol.* 14:1268119. doi: 10.3389/fphar.2023.1268119
  - Anshu Kumar Yadav, Aparna Kodakkat Chakkumkollath, Aysha Helna, **Siddharth Birla**, Rajesh Kumar Thimmulappa, Sunil Kumar Shambu, Prashant Vishwanath, and Akila Prashant. Substantiation of a Clopidogrel metabolism-associated gene (*CYP2C19*) variation among healthy individuals. *Indian Heart Journal*. doi: <https://doi.org/10.1016/j.ihj.2023.05.005>
  - Arshia Angural, **Siddharth Birla**, Anju Srinivas, Akila Prashant, and Basavana Gowdappa Hattur. Birth Defects: A Call For Action. *A Joint Publication of the NAM S&T Centre and JSS Medical College, JSS Academy of Higher Education & Research*. Document No. STI-FF/02/2023:1-4.
- 2021
- **Siddharth Birla**. Plasma Therapy as a Last Resort in Combating COVID-19? *Research & Reviews: A Journal of Microbiology and Virology*. 11(1):25-29. doi: <https://doi.org/10.37591/rrjomv.v11i1.2253>
  - **Siddharth Birla**. Predicting the Third Wave over the Footsteps of Spanish Flu. *International Journal of Current Science Research and Reviews*. 4(8):1032-1034. doi: 10.47191/ijcsrr/V4-i8-20
- 2020
- Jeniben Jyotindra Bhaya, **Siddharth Birla**, and Nasser WadhahSalem Mohammed. Study of *INSR* Gene Polymorphism Variant rs2252673 and Rs545885277 In Association With PCOS In Indian Population. *International Journal of Recent Scientific Research*. 11(12), pp. 40388-40393. doi: <http://dx.doi.org/10.24327/ijrsr.2020.1112.5685>
  - **Siddharth Birla**, and Vedashree S. MICROBIAL DIVERSITY AND PHYSICOCHEMICAL ASSESSMENT OF LAKE WATER. *International Journal of Engineering Applied Sciences and Technology*. 4(10):2455-2143.
  - G. Vanitha Ramesh, Jeniben Jyotinra Bhaya, and **Siddharth Birla**. Evaluation of Developmental Toxicity of Various Food Preservatives Using *Drosophila Melanogaster*. *International Journal of Science and Research*. 9(6): 27-34. DOI: 10.21275/SR20524221955



Mr. Jayanth S N  
JRF DBT-BUILDER  
JSS Medical College  
Email Id: [jayanthsn1996@gmail.com](mailto:jayanthsn1996@gmail.com)

**Education details:** 5 Year Integrated MSc in Molecular Biology at Yuvaraja's College Mysore, University of Mysore.

**Technical Skills:**

Analytical and separation techniques, Molecular biology and Genetic engineering techniques, Biochemical techniques, Microbiological techniques, Genetic techniques, Bioinformatics.

**Projects:**

- Minor research project on topic "Role of Crisper CAS 9 as genome editing tool".
- Post graduate project work at Indian Institute of Science, Bengaluru under the guidance Dr. N Ravi Sundaresan on the topic "Susceptibility of dengue virus with respect to tap333 polymorphism".



Mr. N. Imrankhan  
JRF DBT-BUILDER  
JSS College of Pharmacy, Ooty  
Email Id: [imumay1899@gmail.com](mailto:imumay1899@gmail.com)

**Education details:** Purchasing Doctor of Philosophy (PhD), JSS College of Pharmacy, Ooty

- Master of Pharmacy, JSS College of Pharmacy

**Projects:**

- Lipid based Nanotheranostics for the management of Atherosclerosis . This Project is aimed to develop and formulate a lipid-based nano theranostics for the management and effective treatment of atherosclerosis.
- Enhancing the bioavailability of rilpivirine hydrochloride by formulating and optimizing buccal films using the design of experiment approach. The project aimed to enhance the bioavailability of Rilpivirine hydrochloride by developing and optimizing the buccal film of Rilpivirine hydrochloride and optimizing the film using the Design of Experiment.
- Sunscreen gel preparation with rosemary oil. The project aimed to develop a sunscreen gel using rosemary oil and characterize it.

**Publications:**

- Nanotheranostics in cardiovascular diseases: a novel tool, International Journal of Applied Pharmaceutics, vol.15, Issue4 <https://doi.org/10.22159/ijap.2023v15i4.47521>
- Nagasamy Venkatesh D., et al. Dissolution Enhancement of Diacerein Using Water Soluble Carrier by Solid Dispersion Technology., Journal of Drug Delivery and Therapeutics, vol. 7, no. 5, 2017, <http://dx.doi.org/10.22270/jddt.v7i5.1503>.



Mr. Suraj B M

JRF DBT-BUILDER

Email Id: [surajbmoofficial@gmail.com](mailto:surajbmoofficial@gmail.com)

**Education details:** M.Sc. Marine Geology, Mangalore University.

**Dissertation Project:** 'Application of GIS and Remotes Sensing in Landslide Assessment of Talakaveri region.' from the Dept. of Water Resources and Ocean Engineering NITK-Surathkal.

**Achievements:** Qualified GATE-Geomatics Engg. exam 2023 with AIR-596 Qualified KSET-2021 in Earth Sciences subject



## **BOOK A FACILITY**