

Dr. SOUPARNIKA S

SCIENTIST – B at Indian Council of Medical Research - National Institute for Research in Tuberculosis (NIRT), Govt of India.

- **BSc MLT (First Rank Kerala University)**
- **MSc Med. Biochemistry (First Rank and Gold Medal, JIPMER, Puducherry)**
- **PhD Med Biochemistry (KMC, Mangalore) with UGC-NET fellowship**
- **Trained in Internal Auditing & Quality Management System**
- **Post-Doctoral Research Experience in USA**
- **Teaching experience (Assistant professor/Tutor) in Medical Biochemistry**
- **PG Diploma in Intellectual Property Rights**

Career Objective

Highly interested in **Life science Research/ Laboratory Science/ Biochemistry Teaching**. Seeking for a good opportunity where I can apply my knowledge, learn and develop my skills, to bring fruitful results beneficial to the mankind.

Research

- **Intramural research NITTE University, Mangalore:** Intestinal Barrier Integrity Biomarkers In Type 2 Diabetes Mellitus And Its Association With The Cognitive Status – Ongoing project work.
- **Short term Student Research – RGUHS, Karnataka:** Cognitive Dysfunction In Diabetes Mellitus And The Role Of Body Iron Stores – Ongoing project work.
- **Post-Doctoral Research Experience (Cell culture and Molecular Biology), University of Missouri, St Louis, USA:** at Dr James Bashkin's lab, Department of Chemistry and Biochemistry, University of Missouri, St Louis – 5th March 2018 to 12th September 2018. **Worked on effect of pyrrole-imidazole Polyamides on Human Papilloma Virus episome levels in cervical epithelial cell lines** (6 months).
- **PhD in Medical Biochemistry:** of Lipoprotein (a), oxidative stress, Annexin A5 and Matrix Metalloproteinase-9 as cardiac risk factors in **"Nephrotic Syndrome"**.
- **Senior Research Fellow (CSIR)** from 2014 November to 2017 March (2.5 years)
- **Junior Research Fellow (CSIR), Govt. of INDIA** from 2012 November to 2014 November (2 years).

Teaching

- **Assistant Professor:** From 19th November 2020 till 28th March 2022 at K S Hegde Medical Academy Mangalore, Karnataka. Taking Medical Biochemistry classes for Medical, Dental and Allied courses.
- **Tutor of Biochemistry at Srinivas Institute of Medical Science and Research Centre, Mukka, Mangalore: From 7th January 2019 – 22th October 2020.** Took Biochemistry classes for MBBS, BDS and allied courses

Laboratory

Quality Manager of NABL Accredited Clinical Laboratory including COVID lab: From 1st December 2020 till 28th March 2022 at Justice K S Hegde Charitable Hospital.

Quality Manager of COVID Lab: From August 2020 to October 2020 at Srinivas Medical College.

Laboratory Internal Quality Control, EQAS and Report validation: From 2019 January 7th till 28th March 2022 at Srinivas Medical College and Justice K S Hegde Charitable Hospital.

Certified Internal Auditor (ISO 15189;2012)

Education

Course	College	University	Year of Passing	Class	Percentage
BSc Medical Laboratory Technology (4 years course)	Govt. Medical College, Trivandrum, India	Kerala University	2009	Distinction (First rank in Kerala University)	75%
MSc Medical Biochemistry (3 years course)	Jawaharlal Institute of PG Medical Education and Research	JIPMER University, Pondicherry	2012	First Class (First rank in JIPMER University)	74.5%
Ph.D in Biochemistry	Kasturba Medical College, Mangalore	Manipal University	2017	NA	NA
PG Diploma in Intellectual Property Rights	IGNOU	IGNOU	2021	First Class	72%

Technical Skills

- **Cell Culture:** Growing and Maintaining cell lines following SOP guidelines
- **Real time PCR** to quantify the viral episomes
- **DNA isolation** and quantity/quality verification by Nanodrop
- **IC50 assays** to evaluate the effect of polyamides on viral episomal copy number
- **Aseptic techniques** in Biosafety cabinets for cell culture maintenance
- **ELISAs** to quantify many proteins (MMP, Annexin, Lp(a), etc)
- **Spectrophotometric analysis** for biomolecules
- **Collection, processing and analysis of blood samples**
- Optimization of standardization procedures in **HPLC** and analysis of variety of biomolecules
- Instruments handled: HPLC (Shimadzu), real time PCR, ELISA, Chemiluminiscent analyzer, semi-auto analyzer, Autoanalysers, SDS PAGE, Spectrophotometers, Fluorescent microscopes.
- Statistical Analysis tools - **SPSS (IBM), R.**
- **Research methodology.**
- **Manuscript writing (original articles, reviews).**
- Computer skills: MS-Office, MS-Powerpoint, MS-Excel, MS-Outlook

Course Works and Online Certifications

- Prabodhan- Biorad workshop on IQC and EQAS – November 2021
- Systematic review and Meta analysis – Coursera – August 2021
- Understanding Clinical Research – Coursera August 2021
- Indian Quality Council – ISO 15189;2012 Quality and competence – Aril 2021
- Linear Regression in R – Coursera April 2021
- Health Research Fundamentals – NPTEL – March 2021
- Blood Gases: Integrated Simulation Lab – Based Workshop” – Yen Bio Sim 2020 – 06th February 2020
- Workshop on Cell Signaling and analysis of genomics and proteomics data organized by Rajiv Gandhi Centre for Biotechnology from 19 to 21st April 2017
- Completed 6-months course on Biostatistics, research methodology from Manipal University, India in 2014.
- Worked with HPLC (High performance Liquid chromatography) for one year as a part of MSc Project work.

Competitive Exams

- **Cleared the Council of Scientific and Industrial Research (CSIR) - UGC National Eligibility Test (NET) exam for Research Fellowship and Lectureship** in August 2011 and December 2011.
- **Cleared GATE exam for Life science** in March 2011.

Trainings

- **Internal Audit & Quality Management System TRAINING PROGRAMME** as per ISO 15189: 2012, 21st - 24th Aug 2019, Father Mullers Medical College, Mangalore.

Conference Participation

- DPHICON- December 2022. Presented poster on Point of care estimation of C-reactive protein and vitamin D for tuberculosis screening in household contacts of active pulmonary tuberculosis patients in Tamil Nadu, India: A pilot study.
- IABMS, National Conference organized by Central research Lab, K S Hegde Medical Academy, Mangalore, November 2021. Presented paper on Time dependent effect of polyamides on HPV DNA
- 15th Asia Pacific Federation for Clinical Biochemistry and Laboratory Medicine Congress, 17th to 20th November 2019, Jaipur, Presented poster on Effect of Polyamide NV1078 in decreasing HPV DNA in cells.
- Time Dependent Effect of Polyamides Decreasing Human Papilloma Virus DNA in cells – poster at Missouri University of Science and technology, Rolla, Missouri in April 2018.
- Member of the Scientific Team and presented poster at ACBICON held at Kasturba Medical College, Mangalore, India in December, 2016.
- Presented poster at the 10th International Symposium in Bioorganic chemistry (Organized by IUPAC) held in Pune, India in January, 2015.
- Presented paper at SOBSICON 2014 (National Conference) organized by Yenepoya University and Mangalore University, India in October, 2014.
- Member of the Scientific Team and presented poster at the South regional ACBICON held at Kasturba Medical College, Mangalore, India in May, 2014.
- Presented poster at the International Conference of “Society of Free Radical Research”, held in Kolkata, India in January, 2012.
- Participated in the National Conference of ACBICON (All India Clinical Biochemists of India), held in Mumbai, India in December, 2010

Medals and Achievements

- **First rank and distinction-** BSc MLT, Kerala University in 2009.
- **First rank and two Gold medals-** MSc Medical Biochemistry, JIPMER in 2012.

- **First prize** for poster presentation in South regional ACBICON in May 2014.
- **First prize** for oral presentation in SOBSICON 2014 (National Conference)

Publications

1. **Souparnika S**, Benedicta D, Raajevalochana P, Srinivas K, Vivian D, Sushanth K, Poornima M (2014) Paraoxonase 1 and Cardiovascular Risk in Nephrotic Syndrome Patients. *Int J Med Pharm Sci* 4(3): 107–114.
2. Reshma Kumarchandra, Sudha Kuthethur, Poornima Manjrekar, Madan Gopal R, **Souparnika S**, Yogesh k, Ravi kumar “Evaluation of biochemical markers of renal dysfunction in prostate disorders and healthy controls”. *International journal of Biomedical and advanced research*. 2014; 5(9) 415–417.
3. **Souparnika S**, Sridhar MG, Sripradha R. “Turmeric – the yellow tinge of prophylactic safety to your cooking oil”. *Indian Journal of Nutrition and Dietetics*. 2015 Apr-Jun; 52(2):166-176.
4. **Souparnika S**, D'Souza B, D'Souza V, Kumar S, Manjrekar PA, Parthasarathy R, Kosuru S. Emerging Role of Myeloperoxidase in the Prognosis of Nephrotic Syndrome Patients Before and After Steroid Therapy. *J Clin Diagn Res*. 2015; 9(7):BC01-BC04
5. Sudha K, Reshma K, **Souparnika S**. Potential role of Vitamin D Deficiency in Non Alcoholic Steatosis. *International Journal of Pharma and Biosciences*. 2015 Oct; 6(4): (B) 133 – 137.
6. **Souparnika S**, D'Souza B, D'Souza V, Kumar S, Manjrekar PA, Rajan MG. Matrix Metalloproteinase-9 - A connecting link between Nephrotic Syndrome and its impending cardiovascular risk. *Biomedicine*. 2016; 36(4), 47-51.
7. Naik AL, Rajan MG, Manjrekar PA, Shenoy MT, **Souparnika S**, Srikantiah RM, Hegde A. Effect of DOTS Treatment on Vitamin D Levels in Pulmonary Tuberculosis. *J ClinDiagn Res*. 2017 Apr;11(4):BC18-BC22.
8. **Souparnika S**, Benedicta D'souza, Vivian D'souza. Matrix metalloproteinases in Nephrotic Syndrome-A vital but obscure field of research. *Journal of Nephropathology*. 2019 8(3);e33
9. **Souparnika S**, Benedicta D'souza, Vivian D'souza. NEPHROTIC SYNDROME, STEROID THERAPY AND ASSOCIATED CARDIOVASCULAR RISK; IS ANNEXIN A5 A BIOMARKER? 2020; Vol.6 No.1:66
10. **Souparnika S**, Benedicta D'souza, Vivian D'souza. Role of oxidant-antioxidant enzymes in managing the cardiovascular risks in nephrotic syndrome patients. *Journal of Nephropathology*. 2022 Apr, Vol. 11 Issue 2, p1-8. 8p
11. **Souparnika S**, Nayana Devang, Aradhana Marathe. Vitamin K: A simple and efficient add on to the current treatment regime of COVID-19. *Current Nutrition and Food Science*. 2022 May; Volume 18, Number 7, 2022, pp. 610-617(8).
12. Srinidhi Rai, Priya Dilraj Alva, **Souparnika Sreelatha**, Janice DSa. Do Diabetics Cherish Memories” A Study Of Cognitive Status In Type 2 Diabetics. *Journal of Pharmaceutical Negative Results* Vol. 13 Special Issue 05 (2022)

13. Devang, N., **Sreelatha, S.** & B. V., M. Assessment of inflammatory markers and their association with disease mortality in severe COVID-19 patients of tertiary care hospital in South India. *Egypt J Bronchol* 16, 55 (2022).
14. Srinidhi Raj, **Souparnika Sreelatha**, Nayana Devang, Priyadharshini Alva, A. V. Raveendran. The Microbiota–Gut–Brain Axis and Diabetic Cognitive Impairment: A Memorable Journey. *Clinical Diabetology*, 2023
15. **Sreelatha S**, Nagarajan U, Natarajan S. Protein targets in Mycobacterium tuberculosis and their inhibitors for therapeutic implications: A narrative review. *Int J Biol Macromol*. 2023 Jul 15;243:125022.