

## CURRICULUM VITAE



**DR. SANKAR RAMACHANDRAN PhD @IIT (MICROBIOLOGY),  
M.Sc. (MICROBIOLOGY), B. ED., M.Sc. (BIOMEDICAL SCIENCES)**

Contact me @

Mobile- 91+9600487318

Email-shankarsha24@gmail.com,

SkypeID-shankarsha24

### CAREER OBJECTIVES

**TOTAL 16 YEARS OF EXPERIENCE IN MICROBIOLOGY, BIOMEDICAL SCIENCES**

- My research training (PhD) and experience (PDF) is on Microbiology, Biotechnology, Molecular biology, Biochemistry, biostatistics and genomics and proteomics.
- My publications will also prove my expertise in biomolecular purification, downstream and characterization, nano particle synthesis and nano medicine, drug screening and evaluation, product development, GLP, GMP, project and staff management.

### Work Experiences:

**1. Working as Head –Product Development, Research and Development, QC Microbiology and production and internal auditor at Apex bio fertilizers and Bio pesticides, Bangladesh from September 2019 to Sep 2024**

Developing new microbes and organic based fertilizers and pesticides for organic farming, plant trails, field trials for crop yield enhancement. Field Crop trails, biostatistical and strategical analysis, data analysis. Responsible for QC and production plan. ISO, ECOCERT and other regulations

**2 Worked as Associate Professor (SL) (Biology and Microbiology), MBU (Sree VidyaNikethan engineering college (Autonomous), India from October 2017 to Sep 05, 2019**

Teaching Microbiology and Biotechnology for PG and biology for engineers for UG, my duties include lesson planning, course material, lecturing, lab classes, examinations, under graduates and master's thesis supervision.

**3. Worked as an Assistant professor in School of Natural Sciences, Adama science and Technology University Adama, Ethiopia from October 2015 to September 2017**

Teaching, Microbiology, lesson planning, course material, lecturing, lab classes, examinations, under graduates and master's thesis supervision

#### **4. Worked as a Scientist (Stem cell) in GIOSTAR, Ahmedabad, India from December 2014 to September 2015**

*Been a scientist my role was to develop and perform stem cell isolation and characterization protocols, stem cell transplant and regenerative medicine, data collection and analysis, scientific writing, GLP, Lab and Staff management, Grants writing and Research Project management. Possess 07 years' experience in Cell lines and stem cells.*

*My duties included Isolation of somatic (Adult cells), HSCS, MSCS from adipose tissues, sometimes from bone marrow for various kinds of disorders like knee arthritis, diabetes, liver cirrhosis, Parkinson's, kidney, stroke, multiple sclerosis, spinal cord injury, anti-aging. Apart from this, I also isolated adult cells in to iPSCs for hair fall treatment, and Eye diseases. I also estimate, characterize stem cells, check cell viability, phenotyping and cell sorting and processing in FACS spectrometer.*

#### **5. Worked as Post-doctoral fellow and Tutor in Dept. of Medical Biochemistry, Health Sciences, University of Cape Town, South Africa, from April 2012 to December 2014.**

*Developed and using Mass Spec and protein array-based tools for cancer biomarker discovery & validation in colorectal cancer patient tissues. In addition, I tutored medical biochemistry for Medical students.*

#### **6. Research Associate at Amrita Institute of Medical Sciences, Kochi from May 2011 to March 2012**

*Combined use of 1D-PAGE and nanoLC-ESI MS/MS to identify surrogate tyrosine phosphoprotein markers of ovarian and breast cancers, treated with VEGF and HER2/neu receptor tyrosine kinase inhibitors.*

#### **7. Worked as a Lecturer in Dept of Microbiology at Shanmuga Industries arts and Science College, under University of Madras, from July 2001 to Aug 2004.**

#### **Educational Qualification:**

- **PhD in Microbiology and Biomedical Sciences** @ School of Medical Science and Technology, Indian Institute of Technology, Kharagpur, 2011
- **M.Sc. in Biomedical Sciences** @ BundelKhand University, Jhansi, India, (Special papers: Biochemistry and Human Physiology Medicinal Chemistry, Organic chemistry and Pharmaceutical sciences), 2006.
- **M.Sc. in Applied Microbiology** @ University of Madras, Chennai, India (Special paper: Immunology and Biotechnology and Molecular Biology), 2001.
- **B.Sc. in Microbiology** University of Madras, Chennai, India in, 1999.
- **B. Ed. (Biology)** @ Tamil Nadu teachers training university, Chennai, 2020

#### **Published Papers:**

1. **R. Sankar** and M. Mandal, Azurin synthesis from *Pseudomonas aeruginosa* MTCC 2453, properties, induction of reactive oxygen species, and p53 stimulated apoptosis in breast carcinoma cells., *Journal of Cancer Science and Therapy.*, 2011,3:5:104-111 (**Impact factor – 5.09**).

2. **R. Sankar** and M. Mandal, Induction of apoptosis of azurin synthesized from *P. aeruginosa* MTCC 2453 against Dalton's lymphoma ascites model. *Biomedicine & Pharmacotherapy*, 65; 461-466, 2011 (**Elsevier, Impact factor – 2.45**).
3. Sureshkumar A, **Sankar R**, Mahitosh Mandal, Sudarsan Neogi., Effective bacterial inactivation using low temperature radio frequency plasma., *International Journal of Pharmaceutics*, 2010, 396(1-2):17-22 **Elsevier**, 2010 (**Impact factor – 2.92**).
4. **R. Sankar** and Mahitosh Mandal (2010) Screening of *Pseudomonas aeruginosa* strain for enhanced synthesis of azurin induced by copper sulphate and potassium nitrate and its characterization. *IEE Explore* 10.1109/ICSMB.2010.5735396: 322 - 325.
5. **R. Sankar** and M. Mandal, Copper sulphate enhanced synthesis of azurin from *Pseudomonas aeruginosa* MTCC2453, *Research & Reviews: A Journal of Microbiology & Virology*, 1(1), 1-4, 2011.
6. **R. Sankar** and M Mandal, Bacterial habitat of lower respiratory tract with antibiotic resistance among sanitary workers, *International Research Journal of Microbiology (IRJM)* (ISSN: 2141-5463) 3(2) pp. 045-049, February 2012.

#### Books Published:

1. Optimizing Shelf-life of *Pseudomonas fluorescens* after Freeze Drying, Nirmal Chandra Barman, Mohammad Sharif Sarker, Mahir Ahmed, Zahur Ahmed and **Sankar Ramachandran**; Submitted: August 7th, 2022 Reviewed: September 13th, 2022 Published: February 23rd, 2023, DOI: 10.5772/intechopen.108034
1. **Sankar Ramachandran**, Moganavelli Singh and Mahitosh Mandal (2012). Purification of Azurin from *Pseudomonas Aeruginosa*, *Chromatography - The Most Versatile Method of Chemical Analysis*, Leonardo de Azevedo Calderon (Ed.), ISBN: 978-953-51-0813-9, InTech, Available from: <http://www.intechopen.com/books/chromatography-the-most-versatile-method-of-chemical-analysis/purification-of-azurin-from-pseudomonas-aeruginosa>.
2. V. Arunagiri and **R. Sankar** *Basic principles of Biotechnology- a student guide* -chapter 6-8, Quest printers, Tiruvannamalai, Tamil Nadu, India.

#### Published Abstracts/Papers in Conferences:

1. Oral Presentation on "*Purification of azurin from Pseudomonas aeruginosa 2453 & its activity against human breast carcinoma cells*" presented in International Symposium on Emerging Areas in Biotechnology & Bioengineering organized by the School of Biosciences and Bioengineering, Indian Institute of Technology Bombay, Mumbai, during 25th-28th February, 2009.
2. Poster Presentation on *Production and characterizations of Azurin from Pseudomonas aeruginosa MTCC2453 and its primary evaluation of apoptotic effect in breast carcinoma cells* in 3<sup>rd</sup> FEMS congress of European Microbiologists organized by Federation of Microbiological societies at Gothenburg, Sweden during June 25<sup>th</sup> to July 2, 2009.
3. Poster Presentation on *Sterilization of Staphylococcus aureus using low pressure Ar and Ar/O<sub>2</sub> plasma* in 19<sup>th</sup> International Symposium on Plasma Chemistry organized by International Plasma Chemistry Society at Bochum, Germany, during July 26- to 31 2009.
4. Oral presentation on *Azurin combats breast cancer* in International conference on electronic design and signal processing jointly organized by IEEE Bangalore Section, ECE Department MIT Manipal & IEEE Student Branch MIT at Manipal during December 10-12 2009.
5. *Isolation and identification of lower respiratory tract bacterial infections and its antibiotic sensitivity pattern from urban sanitary Workers*-Accepted for inclusion in the INTERNATIONAL SCIENTIFIC EXCHANGE (ISE) section of the 14th International Congress on Infectious Diseases, March 9-12, 2010, Miami, USA.
6. Oral Presentation on Screening of *Pseudomonas aeruginosa* strain for enhanced synthesis of azurin induced by copper sulphate and potassium nitrate and its

characterization at ICSMB, SMST, IIT Kharagpur, during December 2010.

7. Poster Presentation on *Production and characterizations of Azurin from Pseudomonas. aeruginosa MTCC2453 and its primary evaluation of apoptotic effect in breast carcinoma cells* in 4th FEMS congress of European Microbiologists organized by Federation of Microbiological societies at Geneva, Switzerland during June 26 to June 30, 2011.
8. Oral Presentation on *Identification of c-erbB2 signaling pathways by the use of inhibitors* in International Symposium on Cancer Genomics and Its Impact in the Clinics and 31<sup>st</sup> Annual Convention of Indian Association for Cancer Research, from 26 to 29 January 2012, organized by Indian Association for Cancer Research at Advanced center for treatment, research and education in cancer, Tata memorial center, Mumbai, India.
9. Oral Presentation on Targeted delivery of micro RNA 210 and miR 20 by silk fibroin protein coated with chitosan polyelectrolyte complex porous scaffolds against breast carcinoma in BIOFEST-2012, at Leonia International centre, Hyderabad from Dec 12-13, 2012
10. Poster Presentation on Discovery of colon cancer biomarker proteins using MS spectrometry at SASBMB, June 2014 at Goudini spa, western cape, South Africa

### **Awards & Achievements**

1. University of Cape town Post Doctoral Fellowship from January 2012 to December 2014.
2. University of Cape town Faculty of health sciences Post Doctoral fellowship from January 2014 to December 2015.
3. National Doctoral Fellowship (The High value Fellowship in all over India) awarded by All India council For Technical Education, Government of India since March, 2008 through Indian Institute of Technology, Kharagpur from 2008 to March 2012
4. International Travel Grant for attending FEMS congress in Gothenburg June 28 –July 2, 2009 awarded by Department of Biotechnology, Government of India, India.

### **Personal Details:**

*Sex:* Male.  
*Date of Birth:* February 18, 1978  
*Nationality:* Indian  
*Aadhaar no.:* 6244 0352 2384  
*Fathers Name:* Mr. M. Ramachandran  
*Marital status:* Married  
*Languages Known:* Tamil, English, German, Hindi, and Telugu.  
*Address* : Eachinguppam village, Kolakaravadi Post, Tiruvannamalai taluk and district Tamilnadu, 606805

### **DECLARATION**

I hereby declare that the above mentioned facts are true to the best of my knowledge. Kindly consider this as my application.

**Place: Tiruvannamalai**

**Signature: R. Sankar**

### **References**

**Dr. Mahitosh Mandal** Associate Professor and Supervisor School of Medical Science and Technology Indian Institute of Technology Kharagpur West Bengal, PIN: 721302. Email: mahitosh@smst.iitkgp.ernet.in Phone (office): +91 - 3222 – 283578

**Dr. M.Manjunatha** Associate Professor School of Medical Science and Technology Indian Institute of Technology, Kharagpur, West Bengal, PIN: 721302. Email: mmaha2@smst.iitkgp.ernet.in Phone (office): +91 - 3222 – 282300