

Saranya Balu

sarusaranya.balu@gmail.com ✉

9037594150 📞

Kolkata, India 📍

RESEARCH INTEREST

- Bioremediation of polycyclic aromatic hydrocarbon contaminants
- Heterotrophic and photoautotrophic biofilm based bioremediation
- Phytochemical extraction and biochemical analysis
- Cell line and animal study

EXPERIENCE

Assistant Professor Biochemistry August 2025-
Department of Biochemistry, Pazhassiraja College, Pulpally Wayanad
Senior Research Assistant Jul 2018 - Mar 2021
School of Environmental studies Jadavpur University,
Kolkata 700032
Project title: *''Bioremediation of polyaromatic hydrocarbons in the Sundarbans by application of phototrophic biofilms''* funded by DBT, Govt. of West Bengal.

Senior Research Fellow Jan 2015 - Jul 2017
Division of Crop Production and Post-Harvest Technology,
ICAR-Indian Institute of Spices Research, Kozhikode,
Kerala 673012
Project title: *''Network project on High Value Compounds / Phytochemicals''*
funded by ICAR, New Delhi.

Senior Research Fellow Aug 2014 - Jan 2015
Department of Agricultural Microbiology, College of
Horticulture, Kerala Agriculture University, Thrissur, Kerala
Project title: *''Exploitation of native agriculturally important microorganisms*

EDUCATION

Ph.D. in Science Nov 2019 - Nov 2023
School of Environmental studies Jadavpur University, Kolkata 700032
Thesis title: *''Application of indigenous microbial biofilms for bioremediation of polycyclic aromatic hydrocarbon contaminants of the Indian Sundarbans''*

MSc. Biochemistry Aug 2011 - May 2013
P.S.G College of Arts & Science Bharathiar University, Coimbatore,
Tamil Nadu
Percentage: 83%

BSc. Biotech, Biochem and Microbio Jul 2008 - Jun 2011
S.B.R.R Mahajana First Grade College, Mysore University, Mysore,
Karnataka
Percentage: 83%

TRAINING

- Cell culture techniques from Regional Cancer Centre (RCC) Trivandrum, Kerala **Feb 2015 - July 2015**
- Hypoglycemic potential study in animals from College of Veterinary & Animal Sciences, Mannuthy, Thrissur, Kerala **Feb 2017 - March 2017**

JOURNAL PUBLICATIONS

1. Saranya Balu, Shantanu Bhunia, Ratan Gachhui, and Joydeep Mukherjee Polycyclic aromatic hydrocarbon sequestration by intertidal phototrophic biofilms cultivated in hydrophobic and hydrophilic biofilm-promoting culture vessels. *Journal of Hazardous Materials* (2022): 129318. (Impact factor (2022):14.224)
2. Saranya Balu, Shantanu Bhunia, Ratan Gachhui, and Joydeep Mukherjee. Assessment of polycyclic aromatic hydrocarbon contamination in the Sundarbans, the world's largest tidal mangrove forest and indigenous microbial mixed biofilm-based removal of the contaminants. *Environmental Pollution* (2020): 115270. (Impact factor (2020): 8.04)
3. Saranya B, Sulfikarali T, Chindhu S, Muneeb AM, Leela NK, Zachariah TJ. Turmeric and cinnamon dominate in antioxidant potential among four major spices. *Journal of Spices and Aromatic Crops*. 2017;26(1):27-32.

CONFERENCE PRESENTATIONS

1. Removal of polyaromatic hydrocarbon contaminants applying indigenous microbial- based mixed biofilms from Sundarbans tidal mangrove forest. Saranya Balu, Shantanu Bhunia, Ratan Gachhui, Joydeep Mukherjee, at the 6th Annual International E-Conference of Indian Network for Soil Contamination Research (INSCR) on "Microbes in sustainable development" (November 15 to 18, 2021).
2. Cinnamon and turmeric dominate in antioxidant potential among four major spices- study using sequential extracts. Saranya Balu, Sulfikarali Thondikkal, Chindhu. S, Muneeb.A.M, Leela N.K and John Zachariah. T. SYMPOSIUM OF SPICES AND AROMATIC CROP VIII at Tamil Nadu Agriculture University Coimbatore. (December 16 to 18, 2015).

AWARDS

1. Dr.HS Mehta memorial award for best Research paper (oral) presentation at SYMSAC VIII held at Tamil Nadu Agriculture University Coimbatore. (December 16 to 18, 2015).
2. Academic excellence award in the university examination 2010 – 2011 in S.B.R.R Mahajana First Grade College, Mysore.