

## SHABANAMOL S. (PhD)



**Designation:** Research Director and Assistant Professor,  
**Dept of Microbiology**  
**Qualification:** Ph D  
**Email-ID:** bioshabana@siasindia.org

She is a post graduate in Microbiology from School of Biosciences, Mahatma Gandhi University, Kottayam and secured PhD in Biosciences on the topic “BIOPROSPECTING ENDOPHYTIC LYSINIBACILLUS SPHAERICUS FOR BIOCONTROL OF RICE SHEATH BLIGHT” from the same university in the year 2016. Her teaching and research interests are in the area of major life sciences/basic sciences discipline and host-microbe interactions. Her major interests’ lies exploration of host microbe interactions in attaining sustainable development on agriculture, environment and pharmaceuticals. She is an active researcher and got publications in SCI indexed national and international journals. She has played the role of organizer in various national and international conferences, workshops and trainings. She has also edited 3 books and 2 proceedings and authored more than 6 book chapters. She actively delivers invited talks on Academic writing and Research methodology.

### EDUCATIONAL QUALIFICATION

**PhD in Microbiology:** 05/02/2010 – 21-05-2015 (Thesis submitted on July 2015, awarded on Nov2016)

Institute: School of Biosciences, M G University, Kottayam, Kerala, India

Thesis: Bioprospecting endophytic diazotrophic bacteria for biocontrol of rice sheath blight Supervisor: Prof Dr. Jisha M S. School of Biosciences, M G University, Kottayam, Kerala, India

**University Postgraduate in Microbiology,** School of Biosciences, M G University, Kerala. (2005)

Thesis: Effect of UV mutation on nitrogenase activity of *Azotobacter sp.*. Isolated from rhizosphere soil

**University graduate in Zoology & Food Microbiology, MG University, India (2001)**

## **WORK EXPERIENCE**

04/01/2019 – Present: **Assistant Professor and Research Director**, SAFI Institute of Advanced Study, Malappuram, Kerala, India.

04/12/2017 to Present: **Assistant Professor in Microbiology**, SAFI Institute of Advanced Study, Malappuram, Kerala, India.

05/02/2010-21/03/2015: **Project Assistant/PhD Student**, School of Biosciences, M G University, Kottayam, Kerala, India. Supervisor. Prof.Dr. Jisha M S, Project-Molecular Characterization of endophytic diazotrophic bacteria against rice sheath blight disease. UGC Govt.of India, Major Research Project. (60% Project and 40% UGC project work).

06/10/2008 – 31-12-2008: **Lecturer**, Cochin College, Cochin, India

03-10-2006 – 20-06-2008: **Consultant Clinical Microbiologist**, Ideal Diagnostic Laboratory, Kasaragod, Kerala, India.

21-08-2006 – 20-06-2008: **Lecturer**, Khanza Women's College for Advanced Studies, Kasaragod, Kerala India

12-05-2005 – 20-08-2006: **Microbiologist**, Doctor's Diagnostic and Research centre, Pathanamthitta, Kerala, India

## **PRIZES, AWARDS, SCHOLARSHIPS, GRANTS AND RECOGNITIONS**

- Awardee of **University Junior research fellowship** for PhD by M G university, Kerala, India
- Awardee of **Research fellowship** for project assistant by UGC, Government of India.
- **Best Female faculty Award** at International 'International Virtual conference on Vistas in Plant Science Research for human welfare' on 29<sup>th</sup> August 2020
- **Best Paper Award First prize in** international symposium on Eco-Friendly Technologies for a sustainable Future on 19<sup>th</sup> February 2021
- **Best Teacher Award** (College) 2019-20

## AREA OF INTERESTS

- Host Microbe interactions
- Bioremediation using nanobiocomposites
- Immunomodulatory and Anticancer activities of endophytes of medicinal plants
- Versatile applications of plant and microbial secondary metabolites
- Biocontrol and bioinoculant formulation
- Food Microbiology and Food safety

## PUBLICATION

1. **Shabanamol S**, Edna Mary Varghese, Meenu Thampi Sreekumar J and Jisha M S (2021) Characterization of the major antifungal extrolite from rice endophyte *Lysinibacillus sphaericus* against *Rhizoctonia solani*". Archives of Microbiology (Springer) <https://link.springer.com/article/10.1007/s00203-021-02229-2> IF 1.607ISI
2. **Shabanamol S**, Edna Mary Varghese, Meenu Thampi Sreekumar J and Jisha M S (2020). Enhancement of growth and yield of rice (*Oryza sativa*) by plant probiotic endophyte *Lysinibacillus sphaericus* under greenhouse conditions. Communications in Soil Science and Plant analysis. DOI: [10.1080/00103624.2020.1751190](https://doi.org/10.1080/00103624.2020.1751190) Taylor and Francis (IF-0.76 ISI)
3. Tijith K George, Aju K Asok, **Shabanamol S**, Sharrel Rebello and Jisha M S (2019). Plant growth Promoting endophytic Yeast *Geotrichum candidum* from *Bruigueria cylindrica*. Journal of Microbiology, Biotechnology and Food Sciences. (Scopus Indexed)
4. **Shabanamol S**, Divya K, Tijith K George, Rishad K S and Jisha M S (2018). Characterization and in planta N fixation of endophytic diazotrophic *Lysinibacillus sphaericus* isolated from Rice (*Oryza sativa*). Physiological and Molecular plant pathology (102)46-54. Elsevier (IF 2.7 ISI) <https://doi.org/10.1016/j.pmpp.2017.11.003>
5. **Shabanamol S**, Sreekumar T S and Jisha M S (2017). Bioprospecting endophytic diazotrophic *Lysinibacillus sphaericus* for biocontrol of rice sheath blight. 3 Biotech (Springer) <https://doi.org/10.1007/s13205-017-0956-6>. (IF 2.27 ISI)
6. Rishad K. S, Sharrel Rebello, **Shabanamol S**, Jisha M. S, (2016), Biocontrol potential of Halotolerant bacterial chitinase from high yielding novel *Bacillus Pumilus* MCB7autochthonous to mangrove ecosystem. Pesticides biochemistry and Physiology [doi:10.1016/j.p.2016.09.005](https://doi.org/10.1016/j.p.2016.09.005) Elsevier (IF 3.96) ISI
7. Rishad, K.S., Rebello, S., Nathan, V.K., **Shabanamol, S**, Jisha, M.S., (2016). Optimised production of chitinase from a novel mangrove isolate, *Bacillus pumilus* MCB-7 using response surface methodology. Biocatalysis and Agricultural Biotechnology, 5, pp.143-149. Elsevier (IF 0.821)
8. Stephen J, **Shabanamol S**, Rishad K S and Jisha M S (2015). Growth enhancement of rice (*Oryza sativa*) by phosphate solubilizing *Gluconacetobacter* sp. (MTCC 8368) and

- Burkholderia sp.* (MTCC 8369) under greenhouse conditions. 3 Biotech, (Springer) DOI10.1007/s13205-015-0286-5 (IF 2.27ISI)
9. Tijith K George, Aju K Asok, **Shabanamol S**, Sharrel Rebello and Jisha M S (2015). Endophytic mycotic diversity of *Bruguiera cylindrica* and *Rhizophora candelaria* from Ayiramthengu mangrove ecosystem, Kerala. Annals of Biological Research 6 (5).
  10. **Shabanamol S** and Jisha M S. (2014). Assessment of endophytic diazotrophic bacteria for biocontrol of rice sheath blight. Indian streams research journal.3(12):1-6 .
  11. Salini T S, Dibu Divakaran, **Shabanamol S**, Sharrel Rebello and Jisha M S.(2014). Antimicrobial and immunomodulatory potential of endophytic fungus *Fusarium solani* isolated from *Withania somnifera*. World journal of pharmaceutical research. 3(10). 879-890.
  12. **Shabana mol S.**, Fathima P.A and Jisha M.S (2013).Influence of UV mutations on plant growth promoting properties of *Azotobacter sp.* isolated from rhizosphere soils of vegetable crops in Kerala. Review of research. 2( 5): 8-12.
  13. **Shabanamol S**, Athul SandeepR and Jisha M. **S (2007)**. Effect of UV mutation on the Nitrogenase activity and pesticide tolerance of *Azotobacter sp* isolated from Rhizosphere soil. Pollution Research. 26(4):773-776. (IF 0.37)

## PRESENTATIONS

**ORAL PRESENTATIONS IN CONFERENCES (AS PRESENTER) Only Major Five is listed here (Presentations by students are not included here)**

1. **Shabanamol S (2021)**. Plant probiotic properties of endophytic diazotrophic *Lysinibacillus sphaericus*. International Conference by Biotechnology Society of Nepal.
2. **Shabanamol S (2021)**. Growth Enhancement of *Oryza sativa* by native endophytic diazotrophic *Lysinibacillus sphaericus*. 33<sup>rd</sup> Kerala Science Congress
3. **Shabanamol S, (2020)** Phytochemical screening, Antioxidant and Antimicrobial activities of endophytic bacteria isolated from *Moringa oleifera* leaves. International conference on Emerging strategies in antimicrobial agents and Bio-innovations
4. **Shabanamol S and Jisha M S (2020)**. *In planta* Nitrogen fixation and growth promotion by plant probiotic endophytic *Lysinibacillus sphaericus* isolated from *Oryza sativa*. International Virtual conference on Vistas in Plant research for Human welfare.
5. **Shabanamol S and Arifa P P (2020)**. Biocontrol properties of native endophytic bacteria against black mold disease of *Allium sativum* (Garlic). 29<sup>th</sup> Swadeshi Science Congress, Kerala. (Contest paper)

## **WORKSHOPS/ TRAINING ATTENDED**

FDP on Metagenomics

FDP on LMS

Training/Certificate on Computer Aided Drug Designing (CADD)

## **INVITED TALKS**

1. Art of Scientific writing (2022)
2. Bioprospecting endophytic bacteria as biocontrol agents (2021)
3. Insights into the research Opportunities of Higher Education of Women in Malabar (2021)
4. Research methodology of Social Sciences (2021)
5. Basic Approaches in Scientific Writing Skills (2020)
6. COVID 19 and its Impacts on NRI families in KSA (2020)
7. Academic Writing Skills (2019)

## **MEMBERSHIP/ CERTIFICATIONS**

State office bearer of Microbiology Society India, Kerala Chapter

## **OTHER DUTIES (INTERNAL/EXTERNAL)**

Research Director,

Member Academic Council, SIAS,

Coordinator of college Publication Division,

Member of Internal Quality Assurance Cell (IQAC),

Joint coordinator of National Assessment and Accreditation Council (NAAC-College wing), Mentor of Science Research Leader's group- SAFI Leaders Academy,

Microbiology association in Charge,