

Curriculum Vitae

Dr. Prabhukarthikeyan S R

Scientist (Plant Pathology)

ICAR-National Rice Research Institute, Cuttack, Odisha, India

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1. Areas of Specialization: Molecular Plant Pathology, Biological Control

2. Education: Ph. D in Plant Pathology

3. Professional History

- Joined Indian Council of Agricultural Research (ICAR) on 1th July 2015 as Agricultural Research Scientist (ARS).
- Attended 102 Foundation Course for Agricultural Research Services at National Academy of Agricultural Research Management (NAARM), Hyderabad, India.
- Working as Scientist (Plant Pathology), in Crop Protection Division of National Rice Research Institute (NRRI), Cuttack from 9th October 2015 till date.

4. Publications

- Research papers: 54; Review papers: 3; popular articles: 15; books: 2; technical bulletins: 3; research bulletins:1 and book chapters: 8.
- H-index: 14, i10-index: 16 with more than 570 citations in international literature.

Publications (As a First Author/Corresponding Author)

- **Prabhukarthikeyan S. R.**, Parameswaran C., Shraddha Bhaskar Sawant, Keerthana U., Manoj K Yadav, Raghu S., Mathew S Baite, Arabinda Mahanty, Panneerselvam P., Anandan A., Rath P. C. 2022. Unravelling the molecular basis of *Bacillus megaterium* interactions in rice for plant growth promotion through proteomic approach. *Journal of Plant Growth Regulation*. <https://doi.org/10.1007/s00344-022-10750-x>.
- **Prabhukarthikeyan S. R.**, Parameswaran C., S.B. Sawant., R. Naveenkumar., Mahanty, A., Keerthana, U., Yadav, M.K., Anandan, A., Panneerselvam, P., Bag, M.K., and P.C. Rath 2022. Comparative Proteomic Analysis of *Rhizoctonia solani* Isolates Identifies the Differentially Expressed Proteins with Roles in Virulence. *J. Fungi*, 8, 370. doi: [10.3390/jof8040370](https://doi.org/10.3390/jof8040370).
- U. Keerthana., M. Phalguni., **S. R. Prabhukarthikeyan (Corresponding author)**., R. Naveenkumar., Manoj K. Yadav., C. Parameswaran., Mathew S. Baite., S. Raghu., Madem Gurivi Reddy., S. Harish., P. Panneerselvam and P. C. Rath. 2022. Elucidation of the population structure and genetic diversity of *Bipolaris oryzae* associated with rice brown spot disease using SSR markers. *3 Biotech* 12:281. <https://doi.org/10.1007/s13205-022-03347-4>
- Shraddha Bhaskar Sawant, Mihira Kumara Mishra, **S. R. Prabhukarthikeyan (Corresponding author)**, Akshya Kumar Senapati and Kailash Chandra Samal. 2022. Biochemical characterization of *Bacillus* species isolated from rice rhizosphere in Odisha. *Oryza*, 59(4): 470-482. <https://doi.org/10.35709/ory.2022.59.4.10>

- **Prabhukarthikeyan, S. R.** Keerthana, U. Nagendran, K. Yadav M. K. Parameswaran C., Panneerselvam P. and Rath. P. C. 2021. First report of *Fusarium proliferatum* causing sheath rot disease of rice in eastern India. *Plant Disease*, 105:704. DOI: [10.1094/PDIS-08-20-1846-PDN](https://doi.org/10.1094/PDIS-08-20-1846-PDN).
- **Prabhukarthikeyan S. R.**, Parameswaran, C. Keerthana, U. BasavarajTeli, Prasanth Tej Kumar Jagannadham, B.Cayalvizhi, P.Panneerselvam, Ansuman Senapati, K. Nagendran, Shweta Kumari, Manoj Kumar Yadav, S. Aravindan, S. Sanghamitra, 2020. Understanding the Plant-microbe Interactions in CRISPR/Cas9 Era: Indeed, a Sprinting Start in Marathon. *Current genomics*, 21(6), 429-443. DOI: [10.2174/1389202921999200716110853](https://doi.org/10.2174/1389202921999200716110853).
- **Prabhukarthikeyan S R.**, Manoj K. Yadav., Anandan A., Aravindan S., Keerthana U., Raghu S., Mathew S Baite., Parameswaran C., Panneerselvam P., Rath P C. 2019. Bio-protection of brown spot disease of rice and insight into the molecular basis of interaction between *Oryza sativa*, *Bipolaris oryzae* and *Bacillus amyloliquefaciens*. *Biological control*, 137: 104018. <https://doi.org/10.1016/j.biocontrol.2019.104018>.
- **Prabhukarthikeyan S R.**, Keerthana U., Manoj K Yadav and Raguchander T. 2019. Comparative analysis of genetic diversity among fluorescent pseudomonads using RAPD and ISSR fingerprinting. *Research Journal of Biotechnology*, 14(7): 86-93
- **Prabhukarthikeyan S R.**, Keerthana U and Raguchander T. 2018. Antibiotic-producing *Pseudomonas fluorescens* mediates rhizome rot disease resistance and promotes plant growth in turmeric plants. *Microbiological Research*, 210: 65-73. <https://doi.org/10.1016/j.micres.2018.03.009>.
- Elanchezhian K, Keerthana U, Nagendran K, **Prabhukarthikeyan S.R (Corresponding author)**, Prabakar K, Raguchander T and Karthikeyan G. 2018. Multifaceted benefits of *Bacillus amyloliquefaciens* strain FBZ24 in the management of wilt disease in tomato caused by *Fusarium oxysporum f. sp. lycopersici*. *Physiological and Molecular Plant Pathology*, 103: 92-101. <https://doi.org/10.1016/j.pmpp.2018.05.008>.
- **S. R. Prabhukarthikeyan**, A. Anandan, Pradosh Mahadani, Manoj K Yadav, Keerthana U, Aravindan S, Raghu S, Mathew S Baite, Srikanta Lenka, Panneerselvam P and P.C. Rath. 2018. An efficient 2-D Gel Electrophoresis protocol suitable for seed proteome of rice. *Oryza*, 55: 523-527. DOI [10.5958/2249-5266.2018.00063.2](https://doi.org/10.5958/2249-5266.2018.00063.2)
- **Prabhukarthikeyan S. R.**, Manikandan R., Durgadevi D., Keerthana U., Harish S., Karthikeyan,G. and Raguchander T. 2017. Bio-suppression of turmeric rhizome rot disease and understanding the molecular basis of tripartite interaction among *Curcuma longa*, *Pythium aphanidermatum* and *Pseudomonas fluorescens*. *Biological control*, 111: 23-31. <https://doi.org/10.1016/j.biocontrol.2017.05.003>.
- **Prabhukarthikeyan, S. R.**, Keerthana, U. and Raguchander, T. 2017. Analysis of genetic diversity among different isolates of *Beauveria bassiana* by RAPD-PCR. *Journal of Biological Control*, 31(1): 18-24. <https://doi.org/10.18311/jbc/2017/15581>
- **Prabhukarthikeyan, S. R.** and Raguchander, T. 2016. Antifungal metabolites of *Pseudomonas fluorescens* against *Pythium aphanidermatum*. *Journal of pure and applied microbiology*, 10, 579-584.
- **Prabhukarthikeyan, S. R.**, Karthikeyan, G. and Raguchander, T. 2015. Molecular characterization of *pythium aphanidermatum* causing rhizome rot disease in turmeric. *Biochemical and Cellular Archives*, 15, 265-269.

- **Prabhukarthikeyan S. R.**, Karthikeyan G. and Raguchander T. 2015. Biochemical characterization of fluorescent pseudomonads from turmeric rhizosphere. *Biochemical and Cellular Archives*, 15, 299-303.
- **Prabhukarthikeyan, S. R.**, Saravanakumar, D. and Raguchander T. 2014. Combination of endophytic *Bacillus* and *Beauveria* for the management of *Fusarium* wilt and fruit borer in tomato. *Pest Management Science*, 70, 1742–1750. doi: 10.1002/ps.3719. Epub 2014 Feb 17.
- **Prabhukarthikeyan, S. R.**, Karthikeyan, G., Jeyarani S. and Raguchander T. 2014. PCR based amplification of chitinase gene from native isolates of *Beauveria bassiana*. *Journal of Biological Control*, 28, 31–34.
- **Prabhukarthikeyan, S. R.**, Karthikeyan, G., Jeyarani S. and Raguchander T. 2014. PCR based identification and characterization of lipopeptides producing *Bacillus* against *Fusarium oxysporum* f. sp. *lycopersici*. *Biochemical and Cellular Archives*, 14,133-140.
- **Prabhukarthikeyan, S. R.**, Karthikeyan, G., Raguchander, T. and Jeyarani S. 2013. Susceptibility of Tomato Fruit Borer, *Helicoverpa armigera* (Lepidoptera: Noctuidae) to *Beauveria bassiana* (Balsamo) Vuillemin. *Madras Agric. J.*, 100, 113-118.

5. Awards and Recognitions:

- **University Grants Commission (UGC)** fellowship for Ph. D.
- **Best Ph. D thesis award** provided by Samagra Vikas Welfare Society (SVWS)
- **Fellow award** from Society for Biocontrol Advancement (2021), Bengaluru.
- **Editorial Advisory board member** for Physiological and Molecular Plant Pathology (Elsevier)
- **Editorial board member** for Natural resources for human health
- **Life member** of Indian Phytopathological Society, Association of Rice Research Workers and Society of Biocontrol Advancement.
- **Outstanding contribution in Reviewing** awarded by Physiological and Molecular Plant Pathology (Elsevier)
- **Reviewer certificate award** by Journal of Applied Microbiology and Letters in Applied Microbiology (Wiley)
- **Certificate of Reviewing** awarded by Biological Control (Elsevier)
- **Best oral presentation award** during International Web Conference (GRISAAS -2020)
- **Best oral presentation award** during Sixth National Conference on Biological Control (2021) held at Bengaluru.