Vaishnavi H Salunkhe

Pune, India 411008
+91 8275377012
vaishnavihsalunkhe@gmail.com

SKILLS

Microbiology
- Experimental design
- Bacterial isolation from soil and identification
- Microbiological techniques

Molecular biology
- DNA isolation expert: isolation, electrophoresis, Nanodrop, and Qubit-based evaluation
- PCR, real-time PCR
- Metabolomics, sample preparation, data acquisition, and analysis

Bioinformatics
- Amplicon-based metagenome data analysis and interpretation
- R software usage
- 16S rRNA gene-based data curation and identification
- Biostatistics

General skills
- Strong analytical and problem-solving abilities, with keen attention to detail.
- Excellent written and verbal communication skills, with experience in preparing scientific reports and delivering presentations.
- Critical thinking and decision making
- Able to effectively collaborate with multidisciplinary teams and work independently to achieve project goals.
- Highly motivated and dedicated to ongoing professional development in the field of research

CERTIFICATIONS

- Secured all India rank 69 in the CSIR-UGC National Eligibility Test
- Certification course on "Laboratory Management & Food Analysis " by Shivaji University, Kolhapur

EDUCATION

CSIR-National Chemical Laboratory, *Pune, 2024*
Doctor of Philosophy: **Biological sciences**
Worked on a thesis titled: "Seasonal dynamics and bioprospecting of rhizospheric microbiota from the Western Ghats."

Yashwantrao Chavan College of Science, *Karad, 2014*
Master of Science: **Microbiology**
- Dissertation topic: "Production, Partial Characterization, And Application of Lipase from Halophilic Archaea."

Willingdon College, *Sangli, 2012*
Bachelor of Science: **Microbiology**

CONFERENCES AND WORKSHOP

- NextGen Genomics, Biology, Bioinformatics and Technologies (NGBT) Conference, 2016
- Two-day international symposium on ' Microbial Ecology and Systematics, Pune, 2016
- Participated in the 5-day intensive workshop 'Statistical Methods in Microbiome Research' tutored by Prof. Dr. Susan Holmes and Dr. Leo Lahti

SUMMARY

Trustworthy researcher with 7+ years of practical experience, expertise in analysis and quantitative problem-solving skills, and a dedicated work ethic. Ability to work independently and in a team-oriented environment. Self-motivated to consistently provide first-class results in line with stringent targets and deadlines.

PROJECTS

- ISSR markers-based DNA analysis of *Vigna radiata* (Moong).
- The effects of *Bacillus subtilis* probiotic administration on the fecal bacterial

microbiome, milk production, milk and blood components of Holstein cattle.
- Developing an RT-PCR-based detection method for Mucormycosis and associated infections.
- Designed, planned, and conducted a project titled "Seasonal dynamics and bioprospecting of rhizospheric microbiota from the Western Ghats" for Ph.D.

ADDITIONAL INFORMATION

- Delivered lectures and trained 10+ students on "Amplicon sequencing metagenomics data analysis" twice in a CSIR-Skill Development Program.
- Mentored and trained 2 master's students for 6+ months in research methodology, logical thinking, and scientific writing.
- Associated with Malhotra Weikfield Foundation, a scholarship grant program as a mentor.
- Volunteered in the 'Eco-friendly Ganesh Visarjan project' by creating public awareness through demonstrations for implementing the eco-friendly process.

EXPERIENCE

Senior Research Fellow, 01/2018 – Current
CSIR-NCL, Pune, India
- Performed LCMS-based metabolomics and data analysis of underexplored soil samples.
- Performed R program-based data analysis of diversity and distribution of fungal communities in rhizosphere soil.
- Organic acid detection using HPLC.
- Prepared research reports, presentations, and manuscripts for publication.

Junior Research Fellow, 01/2016 - 12/2017
CSIR-NCL, Pune, India
- Extracted DNA from critical soil samples using the traditional method.
- Conducted in vivo and in vitro studies of plant-beneficial bacteria for their abiotic stress alleviation properties.
- Used research computer software and statistical algorithms to process data.
- Conducted in-depth research utilizing various techniques, including qualitative and quantitative methods.

Trainee microbiologist, 05/2012 - 06/2012
Pranav agro-industries Ltd., Sangli, India
- Worked closely with the R&D head on isolating plant-beneficial fungi and developed formulations for agricultural application.
- Nitrogen quantification using the Kjeldahl apparatus.

PUBLICATION

- **Salunkhe, V.H**., Kunte, P.S., Paul, D., Kasodekar, A.K. and Kadoo, N.Y., 2023. Seasonal dynamics and tree foliar habit drive the rhizobacterial diversity in congeneric Ficus species from Northern Western Ghats, India. Rhizosphere,p.100790. https://doi.org/10.1016/j.rhisph.2023.100790

REFERENCES

- **Dr. Narendra Kadoo**, Chief Scientist, Biochemical Sciences Division, CSIR-National Chemical Laboratory Homi Bhabha Road, Pashan, Pune 411008, Maharashtra, INDIA; Phone: +91-020- 25902724/2247; E-mail: ny.kadoo@ncl.res.in

- **Dr. Mahesh S. Dharne**, Principal Scientist and Head, National Collection of Industrial Microorganisms (NCIM) CSIR-National Chemical Laboratory Homi Bhabha Road, Pashan, Pune 411008, Maharashtra, INDIA; Phone: +91-020-25902456; E-mail: ms.dharne@ncl.res.in

- **Dr. Dhanasekaran Shanmugam**, Senior Principal Scientist, Biochemical Sciences Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune, 411008, Maharashtra, INDIA; Phone: Tele: +91-20-25902719; E-mail: d.shanmugam@ncl.res.in