BIO-DATA

Personal Information:

Name:	**Pinkilata Pradhan**
Father's Name:	Raghubir Pradhan
Mother's Name:	Sumati Pradhan
Date of Birth:	20-07-1995
Sex:	Female
Nationality:	Indian
Language known:	English, Hindi, and Odia
Address:	Research scholars' home, Institute of Lifesciences (ILS), NALCO square, Bhubaneshwar, Odisha, India, 751023.
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Objective:

I am a Ph.D. scholar with a strong background in microbiology and bacterial pathogenesis. I am eager to contribute to research that enhances our understanding of microbial systems and antimicrobial resistance. I seek opportunities to apply my skills in molecular biology, genetics, and experimental design, aiming to drive innovation and make meaningful scientific contributions in academic or industrial settings.

Achievements:

- Secured a **JRF** rank in all India-level entrance tests conducted by the **Joint CSIR-UGC test** in **2017**.
- Secured a rank in all India-level entrance tests conducted by the Graduate Aptitude Test in Engineering **(GATE)** in 2019.

Current and past workplace:

- Currently serving as a Senior Research Fellow **(SRF)** and **Ph.D**. scholar at the Institute of Life Sciences in Bhubaneswar, India, **since 2021**.
- Previously held the position of Junior Research Fellow **(JRF)** at the Institute of Life Sciences in Bhubaneswar, India, from **2019 to 2021.**

Workshop achievement:

- Participated in the Symposium on **Pathogen discovery and management of future epidemic** (2024).
- In 2023, I had the opportunity to participate in the **Bacterial Cell Biology and Development Gordon Research Conference, USA**.
- Attain 4th Online International **Flow Cytometry Course** organized by **Trust for Education and Training in Cytometry (TETC)**, India (2023).
- Participated in the Symposium on **Emerging Trends in Biological Sciences Research** (2019).

Educational qualifications:

Examination	**Discipline/ Specialization**	**School/College**	**Board/ University**	**Year of Passing**	**Percentage (%)**
Matriculation	ALL	Laxminarayan High School, Dunguripali	Board of Secondary Education, Odisha	2010	70.11
Intermediate	Science	Jaydev Institute of Science and Technology	Council of Higher Secondary Education, Odisha	2012	67.8
B.Sc.	CBZ	Anchal College Padampur	Sambalpur University	2015	70.6
M.Sc.	Zoology	College of Basic Science and Humanities, Bhubaneswar	Orissa University of Agriculture and Technology (OUAT), Bhubaneswar	2017	86.74
M.Phil.	Life Sciences	Sambalpur University	Sambalpur University	2018	84

Academic Projects

- M. Sc thesis entitled **"Tracing a Gene of Synthetic Pathway of Essential Aromatic Amino Acid".**
- M.Phil thesis entitled is based on **"Biological synthesis of Selenium nanoparticles by using Cyanobacteria species".**

Field of interest:

- Infectious biology
- Molecular Biology
- Biochemistry
- Cell Biology
- Bioinformatics
- Microbiology

Computer skills

- Multimedia
- Basic computer, and software knowledge
- Basic knowledge of R programming
- MS Word, MS Excel, PowerPoint, Adobe Photoshop, Adobe Illustrator, ImageJ, GraphPad Prism, Snapgene, etc.

Strength and Abilities

- Good communication skills.
- Can work in a team or as a single person.
- Good command of practical knowledge of the subject.
- Dedicated, hard-working, focused, and punctual.
- Mentored four post-graduated and three undergraduate students during my Ph.D.

Practical knowledge:

- Molecular biology (Cloning, Vector design, Plasmid design, DNA isolation, RNA isolation, PCR, Site-directed mutagenesis,qRT-PCR, Sequencing data analysis, Western Blot, Yeast Two-hybrid assay, Reporter assay designing, In vitro transcription, EMSA)
- Biochemistry (GTPase and ATPase assay, Pull-down assay, ATP determination assay, Phosphorylation assay, Protein-protein interaction, protein drugs interaction, Protein polymerization and sedimentation assay, RNA cleavage assay)
- Microbiology (Bacteria swarming motility assay, Biofilm, Flagella staining, Antibacterial susceptibility test, Antibiotic resistance analysis, Antibiotics Synergy, kill kinetics, Cyanobacteria Culture, etc.)

- Protein Expression and Purification, AKTA, Protein-protein and Protein-DNA interaction
- Isothermal titration calorimetry (ITC)
- Imaging with a Confocal microscope (STED) and other microscopes like Cell Discover, Apotome, and other fluorescence microscopes.
- Live cell imaging
- TEM and SEM sample preparation
- CD spectroscopy and UV-VIS spectroscopy
- Plate Reader
- Fluorescence spectroscopy
- Nanoparticles synthesis
- BSL 2
- Mammalian Cell culture
- Bioinformatics knowledge like Homology Modelling, Molecular Docking, BLAST, Sequence alignment, Structural alignment, etc.
- Flow cytometer
- Liposome vesicle preparation

References

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Publications:

1. **Pradhan P,** Taviti AC, Beuria TK. The bacterial division protein MinDE has an independent function in flagellation. **J Biol Chem. 2024** Feb 23;300(4):107117. doi: 10.1016/j.jbc.2024.107117. PMID: 38403244; PMCID: PMC10963238
2. **Pradhan P**, Margolin W, Beuria TK. Targeting the Achilles Heel of FtsZ: The Interdomain Cleft. Front Microbiol. **2021** Sep 8; 12:732796. doi: 10.3389/fmicb.2021.732796. PMID: 34566937; PMCID: PMC8456036.
3. Alexander, C., Guru, A., **Pradhan, P**. *et al.* MazEF-rifampicin interaction suggests a mechanism for rifampicin-induced inhibition of persisters. ***BMC Mol and Cell Biol*** **21**, 73 (**2020**).

DECLARATION

I hereby declare that the information mentioned above is correct up to my knowledge and I bear the responsibility for the correctness of the particulars mentioned above.

Place: Bhubaneshwar

Date: 29-08-2024 **PINKILATA PRADHAN**