

CURRICULUM VITAE

PHOTO	
	Name: - Swetaleena Senapati Designation: - M.Sc. Demonstrator Address for correspondence: - C/O – Rama Chandra Jena Plot No–735-B, Kaibalya Vihar, Dumduma, Phase-4, Near Gandhi seva Niketan, Bhubaneswar Post- Khandagiri, Dist.: - Khurda, ORISSA, Pin code: - 751019 Date of birth - 26/05/1985 Area of expertise: - Molecular Biology, Biochemistry, Microbiology, Instrumentations Mobile no: - 9040252993 ,7978402892 E-mail: - swetaleenasenapati@gmail.com Date of joining: - 21/08/2017

Statement of purpose: -

I possess a high degree of confidence in my analytical skills and knowledge in the areas of Molecular Biology, Biochemistry, Plant Tissue Culture, Plant Physiology, and Microbiology. In search of a career that provides an opportunity to learn and contribute toward the achievement of organizational objectives, I am eager to apply my skills and knowledge in the field. My areas of expertise are extensive, and I am highly motivated to bring them to bear in a professional setting. With an unwavering passion for learning and contributing, I am confident that my expertise will make a significant contribution toward the achievement of organizational goals.

Educational Qualification: -

Course	University/Board	Year of passing	Percentage
High School	BSE	2001	72 %
Intermediate	CHSE	2003	51%
B.Sc. Biotechnology	Utkal University	2007	66%
PGDCA	C'TECH, Berhampur	2009	70%
M.Sc. Biotechnology	Berhampur University	2010	74%

M.Sc dissertation work: -

Project Title: "Alkaline Thermostable α -Amylase Synthesizing Bacteria from Hot Springs" aimed to isolate bacteria that can synthesize alkaline thermostable α -amylase enzymes. The study successfully identified bacteria that produce these enzymes from hot springs, providing valuable insights into their potential for industrial applications.

Advisor: Dr. R.C Roy, Retired Principal Scientist Central Tuber Crops Research Institute, Bhubaneswar, Odisha
Phone No: 9777771840

Technical Skills:

- **Molecular Biology** - Isolation, purification, and fingerprinting of DNA and Proteins; Electrophoresis, PCR, RAPD, RFLP, Southern blotting, Western Blotting.
- **Transformation** - Agrobacterium-mediated transformation of Plants.
- **Plant Tissue Culture** - Cell-suspension culture, Protoplast, Callus, and Embryo Culture.
- **Biochemistry** - DNA, RNA, Protein, Reducing Sugar, and Sugar Estimation, Paper Chromatography of Pigments and Amino acids, Thin Layer Chromatography of amino acids, SDS-PAGE.
- **Microbiology** - Sterilization techniques, Bacterial culture, Fungal Culture, Plasmid Isolation & mapping, Restriction Digestion & mapping of lambda DNA, Isolation of Genomic DNA from Bacteria & Fungi, Estimation of CO₂, DO, alkalinity, acidity, total chloride & total chlorine from water samples, Biochemical Analysis like IMViC test, TSI, Urease & Oxidase, Gram Staining & Cotton Blue Staining, etc.
- **Computer skills** - PGDCA.

Work Experiences/ Projects: -

1. I worked as a **Technical Assistant** in a Plant tissue culture laboratory at the **Center for Plant Tissue Culture & Biotechnology in Tamando, Bhubaneswar** from February 2010 to February 2011.

Job responsibilities: - The commercial production of four varieties of banana by using tissue culture methods for cultivation and sale in the market. I also provided theory and practical training to B.Sc. and M.Sc. students from different colleges who had registered for various training program.

2. I also worked as a **Junior Research Fellow** at **O.U.A.T in Bhubaneswar**, on a project named "**Developing Transgenic Mungbean Plant for Abiotic Stress (Cold Tolerance) with RD29A:DREB1A Mediated by Agrobacterium Tumefaciens**" under the RKVY project from April 1, 2011, to June 19, 2012.

Job responsibilities: - Developing an efficient regeneration protocol through direct organogenesis in Mungbean - Establishing an effective in vitro Agrobacterium-mediated transformation protocol for genetic transformation in Mungbean - Conducting molecular analysis of transgenic plants of Mungbean produced by transformation.

3. I have served as a **Senior Research Fellow** at the **Central Rice Research Institute**, as part of the "**National Initiative on Climate Resilient Agriculture (EAP-158)**" project, During the period of June 20, 2012, to March 31, 2016.

Job responsibilities -evaluating rice germplasm for tolerance to anaerobic germination by studying different physiological parameters. Additionally, conducted SSR marker analysis to study allelic diversity between varieties and identify molecular markers associated with anaerobic tolerance. Also studied enzymes associated with carbohydrate metabolism of plants tolerant to low oxygen stress at germination stage. Lastly, studied different methods of seed treatment to improve germination and crop establishment under submergence conditions.

4. I am currently employed as a **Laboratory Demonstrator (Biotech & Microbiology)** at **Trident school of Biotech Sciences (Trident Academy of Creative Technology)** since 21/08/2017 to till date.

Job responsibilities - demonstrating techniques of molecular biology, biochemical analysis, plant tissue culture, microbiology, and immunology to students of M.Sc. Biotech, M.Sc. Applied Microbiology & Btech Biotechnology. In addition to my teaching responsibilities, I have also been an invigilator for exams conducted in college for different batches and have been entrusted with various administrative tasks.

Short Term Trainings completed: -

1. I have successfully completed the training program on "**The Significance of Microbiology and Biochemistry in Hospital Science**" at **Capital Hospital, Unit-6**, which is a government hospital. The training program was conducted from **10th September 2006 till 10th January 2007**. I have received comprehensive training on the importance of microbiology and biochemistry in the field of hospital science.
2. I have received formal training in "**Biological Animal Vaccine Preparation**". The training was undertaken at the **Orissa Biological Products Institute (OBPI)**, which is a government-owned research facility that is located near OUAT, Between the **27th of May and the 27th of June in 2008**.
3. I have Completed **One-week short-term training** on "**The working principle of Gas liquid chromatography**" at **Keora Industry Ltd., a government organization in Berhampur, Odisha**. The training program was designed to cover various aspects of gas-liquid chromatography, including its working principle, instrumentation, sample preparation, and data interpretation.
4. I have successfully completed an FDP course on NPTEL Swayam Portal, called "**Experimental Biotechnology**" from **IIT Guwahati in July-Oct 2023 session** (12 weeks course).

Publications done: -

Publications: - 4 Papers, 4 Abstracts Published & 1 Paper was Submitted in a journal.

1. A paper was published on "**Flood tolerance of newly developed semi-deep lowland rice varieties (Varsadhan) during seed germination and seedling stage**" in **The Bioscan, An international quarterly journal of Life Sciences**. 9(4): 1553-1556, 2014.
2. A paper was published, i.e. "**Transcriptomic and physiological studies identify cues for germination stage oxygen deficiency tolerance in rice**" in **Environmental and experimental botany journal**. 147 (2018) 234–248.
3. A Paper was Published On "**Anaerobic Germination Potential in Rice (Oryza sativa L.): Role of Amylases, Alcohol dehydrogenase and Ethylene**" in the **Journal of Stress Physiology& Biochemistry**, Vol. 15, No. 4, 2019, pp. 39-

52.

4. A Paper was Published On **“Improvement in Anaerobic Germination Potential & Grain Yield of Rice (Oryza Sativa) Through Seed Priming”**, in the **SAARC Journal of. Agriculture.17(1): 37-48 (2019).**
5. A Paper was Submitted On **“Genetic diversity of lowland rice (Oryza sativa L.) Genotypes in relation to germination stage oxygen deficiency tolerance”** in Indian Society of Plant Genetic Resources (IJPGR) in May 2023.
6. An Abstract was published on **“Studies on in vitro organogenesis and genetic transformation in Mung bean (Vigna radiata L. Walczak)”** at the **national symposium on Rice based farming systems for livelihood security under changing climate scenario at NRRI, Cuttack.**
7. An Abstract was published on **“Amylase activity and its association with anaerobic germination tolerance in rice”** in **ARRW Golden Jubilee International Symposium, NRRI, CUTTACK in March 2013.**
8. An Abstract was published on **“Molecular and physiological characterization of genotypes tolerant to anaerobic germination”** At **National Seminar on Plant Genomics and Biotechnology: Challenges and Opportunities in the 21st century, OUAT.**
9. An Abstract act was published on **“Phenotyping for salinity tolerance based on morpho physiological parameters in rice”** in **ARRW Golden Jubilee International Symposium, NRRI, CUTTACK.**

Declaration: -

I hereby affirm that the aforementioned particulars are accurate and can be substantiated by relevant documentation to the best of my knowledge.

Date : - 24/05/24

Place: - Bhubaneswar

Swetaleena Senapati

