

CURRICULUM VITAE

Name: Ms. Jyoti Prava Jema
M.sc in life-Sciences (Botany)
Ph D in Biotechnology
(Continue)
C/o: Satya Narayan Samanta
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Educational qualification:

Class	School/College	Board/University	Year of passing	Secured percentage
10 th	Srimad Bhagawad Gita Vidya Mandir	BSE	2012	83.34%
+2 Science	Ramadevi Women's Junior College	CHSE	2014	69.67%
B.Sc	Ramadevi Women's Autonomous College	Utkal University	2017	75.89%
M.Sc	Ramadevi Women's University	Ramadevi Women's University	2019	77.82%
PhD		Dept. of Biotechnology, Utkal University	Cont.	

Dissertation Experience:

This work was for partial fulfillment of the M.Sc. Degree was carried out at Ambika Prasad Research Foundation, Bhubaneswar.

Sub: "Evaluation of medicinal values of selected threatened medicinal plants available in Bhubaneswar, Odisha."

Scientific Exposition: (Workshops/conferences)

- Active participation in National Workshop on "Emerging Trends in Life Sciences for Sustainable Development" organized by dept. of Life Sciences at Ramadevi Women's University.
- Poster presentation at national workshop on "Emerging Trends in Life Sciences for Sustainable Development" organized by dept. of Life Sciences at Ramadevi Women's University.
- Active participation in workshop on "Orchid Identification, Field Botany and Relation with Flora and Avifauna" organized by Ambika Prasad Research Foundation, Odisha.
- Participated in two days' workshop on "Identification and Characterization of Floral and Faunal Species and Methods for the Evaluation of their Pharmacological Value" organized by Ambika Prasad Research Foundation, Bhubaneswar.
- Poster presentation at Odisha research conclave 2022, jointly organized by Higher Education Dept, Govt of Odisha, and Ravenshaw University, Nov 14-16, 2022.

- Poster presentation at QUAD mini-symposium (Bhubaneswar 2024) organized by the Institute of Lifesciences and the School of Biological Sciences, NISER.
- Participated in the National Symposium and workshops on clinical proteomics, organized by the Institute of Life Sciences, Bhubaneswar, Odisha, 2024.
- Poster presentation at the International Conference on Redox Biology and its applications in Health and Diseases and the annual meeting of the Society for Free Radical Research-India, SFRR-India-Discover, 2024, organized at BARC, Pune, India.
- Actively participated in the National Seminar on Emerging Trends and Prospects in Biotechnology, organized by the Department of Biotechnology, Utkal University, 2024.
- Poster presentation at the National conference on “Emerging trends in Biology and Biotechnology (NCETBB-2025)”, organized by the Department of Biotechnology, Berhampur University, Odisha.
- Oral presentation at Research Catalyst Global Symposium 2025, organized by Naviclar, in collaboration with Euraxess, India, attended by EMBO, and supported by INYAS.
- Actively participated and presented a poster at Odisha Research Conclave 2025, at Berhampur University.
- Poster presentation at the International Conference on Redox Biology and its applications in Health and Diseases and the annual meeting of the Society for Free Radical Research-India, SFRR-India-Discover, 2025, organized at CSIR-IICB, 2025.
- Awarded with the best Oral presentation at the National Seminar on “Immunometabolism- Redox epigenomics: Implications for human health, Disease and therapeutics.” organized by the Department of biotechnology, Utkal university on 28th – 29th March, 2026.
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Professional Experience:

- Completed a **six-month training programme** at **Imgenex India Private Limited**, Infocity, Chandrashekharpur, Bhubaneswar.
- Worked as a **project fellow** in the project entitled ‘Efficacy of homeopathic drug 30C in PTU-induced hypothyroid rats,’ funded by **CCRH, AYUSH govt of India, at the Department of Biotechnology, Utkal University, Bhubaneswar.**
- Currently pursuing a **Ph.D. in Biotechnology at the Department of Biotechnology, Utkal University, Bhubaneswar**, Odisha. Topic: Impact of **homeopathic drugs, Arsenic album, Calcerea carb, and Natrum mur** on hypothyroidism-associated redox imbalance and Epigenetic alteration in the liver and brain of Wistar rats.
- Active participation in the Online “**CRISPR-Cas Bootcamp: Fundamentals to Future**” organized by **Centre for Advanced Training and Research (CATR), Lucknow, U.P. (India)** from 18-21 August 2025.
- Have completed the **Generative AI mastermind** class organized by Outskill.
- Actively participated in “Online Hands-on Training on '**Molecular Docking**'” organized by **Centre for Advanced Training and Research, Lucknow, U.P. (India)** from 02-03 June 2025.
- Actively participated in “**Online Training in Bioinformatics** organized by the **Centre for Advanced Training and Research, Lucknow, U.P. (India)** from 20 March-05 April 2025.”
- Completed a **two weeks python for biologist internship program (1st to 14th September,2025)**, organized by **Biopractify.**

Techniques learned:

- Animal cell culture techniques (Thawing, freezing, harvesting, cryopreservation)
- ELISA,
- Electrophoresis (Protein and DNA)
- Western blot,
- Cloning
- Biochemical assays (measurement of total ROS, H₂O₂, Protein Carbonylation, Lipid peroxidation, Measurement of total GSH content, Ascorbic acid, Assessment of enzymatic activity of SOD, Catalase, GST, GR)
- Protein purification
- Antibody purification
- Immunohistochemistry (IHC)
- Protein estimation by the Bradford and Lowry method

Equipments Handled:

- Inverted Light Microscope
- Fluorescence Microscope
- UV-Vis spectrophotometer
- Fluorescence Spectrophotometer
- CO₂ incubator
- PCR machine
- Realtime quantitative PCR
- Centrifuge Machine
- Hemocytometer
- Micro Titer plate reader
- Sonicator
- Shaker Incubator
- Microtome machine
- Weighing Machine
- Autoclave machine

PUBLICATIONS:

- Author of the book chapter "Evaluation of threatened medicinal plant of Bhubaneswar" in the book "Medico Bio wealth of Odisha" published by Ambika Prasad Research Foundation, Bhubaneswar.
- Jema, J.P., Pradhan, J., Chainy, G.B.N., Hati, A.K., Nayak, D., Kaushik, S. and Dandapat, J., 2023. Covid 19 Cases and Co-Morbidities: Complementary and Alternative Medicinal Systems (Cam) For Integrated Management of the Pandemic. *Journal of Herbal Medicine*, p.100745.
- Rath, S., Jema, J.P., Kesavan, K. et al. Arsenic album 30C exhibits a crystalline nano structure of arsenic trioxide and modulates innate immune markers in murine macrophage cell lines. *Sci Rep* 14, 745 (2024). <https://doi.org/10.1038/s41598-024-51319-w>

Other activities:

- Awarded Medhabruti scholarship (scholarship scheme by Govt. of Odisha) in Senior Merit.
- Awarded with Laptop in the scheme “Free laptop for Merituous student” for the secured marks in +2.
- Participation in a One-day panel discussion program on “Women In Science” Organized by Ramadevi Women’s University in collaboration with” Odisha Bigyan Academy”, Bhubaneswar.
- Worked as assistant science society secretary of Science Society of Ramadevi Women’s University, during the session 2015-16.
- Awarded with 2nd prize in a n English essay competition conducted by t he National Silk Board at RamadeviWomen’s University.
- Won first prize in an Interclass Drama competition at college during the study period.
- Awarded as best actress at an interclass drama competition.

