Curriculum Vitae

Dr. Mayurakshi Nag

M.Sc., Ph.D.

Contact

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Address- Rajendra Pally, Hatiara Road, Helabattala, Baguiati, Kolkata-700157, India

Date of Birth

12.08.1991

Languages

Hindi, English, Bengali

Skills

- **Molecular biology-**

  PCR-Nested PCR, Hot-start PCR, Gradient PCR,RT-PCR.

  Cell culture-Yeast and bacterial cell culture.

  Nucleic acid isolation-DNA, RNA isolation from yeast, bacterial cell lines, gel electrophoresis for DNA and RNA.

  Cloning-Restriction enzyme-based cloning.

  Transformation-Bacterial and yeast cell transformation.

- **Microscopy-**

  Bright field microscopy, Fluorescence microscopy, Fluorescence in situ hybridization (FISH).

- **Genome analysis-**

  Genome database search, bacterial genome annotation and analysis using MaGe, PATRIC, Galaxy.

- **Biochemistry**-Buffer preparation, titration, enzyme assay.

- **MS office-**

  MS word, excel , designing power point presentation.

- **Manuscript preparation, patent search, patent filling, patent drafting**

Education

- **Ph.D. in Biotechnology**

  University of Calcutta

- **M.Sc. in Biochemistry**

  University of Calcutta

  69.10 %

- **B.Sc. in Chemistry (Hons)**

  University of Calcutta

  58.00 %

- **Higher Secondary (WBHSE)**

  Siliguri Girls' High School

  80.20%

- **Secondary (WBBSE)**

  Siliguri Girls' High School

  84.37%

Internships

06.2013 to 08.2013	**Summer intern** at National Institute for Cholera and Enteric Diseases (NICED),Kolkata. **Project Title-"Detection of Carbapenem resistance *E. coli* in the gut isolates of hospitalized neonates"**
03-2024 to 05-2024	**Patent associate intern** at Biswajit Sarkar and IP Attorneys Law Firm in Kolkata

Awards

- Scholarship from West Bengal Board for Higher Secondary Education in the year 2010.
- **GATE 2015** with AIR 1002 .
- **CSIR-UGC NET-LS JUNE 2015** with AIR 36.
- **CSIR-UGC NET JRF DEC 2015** with AIR-65.
- **Best poster award at** 91st Annual meeting of Society of Biological Chemist (SBC).

Certification

Patent drafting course from Henry Harvin Education.

Workshops and Conferences

- Participated in Next generation Sequencing analytics workshop by Bionivid Technologies Pvt. Ltd.
- Participated in National Workshop on microbiome informatics.
- Attend 91st Annual meeting of Society of Biological Chemist (SBC).
- Attend International Conference on Developments in Plant Biology and Biotechnology.

Publications

1. Sen, D., Paul, K., Saha, C., Mukherjee, G., **Nag, M**., Ghosh, S., Das, A., Seal, A., & Tripathy, S. (2019). **A unique life-strategy of an endophytic yeast *Rhodotorula mucilaginosa* JGTA-S1-a comparative genomics viewpoint.** *DNA Res*, 26(2), 131-146. http://doi.org/10.1093/dnares/dsy044
2. Paul, K., Saha, C., **Nag, M**., Mandal, D., Naiya, H., Sen, D., Mitra, S., Kumar, M., Bose, D., Mukherjee, G., Naskar, N., Lahiri, S., Das Ghosh, U., Tripathi, S., Sarkar, M. P., Banerjee, M., Kleinert, A., Valentine, A. J., Tripathy, S., Sinharoy, S., & Seal, A. (2020). **A Tripartite Interaction among the Basidiomycete *Rhodotorula mucilaginosa*, N(2)-Fixing Endobacteria, and Rice Improves Plant Nitrogen Nutrition.** *Plant Cell*, 32(2), 486-507. http://doi.org/10.1105/tpc.19.00385
3. **Nag, M.**, & Seal, A. (2024). **Draft genome announcement of *Bacillus velezensis* TSB6.1 isolated as a culturable endosymbiont of a nitrogen-fixing endophytic yeast *Rhodotorula mucilaginosa* JGTA-S1.** *Microbiol Resour Announc*, e0120223. https://doi.org/10.1128/mra.01202-23
4. **Nag, M.,** Pallavi, J., Chakraborty, S., Roychoudhury, T., Mondal, S., Ghosh, A., Saha, C., Banerjee, M., & Seal, A. (2024). **Bacterial endosymbionts of a nitrogen-fixing yeast *Rhodotorula mucilaginosa* JGTA-S1 - insights into a yet unknown micro-ecosystem.** *Mol Omics*, 20,630-641. https://doi.org/10.1039/d3mo00273j