




Faculty Details proforma for Gargi College

Title	Dr.	Chaitali Ghosh	
Designation	Assistant Professor		
Email	Chaitali.ghosh@gargi.du.ac.in		
Educational Qualifications			
Ph.D (Biotechnology)	School of Biotechnology, Jawaharlal Nehru University, Delhi		2010
PG Diploma in IPR	NALSAR University of Law, Hyderabad		2009
MSc (Zoology)	Department of Zoology, University of Delhi		Delhi University 1st Rank
BSc (Zoology Hons.)	Miranda House, University of Delhi		College 1st Rank, DU 2nd Rank
HSc	Delhi Public School, Korba, CG.		District 1st Rank
SSc	Delhi Public School, Korba, CG.		-
Career Profile			
<ol style="list-style-type: none"> 1. Assistant Professor (Permanent), Department of Zoology, Gargi College, University of Delhi, 10th October, 2015 - till date. 2. Asst. Professor (ad hoc), Gargi College, University of Delhi. 3. Asst. Professor (ad hoc), Deen Dayal Upadhyaya College, University of Delhi. 4. Asst. Professor (ad hoc), SGTB Khalsa College, University of Delhi. 5. Asst. Professor (ad hoc), Daulat Ram College, University of Delhi. 			
Areas of Interest / Specialization			

Biotechnology, Fermentation Technology, Microbiology and Molecular Biology.

Subjects Taught

Animal cell Biotechnology, Wildlife Conservation & Management, Food, Health & Nutrition, Ecology, Environmental Management, Molecular Biology, Animal Behavior, Immunology etc.

Publications

1. Singh, A., Rao, A., Chamola, A., Gahlawat, A., Mansi, Apurva, S. & **Ghosh, C.** (2023). Psychological and Physiological Impact of PCOS on the Undergraduate Students of Delhi University. *International Journal of Indian Psychology*, 11(4), 1346-1371, ISSN 2348-5396. DOI: 10.25215/1104.120
2. Rao, A., Chamola, A., Apurva, S., & **Ghosh, C.** (2023). An Analysis of Arsenic Toxicity's Origins, Manifestations, and Remediation. *Vantage: Journal of Thematic Analysis*, Volume 4 Issue 2, ISSN: 2582-7391. DOI: 10.52253/vjta. 2023.v04i02.07
3. Chaudhary, S., Ali, W., Yadav, M., Singh, G., Gupta, N., Grover, S., **Ghosh, C.**, Chandra, S., & Rathore, J. S. (2024). Computational exploration of the genomic assignments, molecular structure, and dynamics of the *ccdAB^{Xn2}* toxin-antitoxin homolog with its bacterial target, the DNA gyrase, in the entomopathogen *Xenorhabdus nematophila*. *Journal of Biomolecular Structure and Dynamics*, 1–15. DOI:10.1080/07391102.2024.2311337. IF=4.4.
4. Ananya Chamola, Shruti Apurva, Adithi Rao and **Chaitali Ghosh.** (2022) "*Psychological and Physiological Impact of Indoor Plants and Their Maintenance*". The International Journal of Indian Psychology. Vol 10, Issue 3. ISSN 2348-5396, ISSN 2349-3429.
5. Singh G, Yadav M, **Ghosh C**, Rathore J S. (2021) "*Bacterial toxin-antitoxin modules: classification, functions, and association with persistence*". Current Research in Microbial Sciences 2, 100047 ISSN: 2666-5174.
6. **Chaitali Ghosh** and Jitendra S Rathore, Contributed Chapter "*Molecular Biology of Thermophilic and Psychrophilic Archaea*", 1st Edition of the book titled "Microbiomes of Extreme environments, Biodiversity and Biotechnological Applications". March, 2021. **CRC Press**. ISBN no. 9780367342746.
7. Jitendra S Rathore and **Chaitali Ghosh.** "*Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), A Newly Emerged pathogen: An Overview*". Pathogens and Disease. 2020. ISSN

0920-8534 - 2020. doi: 10.1093/femspd/ftaa042. Impact Factor - 2.166.

8. Jogendra Singh Nim, Mohit Yadav, Lalit Kumar Gautam, **Chaitali Ghosh**, Shakti Sahi and Jitendra S Rathore. "*Novel Toxin-antitoxin System Xn-mazEF from Xenorhabdus nematophila: Identification, Characterization and Functional Exploration.*" Current Computer-Aided Drug Design. ISSN: 1875-6697 (Online) ISSN: 1573-4099 (Print) 2020.

9. **Chaitali Ghosh** and M Singh. Editor of book titled "*Research Methodology for the Undergraduate Students*", published by Rastogi Publications in the year 2019.

10. **Chaitali Ghosh**, contributed a chapter "*Ethical Issues*" in a book titled "Research Methodology for the Undergraduate Students", published by Rastogi Publications, 2019.

11. Jitendra S Rathore and **Chaitali Ghosh** (corresponding author), "*Pathogen-Associated Molecular Patterns and Their Perception in Plants*", chapter published in the book titled "*Molecular Aspects of Plant-Pathogen Interaction*", published by **Springer Nature**, ISBN 978-981-10-7370-0 ISBN 978-981-10-7371-7 (eBook).

12. **Chaitali Ghosh**, Harish Kumari and Jitendra S Rathore, "*Prevalance and risk of listeriosis by ready to eat products*", International Journal of Scientific Research Letters Vol 1, Issue 1, Dec 2017.

13. Prachi Sharma, **Chaitali Ghosh**, Jitendra S Rathore, "*Anthocyanin: Structure, Synthesis and its Beneficial Role in Health*", Journal of Food Science and Technology, 2016 ISSN: 2278-2249(online), ISSN: 2321-6468(print) Volume 5, Issue 1.

14. **Chaitali Ghosh**, Rashmi Gupta and KJ Mukherjee, "*An inverse metabolic engineering approach for the design of an improved host platform for the over-expression of recombinant proteins in E. coli*", Microbial Cell Factory, 2012 Jul 3;11(1):93. IF=4.3.

15. Jitendra S Rathore and **Chaitali Ghosh**, "*Ribosomal encoded bacteriocins: Their functional insight and therapeutic applications*", Journal of Microbiology Research 2012, 2(2): 19-25.

16. Sharma AK., Mahalik S., **Chaitali Ghosh**, Bharara A. and Mukherjee KJ., "*Comparative transcriptomic profile analysis of fed-batch cultures expressing different recombinant proteins in E. coli*", AMB Express, 2011, 1:33.

17. **Ghosh C**, Sharma AK, Mukherjee KJ. GEO Accession no.- GSM 728732. To 728743, NCBI sequence submission.

1. **Presented paper** titled “Eco-sustainability with natural fibers” in the *Equinox-International Conference on Research, Development and Social Transformation*, organized by the Centre for Research, Maitreyi College from August 23 -25, 2023.
2. **Organizer and resource person** for the workshop titled “*The art of lab science: a workshop for the non-teaching staff*”, held at Department of Zoology, Gargi College, on 27th & 28th July, 2023.
3. **Completed** an Add-on course on “*Basic Biostatistics*” (offline & online), organized by Department of Zoology, Hindu college from July 17th to October 3rd, 2023.
4. **Co-ordinator** of One year long Add-on Course titled "Bioinformatics - Tools and applications", 2021-22.
5. **Resource person** of a workshop titled “*Hands on workshop in Biotechnological Techniques*”, held at Gargi College, supported by DBT Star College Scheme, on December 13-14, 2019.
6. **Convener** of a workshop titled “*2nd Hands-on workshop on Bioinformatics*”, held at Gargi College, supported by DBT Star College Scheme on April 22, 2019.
7. **Organising** committee member in the seminar titled “*Use of Scientific & Technical Terminologies in Sustainable Environment Development*”, held on March 14-16, 2019, organised by CSTT, MHRD and Gargi College.
8. Contributed as a **resource person** in “*Summer Immersion Program 2018*”, supported by DBT Star College Scheme conducted from July 11-18, 2018 at Gargi College, University of Delhi.
9. **Organizing** committee member of the symposium “*Wanderers of nature: Exploring wildlife*”, held at Department of Zoology, Gargi College, on March 12, 2018.
10. Contributed as a **co-ordinator and resource person** in “*Hands on Workshop in Cell Biology*”, held on February 26, 2018 in Zoology Department, Gargi College.
11. **Resource person** for the workshop titled “*Hands-on workshop on Bioinformatics*”, organized by Department of Zoology, held on 6th October 2017, at Gargi College, supported by DBT Star College Scheme.
12. **Resource person** for the workshop titled “*PCR and it's applications*” organized by Department of Zoology, held on 11th June, 2015, at Gargi College, supported by DBT Star College Scheme.
13. **Invited for oral presentation** in 109th General Meeting of “*American Society for Microbiology*”, (ASM) at Philadelphia, Pennsylvania, **USA**, 2009.
14. **Invited for oral presentation** in “*Society for Industrial Microbiology*”, Annual Meeting, 2009 in

Toronto, CANADA.

Awards and Distinctions

- JNU Ph. D Entrance **1st rank** in School of Biotechnology, 2014.
- **University of Delhi, GOLD MEDALIST** in M. Sc (Zoology). 2 Nos.
 - ❖ *Usha Ganguly Gold Medal*
 - ❖ *N Prakash Memorial Gold Medal*
- Awarded “*Post Graduate Scholarship*” by **University of Delhi**, 2001 and 2002.
- Awarded “*Science Scholarship*” by **University of Delhi**, 1998, 1999 and 2000.
- **Invited for oral presentation** in 109th General Meeting of “American Society for Microbiology”, (ASM) at **Philadelphia, Pennsylvania, USA**, 2009.
- Awarded “**International Travel Grant**” by **American Society for Microbiology (ASM)** in 2009.
- Awarded “**International Travel Grant**” by **Department of Biotechnology (DBT)**, Government of India, 2009.
- Grant from **Registrar’s Corpus Fund**, Jawaharlal Nehru University for International poster presentation.
- **Invited for oral presentation** in “Society for Industrial Microbiology”, Annual Meeting, at **Toronto, CANADA** in 2009.
- **Pre-PhD topper** in School of Biotechnology, Jawaharlal Nehru University in 2004.
- Qualified **CSIR-JRF (NET)** and **SRF**.
- Qualified **ICMR-JRF**.
- Selected among top 20% of CSIR JRF’s (for **Shyama Prasad Mukherjee Fellowship**).
- **Miranda House (DU) College topper** in M. Sc.
- **Miranda House (DU) College topper** in B. Sc Zoo (H).
- Awarded “*Merit Certificate*” in HSC from **CBSE, Govt. of India**, 1998.
- Awarded “*National Scholarship*” from **CBSE, Govt. of India**, 1998.
- District level **First Rank and DPS topper** in HSC.

Pathfinder Projects conducted

1. Mentor to a pathfinder project titled “Comparative analysis of natural water bodies from Delhi and NCR region”, along with Dr. Regina Thoudam, Department of Zoology, Gargi College, 2023-24.
2. Mentor to a pathfinder project titled “Microbial exploration: isolation and characterization of bacteria from college campus environment”, along with Dr. Divya Gnaneswari, Department of Zoology, Gargi College, 2023-24.
3. Mentor to a pathfinder project titled “Bioburden on our day-to-day makeup products”, along with Dr. Divya Gnaneswari, Department of Zoology, Gargi College 2023-24.
4. Mentor to a pathfinder project titled "Indoor plants: Its maintenance and impact on our mental and physical health" 2021-22.

Other Activities (Few ones)

1. Guest Editor of "Journal of Applied Biology & Biotechnology.
2. Completed a course on "Methods of Molecular Biology" St. Petersburg Polytechnic University & Coursera.
3. Completed a course on "Introduction to Psychology". Yale University & Coursera.
4. Have obtained first division with distinction in Rabindra Sangeet, from Prayag Sangeet Samiti, Allahabad.
5. Have obtained Diploma in Painting from Prayag Vishwavidyalaya, Allahabad.