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Ankita Chakraborty

Education

- 2017–2019 **M.Sc. in Biotechnology**, Department of Biotechnology, Techno India University, India
- 2014–2017 **B.Sc. in Microbiology**, University of Calcutta, India

Research Experience

- 2023-Present **Project Title: Characterization of the relationship between G quadruplex, 3D nuclear organization, and genome stability**, Department of Biosciences, University of Milan, Italy, Cloned ZBED genes in bait vector to conduct protein interaction studies by yeast 2-hybrid screening
- 2021-2022 **Project Title: Molecular and epigenetic characterisation of a novel long non-coding RNA as a predictive biomarker of glioblastoma**, Department of Biochemistry, University of Pecs, Hungary, Designed synthetic microRNAs to target a novel long non-coding RNA (Antisense-MGMT) in an inducible expression vector and co-transfected in glioblastoma cell lines
- 2020-2021 **Project Title: Site-directed Mutagenesis in Recombinant Human $\alpha\beta$ Crystallin and over-expression of the mutants in Escherichia coli**, Department of Chemical Sciences, Saha Institute of Nuclear Physics, India, Conducted site-directed mutagenesis in recombinant human $\alpha\beta$ crystallin protein to study biophysical protein folding properties in E.coli cells.
- 2018-2019 **Project Title: Isolation and characterization of protease producing bacteria from soil**, Masters Dissertation in Cell and Molecular Biology, Techno India University, India, Designed the project, conducted experiments, analysed data and wrote a manuscript that resulted in first-author publication.

Technical Skills

- Cell culture Mammalian cell culture; thawing, freezing, splitting and maintenance of cell lines (Human Neuroglioma H4, Human Embryonic Kidney 293)
- Molecular Biology Molecular cloning and transformation, NEBuilder HiFi DNA Assembly Cloning, Site Directed Mutagenesis, Genomic and Plasmid DNA isolation, purification and quantification, Transfection
- Immunology Magnetic-activated cell sorting(MACS), Fluorescence activated cell sorting (FACS)/flow cytometry, enzyme-linked immunosorbent assay (ELISA)
- Biochemistry Agarose Gel Electrophoresis, Polymerase Chain Reaction (qPCR, RT PCR), Protein estimation and Western blotting, SDS-PAGE, Chromatography
- Microbiology Biochemical tests for bacterial identification, Minimum Inhibitory Concentration assay, Gram staining, Fermentation test, Antibiotic sensitivity test (Disc Diffusion Method)
- Bioinformatics SnapGene, PrimerQuest (IDT), UCSC genomebrowser, STRING database, Microsoft Office, Statistical Data analysis

Publications

Isolation of Protease Producing Bacteria from Soil and Characterization of the Protease, *Int. J. Curr. Microbiol. App. Sci.* **9(3): 2974-2983., Chakraborty A, Karmakar S., 2020**