

## **CV**

### **Education**

- Department of Biochemical Engineering and Biotechnology, IIT Delhi  
PhD Biochemical Engineering and Biotechnology 2022- Present  
Research Area: Electromicrobiology  
Thesis title: Towards enhancing electron transfer between electroactive microorganisms and electrodes
- Department of Biosciences and Bioengineering, IIT Roorkee  
MSc. Biotechnology 2020 -2022  
Research Area: Antimicrobial Resistance  
Thesis title: Understanding and Characterisation of Beta-Lactamase BlaA from *Yersinia enterocolitica* and in-silico characterization of Beta-Lactamase MAB from *Mycobacterium abscessus*
- Hansraj College, University of Delhi  
BSc. Life Sciences 2017-2020

### **Skills**

- Experimental skills: Electrochemical techniques (cyclic voltammetry, chronoamperometry, chronocoulometry, electrochemical impedance spectroscopy), SDS-PAGE, SEM, microbiology techniques, plant tissue culture from callus and embryo, protein purification (affinity chromatography, size-exclusion chromatography), biochemical techniques, biophysical techniques, Fluorescence spectroscopy, enzyme kinetics, protein crystallization, X-ray diffraction, Microbial fuel cells (MFC), Scanning Electron Microscopy (SEM), Energy Dispersive Spectroscopy (EDS) and Brunauer Emmett Teller (BET)
- Computer and Bioinformatics- Working in LINUX environment, Microsoft office (word, excel and power-point) using sequence and structural analysis tools (Pymol, COOT, Autodock, CCP4i, SwissModel, NAMD, VMD, SwissPDB Viewer), MD Simulation, Molecular Docking, Origin and GraphPad

### **Internships, Trainings and Volunteering experience**

- American Society for Microbiology (ASM) Future Leaders Mentorship Fellow
- Space Generation Advisory Council (SGAC) Mentorship Fellow
- Won ASA Student Representative Scholarship for Mars Analogue Site Expedition (MASE'2022) and participated in the MASE program in Rajasthan Explored Mars Analogue sites in Rajasthan with mentors from the Dept of Astrobiology Spaceonova, understanding extremophiles and the possibility of life on Mars, hunting for biosignatures, analyzing stromatolites and tardigrades
- Completed Science Communication Online Programme (SCOPE) run by the Northwestern University, USA
- Content Writer at Astrobiology Society of America (ASA)
- Intern at IIT Bombay (Proteomics Internship Program 2021)
- Intern at United Nations

### **Conferences and Poster Presentations**

- Won the best poster award for the poster titled: Understanding and characterization of MAB Beta-lactamase from *Mycobacterium abscessus*: Focusing on Variant Analysis, Molecular Docking Analysis and MD Simulation at the "Rosetrees Interdisciplinary workshop: Quantitative approaches to antimicrobial resistance and microbiology" organized by the University of Durham and University of Sheffield (25th -26th January 2022)

- Presented poster on MAB beta-lactamase at the Antimicrobial Resistance-Genomes, Big Data and Emerging Technologies 2022-Virtual Conference organized by Wellcome Connecting Science (27-29 April 2022)
- Attended The International Conference on Nanomaterials for Electro-catalysis Technology (I-CONNECT 2023) (20th -22nd March 2023)
- Attended and volunteered at the 48th National Seminar on Crystallography (NSC) conference (25-27th November 2021)
- Attended the International Conference on Data Science in Biology (ICDSB) (4,5 and 8th September 2020)

#### **Academic Achievements**

- GATE 2022 Qualified (Rank-233)
- IIT JAM 2020 Rank-23
- Qualified TIFR/JGEEBILS EXAM 2020
- Science Topper Queen Mary's School (class12), English and Physical Education Topper

#### **Position of Responsibility**

- Mars on Earth Project (MoEP) Indian Chapter Coordinator
- Department Placement Representative (DPR) for MSc. Biotech batch at IIT Roorkee
- Mentorship Head, Child Rights and You (NGO) IIT Roorkee Chapter
- Community Building Vertical Head, Biotech Students Society (BSS), IIT Roorkee
- Life Sciences Department President, Hansraj College, University of Delhi
- Class Representative BSc Life Sciences (2017-2020)