

Isra Aman Aziz

+91 9721067216 | isra.aman20@gmail.com | linkedin.com/in/israamanaziz | github.com/Israamanaziz

Experience

BioinfoCore Solutions, Lucknow, India	FEB 2025 – MAY 2025
- Research Intern	
<ul style="list-style-type: none">• Led end-to-end 16S rRNA microbiome analysis, investigating gut dysbiosis in Alzheimer's and COVID-19 cohorts using QIIME2 and Galaxy, contributing to insights into disease-associated microbial shifts.• Executed comprehensive data preprocessing, DADA2-based filtering, and taxonomy assignment for large datasets.• Generated detailed diversity visualizations, including PCoA, heatmaps, volcano plots, and barplots, to effectively communicate complex findings.	
Indian Institute of Science Education and Research (IISER), Pune, India	DEC 2024
- Research Intern	
<ul style="list-style-type: none">• Mastered advanced molecular biology techniques through intensive training, including restriction-based gene cloning, in silico plasmid editing (ApE), precise primer design, and quantitative gene expression analysis (qPCR).• Applied learned methodologies to practical research scenarios, enhancing foundational understanding and laboratory proficiency.	
Amity Institute of Biotechnology, AUUP, Lucknow, India	JAN 2024 – MAR 2024
- Research Intern	
<ul style="list-style-type: none">• Conducted extensive molecular docking studies and virtual screening campaigns, identifying potential novel ligands targeting breast cancer.• Utilized a suite of bioinformatics tools (PDB, PubChem, IMPPAT, SwissDock, SwissADME, CBDOCK) to analyze and prioritize bioactive compounds.• Contributed to the computational pipeline for early-stage drug discovery, identifying promising therapeutic candidates.	
CSIR-National Botanical Research Institute, Lucknow, India	MAY 2023 – JUN 2023
- Research Intern	
<ul style="list-style-type: none">• Investigated and developed bioinoculant producer (<i>Azospirillum</i>) for sustainable agricultural applications.• Performed a range of laboratory techniques including sterile sampling, culture media preparation, microbial isolation and screening, PCR, AGE, MIC determination, spectrophotometry, and standard curve generation.• Optimized experimental protocols for microbial growth and characterization, contributing to research efficiency.	

Education

MS in Bioinformatics, Babasaheb Bhimrao Ambedkar University, Lucknow | AUG 2024 – MAY 2026

- CGPA: 8.00

BS in Microbiology (Honours), Amity University, Lucknow | AUG 2021 – MAY 2024

- CGPA: 9.74
- 50% Amity Merit Scholarship (2021-2024)

- Percentage: 96.75

Skills

- **Languages:** Python, R, Bash
- **Bioinformatics & Molecular Biology:** QIIME2, DADA2, RNA-Seq, DESeq2, PCoA, ApE, qPCR, Gene Cloning, PCR, AGE, MIC, Spectrophotometry, PDB, PubChem, IMPPAT, SwissDock, SwissADME, CBDOCK.
- **Tools & Software:** Galaxy, GitHub, Google Colab, conda/mamba, Fastp, Fastqc, Star, salmon, samtools, MS Word, Excel.
- **Research:** Scientific Writing, Research Design, Data Analysis, Virtual Screening, Molecular Docking.
- **Communication:** Excellent Written and Verbal Communication.

Publications

1. **Isra Aman Aziz**, Jyoti Prakash, Rachna Chaturvedi, Ruchi Yadav. Computational Exploration of Natural Compounds as Potential Ligands Targeting Breast Cancer. *Asian Journal of Pharmaceutical Research and Health Care* 16(4):p 410-418, Oct-Dec 2024. | **DOI: 10.4103/ajprhc.ajprhc_173_24**
2. Pallabi Chatterjee, **Isra Aman Aziz**, Amarjit Singh, and Aditi Singh. “Microbiome in Teenagers – Acquisition and Development.” In *BENTHAM SCIENCE PUBLISHERS eBooks*, 1–13, 2024. <https://doi.org/10.2174/9789815274431124010003>.
3. Shreetama Bhattacharjee, **Isra Aman Aziz**, and Aditi Singh. “Frangipani: A Common Plant With Antimicrobial Potential Against Common Bacterial Pathogens.” *International Journal of Pharmacy and Pharmaceutical Research* 30, no. 4 (January 1, 2024): 313–21. <https://doi.org/10.25166/ijppr.2024.30.4.21>.
4. **Isra Aman Aziz**, Amaan Arif, Saba Hasan. Types of Carcinogens: Physical and Chemical Carcinogens, Introduction to cancer biology and genetics: Cancer Genetics Unlocked (2024). Notion Press.
5. Jyoti Prakash, **Isra Aman Aziz**, Hridaya Singh. Toxicity of Greenhouse gases on human health: An extensive review. *European Journal of Biotechnology and Bioscience*, Volume 11, Issue 1, 2023, Pages 29-33.

Conferences

1. **BEST POSTER AWARD for Poster Presentation in the National Symposium organized by Translational Biomedical Research Society (TBRS-2023), India.**
Poster topic “Antioxidant potential assessment study of selected Indian plants and spice.” Authors: Isra Aman Aziz and Aditi Singh.
2. **BEST POSTER AWARD for Poster Presentation at the International Conference on Sustainable Development and Disaster Resilience through Innovation (ICSDDRTI-2023) organized by AUUP.**

Poster topic “Frangipani: A common plant with antimicrobial potential against common bacterial pathogens.”
Authors: Shreetama Bhattacharjee, Isra Aman Aziz, Aditi Singh.

3. Oral Presentation at the International Seminar on Current Trends in Life Sciences(Int-SCTLs-2023) organized by AUUP.

Topic “Sustainable Energy Production: A Green Approach.” Authors: Isra Aman Aziz, Jyoti Prakash, Riya Shrivastava.

4. Oral Presentation at the International Conference on Recent Trends in Inter-Disciplinary Innovations Bridging Computer Science and Life Science (RTIICSM-2024) organized by Rathinam College of Arts and Science, Coimbatore.

Topic “Computational Exploration of Natural Compounds as potential ligands targeting Breast Cancer: Virtual screening and Molecular Docking studies.” Authors: Isra Aman Aziz, Ruchi Yadav, Rachana Chaturvedi.

5. Oral Presentation at the 3rd International Conference on Recent Advances in Biotechnology and Nanobiotechnology (Int-BIONANO-2024) organized by AUUP.

Topic “Furanocoumarins as Promising Anti-Breast cancer agents using structure-based docking studies. “Authors: Isra Aman Aziz & Ruchi Yadav.

Leadership & Volunteering

- **Student Co-ordinator, Entrepreneurship Cell**, AUUP (June 2023- March 2024) – Promoted E-cell incubation and anchored for Events at Incubation cell.
- **Student Group Leader**, Navreeta Foundation (Aug 2022 - Jan 2023) – Advocated for Women’s Rights and Menstrual hygiene.
- **Volunteer**, Hamari Pahchan NGO (Mar 2023 - May 2023) – Supported education for underprivileged children.
- **Speaker**, Centre for Civil Society (June 2018) – Promoted education for all.
- **Delegate**, International Conference of Chief Justices of the World (June 2017 - Jan 2018) – Focused on international peace and security.
