

SAKSHI CHAUHAN

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EDUCATION

M.Sc. Biotechnology (7.53/10)

Guru Jambheshwar University of Science and Technology

Hisar, Haryana

August 2022 - June 2024

- Related subjects- Genetics, Microbiology, Molecular biology, Immunology, Nanotechnology, Bioinformatics, Genetic Engineering, Enzymology.
- Awarded with Department of Biotechnology Scholarship for pursuing master's degree.

B.Sc. Biotechnology (8.18/10)

Banasthali Vidyapith

Jaipur, Rajasthan

July 2019 - May 2022

- Related subjects- Cell and molecular Biology, Genetic Engineering, Enzymology, Immunology, rDNA technology, Inorganic Chemistry, Environment Studies, Biostatistics, Bioinformatics and Instrumentation, Zoology, Science of Happiness, Botany, Human Body and Health

Higher Secondary Education (8/10)

Samar Study Hal CBSE School

Kashipur, Uttarakhand

March 2017 - May 2018

- Related subjects- Physics, Chemistry, Biology.

WORK EXPERIENCE

Jawaharlal Nehru University (JNU), New Delhi

August 2024 - Present

Project Assistant

- During my tenure as a researcher in structural Lab, I actively contributed to two significant research projects.
- In my main project, I'm involved in purifying L-asparaginase and performing kinetic studies to determine Michaelis-Menten parameters, along with crystallization experiments.
- In another project I worked on, small GTPases (Rho 5, 8, and 15) for activity studies and crystallization trials.

Jawaharlal Nehru University (JNU), New Delhi & CCMB, Hyderabad

January 2024 - June 2024

Master's Thesis

- During my master's thesis, I worked on actin-depolymerizing factors (ADF 5, 4, and 2), purifying them using Ni-NTA affinity and gel filtration chromatography and studying their interactions with actin extracted from rabbit muscle through co-sedimentation assays and Western Blot was developed and analyzed with rabbit-raised antibodies of ADF1 protein and ADF-2 protein.

IIT Roorkee (Macromolecular Crystallography Unit), Roorkee

June 2023 - August 2023

Intern

- During my internship at IIT Roorkee, I gained experience in molecular cloning, protein expression in bacterial systems, and purification using Ni-NTA and gel filtration chromatography. I was also trained in protein crystallization using the sitting drop vapor diffusion method for structural studies.
- I also worked on data mining to develop a database of antimicrobial peptides active against AMR organisms, analyzing their structural and functional characteristics. This enhanced my skills in bioinformatics, peptide therapeutics, and antimicrobial resistance research.

All India Institute of Medical Science (AIIMS), New Delhi

August 2022 - September 2022

Intern

- In this tenure, I learnt essential lab techniques, such as autoclave, laminar airflow unit, incubator, and gel electrophoresis systems.

Rapture Biotech International Pvt. Ltd

June 2021 - August 2021

Trainee

- During my Under graduate studies, I gained basic experience in cell and molecular biology, clinical and medical microbiology, and natural products research. I learned fundamental techniques such as ABO blood grouping, Rh factor determination, tissue culture, WBC estimation, and clotting factor analysis, which helped me build a foundational understanding of these laboratory methods.

SKILLS

- **Wet Lab Skills-** Genomic DNA extraction, Total RNA isolation, PCR, Gel electrophoresis, Restriction Digestion, Ligation, Competent Cells preparation, Transformation, Cell culture, Protein extraction and estimation, Plasmid isolation, Total DNA extraction, Bacterial cultures, Ni-NTA affinity Chromatography, Gel Filtration Chromatography, SDS- PAGE, Western Blot.
- **Assays (for protein- protein interaction)-** Actin Co- Sedimentation assay.
- **Bioinformatics-** AlphaFold, Pymol, Blast, Multiple sequence alignment, String DB for protein-protein interactions, Phylogenetic analysis, Primer designing, Molecular Docking, Primer Designing, Vector designing.
- **Crystallisation-** Sitting drop vapour Diffusion method, Hanging drop vapour Diffusion method.
- **UV-Visible Spectrophotometry-** Estimation of protein concentration.
- **Microscopy-** Light microscopy.

LANGUAGES

- **Fluent in English** with strong written and verbal communication skills.
- **Native speaker of Hindi** with multilingual adaptability.

AWARDS

- Awarded with **Department of Biotechnology scholarship for master program.**

EXTRA-CURRICULAR

- Participated in the Symposium on "World Immunology Day" convened on the 29th of April at AIIMS, New Delhi.
- Triumphantly engaged in an entrepreneurial exposition. Atal incubation centre at Banasthali Vidyapith.
- Completed the online course called Dream Builder. Dream Builder is a unique course designed by Thunderbird School of 'Global Management and Arizona' State University especially for aspiring women entrepreneurs which aims at elucidating the process of launching or growing your own business.
- Coordinator of Training and Placement cell, Guru jambheshwar university of Science and Technology, Hisar, Haryana.

REFERENCES

Referee-1

Dr. Neeraj Dilbaghi (Professor)

Nanobiotechnology & Chairman, Department of Biotechnology.

Director (UGC- Human Resource Development Centre).

Incharge (Radio-Ecology Centre) Institutional Coordinator (RUSA), Guru Jambheshwar University of Science & Technology, Hisar-125001, INDIA, Email: ndnano@gmail. com.

Referee-2

Dr. Namita Singh (Professor)

Department of Biotechnology,

Guru Jambheshwar University of Science & Technology

Hisar-125001, INDIA, Email : namitasingh71@gmail.com.

Referee-3

Dr. Samudrala Gourinath (Professor)

School of Life Science,

Jawaharlal Nehru University, New Delhi,

Email- sgourinath@mail.jnu.ac.in. Phone- 011-26704513.