

# CHANDNI CHOPRA

<https://chandnichopra.github.io>

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## SUMMARY

Aspiring Industrial biotechnologist with a strong background in Molecular and Microbial Techniques. Seeking an opportunity to contribute to a dynamic research and manufacturing environment. Available for Summer Internship.

## EDUCATION

### Master of Science, Biotechnology, 3.9 GPA

University of Texas at Dallas

Aug 2023 - May 2025

Richardson, TX

- Relevant Coursework: Gene to Genomes, Molecular Neuropathology, American Healthcare, Genomics, Biochemistry, Cell Biology

### Bachelor of Science, Biotechnology, Chemistry, Botany, 3.2 GPA

Christ University

Aug 2019 - May 2022

Bengaluru, India

- Relevant Coursework: Molecular Biology, Microbiology, Immunology, Cell biology, Biostatistics, Animal Biotechnology, Bioinformatics, Biochemistry, Bioprocess Engineering, Plant Biotechnology, Animal Biotechnology, Genetic Engineering

## SKILLS

**Molecular Biology:** DNA Fingerprinting, Plasmid Isolation, Cloning, DNA Extraction, PCR, Real-Time Polymerase Chain Reaction (qPCR), DNA Digestion, DNA Quantification, Molecular Markers, Gel Electrophoresis, Western Blotting, Fluorescence Microscopy

**Cell Biology & Biochemistry:** Cell Culturing, Mammalian Cell Culture, UV Spectrophotometry, Paper Chromatography, HPLC, Immunoassay, immunohistochemistry, microscopy, RNA extraction.

**Microbiology:** Media and culture preparation, Aseptic techniques, Staining techniques, Inoculation.

**Software Skills:** MS Word, MS Excel, PowerPoint, Digital Marketing, Spreadsheet Modeling, Database Management, Autodesk

## PROFESSIONAL EXPERIENCE

### Student Laboratory Assistant, University of Texas at Dallas

Jan 2024 - Present

- Enforced protocols and procedures to maintain 100% laboratory safety compliance, resulting in zero accidents or violations
- Managed lab inventory, assisted students, and enforced safety protocols, overseeing coat and supply stocks and mitigating risks

### Research Intern, Dharaksha Ecosolutions, India

Sep 2021 - May 2022

- Assisted in designing a project to repurpose 80% of agricultural waste into biodegradable packaging, directly addressing and alleviating the environmental impacts of crop stubble burning
- Successfully developed an expertise in microbiological processes, including media and culture preparation, cell culture, aseptic methodologies, and staining techniques, leading to a 30% increase in efficiency
- Conducted precise inoculation, incubation, and characterization of various fungal cultures, resulting in the successful integration of rice stubble with a potent mushroom strain
- Transformed the fungal-rice stubble amalgamation into bespoke molds, harnessing the power of dense fungal growth within the substrate to create a material with unmatched strength and sustainability, reducing waste by 40%

## ACADEMIC PROJECTS

### Direct Immunofluorescence Staining of Amyloid-Beta Plaques in Alzheimer's Disease Mouse Models, UT Dallas

Nov 2023

- Performed IF staining to visualize and differentiate amyloid-beta plaque levels between wildtype and mutant mice
- Executed Western blots to assess Alzheimer's protein expression; detected bands demonstrating successful transfer
- Analyzed images to compare plaque accumulation between genotypes; identified and troubleshooted issues with Western blot procedure

### Cell Assay of Isolated Chicken Hepatocytes incubated with FeSO4 & EDTA, Christ University

Mar 2022

- Studied impact of different concentrations of test chemical on hepatocytes, assessing the protective effects of the cryoprotectant, EDTA
- Conducted assays on mechanically isolated chicken liver parenchymal cells. Maintained and compared cell viability across varying chemical concentrations, ensuring aseptic conditions at 4°C over a span of 4 weeks
- Evaluated live and dead cell counts, observed a decline in cell viability across testing phases, focused on hepatocyte response under these conditions

### Micropropagation of Brahmi using plant tissue culture techniques, Christ University

Apr 2022

- Successful micropropagation of medicinal plant Brahmi via nodal cultures on optimized MS media, inducing prolific shoot growth through strategic manipulation of hormonal ratios
- Pioneered tissue culture techniques for mass-production of high-quality Bacopa shoots; increased potential yields over 30%
- Developed strict microbial decontamination procedures that provide aseptic testing of sapling regeneration from nodal explants in a regulated setting under exacting sterile conditions

## ORGANIZATIONS & CERTIFICATION

- Student Volunteer, Student Union - University of Texas at Dallas
- Start-up Internship Head, Entrepreneurship Cell - Christ University
- Cultural Affairs Head, Biology Society - Christ University
- Certification - The National Institute on Drug Abuse (NIDA) Good Clinical Practice (GCP)

Dec 2023 - Present

Aug 2021 - May 2022

Jul 2021 - May 2022

Sep 2023