

Aayush Sharma

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Summary

Detail-oriented Bioengineering student with hands-on experience in microbiology and biochemistry bench work. Media preparation, antimicrobial/antioxidant/anti-diabetic assays, pipetting and instrument calibration. Familiar with SOPs/GLP, lab documentation and basic analytical data processing.

Experience

Summer Intern

Lupin Ltd.

(Remote)

Mar 2025 – May 2025

- Analyzed Phase I–III clinical trial datasets for 15+ cardiovascular and diabetes candidates, assessing efficacy, safety trends, and primary endpoints to generate structured insights supporting strategic portfolio decisions.
- Conducted detailed medico-marketing and competitive intelligence research comparing Finerenone vs. Eplerenone, projecting a USD 500M market potential for Finerenone by 2033 with an estimated 15.3% CAGR.
- Evaluated therapeutic positioning, target populations, pricing assumptions, and commercialization barriers to strengthen forecasting accuracy and guide long-term planning for novel cardio-renal drug assets.
- Designed a full-scale business model for a digital health platform, including market sizing, GTM roadmap, and financial planning, projecting INR 33.2 Cr first-year investment and onboarding 150+ partners.

Short-term Trainee

Sangene Biotech

Bengaluru, Karnataka

Sept 2024

- Prepared 3 Mueller-Hinton agar plates, performing reagent weighing, pH adjustment and autoclave sterilisation while following SOPs, GLP practices and accurate documentation standards.
- Executed disc diffusion antimicrobial tests for different samples, measured zones of inhibition, captured plate images and logged results to support QC traceability and analytical review.
- Completed QC and SOP checklists, performed serial dilutions, maintained lot-wise sample labelling, and identified 2-3 procedural deviations to improve assay consistency and reproducibility.

Lab Assistant

Biochemistry Lab, VIT

Bhopal, Madhya Pradesh

Dec 2022 – April 2025

- Performed 10+ precision micropipetting operations, serial dilutions and reagent preparations to support accurate antioxidant and enzyme inhibition assay workflows.
- Calibrated pH meter and operated UV-Vis for absorbance readings, recording raw data for DPPH, Hydrogen Peroxide and alpha-amylase inhibition assays with proper QC documentation.
- Conducted antioxidant and anti-diabetic assays, calculated % inhibition and dose-response patterns using Excel, and maintained complete lab records, reagent logs and GLP-aligned safety documentation.

Education

Vellore Institute of Technology, B.Tech. in Bioengineering

CGPA: 8.05/10.0

Bhopal, Madhya Pradesh

expected July 2026

Kanha Makhan Millennium School, CBSE - Class XII

CGPA: 9.40/10.0

Mathura, Uttar Pradesh

April 2021 – Feb 2022

Skills

Lab Techniques: Media preparation, Micropipetting, Streaking, Incubation, Buffer preparation, Vortexing, Autoclaving

Assay & Testing: Antioxidant Assays, Antimicrobial Testing, Disc Diffusion, Centrifugation, Plate pouring

Quality & Documentation: Lab Documentation, SOP Compliance, GLP Awareness, QC Checklist, Safety Protocols

Extra-curricular

Smart India Hackathon

6-days hackathon

Jalandhar, Punjab

Dec 2023

- Achieved Grand Finalist status at the G20 Smart India Hackathon, a premier national innovation competition.
- Pioneered a novel biomimetic membrane generating 2.5 L/hr/m² of water with a 240 L/day output.
- Validated droplet formation via simulations, modelling collection rates of 200 µL/hr per 0.8 cm² surface area.
- Conceptualized a scalable rural water solution for arid regions, costing only INR 10K–25K per unit.