PALAK NAGAR
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SUMMARY

Results-driven Biotechnologist with **4+ years of experience** in Molecular Biology and Immunotoxicology. Skilled in flow cytometry, data reporting, and experimental optimization. Proficient in SDS-PAGE, ELISA, qPCR, gene cloning, and DNA/RNA extraction. Known for analytical thinking, attention to detail, strong presentation skills, and ethics-driven, compliance-focused decision making.Seeking to contribute to research roles in toxicology, cell analysis, and drug development. Strong foundation in Good Laboratory Practices (GLP), Standard Operating Procedures (SOPs), and technical documentation.

SKILLS

- **Wet Lab**: SDS-PAGE, ELISA, Western blot, PCR, qPCR, gel electrophoresis, spectrophotometry, cell culture, gene cloning, blotting, DNA/RNA extraction, protein purification
- **Molecular Biology & Analysis**: Nucleic acid extraction, DNA sequencing, bacterial transformation, CRISPR, mutagenesis, FlowJo, GraphPad Prism, Python, C++
- **Software & Tools**: MS Office Suite, FACS sorting, LIMS, ELNs, data visualization
- **Compliance & Reporting**: GLP/GCP, SOPs, biosafety protocols, regulatory documentation, TSRs, audit support
- **Communication & Collaboration**: Technical writing, data presentation, cross-functional teamwork, decision-making
- **Core Competencies**: assay development, sample preparation, reagent management, molecular diagnostics, quality control, troubleshooting, protocol development, data integrity, biological assays

EXPERIENCE

GlaxoSmithKline | Scientific Researcher, Immunotoxicology
Sept 2024 – Apr 2025 | Collegeville, PA

- Performed multicolor flow cytometry on RBCs using FlowJo.
- Developed immunotoxicology protocols; improved data reliability by 35%.
- Executed PBMC isolation and TBNK analysis with 99% accuracy.
- Reduced variability in risk assessments by 28% via cross-functional efforts.
- Reviewed TSRs under GLP/GCP compliance.
- Contributed insights during research reviews and decision meetings.

Texas A&M University | Molecular Biology Researcher
Oct 2023 – Sept 2024 | College Station, TX

- Accelerated CFU analysis by 50% using a time-correlation method.
- Assessed antibiotic effects on E. coli via motility and inhibition assays.
- Designed molecular screening protocols; enhanced assay precision.
- Maintained ELNs and inventory; reduced waste by 15%.
- Presented research using visual tools and clear summaries.
- Supported grant writing and biosafety documentation.

Vezeo, India | Genetic Engineering Assistant
Mar 2019 – Dec 2021 | Ahmedabad, India

- Engineered disease-resistant crops using gene editing and recombinant DNA technology.
- Evaluated eco-friendly fertilizers for sustainable agriculture.
- Conducted bioassays on rhizobium, acetobacter, and mycorrhiza strains.
- Validated gene expression with PCR, SDS-PAGE, and DNA extraction.
- Documented technical reports for stakeholders and R&D teams.
- Collaborated on multidisciplinary agricultural biotechnology projects.

ACADEMIC PROJECTS

- Engineered **next-generation biocompatible scaffolds** using eggshell derivatives and sodium alginate for optimal cell adhesion.
- Pioneered **biomaterial research** with discarded eggshells for **tissue engineering applications**.
- Analyzed eggshell microstructural properties via imaging and biochemical assays, validating their use as sustainable scaffold materials.
- Optimized sodium alginate bio-ink for ideal viscosity, printability, and cellular compatibility.

EDUCATION

Texas A&M University, College Station, TX
Master of Biotechnology
University of Engineering & Management, Kolkata (UEM)
Bachelor of Engineering in Biotechnology

CERTIFICATIONS

- Biosafety Level 2 Training
- Bloodborne Pathogens Training
- Class 2 Biosafety Cabinets Use
- General Laser Safety
- Lab Safety Training
- Responsible Conduct of Research (CITI Program)