

DIVYA DEODAS PRABHU

divya.20.prabhu@gmail.com | +1 (442) 899-7654 | [LinkedIn](#) | [Portfolio](#) | San Diego, CA

SUMMARY

Bioengineer with 3+ years of global experience across biomedical research and product management in academic and health-tech settings. Proven track record in leading cross-functional projects, streamlining clinical workflows, and delivering scalable research and software solutions. Skilled at bridging scientific research with real-world implementation.

EDUCATION

University of California, San Diego, USA
Master of Science in Bioengineering

Sep 2023 – Aug 2025

University of Mumbai, India
Bachelor of Engineering in Biomedical

Aug 2016 – Oct 2020

EXPERIENCE

Research Associate – Kravets Lab, University of California, San Diego, USA

Apr 2024 – Present

- Led imaging-based research on beta-cell heterogeneity in T2D using FLIM, FRAP, and live-cell calcium imaging to understand response-phase differences and metabolic shifts that inform islet-targeted therapies.
- Integrated 4D multi-photon confocal microscopy, spatial transcriptomics, and network analysis to map immune–islet interactions in T1D, identifying novel mechanisms of autoimmune islet destruction.
- Developed MATLAB/ImageJ pipelines to extract calcium oscillation dynamics from 50+ tissue slices, improving analysis accuracy by 80% and enabling high-throughput quantification of beta-cell activity.
- Standardized experimental workflows for islet isolation, staining, and IF imaging across transgenic mouse models and human islets, boosting reproducibility and data quality across multi-modal datasets.

Research Associate – Cheresh Lab, University of California, San Diego, USA

Jan 2024 – Mar 2024

- Investigated tumor-stroma signaling in pancreatic cancer by analyzing LPAR4 and fibronectin expression via flow cytometry, western blotting, and gel electrophoresis, uncovering key regulators of ECM remodeling and metastasis.
- Designed and executed tumor–fibroblast co-culture assays with siRNA knockdowns and IF imaging, revealing novel fibroblast-mediated mechanisms driving tumor invasion and chemoresistance.
- Conducted in vivo studies using xenograft and transgenic mouse models; applied AFM and IHC to evaluate ECM stiffness and biomarker profiles, contributing data toward development of anti-stromal therapeutic strategies.
- Streamlined experimental workflows by integrating high-content imaging, transcriptomic profiling, and protein quantification tools, enhancing data reproducibility and accelerating project timelines by 30%.

Product Manager – Krishagni Solutions Private Limited, Mumbai, India

Jul 2020 – Aug 2023

- Delivered 30+ workflow automation solutions for research labs and hospitals, improving biospecimen tracking, regulatory compliance, and lab efficiency by up to 75% across oncology, metabolic, and infectious disease studies.
- Managed 20+ cross-functional projects integrating LIMS, ELN, and EDC tools, enhancing data quality, research reproducibility, and clinical workflow alignment.
- Led system design, testing, and feature validation cycles, contributing to key releases with minimal errors; authored 40+ technical documents and SOPs used globally as internal knowledge bases and user guides.
- Built and mentored a 4-member team; conducted 50+ client training sessions and implemented JIRA-based analytics dashboards, enabling real-time decision-making, reducing turnaround time, and driving adoption of lab informatics platforms.

Intern – Center for Innovation and Bio-Design; Holy Family Hospital, India

Dec 2018 – Jul 2020

- Led development of a ML-based disease prediction platform and optimized biomedical product workflows, improving diagnostic accuracy by 19% and enhancing production efficiency for diabetes-related devices and neurological research initiatives.
- Supported maintenance and real-time troubleshooting of critical care devices across ICU, OR, and radiology units; led device operations during CABG surgery and improved equipment uptime and compliance with GMP, FDA, and ISO 13485 standards.

SKILLS

- **Laboratory Techniques:** Flow Cytometry, ELISA, PCR, Western Blotting, Mammalian Cell Culture, PBMC and Primary Cell Isolation, Islet Biology, NGS Assays, In Vivo Research, DNA/RNA Extraction, Plasmid Isolation, iPSC-Derived Models, Aseptic/Sterile Techniques, SDS-PAGE, HPLC, Mass Spec, CRISPR/Cas9
- **Tools:** Imaris, Python, GraphPad Prism, Spatial Data Analysis, AutoCAD, SolidWorks, Blender, Leica LAS X, BioTek Cytation Imager, Minitab, SimBiology, FlowJo, Excel, Word, PowerPoint, Project, DOE, MSA, Power BI, LabVIEW, JMP, ANOVA
- **Product and Workflow Management:** JIRA, Atlassian Suite, Workflow Automation, Agile Project Management, Regulatory Documentation, Clinical Research Operations, Google Suite