

Disha Jain

Washington, DC | +1 571-457-1767 | dishajain9963@gmail.com | <https://www.linkedin.com/in/disshbliss/>

EDUCATION

George Washington University | *Masters in Biomedical Engineering* | 3.8

Dec 2024

SRM Institute of Science and Technology | *Bachelor of Technology in Biomedical Engineering* | 3.8

May 2021

SKILLS

Lab techniques: Confocal Microscopy, Transfection, Primary culture, Animal handling, Western blotting, Cell culture, Immunofluorescence

Software: ImageJ, Pism, Fusion 360, COMSOL, Figma, Advanced capabilities in MS Office Suite

Programming: Python, R, MATLAB, Image Processing, Microbit

Business & Operations: Market research, customer discovery, Lean Six Sigma methodologies, and healthcare operations.

Project Management & Leadership: Strategic project design and execution, resource allocation, and cross-functional team coordination.

ACHIEVEMENTS AND PUBLICATIONS

Publication: 3D Printing for PMMA in Polymers Journal, 2023. [Link to paper](#)

Authored a technical manual for the **Detection of Diabetic Retinopathy using CNN**.

PROFESSIONAL EXPERIENCE

Mount Sinai Health System

New York, NY

Research Assistant I

02/2025 - Present

- Conduct primary and immortalized **human corneal endothelial cell (HCEC) culture**, and perform **Western blotting** to study the molecular mechanisms of Fuchs' endothelial corneal dystrophy, with a focus on disease initiation and progression.
- Investigate **mitophagy and mitochondrial dysfunction** in ocular cells, analyzing how cellular stress responses contribute to disease phenotypes that are highly relevant to phenotype regulation and nutrient signaling pathways.
- Maintain and manage **multiple transgenic mouse colonies**, perform genotyping, and assist in phenotyping studies to explore genetic influences on ocular pathology, demonstrating proficiency in in vivo model systems.
- Collaborate on cross-functional research initiatives involving **primary cell isolation, tissue processing, and molecular assays**, contributing to publications aimed at uncovering early pathogenic mechanisms, skills transferrable to transcription factor and beta cell proliferation research.

Case Western Reserve University

Cleveland, OH

Research Scholar – Infectious Diseases

04/2022 – 09/2022

- Developed a polymer-based cross-linking protocol for site-directed conjugation of biological molecules, enhancing the analytical performance of the **point-of-care (POC) diagnostic systems**.
- Achieved a **10-fold increase** in antibody coupling efficiency using bi-functional thiol-polyethylene glycol (PEG)-hydrazide polymer compared to standard NHS-based conjugation methods.
- Demonstrated effective **capture (>94%)** of Klebsiella pneumonia carbapenemase-2 (KPC-2) enzyme antigen, improving the diagnostic accuracy of antimicrobial resistance (AMR) testing.

Refracto Eye Hospitals

Hyderabad, India

Operations Head

10/2020 - 09/2021

- Worked closely with the **CEO** to manage daily schedules, prioritize tasks, and ensure timely execution of critical projects, enabling streamlined decision-making and organizational efficiency.
- Coordinated cross-functional meetings and communications**, ensuring alignment between the CEO's vision and departmental goals, while maintaining a clear flow of information.
- Optimized supply chain processes and vendor negotiations**, reducing procurement costs and ensuring compliance with the CEO's cost-saving initiatives and operational priorities.
- Played a key role in coordinating surgical schedules, managing insurance claims**, and ensuring seamless execution of day-to-day operations under the CEO's directive.

ACADEMIC AND RESEARCH PROJECTS

Research Intern at Inali Foundations | Myoelectric Prosthetic Hand Design

02/2021 - 05/2021

- Worked closely with the CEO** to design and manage the development of a cost-effective myoelectric prosthetic hand, ensuring alignment with organizational goals and timely project execution.
- Played a key role in **project planning and management**, using structured approaches to track progress, allocate resources, and meet deadlines efficiently.
- Contributed to the foundation's **CSR initiatives** by developing strategies to enhance outreach and accessibility of prosthetics for underserved communities.