

Dhruti Brahmhatt

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EDUCATION

Rowan University	M.S. in Bioinformatics	3.9 GPA (Dean's List)	Glassboro, NJ
Sardar Patel University	B.S. in Genetics	3.2 GPA	Anand, Gujarat

TECHNICAL SKILLS

- Molecular Profiling & Omics:** Bulk RNA-seq, scRNA-seq, CITE-seq, spatial transcriptomics, TCR/BCR-seq, multi-omic integration
- Laboratory Techniques:** Flow cytometry, CRISPR editing, qPCR, Western blot, ELISA, immunohistochemistry (IHC), Co-IP, mammalian cell culture
- Library Prep & Sample Handling:** NGS library preparation, tissue dissociation, fixed tissue processing, clone validation
- Computational Tools:** Python, R, Seurat, Scanpy, CellRanger, STAR, kallisto, GraphPad Prism
- Cross-functional Collaboration:** Multidisciplinary teamwork with clinicians, bioinformaticians, and immunologists; SOP development; project planning

EXPERIENCE

University of Texas Medical Branch (UTMB)	Galveston, TX
Research Associate-I	July 2025 - Present
<ul style="list-style-type: none">Perform molecular profiling and multi-omics integration of kidney fibrosis models, using bulk RNA-seq, scRNA-seq, and pathway enrichment.Support sample handling and processing for RNA, DNA, and protein isolation from clinical and animal tissues.Operate HPC pipelines (Docker, Singularity, SLURM) for scalable RNA-seq and single-cell workflows.Collaborate with immunologists and nephrologists to interpret omics data and translate findings into actionable biological insights.	

Cooper Medical School of Rowan University	Camden, NJ
Senior Research Assistant	Sept 2024- July 2025
<ul style="list-style-type: none">Conducted flow cytometry and immune profiling to characterize cancer and immune cell responses in breast cancer and myeloma models.Supported multi-omics data integration by linking gene expression datasets with scRNA-seq pipelines.Performed cell-based assays (ELISA, IHC, WB, MTT) to validate immune signaling pathways and drug response.Maintained cancer cell lines, ensuring quality control and reproducibility of molecular assays.	

Cooper Medical School of Rowan University	Camden, NJ
Research Assistant	Sept 2023- Aug 2024
<i>[Published Abstract in APS Journal- https://journals.physiology.org/doi/abs/10.1152/physiol.2024.39.S1.1271]</i>	
<ul style="list-style-type: none">Designed and executed molecular biology experiments for mitochondrial and muscle physiology studies.Performed qPCR, Western blot, Co-IP, IHC to validate molecular responses.Developed SOPs for lab workflows and trained students in experimental methods.	

Anand Agricultural University Biotechnology Dept	Anand, Gujrat
Research Scholar	July 2021- Aug 2023
<ul style="list-style-type: none">Led molecular cloning and tissue culture projects, optimizing gene insertion and regeneration protocols.Handled genetic engineering workflows including Agrobacterium-mediated transformation.Mentored graduate students in molecular biology methods and data documentation.	

PROJECTS

- NGS Cancer Data Analysis (K562 & MCF-7):** Performed RNA-seq library prep, QC, alignment, and enrichment analysis; identified therapeutic targets.
- COVID-19 Genomics:** Analyzed 1,000+ genomes to identify mutation hotspots, supporting therapeutic development.

CERTIFICATES

- R Programming & Statistical Analysis:** Regression, Clustering, Ensemble Models
- Healthcare IT & Cloud:** Microsoft Cloud for Healthcare, Azure Health Data Services
- Cybersecurity & Compliance:** Governance, Risk & Compliance, Healthcare Data Security

LEADERSHIP EXPERIENCE

Neuroscience Club – Led initiatives to organize events and discussions on neurological research, fostering student engagement in neuroscience.

Meal Prep for Breast Cancer Patients Club – Coordinated meal preparation and distribution efforts to support breast cancer patients with nutritious meals.

ACHIEVEMENT

Winner – People's Choice Award, Art of Rowan Research Contest (2025) – recognized for research communication and data storytelling.