

PRAGATI DHINGRA

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EDUCATION

INSTITUTION	DEGREE	GPA	GRADUATION
Texas A&M University, College Station, TX, USA	Master of Biotechnology (MBIOT)	4.0	May 2025
Guru Gobind Singh Indraprastha University (GGSIPU), Delhi, India	Bachelor of Technology (Biotechnology)	3.60	July 2023

EXPERIENCE

Texas A&M University – *Student Research Assistant, (Dr. Jared Bard)* (February 2024 – present)

- Studying the correlation stages of CHIKV infection with stress granule formation and translational regulation. Cloning and plasmid design to detect stress granule formation under chemically induced stress

Health Science Center, Texas A&M University – *Student Researcher, Microbial Pathogenesis and Immunology Lab (Dr. Jeffrey Cirillo)* (September 2023 – present)

- Inspected and performed quality control of A549 air-liquid interface monolayer culture systems
- Conducting LDH immunoassays, scRNASeq, and immunohistochemistry to detect immune responses to infection with Mtb

University School of Biotechnology, GGSIPU – *Undergraduate Researcher, Molecular Virology and Innate Immunity Lab (Dr. Ranjith Kumar CT)* (February 2023 – July 2023)

- Completed dissertation on "screening for modulations in the cGAS-STING host immune pathway on infection with chikungunya virus showing regulations at the protein level, confirming its involvement in the immune response against CHIKV
- Cultured HEK and Huh7 cells, transfected them with DNA isolated by DNA extraction, infected cells with CHIKV in Biosafety Level 2 prior to RNA extraction and real-time analysis for 20+ biological replicates, and analyzed data using Microsoft Excel. Worked with 5 other undergrads and 3 PhDs to collaborate on related experiments

Translational Health Science and Technology Institute, NCR Biotech Cluster - *Research Intern, Molecular Biotechnology and Diagnostics Lab (Dr. Gaurav Batra)* (July 2022 – September 2022)

- Performed the purification of antibodies for 15+ samples of hybridoma antibodies against Zika and Dengue virus with at least 2 biological replicates of each sample
- Revived antibody samples, purified with affinity chromatography, SDS-PAGE, spectrophotometry, and dialysis, and tested for specificity with biotinylated ELISA; further utilized in the production of point-of-care testing kits

Institute of Nuclear and Medicine and Allied Sciences, Defense Research and Development Organization - *Research Intern, CBRN Defense Lab (Dr. Rajeev Goel)* - (October 2021 – December 2021)

- Led the project 'Removal of toxic chemicals (malathion) from solution with activated carbon'
- Planned experiments by dehydrating activated carbon by baking, treated 4 malathion concentrations with it at different temperatures and time durations, analyzed with spectrophotometry
- Collaborated with doctoral students on projects relating to skin permeability of toxic chemicals using pig skin by Franz diffusion, and tested lab-created cleaning wipes for organic materials on 75 lab rats

SKILLS

PCR, qRT-PCR, SDS-PAGE, ELISA, aseptic techniques, bacterial and mammalian cell culture, transfection, viral infection, spectrophotometry, protein purification, affinity chromatography, HPLC, DNA and RNA extraction, gel electrophoresis, familiar with C and Python, Microsoft Word, Excel, PowerPoint, problem-solving, mathematical aptitude, communication, scientific writing, and presentation skills.

Microbiology, cell biology, genetics, immunology, molecular biology, organic chemistry, RDT, bioinformatics, protein biotechnology, bioprocess engineering, biochemistry, stem cell biology

LEADERSHIP ROLES AND HONORS

- Led the Publication Club of campus as Vice President, managing a team of 48 writers, photographers, and illustrators to keep students updated about campus events. Organized 17 cultural, creative, and literary events, including the annual University Fest of 2023 with a 10,000+ footfall
- Chaired the team of Enactus USS, a global social entrepreneurship club, as team lead, and mentor with 37 members and ran 3 environmentally sustainable and scalable projects during 2019-2023
- Secured 2nd place in a university-level Football Tournament (2020)
- Cultural Secretary in the school Student Council (2018)
- Won 2nd place in Mathematical modeling – presented on growth of tumor cells (2018; inter-school)
- Secured 2nd place in Table Tennis Competition (2017; state-level)