

Dasari Abhilash

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Lab 232A, Block-1, DBEB, IIT Delhi, Hauz Khas, New Delhi. PIN:110016

EDUCATION

Indian Institute of Technology

PhD in Department of Biochemical Engineering and Biotechnology

Delhi, India

Sep 2020 - Present-day

University of Hyderabad

Integrated Masters of Science, Systems Biology; GPA: 7.73/10.0

Hyderabad, India

July 2015 - May 2020

Sri Chaitanya junior kalasala

Higher Secondary School Certificate; Percentage: 93.60 (Biology, Physics, Chemistry)

Hyderabad, India

June 2013 - May 2015

SKILLS

- **Programming Languages:** R (tidyverse, Bioconductor), Python (pandas, NumPy, SciPy), Bash (shell scripting)
- **Bioinformatics and Transcriptomics:** Bulk RNA-seq (alignment, quantification, differential expression), single-cell RNA-seq (Seurat/Scanpy), spatial transcriptomics analysis, cell type deconvolution, transcript isoform / alternative splicing analysis
- **NGS Tools and Pipelines:** FASTQ processing (FastQC, Trimmomatic), alignment (STAR, HISAT2), quantification (featureCounts, Salmon), differential expression (DESeq2, edgeR), workflow automation (Snakemake/Nextflow)
- **Data Visualization and Statistics:** ggplot2, ComplexHeatmap, statistical modeling, exploratory data analysis
- **Computational Environment:** Linux/UNIX systems, HPC/cluster computing, version control (Git)
- **Experimental Lab Techniques:** Gel Electrophoresis, Western Blot, Bacterial culture handling, Microscopy, PCR
- **Languages Known:** English, Hindi, Telugu (Reading, Writing and Speaking)

PUBLICATIONS

First / Co-first Author

- Tanwar, P, Bhattacharya, D., **Dasari, A.**, Bijwe, M., Rana, R., Gupta, I. and Minocha, S., 2024. Dynamic gene expression pattern in zebrafish gallbladder: an experimental study. *International Journal of Surgery*, 110(12), pp.7585-7589. ([DOI](#))
- Srivastava, PP, **Dasari, A.**, Kumar, S., Gupta, I., Jain, D. and Minocha, S., 2025. Epigenetic co-regulator HCF-1 promotes lung cancer via O-GlcNAcylation-dependent pathways. *Molecular Therapy Oncology*, 33(4). ([DOI](#))
- Budhraj, A., Basu, A., Gheware, A., **Abhilash, D.**, Rajagopala, S., Pakala, S., Sumit, M., Ray, A., Subramaniam, A., Mathur, P and Nambirajan, A., 2022. Molecular signature of postmortem lung tissue from COVID-19 patients suggests distinct trajectories driving mortality. *Disease Models & Mechanisms*, 15(5), p.dmm049572. ([DOI](#))
- Basu, A., Budhraj, A., **Abhilash, D.** and Gupta, I., 2021. Novel omics technology driving translational research in precision oncology. *Advances in Genetics*, 108, pp.81-145. ([DOI](#))

Second Author

- Saxena, V., **Abhilash, D.**, Budhraj, A., Dey, S., Tiwari, P., Mohan, A., Gupta, I. and Kumar, S., 2026. RNA sequencing reveals differential expression of circular RNAs in human small cell lung cancer. *Scientific Reports*. ([DOI](#))
- Dhanial, N.K., Chauhan, V.K., **Abhilash, D.**, Thakur, V., Chaitanya, R.K., Dutta-Gupta, S. and Dutta-Gupta, A., 2021. Gut-specific arylphorin mediates midgut regenerative response against Cry-induced damage in *Achaea janata*. *Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology*, 255, p.110600. ([DOI](#))

ACADEMIC ACHIEVEMENTS

- **CSIR-UGC:** Secured 97, 115 rank in Joint CSIR-UGC Junior Research Fellowship and Eligibility for Lectureship (NET) Exam in Dec 2018 and 2019 respectively
- **IIT-JAM:** Secured 454 and 687 ranks in IIT-JAM Biological Sciences and Biotechnology streams respectively.
- **GATE:** Secured 292 rank in GATE-2020 Life Science stream.

RESEARCH EXPERIENCE

IHU-ICAN, Sorbonne University

Student Exchange program

Paris, France

Feb 2025 - July 2025

Working with Dr. Maharaja Ponniah and Dr Nadine Suffee on discovering novel biomarkers of atrial cardiomyopathy with imagery and tissue biology.

Indian Institute of Technology

PhD Thesis Project (Bioinformatics)

Delhi, India

Sept 2020 - Present Day

Working with Dr. Ishaan Gupta on Dissecting the role of alternative splicing in respiratory and hepatobiliary pathology.

University of Hyderabad

M.Sc Thesis Project (Genomics)

Hyderabad, India

May 2019 - May 2020

Working with Dr. Vivek T to discover the genes underlying tolerance against cry toxin in Achaea Janata.

University of Hyderabad

Summer Research Intern (Computational Biology)

Hyderabad, India

May 2018 - June 2018

Worked with Dr. P Manimaran in understanding the applications of Chaos Game Representation(CGR) in Life Science related fields, writing a python script for CGR.

University of Hyderabad

Summer Research Intern

Hyderabad, India

May 2016 - June 2016

Worked with Prof. S.Rajagopal in understanding the interactions of various metabolites with Human Serum Albumin (HSA) domains I,II and III. Using fluorescence spectroscopy and Surface Plasmon Resonance

LEADERSHIP EXPERIENCE

- **CAIC-PG Convenor:** Elected as a Co-curricular and Academic Interaction Council (CAIC) PhD Convenor 2024-25, IIT Delhi. Awarded as Outstanding Contribution to CAIC as PhD Convenor, Member of Board of Academic program 2024-25
- **RSF Executive committee member:** Nominated as Research Scholar Forum (RSF) student executive committee member 2023-24

TEACHING AND MENTOR EXPERIENCE

- **Teaching Experience:** Responsible for teaching laboratory sessions to UG students for the BBL434-Bioinformatics course in 2022 and 2023.
- **Mentor:** Supervised 3 B.Tech and 2 M.S. (Research) students in their final-year projects and mentored several research interns from 2022 to 2026

ADDITIONAL EXPERIENCE, WORKSHOPS & SYMPOSIUM

- Speaker at Spatial transcriptomics workshop conducted at ICGB. Aug-2024
- Poster presentation at Indian cancer genome atlas (ICGA - 2024)
- Attended Human Cell Atlas Asia 2023 Meeting.
- Oral and Poster presentation at DBEB's annual in-house symposium BIOSPHERE in 2023 and 2024.
- Attended National Symposium on Frontiers in Biomedical Research, Nov-22.
- Attended IUBMB Focused Meeting – Biochemistry and Molecular Biology of RNA Viruses, Nov-22.
- Won first prize in Hackbiome, a bioscience hackathon organised by the Bioscience Society, NIT Rourkela, April 2021.
- Participated in 2nd Workshop of Advanced Bioinformatics: Network Medicine February-2021 organised by LAVIS - Institute of Neurobiology-Juriquilla, RiaBio.
- Participated in GIAN workshop on "Applied photosynthesis: putting nature into work" September-2019 at the University of Hyderabad.
- Attended a workshop on "New vistas in drug discovery" March 2019, at the University of Hyderabad
- Attended a workshop on "Data Science in Biomedical research" December 2018, at the University of Hyderabad
- Participated in rural immersion camp 2018, conducted by NCRI in collaboration with UoH and MHRD (govt of India)
- Participated in GIAN workshop on "Systems Biology for Drug Discovery and Personalized Medicine", July 2018, at the University of Hyderabad.
- Attended "Systems, Synthetic, Chemical symposium 2017" at Bose Institute, Kolkata
- Participated in MIMASA science quiz 2016,17 (preliminary) conducted by IISER Pune

HOBBIES

- Running(10Km), swimming, cycling