

## Chandan Kumar

+1(737)-297-0508 | [chandan.kumar@utexas.edu](mailto:chandan.kumar@utexas.edu) | [@that\\_bioinfoGuy](https://twitter.com/that_bioinfoGuy)

Address PAT 626, Speedway, Austin

## Education:

---

### 08/2022 – Current **PhD: Plant Biology Graduate School**

University of Texas at Austin, Texas, USA

**PhD Thesis:** Exploring the epigenetic landscape in C4 perennial grasses.

**Advisor:** Dr. Thomas Juenger

### 07/2017 – 05/2019 **Master of Science: Bioinformatics**

Pondicherry University – Pondicherry, India

**Master's Thesis:** An integrated bioinformatics approach to explore the key genes for drug repurposing against Prostate cancer: A structural perspective.

**Advisor:** Dr. Ramadas Krishna

### 07/2014 – 05/2017 **Bachelor of Science: Bioinformatics**

DAV College, Punjab University – Chandigarh, India

**Bachelor's Thesis:** An *in-silico* approach to Evolutionary and Mutational Studies of Human *Dysferlin*.

**Advisor:** Ms. Sangeeta Sharma

## Teaching:

---

### Teaching Assistant (Jan 2025 – Current) Full-time

University of Texas at Austin, United States

Introduction to lab Biology: Techniques in laboratory like Bacterial plating, Biochemical testing, DNA isolation, PCR, Microscopy and Bioinformatics analysis.

### Teaching Assistant (Aug 2023 – Dec 2023) Full-time

University of Texas at Austin, United States

Taught Molecular biology techniques like, CRISPR-based genome editing, RNA purification, Protein purification, Bradford assay etc. in *Arabidopsis thaliana* as a model organism. And, Plant molecular biology theory class.

### Teaching Assistant (Jan 2023 – Apr 2023) Part-time

University of Texas at Austin, United States

Taught Molecular biology techniques like, CRISPR-based genome editing, RNA purification, Protein purification, Bradford assay etc. in *Arabidopsis thaliana* as a model organism.

## Research and Training Experience:

---

### Research Assistant (May 2019 – June 2022)

I have worked on the project “*Genetic and Epigenetic Control of Plant Meiosis*” with Dr. Imran Siddiqi at the Centre for Cellular and Molecular Biology, Hyderabad.

I developed standardized protocols for the correlation and pattern between different datasets to augment

biochemical and molecular biology experiments of the genes under study like:

- ChIP- Seq
- CUT&RUN-Seq
- RNA-Seq
- small-RNA-Seq
- SELEX-Seq
- Whole Genome Bisulfite-Seq

### Master's Dissertation (December 2018 – May 2019)

Developed a protocol for drug repurposing using approved drugs for Prostate cancer using Ligand-based drug discovery, Homology Modelling, Molecular Dynamics and Simulation, and protein-ligand docking approaches.

### Research Skills:

---

- Programming and scripting in any combination of PERL, Python, C/C++, and R.
- Ubuntu/Linux OS and bash scripting
- Statistics and algorithms
- Protein structure modeling and drug discovery
- Molecular dynamics and simulation
- Analysis of next-generation sequencing datasets (RNA-seq, ChIP-Seq, CUT&RUN-Seq, WGB-Seq)
- Pathway databases (KEGG, Reactome), Network analysis (STRING, Cytoscape)

### Workshops and Symposiums:

---

- Workshop on **Next Generation Sequencing Data Analysis & Annotation**, 3rd April 2015 at Centre for Systems Biology and Bioinformatics, Panjab University, Chandigarh.
- Workshop on **Forensic Biotechnology**, 30th September 2016 organized by IFSC – PU with the association of Microbiologist of India (Chandigarh).
- A National Level Training Program in **Biochemistry**, February 8-12, 2017 at the Department of Biochemistry, Panjab University.
- “**Cross-talk on Omics**”, 9th August 2017 at Centre for Bioinformatics, Pondicherry University
- “**BIG DATA and Cloud Computing**” at Centre for Bioinformatics, Pondicherry University
- Short course on “**Network Biology**” 2018 at Centre for Bioinformatics, Pondicherry University

### Publications:

---

Prakash Sivakumar , Saurabh Pandey , A Ramesha , Jayesh Kumar Narsibhai Davda , Aparna Singh , **Chandan Kumar**, Hardik Gala, Veeraputhiran Subbiah, Harikrishna Adicherla, Jyotsna Dhawan, L. Aravind, Imran Siddiqi, Sporophyte-directed gametogenesis in *Arabidopsis*. Nat. Plants 11, 398–409 (2025). <https://doi.org/10.1038/s41477-025-01932-y>