Tania Clement Ambrose

Address: Anushaktinagar, Mumbai,400094
Email: taniaambrose204@gmail.com
Phone: 7391992314
LinkedIn: https://www.linkedin.com/in/tania-ambrose- 860274236

OBJECTIVE

A dynamic and innovative problem solver with a strong foundation in biotechnology and bioinformatics, I'm driven by the potential of data to unravel complex biological questions. With hands-on experience in genomic data analysis, clinical trial data, and statistical programming, I strive to contribute to cutting-edge research and real- world applications in life sciences. My ability to work seamlessly in collaborative environments and adapt to emerging technologies makes me a versatile asset. I am eager to continue leveraging my skills in data science to uncover insights that can drive meaningful advancements in healthcare and genomics.

EDUCATION

- **M.Sc. in Biotechnology and Bioinformatics Duration**: July 2023 – Present
  Institute: Institute of Bioinformatics and Applied Biotechnology (IBAB), Bangalore
  CGPA: 8.08/10
- B.Sc. in Biotechnology
  Duration: 2020 – 2023
  Institute: Pillai College of Arts, Commerce, and Science
  CGPA: 9.51 /10

CAREER INTERESTS

- Neuroscience & Neurogenomics (disease mechanisms, single-cell brain data, molecular profiling)
- Bioinformatics and Computational Biology
- Biostatistics and Statistical Programming
- Data Analysis in Omics and Precision Medicine

RELEVANT SEWORK

- Omics data analysis
- Advanced Bioinformatics
- Programming using Bash, Java, Python and C
- Biostatistics and R Programming

SKILLS

- **Bioinformatics Skills**: Sequence & genome analysis, GWAS, transcriptomics, structural biology, metagenomics, homology modelling, energy minimization. Tools: FASTQC, Limma, UCSC Genome Browser, Bowtie2, DESeq2, Cell Ranger, QIIME2, BLAST, MEGA, JPred, GROMACS, CLUSTAL-W, Modeller, HISAT2, HOMER, MACS2, Augustus.
- **Programming Skills:** Java, C, C++, Python, Linux, HTML, MySQL; data structures & OOP proficiency.
- **Statistics Skills:** Descriptive statistics, hypothesis testing, regression, statistical genomics in R.
- **Wet Lab Techniques:** Mammalian cell culture, immunohistochemistry, PCR, cloning, electrophoresis, protein/nucleic acid analysis, chromatography, western blotting.
- **Soft Skills**: Public Speaking, Event Management, Analytical skills, Innovative & Critical Thinking, Quick Learner

PROJECTS

- **Institute of Bioinformatics and Applied Biotechnology**
  Duration: January 2025 - Present
  Supervisor: Dr. Bibha Choudhary and Dr. Sonia Shetty
  Conditioned medium from dental follicle and gingival mesenchymal stem cells: a therapeutic strategy for enhancing osteogenesis in periodontal regeneration
  Summary: Mammalian Stem Cells Culturing, Bioprinting, Immunohistochemistry, Developed a RNA-seq analysis pipeline, **Tools Used:** FastQC, SAMtools, HISAT2, DeSeq2, ssGSEA, WGCNA, Cytoscape, STRING
- **Bhabha Atomic Research Centre, Summer Training**
  Duration: June 2024 - July 2024
  Supervisor: Dr. S. Jayakumar (SOF)
  PSIP1's Impact on H4K16ac in Prostate Epithelial Cells. **Summary:** Developed a CUT&Tag-seq analysis pipeline. **Tools Used:** Bowtie-2, SAMtools, DeepTools, Cloud Computing.
- **2021-2022 Avishkar Research Convention, University of Mumbai**
  Duration: September 2022 – December 2022
  Supervisor: Prof. C K Prashant
  Assisted in Research work related to entrapment of antibiotics in nanoparticles. Inculcated skills related to basic lab equipment, animal tissue culture and chemical nanoparticle synthesis.
- **Summer Research Project-22 Center for Biosciences Duration: March 2022 – April 2022**
  Supervisor: Prof. Suparna Deepak
  Assisted in Research work treatment of mastitis using erythromycin loaded Polycaprolactum

EXPERIENCE

- **Bioinformatics Research Associate, Syngene International Limited**
  Duration: July 2027 – Present
  Summary: GWAS • Single-Cell Transcriptomics • RNA-seq

  Responsibilities & Contributions
  - Built pipelines for bulk & single-cell RNA-seq (QC → clustering → differential expression).
  - Performed GWAS analysis with variant QC, association testing, Manhattan/QQ visualization.
  - Developed automated **Python/R workflows** for multi-condition data analysis.
  - Conducted cell-type annotation, marker identification & pseudotime analysis (Scanpy).
  - Collaborated with wet-lab teams to translate data into biological insights.
  - Maintained internal GitHub repositories & documentation.

  Core Skills
  Bioinformatics • GWAS • Bulk & Single-Cell RNA-seq • Variant Analysis • Python • R • Git/GitHub • Cell Ranger • Scanpy • DESeq2 • PLINK • Data Visualization

INTERNSHIPS

- **Trainee, Bhabha Atomic Research Centre (BARC)**
  Duration: June 2024 - July 2024
  Summary: CHIP-Seq Pipeline development, proficient in mammalian cell culturing, clonogenic survival, MTT, and apoptosis assays.
- **Intern, UDC Diagnostics, Vashi**
  Duration: May 2022 - June 2022
  Summary: Gained experience in specimen collection, virology testing, and implementing biosafety and laboratory quality management systems.

CERTIFICATIONS

- Certification in Clinical Data Management (CDM)
- Certification in Good Documentation Practice (GDP)
- Certification in Pre-Placement Training (MTSTS)

ACHIEVEMENTS

- Finalist in Speak for India Debate Competition Karnataka Edition
- Selected for the final round of the hackathon organized by Novo Nordisk in the statistical track
- Selected for the final round of Avishkar, Zonal Level
- Awarded Budding Researcher at PCACS
- Qualified IIT-JAM, GAT-B
- Best Orator in Literary Association, PCACS
- National-level Debate Runner-Up
- National-level Folk & Contemporary Dance Runner-Up

REFERENCES

- Dr. Bibha Choudhary, IBAB Professor: **vibha@ibab.ac.in**
- Prof. Sanjay Ghosh, IBAB Professor: **ghosh_s@ibab.ac.in**
- Prof. C K Prashant, PCACS Assistant Professor: **ckprashant@mes.ac.in**
- Prof. S Thiyarajan, IBAB Professor: **sthiyaga@ibab.ac.in**