

# Ankusha Mukherjee

Biotechnology postgraduate with hands-on experience in phytochemical screening and natural compound research. My academic training aligns with Forever Living's focus on plant-based wellness, and I aim to contribute to product innovation and quality through science-driven solutions. A proactive team player committed to supporting the company's growth in the nutraceutical space.

## Research Experience

### St. Xavier's College(Autonomous), Kolkata

**Intern, Department of Microbiology** (April 2025 – Present)

**Guide: Prof. Dr. Sudeshna Shyam Chowdhury**

- Engaged in biochemical characterization of tea metabolites and studied the therapeutic potential of Indian beverages like tea and coffee.
- Performed DNA and protein extraction, along with protein estimation from different tea leaf varieties.
- Operated instruments including HPLC, Rheometer, FTIR, and Fluorimeter for comprehensive biochemical profiling.
- Evaluating antimicrobial activity of tea extracts against selected microbial strains.

### Amity Institute of Biotechnology, Amity University Mumbai

**Dissertation Trainee, Department of Microbiology** (January 2025-May 2025)

**Guide: Prof. Dr. Shashank Shivaji Kamble**

- Designed and implemented a bioinformatics pipeline to identify potential inhibitors for *Mycobacterium tuberculosis* and *Klebsiella pneumoniae*.
- Performed comparative molecular docking analysis to assess efficacy of selected phytochemicals.
- Integrated literature mining with computational screening to shortlist promising lead compounds.

### Tata Translational Cancer Research Center (TTCRC),

#### Tata Medical Center, Kolkata

**Observer and Intern, TiMBR-TTCRC** (January 2025-March 2025)

**Guide: Abhirupa Kar; Laboratory Manager: Dr. Asama Mukherjee**

- Interned under TIMBR program, handling biospecimens including plasma, DNA, RNA, and cryopreserved samples of Pediatric and Adult Leukemia samples at Tata Medical Center.
- Coordinated biorepository workflows across regulatory, legal, and operational areas for cancer research.
- Documented downstream procedures and generated reports using LabVantage system for stakeholder communication.

### LifeSenz Cancer Research Lab Pvt. Ltd.

**Short Term Intern/Trainee** (July 2025-September 2025)

**Guide: Dr. Rajasekaran R.**

- Investigated anti-cancer effects of *Lepidium sativum* seed extracts on MDA-MB-231 breast cancer cells.
- Conducted cell viability and anti-proliferative assays in an ex vivo 3D culture model.
- Analysed sequentially extracted bioactive compounds to evaluate therapeutic potential.

## Educational Background

### Master of Science in Biotechnology

Amity University Mumbai (2023 – 2025)- Current **CGPA: 8.53 | SGPA: 8.71**

### Bachelor of Science in Biotechnology

Swami Vivekananda Institute of Modern Science, Kolkata (2018 – 2021)-

**CGPA: 9.23** (Rank holder in Department)

## Contact

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## Trainings & Workshops

- LifeSenz Research Pvt. Ltd. – Hands-on training in cell line passaging, cryopreservation, and biological assays (July–Sept 2024)
- TTCRC (TMC) – EMBO Workshop on Molecular Basis and Therapy of Paediatric Leukaemia (Feb 2025)
- LifeSenz Research Pvt. Ltd. – RNA extraction & RT-PCR techniques (May–July 2023)
- Ethical Edufabrica (IIT Madras) – Epigenetic Studies of Breast Cancer (April 2022)

## Certifications

- Covid-19 Vaccine Design, NPTEL – Innovation & technology for pandemic solutions (2020)
- Ethics in Engineering, NPTEL – Integrity and societal responsibility (2019)
- Molecular AutoDocking (Oct 2024) – Introduction to Autodock4 & CAD
- Heredity Biosciences Webinar (Dec 2024) – Metal Nanoparticles in Antimicrobial Applications

## Skills

- Technical: RNA/DNA extraction, RT-PCR, SDS-PAGE, HPLC, FTIR, Rheometer, Fluorimeter
- Software: AutoDock Vina, MS Excel, LabVantage
- Soft Skills: Time Management, Teamwork, Presentation, Documentation, Multitasking

## Languages

- English: Excellent |
- Hindi: Good
- Bengali: Native |
- German: Beginner