

# Kurayi Chawatama

Bursa/Türkiye

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[Website](#)

## EDUCATION

**Molecular Biology and Genetics, B.Sc.** | Uludağ University, Bursa, Türkiye | Oct 2023 – July 2027 | GPA: 3.1/4 (*Fully Funded Turkish Government Scholarship*)

## RESEARCH EXPERIENCE

### Undergraduate Researcher

Oct 2024 – Present

*Prof. Berrin Tunca | Uludağ University*

- “Characterizing Tumor Microenvironment Transcriptome Variations in NASH and Viral Hepatocellular Carcinomas for Targeted Therapy.”
- Proposed and secured a grant to perform cross-species scRNA-seq integration and differential analysis of the poorly treated and characterized NASH-HCC, which lacks human scRNA-seq data, and validated in vitro using an FFA-induced HCC model. (*TÜBİTAK 2209-A Grant Funded*)
- The preliminary results poster was awarded the honor prize at a [bioinformatics symposium](#).

### Bioinformatics Intern

Jan 2026 – Feb 2026

*Asst. Prof. Burçak Otlu | Middle East Technical University*

- Worked with Nextflow pipelines for large-scale WES/WGS cancer genomics, including somatic variant calling and mutational signature analysis.
- Performed basic processing and analysis of multiple omics data types at scale, including: ChIP-seq, Methyl-seq, and Bulk RNA-seq. (*EU-funded SUSIA Internship*)

### Undergraduate Researcher

Jul 2025 – Oct 2025

*Prof. Vicente Pelechano Garcia | Karolinska Institutet*

- Developed a regression-based method to score cancer cell plasticity and decode its gene signature in Hepatocellular Carcinoma (Huh7) using CITE-seq data.
- Validated the cell plasticity signature in TCGA-LIHC by Cox regression analysis, linking it to drug resistance, relapse, and survival.
- Identified distinct non-genetic phenotypic states in clonal Huh7 cell populations using scRNA-seq. (*Erasmus+ Funded Traineeship*)

### Research Intern

Jul 2024 – Sep 2024

*Asst. Prof. Atakan Ekiz | Izmir Institute Of Technology*

- Performed bioinformatics analyses in tumor immunology using bulk/single-cell RNA-seq, TCR-seq, and microarray data to investigate immune-related lncRNAs.
- Assisted with lentiviral transduction, cell culture passaging, mouse xenograft modeling, and flow cytometry.

### Undergraduate Researcher & Intern

May 2023 – Jul 2024

*Asst. Prof. Elif Uz Yıldırım | Uludağ University*

- “Comprehensive Analysis of GPRC5A Promoter Methylation Across Cancer Types.” Methyl-seq pilot study [poster](#) presented at a [bioinformatics symposium](#).
- Carried out routine molecular genetics techniques: DNA isolation, PCR, and Gel Electrophoresis.

## ACADEMIC SOCIETIES & NETWORKS

### Contributor & Core Team Member

Mar 2025 – Present

*nf-core*

- Contributed to the nf-core/scdownstream Single Cell RNA-seq pipeline by fixing runtime errors and developing [doublet detection modules](#).
- Authored [documentation](#) and a [blog post](#) on running nf-core pipelines in Google Colab as part of the [core outreach team](#).

### Task Force Member

Oct 2024 – Present

*Young European Federation of Immunological Societies (yEFIS)*

- Organized a [webinar](#) exploring immunoinformatics applications across industry and academia with the *Immune Collaborators* workgroup.

### Outreach & Translation Team Leader

Jan 2024 – Present

*International Society for Computational Biology - RSG Türkiye*

- Organized a [scRNA-seq Hackathon](#) and a careers Q&A panel with RSG Australia and coordinated the Türkiye local site of the nf-core hackathon in 2025 and 2026.
- Directed Turkish translation of bioinformatics learning resources to increase accessibility for students in Türkiye.

### Science Team Leader

Nov 2022 – Present

*UluRover | Uludağ University Robotics Society*

- Led R&D for an [interplanetary rover](#) competing on simulated Martian surfaces. Integrated chemical & robotic modules into an [autonomous life detecting minilab](#).
- Helped pitch the project to multiple industry partners and secure over \$10,000 in materials and sponsorships.
- Led the science team in an additional project that won best Presentation & Pitch at the 2025 [Teknofest Biotechnology Startup Idea Competition](#). Placed 5th/1400.

## RESEARCH SKILLS & METHODS

### Experimental

- Molecular Genetics Techniques:** DNA Isolation from Blood, Restriction Digestion, PCR, Agarose Gel Electrophoresis, Bacterial Culture & Cloning

### Computational

- Programming Languages:** R, Python, Nextflow, Bash, Arduino
- NGS Data Analysis:** Bulk & Single Cell RNA-seq, TCR-seq, CITE-seq, Microarray, WES/WGS Processing & Variant Analysis, ChIP-seq, Methyl-seq
- Frameworks & Environments:** Slurm (Linux HPC), Conda, Docker/Singularity, Nextflow, Git, Arduino, Raspberry Pi
- Machine Learning:** Basic Scikit-learn and TensorFlow

## REFERENCES

**Prof. Berrin Tunca**  
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**Prof. Vicente Pelechano Garcia**  
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