

PROFILE

Bioinformatician and cancer researcher with more than four years of experience across cellular and molecular biology, immunology, genetics, and computational analysis. Combines wet-lab methods with Python, BioPython, R, NGS, and scientific web development to turn complex biological data into clear, usable evidence.

RESEARCH EXPERIENCE

AIRC Research Fellow — Department of Medical Sciences, University of Turin

September 2026 — Present | Scientific supervisor: Prof. Silvia Deaglio

- Expression and functional analysis of the noncanonical WNT co-receptor RYK in chronic lymphocytic leukemia and diffuse large B-cell lymphoma cells.
- Research fellowship funded by the Italian Foundation for Cancer Research (AIRC).

Knowledge Extension — Center for Translational Research on Autoimmune and Allergic Diseases (CAAD)

July 2025

- Intensive training in 3D cell culture, chip-based organoids, organoid maintenance, and translational immunology.
- Observed organ-on-chip approaches for immune-tissue interaction, therapeutic response, disease modeling, and precision medicine.

Research Intern — Laboratory of Hematology, University of Turin

2022 — 2025

- Investigated minimal residual disease in newly diagnosed multiple myeloma, comparing next-generation flow cytometry, NGS, and PET/CT findings.
- Evaluated cytogenetic abnormalities in purified plasma cells using FISH and prepared samples using Ficoll protocols.

Research Intern — Laboratory of Cell Physiology, University of Turin

October 2023 — March 2024

- Cultured MCF7 cells and conducted fluorescence time-lapse imaging for calcium signaling and reactive oxygen species analysis.

EDUCATION

MSc, Cellular and Molecular Biology — Biomedical Sciences

University of Turin | Graduated April 2025

- Thesis: Assessment of Minimal Residual Disease in newly diagnosed multiple myeloma patients enrolled in a clinical trial: comparison of next-generation flow cytometry and next-generation sequencing.

BSc, Cellular and Molecular Biology

Kharazmi University | Graduated 2020

COMPUTATIONAL AND LABORATORY EXPERTISE

COMPUTATIONAL	LABORATORY
Python · BioPython · R Data wrangling and visualization NGS analysis Scientific web development Image analysis	Next-generation flow cytometry Cell culture · 3D cultures PCR · FISH · Western blot Fluorescence microscopy Calcium and ROS imaging

DIGITAL VENTURES AND PROJECTS

Founder — Atlas Studio

atlasstudio.app

- Independent studio focused on creating clear, professional digital experiences and research-oriented web products.

ATLAB

Bioinformatics and scientific web development project

- Project connecting bioinformatics practice with accessible scientific web tooling.

SELECTED PUBLICATIONS

Nasouti, H. "Immune Dysregulation and Viral Persistence in HPV-HIV Coinfection: Oncogenic and Clinical Implications." HIV/AIDS — Research and Palliative Care, 2026.
doi.org/10.2147/HIV.S616942

Nasouti, H. Integrating Stimuli-Responsive Scaffolds with Single-Cell Transcriptomics to Modulate Macrophage Function and Immune Checkpoints in Atherosclerosis. 2025.
doi.org/10.5281/zenodo.17672289

SELECTED TRAINING

Python and BioPython for Bioinformatics — Dandelion Academia Canada, 2024

R: Wrangling, Visualizing, and Modeling Data — PMI / LinkedIn Learning, 2024

2nd International Computational Biology Workshop — genomics, protein design, biological networks, machine learning, gene expression, drug repositioning, and RNA design, 2020

Immunology: Immune Failures and Cancer Immunology — Imperial College London / Coursera, 2024

RESEARCH INTERESTS

Cancer progression · Tumor microenvironment · Transcriptional regulation in immune cells · Functional genomics · Cellular physiology · T cell–cancer interactions · Autoimmunity and immunodeficiency · Bioinformatics and computational analysis

LANGUAGES

Persian and Azerbaijani — mother tongues | English — C1 | Italian — B2 | Turkish — C1