ELIN (ZAHRA) MEHRASA

CONTACT

Important:

For the most recent version of my CV and full academic information, please visit:

www.elinmehrasa.ir

🌐 Personal Web

📞 +98-9127491567

✉ Email

in LinkedIn

📺 YouTube

📍 Tabriz, Iran

Summary

Innovative Analytical Geneticist (MSc, 1st rank) experienced in molecular genetics and computational genomics. Proficient in Linux-based NGS/WES workflows, transcriptomic analysis, and predictive modeling (R/Python). By bridging theoretical foundation and computational approaches, my aim is to contribute to innovative translational projects.

Education

MASTER OF SCIENCE IN HUMAN GENETICS | January 2024

Iran University of Medical Sciences- Ranked 1st with the highest GPA (3.9/4.0)

Thesis: *Telomere Biology as a Molecular Indicator of Diabetic Retinopathy: Experimental Characterization and Machine Learning-Based Stage Prediction*

Integrated telomere-biology data with biochemical and demographic variables across DR stages. After statistical testing and confounder adjustment, we developed machine-learning models to predict DR severity.

Gained combined wet-lab skills (DNA/RNA Extraction, Electrophoresis, Spectrophotometry, primer design, PCR, cDNA synthesis, qPCR, ELISA, Microscopy, Cell Culture) and bioinformatics expertise (R, Python, SPSS, HTS (Linux & CLC), Machine Learning, Molecular Docking and Multi Ligand Screening) throughout Master's program and subsequent Internships.

BACHELOR OF SCIENCE IN ANIMAL BIOLOGY | January 2020

University of Tehran

Publications (Under Review)

- Mehrasa, Z. Telomere Dynamics and Clinical Factors as Early Biomarkers in Diabetic Retinopathy: Insights from an Integrative Predictive Model

- Mehrasa, Z. Telomere Dysfunction as a Unifying Mechanism Linking Aging, Inflammation, and Diabetic Complications: Molecular Insights and Predictive Opportunities through Machine Learning

- Mehrasa, Z. Investigation of the Expression of MIRNA-149, MIRNA-146A, MIRNA-15A, and MIRNA-200B, and Their Target Genes VEGF and IL-6 in Patients with Proliferative and Non-Proliferative Diabetic Retinopathy Compared to Diabetic Patients Without Retinopathy

- Mehrasa, Z. Mutational Signatures Associated with Defects in NER or TLS Repair Systems

Meta-analyses (Ongoing Projects)

- Mehrasa, Z. Meta-analysis on Genetic Markers and Cardiovascular Disease Risk

- Mehrasa, Z. Meta-analysis on Genetic and Molecular Predictors in Breast Cancer

Conference Presentations

Mehrasa, Z. Recent Advances in Cancer Therapy by the Utilization of Gold Nanorods. International Conference on Nanotechnology & Nanoscience, University of Tehran, Iran – December 2020

Academic Contributions & Outreach

- Research Assistant, Eye Research Center, Rasoul Akram Hospital, Iran University of Medical Sciences, 2022- 2025

- Research Assistant, Pharmaceutical Sciences Research Center, Tehran University of Medical Sciences, 2025-present

- Internship, Linux-based sequence analysis (NGS, WES), Medical Genetics Department, Iran University of Medical Sciences, 2022 – 2024

- Internship, Cytogenetics and Karyotype analysis Essentials, Akbar Abadi Hospital, Iran University of Medical Sciences, 2021

- Teaching Assistant, Molecular Genetics, University of Tehran, 2019

- Organizing seminars on interpreting the pathogenicity of Genetic Variants in Mendelian Disorders, 2023

- Conducted workshops on key concepts and essential techniques in molecular biology and wet-lab skills, 2024

- Founder and content creator of TeaTab youtube channel, Science and genetics insights, 2024- Present

- Responsible Instructor of Genetics & Molecular Biology, Medventure, 2025- Present

- Academic Advisor for Master's Entrance Exam Candidates (Ministry of Health and Ministry of Science), 2021- 2025

- Translated 10 chapters of Harper's Practical Genetic Counselling (8th edition)

Honors & Awards

- Provincial Physics Olympiad, Rank 1 (Top student in province-wide competition, high-school (Physics & Mathematics), 2012

- National Entrance Examination for Master's Programs, Ministry of Health, 2021 Ranked 7th in Medical Biotechnology and 10th in Medical Genetics (among 67,000+ candidates)

- National Entrance Examination for Master's Programs, Ministry of Science, 2021 Ranked 19th in Molecular Genetics (among 63,000+ candidates)

- Top of Class, M.Sc. in Medical Genetics, Iran University of Medical Sciences (2021–2024) Graduated Rank 1 with the highest GPA among peers Defended Master's thesis with full score (18/18)

Languages

Persian Native

English Fluent (C1/ADVANCED): 103|

R: 28 L:28 W:23 S:24 | JULY 2025 (TOEFL iBT)

Azerbaijani Bilingual

References

Dr. Golnaz Khakpour – *MSc Thesis Supervisor*

Assistant Professor, Department of Medical Genetics, IUMS

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Dr. Shahram Teimourian – *MSc Thesis Examiner*

Professor, Department of Medical Genetics, IUMS

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