

Hamidreza Ebrahimiyan

Graduated in Ph.D. of Applied Cell Science (Regenerative Medicine)

Assistant Professor, Dep of Molecular Medicine

Faculty of Advanced Technologies in Medicine.

Iran University of Medical Sciences (IUMS), Tehran, Iran



Nationality: Iranian

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Education

2019-2025 PhD in Applied Cell Science (Regenerative Medicine)

Royan Institute, Tehran, Iran

Title of PhD dissertation: "Inhibition of T Cell Receptor Surface Expression for Generation of Allogeneic CAR T Cells" (National patent)

2014-2018 MSc in medical immunology

Tehran University of Medical Sciences, Tehran, Iran

Title of MSc thesis: Assessment of mRNA Expression of Survivin Gene with its Variants and effective miRNAs on its expression in peripheral blood mononuclear cells of Rheumatoid Arthritis

2010-2014 BSc in Laboratory Sciences

Tabriz University of Medical Sciences, Tabriz, Iran

Work Experience

Since 2026 Assistant Professor at Dep of Molecular Medicine, Faculty of Advanced technologies in Medicine, Iran University of Medical Sciences (IUMS), Tehran, Iran

Principal investigator of the Immune Cell Gene Therapy

2020-2026 Researcher at Royan Institute, Tehran, Iran

Quality Control Manager of the Immune Cell Gene Therapy research group of Gene Therapy Medicinal Products (GTMPs) at Royan ATMP-TDC

Membership of the production group for the production of GMP grade CAR T-cell at Royan ATMP-TDC

2020-2023 Researcher at Human Genetic Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran

Epigenetics research in RA disease (miRNA)

2021-2022 Medical Laboratory Technician, Shariati general hospital, Rheumatology Research Center, Tehran, Iran

HLA-typing

2017-2021 Medical Laboratory Technician, Mehr general hospital, Tehran, Iran

Research Interests

- Cell-based immunotherapy
- Genetic modification of CAR T/NK cells to improve their function against immune-resistant cancers
- Generation of off-the-shelf cell-based immunotherapies

Publications

h-index:9 i10-index:9 Citations: 373 Journals' rankings (Q1:38%- Q2, 3: 30%)

Ebrahimiyan, H., Sayadmanesh, A., Hesaraki, M., Ebrahimi, M., Baharand, H., & Basiri, M. (2025). [Engineering](#) CD3 subunits with endoplasmic reticulum retention signal facilitates allogeneic CAR T cell production. *International Immunopharmacology*, 152, 114412.

Ebrahimiyan, H., Rezaei, N., Vojdani, M., Aslani, S., Jamshidi, A., & Mahmoudi, M. (2019). [microRNA](#) involvement in the regulation of survivin in peripheral blood mononuclear cells from rheumatoid arthritis patients. *International Journal of Rheumatic Diseases*, 22(6), 1107-1114.

Ebrahimiyan, H., Gharibdoost, F., Aslani, S., Kavosi, H., Farsad, F., Jamshidi, A., & Mahmoudi, M. (2020). [microRNAs](#) are potentially regulating the survivin gene in PBMCs from systemic sclerosis patients. *Modern Rheumatology*, 30(5), 862-869.

Ebrahimiyan, H., Akhtari, M., Akhlaghi, M., Farhadi, E., Jamshidi, A., Alishiri, G. H., ... & Tavallaie, M. (2023). [Altered](#) expression of apoptosis-related genes in rheumatoid arthritis peripheral blood mononuclear cell and related miRNA regulation. *Immunity, inflammation and disease*, 11(7), e914.

Ebrahimiyan, H., Aslani, S., Rezaei, N., Jamshidi, A., & Mahmoudi, M. (2018). [Survivin](#) and autoimmunity; the ins and outs. *Immunology letters*, 193, 14-24.

Ebrahimiyan, H., Tamimi, A., Shokoohian, B., Minaei, N., Memarnejadian, A., Hossein-Khannazer, N., ... & Vosough, M. (2022). [Novel](#) insights in CAR-NK cells beyond CAR-T cell technology; promising advantages. *International Immunopharmacology*, 106, 108587.

Ebrahimiyan, H., Mostafaei, S., Aslani, S., Jamshidi, A., & Mahmoudi, M. (2019). [Studying](#) the association between STAT4 gene polymorphism and susceptibility to rheumatoid arthritis disease: An updated meta-analysis. *Iranian Journal of Immunology*, 16(1), 71-83.

Ebrahimiyan, H., Rezaei, R., Mostafaei, S., Aslani, S., Goulielmos, G. N., Jamshidi, A., & Mahmoudi, M. (2018). [Association](#) study between STAT4 polymorphisms and susceptibility to systemic lupus erythematosus disease: A systematic review and meta-analysis. *Meta Gene*, 16, 241-247.

Ebrahimiyan, H., Mostafaei, S., Aslani, S., Faezi, S. T., Farhadi, E., Jamshidi, A., & Mahmoudi, M. (2022). [Association](#) between complement gene polymorphisms and systemic lupus erythematosus: a systematic review and meta-analysis. *Clinical and experimental medicine*, 1-12.

Ebrahimiyan, H., & Ahmadzadeh, A. (2021). [miRNAs](#) and rheumatoid arthritis: new update in expression pattern and pathogenicity. *Rheumatology Research*, 6(3), 123-137.

Ebrahimiyan, H., Bagheri-Hosseiniabadi, Z., & Abbasifard, M. (2021). [Interferon](#) regulatory factor 5 in Rheumatoid arthritis and systemic lupus erythematosus. *Rheumatology Research*, 6(1), 1-13.

Ebrahimiyan, H., Madreseh, E., Akhtari, M., Farhadi, E., Jamshidi, A., & Mahmoudi, M. [TP53](#) Gene Polymorphism (Rs1042522) in Rheumatoid Arthritis and Systemic Lupus Erythematosus: An Updated Systematic Review and Meta-Analysis. *Current rheumatology reviews*.

Hakakzadeh, Z., Yekehfallah, V., **Ebrahimiyan, H.**, Sayadmanesh, A., & Basiri, M. (2021). Application of Genome-Editing Technologies for Off-the-Shelf T Cell-Based Cancer Immunotherapy. *Precision Medicine and Clinical OMICS*, 1(1).

Pahlavanneshan, S., Sayadmanesh, A., **Ebrahimiyan, H.**, & Basiri, M. (2021), [Toll-Like](#) Receptor-Based Strategies for Cancer Immunotherapy. *Journal of Immunology Research*, 2021(1), 9912188.

Academic Teaching Experience

Gene Therapy, Graduate Course (2025-2026), Faculty of Biological Sciences, Science and Culture University

Immunotherapy, Graduate Course (2025-2026), Faculty of Advanced Technologies in Medicine, Iran University of Medical Sciences

Immunology, Graduate Course (2025-2026), Faculty of Advanced Technologies in Medicine, Iran University of Medical Sciences

Consultant for MSc thesis students in stem cell technology and regenerative medicine at Royan Institute, Tehran, Iran:

Title of MSc thesis: "In vitro assessment of genotoxicity in CAR T cells generated with retroviral vectors."

Title of MSc thesis: "Optimization of culture medium during expansion of CAR T cells to increase their persistence."

Consultant for MSc thesis students in cellular and molecular biology at Royan Institute, Tehran, Iran:

Title of MSc thesis: "Feasibility study of concentrating γ -retroviral vectors produced in a stable vector producer cell line using centrifugation for efficient production of CAR-T cells."

Title of MSc thesis: "Characterization of concentrated γ -retroviral vectors with VSV-G, GaLV, RD114, and MuLV envelopes using centrifugation in the transient virus production process."

Awards and Merits

- National Patent registered in Iran (2026)
- Ranked first in the Iran PhD Entrance Exam for Applied Cell Science (2019)
- Ranked first in the Iran PhD Entrance Exam for Medical Imaging (Molecular-Cellular) (2019)
- Achieved 10th place in the Iran MSc Entrance Exam for Medical Immunology (2014)
- Top Student in the undergraduate, MSc and PhD
- Member of Iran's National Elites Foundation

Training workshops

Workshop on Technology Readiness Levels 2025

Workshop on Patent Arbitration, 2024

Workshop on Western blotting, 2024

Workshop on Quality Risk Management, 2021

Workshop on Process Validation, 2021

Workshop on GMP Training and Guidelines, 2021

Workshop on CAR T cell producing, 2021

Workshop on Flow Cytometry: Principles, Methods & Applications, 2022

Workshop on Reviewing articles and scientific Writing, 2015

Technical Experiences

Human clinical work

Main member of the CAR T cell production team and quality control manager (QC tests setup, validation, stability and team management) in GMP at Royan ATMP-TDC (clinical trials I)

Medical Laboratory Technician in general hospitals and clinical laboratories

Cell culture

Culture and manipulation of human and mouse cancer cells

Cell Isolation and proliferation assays

CAR T cells cytotoxicity and Genotoxicity assays

Cell base Replication competent retrovirus (RCR) assay

Flow Cytometry

ELIZA

Viral vector

Transient virus production in HEK293-T (VSV-G, GaLV, RD114, MuLV)

Transient virus production in Plat-A, Plat-E and HEK293-T

Stable virus production and cell bank preparation for clinical grad retrovirus production (PG-13)

Viral titration (cell and PCR based)

Genetic manipulation and molecular Techniques

DNA, RNA, mRNA, and protein isolation (cell lines, bacteria and viruses)

Cloning (standard cloning and TA cloning)

Cell transformation (transfection and transduction in different cell types)
Qualitative assays (SDS -PAGE and Western Blotting)
PCR techniques (PCR, RT-PCR, Q-PCR, Nested PCR, SOEing PCR)
PCR based RCR
STR (Short tandem repeat)
VCN (vector copy number)

Computer and statistical Skills

Various Internet Based Searches and Using Data Base
(ICDL) Excel, Microsoft Word...
Expert in statistical software: Excel, Prism, SPSS and R
Bioinformatic skills (primer design, blast...)

Language

Azerbaijani
Native or bilingual proficiency
Persian
Native or bilingual proficiency
English
Professional working proficiency

Scientific References

Prof. Hossein Baharvand, Professor of Stem Cells and Developmental Biology, Director of Royan Institute for Stem Cell Biology and Technology. Tehran, Iran.

h.baharvand@royan-rc.ac.ir

Dr. Mohsen Basiri, Assistant Research Professor at City of Hope National Medical Center. Los Angeles Metropolitan Area, USA.

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Prof. Nima Rezaei, Professor of Immunology, Vice-Dean of International Affairs, School of Medicine, Tehran University of Medical Sciences (TUMS); Founder and President of USERN; Deputy President of RCID. Tehran, Iran.

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Prof. Marzieh Ebrahimi, Professor of Immunology, Co-Founder and CEO of Kian Immune Cell Co. Group, leader of Hematopoietic and cancer stem cell Royan Institute for Stem Cell Biology and Technology. Tehran, Iran.

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Dr. Massoud Vosough, Assistant Professor of Medical Biotechnology, Dean, Regenerative Medicine Department, Royan Institute for Stem Cell Biology and Regenerative Medicine. Tehran, Iran.

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