# Gholam Ali KARDAR (MSPH, PhD)

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### EDUCATION

| PhD.  | 2010 | Molecular Genetics | NIGEB, Iran                                 |
|-------|------|--------------------|---|
| M.Sc. | 2001 | Medical Immunology | Tehran University of Medical Sciences, Iran |
| B.Sc. | 1995 | Zoology (Biology)  | Tehran University, Iran                     |

## AWARDS & HONORS

| <ol> <li>National Research Festival on Medical Sciences Award;</li> <li>Distinctive, National Youth Talent, National Foundation Elite;</li> </ol> | 2003<br>2007 |
|---|--------------|
| 3. Tasnim Research Award;   | 2016         |
| <ol><li>Visiting Professor, Immunology Department, University of Toronto;</li></ol>   | 2018-2019    |
| 5. Outstanding professor, TUMS international affairs Award;   | 2022         |

## **RESEARCH INTERESTS**

- Cancer vaccines, Immunotherapy,
- Gene Therapy & genome editing
- Cell engineering
- Allergen characterization, Allergy vaccine, & Immunotherapy

## **PROFESSIONAL EXPERIENCES**

- Antibody development
- Immunochemistry
- Cell and Tissue culture
- Molecular Cloning, & Genetic engineering
- Bioinformatics

- Statistical analysis [SPSS]
- Flow Cytometry
- Assay development
- Protein Engineering & vaccine design
- CRISPR technology

### THESIS

**M.Sc. of Immunology (2000)**: Study of cytokine profile and T-cell proliferative response in healthy responder and nonresponder Individual vaccinated with recombinant hepatitis B antigen. Score: 19.90 of 20; School of public health, Tehran University of Medical Sciences, Iran; Supervisor: **Dr. Shokri F.** 

**Ph.D. of Molecular Genetics (2010)**: Studying secretion of human coagulation factor VIII after amino acid substitutions in A1 domain based on site directed mutagenesis. Score: 19.75 of 20; Basic Sciences Dept., NIGEB, Iran; Supervisor: **Dr. Zomorodipour A.** 



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| MEMBERSHIP IN PROFESSIONAL SOCIETIES                          |  |  |               |  |  |  |
|---|--|--|---------------|--|--|--|
| •   | National Foundation Elite  | 2007-present   |               |  |  |  |
| •   | Iranian Society of Immunolog   | 2003- present  |               |  |  |  |
| •   | European Academy of Allergo  | 2002- present  |               |  |  |  |
| •   | Iranian Cancer Association   |  | 2011- present |  |  |  |
| •   | TUMS genetic network   |  | 2022-present  |  |  |  |
| •   | And other related academic societies   |  |               |  |  |  |
| SCIENTIFIC POSITION   |  |  |               |  |  |  |
| •   | Professor, Tehran University   | 2023-present   |               |  |  |  |
| •   | Associate professor, Tehran U  | 2018-2022  |               |  |  |  |
| •   | Assistant professor, Tehran U  | 2011-2017  |               |  |  |  |
| •   | Visiting Professor; University of Toronto, Department of Immunology 2018-2019              |  |               |  |  |  |
| •   | International dean of Immuno   | 2024-present   |               |  |  |  |
| •   | Instructor and Board member  | 2004-2007  |               |  |  |  |
| JOURN   | NAL EDITORIAL BOARD & REVI   | EWER   |               |  |  |  |
| •   | <ul> <li>member of several peer-reviewed journal's editorial board and reviewer</li> </ul> |  |               |  |  |  |
| TEACHING EXPERIENCES at Tehran University of Medical Sciences |  |  |               |  |  |  |
| •   | <b>Immunopathology</b><br>Cancer biology and immunothera                                   | <b>MSc &amp; PhD</b> students of Immunology apy, Gene Therapy  | 2015-present  |  |  |  |
| •   | Genetic Engineering<br>Molecular cloning approach, Veo                                     | <b>PhD</b> students of Medical Biotechnology ctors, & Mutagenesis                                    | 2011-present  |  |  |  |
| •   | Vaccines<br>Monoclonal and Recombinant A   | <b>PhD</b> students of Medical Biotechnology ntibody, vaccine carriers, Adjuvants, Transgenic Animal | 2011-present  |  |  |  |
| •   | <b>Immunochemistry</b><br>Immunoassy essentials, Immuno                                    | MSc & PhD students of Medical Biotechnology chemical assays, FRET, Flowctyometery,                   | 2014-present  |  |  |  |
| •   | Advanced Cell culture<br>Primary & secondary cells cultur                                  | MSc & PhD students of Medical Biotechnology ing, cell functional assays, 3D models                   | 2014-present  |  |  |  |
| •   | <b>Laboratory Animal</b><br>Ethics, facilities, Principles Gove                            | <b>MSc</b> students of Medical Biotechnology<br>erning the care and use                              | 2014-present  |  |  |  |

### RECENT KEY PUBLICATIONS [Complete list]

Mehmandoostli Z, Dehghani Ashkezari M, Seifati SM, Sadeghi V, Falak R, **Kardar GA**. The Evaluation of the N-cadherin Promoter's ability to Block EMT by Specific Expression of Diphtheria Toxin in EMT-induced A549 Cell Lines. Iran J Allergy Asthma Immunol. 2024 Apr 7;23(2):220-230.

Yousefi-Najafabadi Z, Mehmandoostli Z, Asgari Y, Kaboli S, Falak R, **Kardar GA**. Reversing T Cell Exhaustion by Converting Membrane PD-1 to Its Soluble form in Jurkat Cells; Applying The CRISPR/Cas9 Exon Skipping Strategy. Cell J 2023 Sep ;25 (9): 633-644

Nejad Mohammadi, Fatemeh Nouri, Yazdan Asgari, Hemen Moradi-Sardareh, Mahnaz Sharafi-Kolkeshvandi, **Kardar GA**. The immunostimulant effects of the rice ragged stunt virus genome on the growth and metastasis of breast cancer in mouse model. International immunopharmacology 2023. 125(Pt A):111101.

Kardar GA, PhD

Paydari Rostami S, Moghare Dehkordi N, Asgari Y, Bolouri MR, Shayanfar N, Falak R, and **Kardar GA**. Competitive Effect of Overexpressed C-terminal of Snail-1 (CSnail) is a Promising Strategy in Control of the Growth and Metastasis of Melanoma Cells. Recent Pat Anticancer Drug Discov. 2023 in press.

Najafabadi ZY, Fanuel S, Falak R, Kaboli S, **Kardar GA**. The Trend of CRISPR-Based Technologies in COVID-19 Disease: Beyond Genome Editing. Mol Biotechnol. 2022 Jan 29:1-16.

Feng Y, Li C, Stewart J, Barbulescu P, Desivo NS, Álvarez-Quilón A, Pezo RC, Perera M, Chan K, Tong K, Mohamad-Ramshan R, Berru M, Nakib D, Li G, **Kardar GA**, ..., Alberto Martin. FAM72A antagonizes UNG2 to promote mutagenic uracil repair during antibody maturation. Nature. 2021 Dec; 600 (7888): 324-328

Sadeghi F, Kardar GA, Bolouri MR, Nasri F, Sadri M, Falak R. Overexpression of bHLH domain of HIF-1 failed to inhibit the HIF-1 transcriptional activity in hypoxia. Biol Res. 2020 Jun 5;53 (1): 25.

Soltanpour Gharibdousti F, Fazeli Delshad B, Falak R, Shayanfar N, Ganjalikhani Hakemi M, Andalib A, **Kardar GA**. Induction of humoral immune responses and inhibition of metastasis in mice by a VEGF peptide-based vaccine. Iran J Basic Med Sci. 2020 Apr;23 (4): 507-514.

### CURRENT PROJECTS

- Evaluation of the inhibitory effects of HIF binding construct in the presence of prodrug and Thymidin Kinase enzyme on the metastasis of A549 and MCF7 tumor cells
- The change of PD-1 expression on peripheral T cells by CRISPR/Cas9 method
- Neoantigen based vaccine; An Immunotherapy approach
- T cell engineering for more effective in Adoptive T cell therapy
- In-vivo gene delivery bay advantage AAV particles

### PROFESSIONAL REFEREES

Dr. Fazel Shokri, Professor at Tehran University of Medical Sciences, Tehran, Iran. +98 21 8895 3021, <u>fshokri@tums.ac.ir</u>

Dr. Mahmood Jeddi-Tehrani, Professor at Avecinna Research Institute, Tehran, Iran. +98 912 3279072, <u>mahjed@yahoo.com</u>

Dr. Pejman Soroosh, Vice president, Head of Immunology Discovery, AnaptysBio. San Diego, CA, US. +1 858 997 3864, <u>pejman49@gmail.com</u>