

CURRICULUM VITAE
Pezhman (Pejman) Fard-Esfahani MD, PhD

Date and Place of Birth: 5 Feb 1368; Tehran, Iran.

Nationality: Iranian.

Gender: Male.

Marital Status: Married, one child.

Tel: (+98-21) 64112106

Fax: (+98-21) 66402770

Email: fard-esfahani@pasteur.ac.ir



Education:

- **Medical Biotechnology (PhD)**, 1998-2005, Pasteur Institute of Iran, Tehran, IRAN.
- **Medical Doctor (MD)**, 1992, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Positions:

- Assistant Professor, Biochemistry Dept., Pasteur Institute of Iran, Tehran, Iran. (2005-)
- Researcher, Molecular Genetics Lab., Comprehensive Clinic for Hemophilia Patients (Part time) (2002-2008).
- General Practitioner in various clinics (1992- 1998).

Researches:

Pasteur Institute of Iran:

- Possibility assay of using miRNA-21, miRNA-128, miRNA-26a circulating microRNAs as Biomarkers in Glioblastoma (2014-)
- Studying the effect of methylation reducing miRNAs on inducing cell death and cancer phenotypes in colorectal cancer cells (2013-)
- Evaluation of effective MicroRNAs of androgen receptor in the suppression of prostate cancer (2011-)

- Evaluation of methylation suppressor MicroRNAs in induction of pancreatic cancer cell death (2011-)
- Finding effective microRNAs on PIK3CA using bioinformatics methods for inhibition of PI3K/AKT pathway and evaluation of candid microRNA in cancerous prostatic cell lines (2012-2013)
- Methylation assay of tumor suppressor genes by bisulfite sequencing in MiaPaca pancreatic cell line (2012-2013)
- Genotyping of CHEK2 gene in differentiated thyroid carcinoma patients using High Resolution Melting Analysis (2011-2012)
- Association of mutations in XRCC2 gene coding region with differentiated thyroid carcinoma (DTC): A case-control Study (2010-2011).
- Analysis of relation between C677T genotype in MTHFR gene and prostatic cancer in 70 Iranian males attending to Shariati hospital (2010-2011).
- Analysis of relation between C677T genotype in MTHFR gene and prostatic cancer in 70 Iranian males attending to Labafi-Nezhad hospital (2010-2011).
- In vitro trans-differentiation of rat Mesenchymal stem cells into insulin-producing cells by pdx-1 gene transfection towards ex vivo stem cell gene therapy of type 1 diabetes(2009-2011).
- Targeting of *F8 gene* by homologous recombination in mouse MSCs for analysis of modified gene expression in mouse liver for future *ex-vivo* gene therapy of hemophilia A disorder (2008-2011).
- Genotyping of *ApoA5* and *KCNJ11 genes* (2008-2009).
- Genotyping of *Factor11 gene* in patients with Hemophilia C (2006-2008).
- Genotyping of *LDL Receptor gene* in patients with Familial Hypercholesterolemia (2003-2005).

Grant form Iranian Council of Stem Cell Technology:

- Recombinant Epidermal Growth Factor (EGF) production in *E. coli* (No. 1121)

Iran National Science Foundation:

- Construct preparation, expression, purification and characterization of Romiplostim biosimilar peptibody

Teaching experience:

2005-present: Teaching different topics of Genetic Engineering to PhD students of Pasteur Institute of Iran.

Publications:

1. Kianmehr A, Golavar R, Rouintan M, Mahrooz A, Fard-Esfahani P, Oladnabi M, Khajeniazi S, Mostafavi SS, Omidinia E Cloning and expression of codon-optimized

recombinant darbepoetin alfa in *Leishmania tarentolae* T7 Cloning and expression of codon-optimized recombinant darbepoetin alfa in *Leishmania tarentolae* T7-TR –TR. *Protein Expr Purif.* 2016 Feb;118:120-5. doi: 10.1016/j.pep.2015.10.013. Epub 2015 Nov 3.

2. Aghaee-Bakhtiari SH, Arefian E, Soleimani M, Noorbakhsh F, Samiee SM, Fard-Esfahani P, Mahdian R. Reproducible and Reliable Real-time PCR Assay to Measure Mature Form of miR-1 Reproducible and Reliable Real-time PCR Assay to Measure Mature Form of miR-141. 41. *Appl Immunohistochem Mol Morphol.* 2015 Mar 16. [Epub ahead of print]
3. Aghaee-Bakhtiari SH, Arefian E, Naderi M, Noorbakhsh F, Nodouzi V, Asgari M, Fard-Esfahani P, Mahdian R, Soleimani M. MAPK and JAK/STAT pathways targeted by miR-23a and miR-23b in prostate cancer: computational and in vitro approaches. *Tumour Biol.* 2015 Jun;36(6):4203-12. doi: 10.1007/s13277-015-3057-3. Epub 2015 Jan 22.
4. Fayaz S, Fard-Esfahani P, Torbati PM. Lack of CHEK2 gene mutations in differentiated thyroid carcinoma patients using high resolution melting analysis. *Asian Pac J Cancer Prev.* 2014;15(12):5019-22.
5. Masoumeh Azizi, Ladan Teimoori-Toolabi, Mohsen Karimi Arzenani, Kayhan Azadmanesh, **Pezhman Fard-Esfahani***, Sirous Zeinali* MicroRNA-148b and MicroRNA-152 reactivate tumor suppressor genes through suppression of DNA methyltransferase-1 gene in pancreatic cancer cell lines *Cancer Biology & Therapy* 15:4, 419–427; April 2014).
6. Shima Fayaz, Maryam Karimmirza, Shokoofeh Tanhaei, Mojdeh Fathi, Peyman Mohamadi Torbati, **Pezhman Fard-Esfahani** Increased risk of differentiated thyroid carcinoma with combined effects of homologous recombination repair gene polymorphisms in an Iranian population. *Asian Pac J Cancer Prev.* 2013;14(11):6727-31.
7. Maryam Rahimi, Shima Fayaz, Armaghan Fard-Esfahani, Mohammad Hossein Modarressi, Seyed Mohammad Akrami and **Pezhman Fard-Esfahani** The role of Ile3434Thr XRCC7 gene polymorphism in Differentiated Thyroid Cancer risk in an Iranian population *Iran. Biomed. J.,* 16 (4): 218-222 October 2012
8. **Pezhman Fard-Esfahani**, Peyman Mohammadi Torbati, Zahra Hashemi, Shima Fayaz, and Majid Golkar Analysis of Relation Between C677T Genotype in MTHFR Gene and Prostatic Cancer in Iranian Males *Acta Medica Iranica, Vol. 50, No. 10 (2012)*
9. Shima Fayaz, **Pezhman Fard-Esfahani***, Armaghan Fard-Esfahani, Ehsan Mostafavi, Reza Meshkani, Hossein Mirmiranpour and Shahnaz Khaghani. Assessment of genetic mutations in the XRCC2 coding region by high resolution

melting curve analysis and the risk of differentiated thyroid carcinoma in Iran. *Genetics and Molecular* 35, 1, 32-37 (2012).

*Equally contributed

10. **Pezhman Fard-Esfahani**, Armaghan Fard-Esfahani, Shima Fayaz, Bahareh Ghanbarzadeh, Parinaz Saidi, Reyhaneh Mohabati, Seyed Kazem Bidoki, Mina Majdi Association of Arg194Trp, Arg280His and Arg399Gln Polymorphisms in *XRCC1* gene and Risk of Differentiated Thyroid Carcinoma in Iran. *Iranian Biomedical Journal* (2011) 15 (3): 73-78.
11. **Pezhman Fard-Esfahani**, Mehdi Kadivar, Fatemeh Mirkhani, Mojgan Allahyari Gene expression under *F8 promoter* driving in mouse hepatoma cells: A step toward gene therapy of hemophilia *Iran pathology Journal* (2011) 6(4): 173 -178.
12. **Pezhman Fard-Esfahani**, Armaghan Fard-Esfahani, Parinaz Saidi, Shima Fayaz, Reyhaneh Mohabati, Mina Majdi. An increased risk of differentiated thyroid carcinoma in Iran with the 677C>T homozygous polymorphism in the MTHFR Gene. *Cancer Epidemiology (Full paper)* (2011) 35 56–58.
13. Mehdi Kadivar, Neda Memari, **Pezhman Fard-Esfahani**. Optimization and comparison of the PolyFect gene delivery method in three different kinds of mesenchymal stem cell types. *Yakhteh Medical Journal* (2010) 12(2), 191-198 (*Full paper*) .
14. **Pezhman Fard-Esfahani**, Shohreh Khatami. Familial Hypercholesterolemia in Iran: A Novel Frameshift Mutation in Low Density Lipoprotein Receptor (LDLR) Gene. *Iranian Journal of Pathology* (2010) 5(1), 22 – 26 (*Full paper*).
15. Ali Samadikuchaksaraei, Mahdi Fasihi Ramandi, Shohreh Khatami, Mohammad Jafar Hashemi, Somayyeh Haqparast, **Pezhman Fard-Esfahani**. E23K polymorphism in Iranian patients with coronary heart disease. *ARYA Atherosclerosis Journal* (2009) 5 (2), 55-60 (*Full paper*).
16. Ghazeleh Sadeghiani, Mehrak Zare, Jalal Babaie, Mohmmad-Ali Shokrgozar, Keyhan Azadmanesh, **Pezhman Fard-Esfahani**, Majid Golkar. Heterologous production of dense granule GRA7 antigen of *Toxoplasma gondii* in *Escherichia coli*. *Southeast Asian J Trop Med Public Health* (2009) 40(4) July (*Full paper*).
17. **Pezhman Fard-Esfahani**, Peyman Mohammadi-Torbati. Using a Temperature gradient against the time in polyacrylamide gel electrophoresis may eliminate the need for stacking gels. *Iranian Journal of Pathology* (2009) 4(4), 177 – 181 (*Full paper*).

18. **Pezhman Fard-Esfahani**, Ghasem Rastegar Lari, Shirin Ravanbod, Fatemeh Mirkhani, Mojgan Allahyari, Maryam Rassoulzadegan and Fereydoun Ala. Seven novel point mutations in the *F11* gene in Iranian FXI-deficient patients. *Haemophilia* (2008), 14, 91–95 (*Full paper*).
19. **P. Fard-Esfahani** , H. Khanahmad, M. Kadivar, M. Allahyari and F. Mirkhani, A construct for F8 gene targeting by homologous recombination. *Haemophilia* (2008), 14 (SUPPL. 2), 1–120 (*Abstract and Poster presentation*).
20. M. Rassoulzadegan, G. RastegarLari, **P. Fard-Esfahani**, S. Ravanbod and F . Ala, Genetic analysis of patients with factor X deficiency in Iran. *Haemophilia* (2008), 14 (SUPPL. 2), 1–120 (*Abstract and Poster presentation*).
21. **P. Fard-Esfahani**, G. Rastegar Lari, M. Rassoulzadegan, S. Ravanbod and F Ala. Fluorescent PCR of dinucleotide-repeat polymorphisms in the factor VIII gene: a carrier detection method used for investigation haemophilia A in Iran. *Haemophilia* (2006) 12, 75 (*Abstract and Poster presentation*).
22. Peyman Mohammadi Torbati, **Pezhman Fard-Esfahani**. Androgen receptor Analysis in relation to estrogen and progesterone receptors as well as histological grade for ductal carcinoma In Situ of the breast. *Iranian Journal of Pathology* (2006) 1(4), 149-154 (*Full paper*).
23. G. Rastegar Lari, M. Baghaipour, **P. Fard-Esfahani**, S. Ravanbod, S. Enayat and F. Ala. Genotype phenotype discrepancy in haemophilia A patients with mutations in exon 14 of factor VIII gene *Haemophilia* (2006) 12 (*Abstract and Poster presentation*).
24. **P. Fard-Esfahani**, S. Khatami, S. Zeinali, M. Taghikhani and M. Allahyari. A modified conformation sensitive gel electrophoresis (CSGE) method for rapid and accurate detection of low density lipoprotein (LDL) receptor gene mutation in familial hypercholesterolemia. *Clinical Biochemistry*, (2005) 38(6): 579-583 (*Full paper*).
25. **P. Fard-Esfahani**, P. Mohammadi - Torbati, S. Khatami, S. Zeinali , M. Taghikhani and M. Allahyari. Familial defective apolipoprotein B 100: frequency of the R3500Q mutation of *apolipoprotein B* gene in Iranian hypercholesterolemic patients. *ACTA Medica Iranica* (2005) 43 (3), 193-196 (*Full paper*).
26. **P. Fard-Esfahani**, S. Zeinali, S. Rouhi Dehboneh, M. Taghikhani and S. Khatami . A Novel Mutation in Exon 4 of the Low Density Lipoprotein (LDL) Receptor Gene in an IRANIAN Familial Hypercholesterolemia Patient. *Iranian Biomedical Journal* (2005) 9 (3), 139-142 (*Short com.*).
27. **P. Fard-Esfahani**, S. Khatami, C. Zeinali, M. Taghikhani. Genotyping of the LDL receptor gene in patients with Familial Hypercholesterolemia in Iran. *Clinical Biochemistry* (2005) 38 (9), 865 (*Abstract and Poster presentation*).

28. G. Rastegar Lari, MR Baghaipoor, **P. Fard-Esfahani**, M. Rassoulzadegan, S. Ravanbod, M. Jazebi, MS. Enayat, JM. Lavergne, F. Ala. Mutation Analysis of the Factor VIII gene in 224 Iranian families with haemophilia A. *The International Society on Thrombosis and Haemostasis XXthH congress. Sydney, Australia 6-12 (2005)* (Abstract and Poster presentation).
29. G. Rastegar Lari, S. Enayat, **P. Fard-Esfahani**, M. Rassoulzadegan, F. Moghadam, J.M. Lavergne and F. Ala. Molecular analysis of haemophilia B in Iranian patients: Three new mutations in FIX gene. *9th Congress of the EUROPEAN Hematology Association Geneva Palexpo, Switzerland (2004)* (Abstract and Poster presentation).

Supervision/Consultation

Supervisor of 5 PhD and 10 M.Sc. theses. Consultant of 2 PhD and 8 M.Sc. theses.

Other

Expert in major molecular techniques and relevant bioinformatics e.g. genetic engineering, DNA and RNA manipulation, PCR and Real-Time PCR, HRM, DNA methylation analysis, SSCP, CSGE and low throughput DNA sequencing.

Skilled in protein expression, refolding and purification techniques including SDS-PAGE, Western blot, standard chromatography, FPLC and HPLC.

Familiar with applied bioinformatics, high throughput DNA sequencing and beginner in Python programming.

Research interests

- Molecular Oncology, epigenetic and SNP fingerprinting in term of personalize cancer medicine.
- Recombinant protein/drug production
- BioPython programming.