

# Curriculum vitae

## Personal Information

**Name:** Zahra Fazeli, Ph.D

**Present Position:** Assistant Professor

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## Education:

**Ph.D.:** Medical Genetics, Shahid Beheshti University of Medical Sciences, 2016, Tehran, Iran

**M.Sc:** Genetics, Isfahan University, 2008, Isfahan, Iran

**B.Sc:** Biology, Isfahan University, 2002, Isfahan, Iran



## M.Sc thesis:

Determination of informative haplotype in *PAH* gene in Isfahan population

## Ph.D thesis:

Correlation analysis of methylation pattern of CGG repeat expansion located upstream of *FMR1* gene with expression of flanking genes in neuronal cells differentiated from peripheral blood derived mesenchymal stem cells (PB-MSCs) in Fragile X syndrome patients

## Publications:

- Cheraghi Z, Ziai SA, **Fazeli Z**, Gheisoori A. Unveiling sex-based impact of TYK2 rs2304256 polymorphism on interferon beta-1alpha responsiveness in COVID-19 patients. *Gene Reports* 2023, 33,101846.
- Abd-Alameer M, Rajabibazl M, Esmailizadeh Z, **Fazeli Z**. SAG-dihydrochloride enhanced the expression of germ cell markers in the human bone marrow- mesenchymal stem cells (BM-MSCs) through the activation of GLI-independent hedgehog signaling pathway. *Gene*. 2023 Jan 15;849:146902.
- **Fazeli Z**, Abdollahimajd F, Atazadeh F, Karimi M, Alikhani A, Asadi K. The association of Interleukin-10 and Interleukin-13 polymorphisms with susceptibility to vitiligo: A study in Iranian patients. *Gene Reports* 29 (2022) 101677.
- Ghanbari M, Miladipour AH, Ghaderian SMH, **Fazeli Z**, Rajabi S, Rajabibazl M. Association between CRP polymorphisms and susceptibility to the diabetic nephropathy; A case-control study. *Meta Gene* 31 (2022); 101009.
- Mohammadi B, Esmailizade Z, Omrani MD, Ghaderian SMH, Rajabibazl M, **Fazeli Z**. The Effect of Co-treating Human Mesenchymal Stem Cells with Epigallocatechin Gallate and Hypoxia-Inducible Factor-1 on the Expression of RANKL/RANK/OPG Signaling Pathway, Osteogenesis, and Angiogenesis Genes. *Regen. Eng. Transl. Med.* **8**, 117–124 (2022).

- **Fazeli Z**, Ghaderian SMH, Najmabadi H, Omrani MD. Understanding the Molecular Basis of Fragile X Syndrome Using Differentiated Mesenchymal Stem Cells. *Iran J Child Neurol.* 2022 Winter;16(1):85-95.
- **Fazeli Z**, Esmailizadeh Z, Omrani MD, Ghaderian SMH, Rajabibazl M. HEK293-Conditioned Medium Altered the Expression of Renal Markers WT1, CD2AP, and CDH16 in the Human Adipose Mesenchymal Stem Cells. *Regen. Eng. Transl. Med.* **8**, 456–462 (2022).
- **Fazeli Z**, Rajabibazl M, Faramarzi S, Omrani MD, Ghaderian SMH, Safavi Naini N. Correlation of TCF4, GSK, TERT and TERC Expressions with Proliferation Potential of Early and Late Culture of Human Peripheral Blood Mesenchymal Stem Cells. *Cell J.* 2021; 22(4): 431-436.
- Mohammadi R, Aryan A, Omrani MD, Ghaderian SMH, **Fazeli Z**. Autologous Hematopoietic Stem Cell Transplantation (AHSCT): An Evolving Treatment Avenue in Multiple Sclerosis. *Biologics.* 2021 Mar 2;15:53-59.
- Esmailizade Z, Mohammadi B, Omrani MD, Ghaderian SMH, Rajabibazl M, **Fazeli Z**. Preclinical Studies and Clinical Trials with Mesenchymal Stem Cell for Demyelinating Diseases: A Systematic Review. *Curr Stem Cell Res Ther.* 2021;16(8):1005-1017.
- Atazadeh F, **Fazeli Z**, Vahidnezhad H, Namazi N, Younespour S, Yousefian L, Abdollahimajd F, Uitto J. Increased level of cathelicidin (LL-37) in vitiligo: Possible pathway independent from vitamin D receptor gene polymorphism. *Exp Dermatol.* 2020 Dec;29(12):1176-1185.
- Mohammadi B, Esmailizade Z, Rajabibazl M, Ghaderian SMH, Omrani MD, **Fazeli Z**. Preconditioning of human adipose tissue-derived mesenchymal stem cells with HEK293-conditioned media can influence on the expression of BMP2, BMP6 and BMP11: Potential application in the treatment of renal lesions. *Gene Reports* 21 (2020) 100912.
- Esmailizadeh Z, Mohammadi B, Rajabibazl M, Ghaderian SMH, Omrani MD, **Fazeli Z**. Expression Analysis of GDNF/RET Signaling Pathway in Human AD-MSCs Grown in HEK 293 Conditioned Medium (HEK293-CM). *Cell Biochem Biophys.* 2020 Dec;78(4):531-539.
- Mostafae A, Rafiei S, **Fazeli Z**, Sayad A, Rahimi M, Rajabi S, Khamseh F, Shamshirgaran F, Rajabibazl M. The association analysis between rs1544410 and rs10735810 polymorphisms located at VDR gene and susceptibility to Multiple Sclerosis in Iranian population. *Gene Reports* 17 (2019) 100538.
- **Fazeli Z**, Faramarzi S, Ahadi A, Omrani MD, Ghaderian SM. Efficiency of mesenchymal stem cells in treatment of urinary incontinence: a systematic review on animal models. *Regen Med.* 2019 Jan;14(1):69-76.
- **Fazeli Z**, Ghaderian SMH, Najmabadi H, Omrani MD. High expression of miR-510 was associated with CGG expansion located at upstream of FMR1 into full mutation. *J Cell Biochem.* 2018 Aug 30. doi: 10.1002/jcb.27505.
- Heidary H, Pouresmaeili F, Mirfakhraie R, Omrani MD, Ghaedi H, **Fazeli Z**, Sayban S, Ghafouri Fard S, Azargashb E, Shokri F. An Association Study between Longitudinal Changes of Leukocyte Telomere and the Risk of Azoospermia in a Population of Iranian Infertile Men. *Iran Biomed J.* 2018 Jul;22(4):231-6.
- Yari M, Bitarafan S, Broumand MA, **Fazeli Z**, Rahimi M, Ghaderian SMH, Mirfakhraie R, Omrani MD. Association between Long Noncoding RNA ANRIL

Expression Variants and Susceptibility to Coronary Artery Disease. *Int J Mol Cell Med*. 2018 Winter;7(1):1-7.

- **Fazeli Z**, Abedindo A, Omrani MD, Ghaderian SMH. Mesenchymal Stem Cells (MSCs) Therapy for Recovery of Fertility: a Systematic Review. *Stem Cell Rev*. 2018 Feb;14(1):1-12.
- Rafiee S, Rajabibazl M, Meshkani R, Daraei A, Zargari M, Sharafeddi F, **Fazeli Z**, Toffani Milani A, Taherkhani M. Association of Warfarin Therapy with APOE and VKORC1 Genes Polymorphism in Iranian Population. *Iran J Pharm Res*. 2017 Summer;16(3):1230-1237.
- Rahimi M, Ghanbari M, **Fazeli Z**, Rouzrokh M, Omrani S, Mirfakhraie R, Omrani MD. Association of SRD5A2 gene mutations with risk of hypospadias in the Iranian population. *J Endocrinol Invest*. 2017 Apr;40(4):391-396.
- **Fazeli Z**, Omrani MD, Ghaderian SM. CD29/CD184 expression analysis provides a signature for identification of neuronal like cells differentiated from PBMSCs. *Neurosci Lett*. 2016; 630: 189-93.
- **Fazeli Z**, Omrani MD, Ghaderian SM. Down-regulation of nestin in mesenchymal stem cells derived from peripheral blood through blocking bone morphogenesis pathway. *J Cell Commun Signal*. 2016 Dec;10(4):273-282.
- **Fazeli Z**, Rajabibazl M, Salami S, Vazifeh Shiran N, Ghaderian SMH, Omrani MD. Gene Expression Profile of Adherent Cells Derived From Human Peripheral Blood: Evidence of Mesenchymal Stem Cells. *Journal of Sciences, Islamic Republic of Iran* 27(2): 105 - 112 (2016).
- **Fazeli Z**, Ghaderian SMH, Rajabibazl M, Salami S, Vazifeh Shiran N, Omrani MD. Expression Pattern of Neuronal Markers in PB-MSCs Treated by Growth Factors Noggin, bFGF and EGF. *IJMCM* 2015, 4 (4): 209-217.
- Moradi T, Vallian R, **Fazeli Z**, Haghghatnia A, Vallian S. Heterozygosity deficit of polymorphic markers linked to the  $\beta$ -globin gene cluster region in the Iranian population. *Iran J Basic Med Sci*. 2015 Jun;18(6):571-5.
- Poursmaeili F, **Fazeli Z**. Premature ovarian failure: a critical condition in the reproductive potential with various genetic causes. *Int J Fertil Steril*. 2014 Apr;8(1):1-12.
- **Zahra Fazeli**, Sadeq Vallian. 2013. Molecular phylogenetic study of the Iranians based on polymorphic markers. *Gene* 512, 123–126.
- **Zahra Fazeli**, Sadeq Vallian. 2012. Phylogenetic relationship analysis of Iranians and other world populations using allele frequencies at 12 polymorphic markers. *Mol Biol Rep* 39:11187–11199.
- Haghghatnia A, Vallian S, Mowla J, **Fazeli Z**. 2012. Genetic Diversity and Balancing Selection within the Human Phenylalanine Hydroxylase (PAH) Gene Region in Iranian Population. *Iran J Public Health*. 41(5):97-104.
- **Zahra Fazeli**, Sadeq Vallian. 2011. Phenylketonuria from genetics to clinics: An Iranian prospect. *Iranian Journal of Biotechnology*. 9 (3): 163-172.
- Tajadod M, Vallian Boroujeni S, **Fazeli Attar Z**. Population data on D6S2879 and D6S2806 markers located at HLA-DRB1 region in the Iranians: Identifying the signatures of balancing and directional selection. *TBJ*. 2011; 3 (8) :51-60.
- **Zahra Fazeli**, Sadeq Vallian. 2010. An artifact band frequently associated with variable number of tandem repeat marker at phenylalanine hydroxylase gene: application in carrier detection and prenatal diagnosis of phenylketonuria. *Mol Biol Rep*. 2010 Nov 24. [Epub ahead of print]

- **Zahra Fazeli**, Sadeq Vallian. 2009. Estimation Haplotype Frequency of BglII/EcoRI/VNTR Markers at the *PAH* Gene Region in Iranian Population. *Int J Hum Genet (ISI journal)*, 9(2): 115-121.
- **Zahra Fazeli**, Sadeq Vallian. 2009. The Investigation of Haplotype Phasing Efficiency at the *PAH* Gene Region in Iranian Family Trios. *Iranian J Publ Health*, 38(4): 136-139.

<b>Presentations and seminars:</b>
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- **Zahra Fazeli**, Mir Davood Omrani, Sayyed Mohammad Hossein Ghaderian. **Bioinformatics prediction of miR-510 target genes in the nervous system: new therapeutic targets for neurological diseases.** Oral presentation at the 6<sup>th</sup> conference on Bioinformatics, 13-15 Dec 2016.
- **Zahra Fazeli**, Mir Davood Omrani. Mesenchymal Stem Cells (MSCs) Therapy for Infertility: A Systematic Review. Oral presentation at International Congress on Reproduction (ISERB 2015), Tehran, Iran, 23-25 May, 2015.
- **Zahra Fazeli**, Sadeq Vallian. 2010. The assessment of inbreeding coefficient (F) in the Isfahan population using three polymorphic markers. Oral presentation at the 11<sup>th</sup> Iranian Genetics Congress, Tehran-Iran, May 22-24, 2010.
- **Zahra Fazeli**, Asieh Haghghatnia, Javad Mola, Sadeq Vallian. 2007. Molecular investigation of phenylalanine hydroxylase gene markers in Isfahan population. The 9<sup>th</sup> Iranian Congress of Biochemistry & the 2<sup>nd</sup> International Congress of Biochemistry and Molecular Biology, Shiraz-Iran, Oct 29- Nov 1, 2007. Published in *Archives of Iranian Medicine (ISI Journal)*, Volume 10 ,Number 4 (Supplement 1), S202.
- **Zahra Fazeli**, Sadeq Vallian. 1386. Determining an informative haplotype in *PAH* gene in Isfahan population. Isfahan University. Research Week, 1386.
- **Zahra Fazeli**, Sadeq Vallian. 2008. The observed stutter band in the genotyping of *PAHVNTR* marker and the increase probability of error in carrier detection of PKU disease. *Proceedings of the 15<sup>th</sup> National & third International Conference of biology*, 19-21 Aug 2008, University of Tehran, pp 99.