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Ph.D of molecular Genetics, Assistants professor in Rafsanjan
University of Medical Sciences

Educations:

Ph.D of Molecular Genetics, Tarbiat Modares University, Tehran, Iran, 2014

M.Sc. of Human Genetics, Tehran University of Medical Sciences, Tehran, Iran,
1996

B.Sc. of Microbiology, Kerman University, Kerman, Iran, 1992

Skills:

- * Cancer (Molecular study)
- *Cell Culture & Gene Cloning
- *Gene transfection (siRNA,miRNA,...)
- * Gene Expression Profiling (PCR Array, Real-Time PCR, PCR)
- * Gene mutation detection methods (PCR-SSCP, DGGE, PGGE...)
- * Cytogenetics (karyotype, Chromosomal banding...), FISH,.....
- * Immunogenetics (autoimmune disease...)

Publications:

- 1) **MR Mirzaei**, P. Mehdipour, M. Atri, H. Timuri and GR. Asadi. Detection of mutation in P53 gene in exons 5 and 8 in patients of familial breast cancer by PCR-SSCP method. Rafsanjan Medical University journal. 2003; 1(2):119-125.
- 2) **MR Mirzaei**, GR. Asadi, M. Mahmuodi, MR. Hajizadeh, M. muosavi, AR Sayadi and H. Hosini. Evaluation of Fragile X Syndrome in moderate mental retardations in Rafsanjan city. Rafsanjan Medical University journal. 2007; 5(1):17-22.
- 3) GR Asadi Karam, **MR Mirzaei**, M- Mahmoodi, MJ. Rasaei, M. pooramir: Extraction and purification of anti-proteinase 3 (PR3) antibodies from egg yolk. Iranian Biochemical Journal. 2005; 9(1):41-45.
- 4) H. Timuri, P. Mehdipour, M. Atri and **MR. Mirzaei**. Detection of gene mutation in exons 3, 10 and 12 of BRCA1 gene in 30 patients of familial breast cancer. Gorgan Medical University journal. 2002; 3(8):19-24.
- 5) A. Jafarzadeh, M. Kazemi Arababadi, **MR. Mirzaei**, E. Rezazadeh. Occult hepatitis B virus infection among blood donors with antibodies to hepatitis B core antigen ACTA MEDICA IRANICA. 2008; 46(1):27-32.
- 6) M. Mahmoodi, MR. Hajizadeh, HR. Reshidinejad, GR. Asadikaram, M. Khaksari, **MR. Mirzaei** and N. Seyedi. Survey of changes in complete blood count and red cell indices of whole blood incubated in vitro at different temperatures up to 48 hours. J Ayub Med Coll Abbottabad. 2006; 18(1):17-21.
- 7) A. Jafarzadeh, R. Vazirinejad, GH. Hassanshahi, MA. Sajjadi and **MR. Mirzaei**. Evaluation of some immune system components in hyperthyroid women. Sabzevar Medical University journal. 2007; 14(2):103-109.
- 8) Mohammad Kazemi Arababadi, **Mohammad Reza Mirzaei**, Ebrahim Rezazadeh Zarandi and Gholamhossein Hassanshahi. Analysis of $\delta\text{-}32$ mutation

in CCR5 gene in breast cancer patients in Kerman province of Iran. Journal of Mazandaran University of Medical Sciences, 2009; 19 (70): 49-53.

9) Abdollah Jafarzadeh, Mohammad Kazemi Arababadi, **Mohammad Reza Mirzaei** and Abbasali Pourazar. Occult hepatitis B virus infection among blood donors with antibodies to hepatitis B core antigen. Acta Medica Iranica, 2008; 46 (1): 27-32.

10) Mohammad Kazemi Arababadi, **Mohammad Reza Mirzaei**, Seyed Mohammad Ali Sajadi, Gholamhasein Hasanshahi, Behzad Nasiri Ahmadabadi, Vajihe Akbarpour Salehabadi, Reza Derakhshan and Derek Kennedy. Interleukin (IL)-10 gene polymorphisms are associated with type 2 diabetes with and without nephropathy: A study of patients from the southeast region of Iran. Inflammation. 2012 ;35(3):797-802

11) **Mohammad Reza Mirzaei**, Gholamhossein Hassanshahi, Mehdi Mahmoodi, Mohammad Reza Hajizadeh, Fahmideh Bagrezaei and Mehdi Chehardoli. RNA interference – mediated silencing of OCT4B1 alters expression of several TNF ligand/receptor transcripts in human tumor cell lines. Pharmaceutical Sciences journal. 2014;20;113-120.

12) **Mirzaei MR**, Najafi A, Arababadi MK, Asadi MH, Mowla SJ. Altered expression of apoptotic genes in response to OCT4B1 suppression in human tumor cell lines. Tumour Biol. 2014; 35:9999-10009.

13) Momeni M, **Reza Mirzaei M**, Zainodini N, Hassanshahi G, Arababadi MK. MiR-143 induces expression of AIM2 and ASC in Jurkat cell line. Iran J Immunol. 2013 Jun; 10(2):103-9.

14) Nazari M, Hajizadeh MR, Mahmoodi M, **Mirzaei MR** and Hasanshahi GH. The Regulatory Impacts of Morus Alba Leaf Extract on Some Enzymes Involved

in Glucose Metabolism Pathways in Diabetic Rat Liver. Clin. Lab. 2013; 59:497-504.

15) Seyyed Javad Afsah Hejri, **Mohammad Reza Mirzaei**, Mohammad Kazemi Arababadi, Gholamhossein Hassanshahi, Mehdi Mahmoodi. OCT4B1 Down-Regulates Self-Renewal Genes in Cancer Cell Lines. Pharmaceutical sciences, 2014, 19(4), 117-123.

16) **M.R. Mirzaei** (PhD), G.H. Hasanshahi (PhD), M.R. Hajizadeh (PhD), M. Mahmoodi(PhD), M. Nazari (BSc), M. Chahardoli (BSc). The Correlation between OCT4B1 and Apoptosis in Human Cancer Cell Lines. J Babol Univ Med Sci, 2015, 17(1), 37-44.

17) J. Fathalizadeh, V. Bagheri, H. Khoramdeleazad, M. Kazemi Arababadi, A. Jafarzadeh, **MR. Mirzaei**, A. Shamsizadeh and MR. Hajizadeh. Induction of apoptosis by pistachio (*pistacia vera* L.) hull extract and its molecular mechanisms of action in human hepatoma cell line HepG2. Cell. Mol. Biol. 2015; 61(7):128-134.

18) **Mirzaei MR**, Arababadi MK, Asadi MH, Mowla SJ. Altered expression of high molecular weight heat shock proteins after OCT4B1 suppression in human tumor cell lines. Cell Journal. 2016; 17(4):608-616.

19) **Mohammad Reza Mirzaei**, Malek aahossein Asadi, Seyyed Javad Mowla, Gholamhossein Asadi, Zahra Ahmadi. Down-regulation of HSP40 gene family following *OCT4B1* suppression in human tumor cell lines. Iran J Basic Med Sci. 2016; 19(2):187-193.

20) **Mohammadreza Mirzaei** , Mahdi Mahmoudi, Gholamhossein Hassan Shahi, Amir Rahnama, Mahmoud Sheikh Fathollahi , Fahmideh Bagrezai. The comparison of selfrenewal gene expression pattern in cancer cell lines, tumor tissue and normal tissue of the bladder tumor. J Shahrekord Univ Med Sci 2016, 18(2): 54-61.

- 21) Fahmideh Bagrezaei, Mehdi Mahmoodi, Mohammad Reza Hajizadeh, Vajihe Akbarpoor, Reza Bahramabadi and **Mohammad Reza Mirzaei**. Curcumin Effect on the Expressional Profile of OCT4, Nanog and Nucleostemin Genes in AGS(Adenocarcinoma) Cancer Cell Line. *Zahedan J Res Med Sci*. 2016; 18(7):e7555.
- 22) Hosseini FS, Fattahpour Sh, Asadpour M, Hassanshahi Gh, Hajizade MR, Khoshdel A, **Mirzaei MR**, Mahmoodi M. The Effect of the Hydroalcoholic Extract of Persian shallot (*Allium hirtifolium Boiss*) on Albumin Glycation. *Journal of Shahrekord University of Medical Sciences*. 2016; 17(Suppl): 22-31.
- 23) Ahmadi Rad H, Hemmati M, Mahmoudi M, Sayadianari A, **Mirzaei MR**, Khoshdel A, Amiri M, MohammadainShahrbabaki F, Hajizadeh MR. Evaluating Blood Parameters and P53 and IL6 Gene Expression in Personnel of Copper Complex in Comparison with Control Group. *Journal of Fasa University of Medical Sciences*. 2016;.5(4):460-9.
- 24) Mohammadain Shahrbabaki F, Mahmoudi M, **Mirzaei MR**, Khoshdel A, SHEikhFathollahi M, Zinodini N, Hajizadeh MR. Expression of Some Genes Involved in Epigenetic in Breast Cancer Cell Lines: The Effect of Quercetin. *Journal of Fasa University of Medical Sciences*. 2015;.5(3):413-424.
- 25) **Mirzaei MR**, Mahmoodi M, Hajizadeh MR, Bagrezaei F, Bahramabadi R. OCT4B1 and its Role in Suppression of TRAF Family Gene Expression in Cancer Cell lines. *Community Health*. 2015; 9(1):27-36.
- 26) **Mirzaei MR**, Mahmoodi M, Hajizadeh MR, Bagrezaei F, Akbarpoor V, Bahramabadi R. The survey of curcumin effect on the expressional profile of OCT4, Nanog and Nucleostemin genes in AGS (adenocarcinoma) cancer cell line. *Community Health*. 2014; 8(1):19-27.
- 27) Mahmoodi M, Sayyadi AR, HosseiniZijoud SM, Hajizadeh MR, Kazemi Arababadi M, Asadikaram GR, **Mirzai MR**, Poladvand V, Sadeghi A, Shamsi

zadeh A , Hassanshahi GR. Survey on the Effects of Different Concentrations of *Citrullus Colocynthis* Fruit Powder on Some of the Blood Biochemical Factors in Normal and Diabetic Male Rats. Rafsanjan Medical University journal.2013; 11(1,2):11-20.

28) Bagrezaei F, Mahmoodi M, Rezaian M, **Mirzaei MR**, Nazari M, Khorramdel H, Hajizadeh MR, Mohammadian F. The study of Effect of hydroalcoholic Extract of Aerial Parts of *Scropholaria Striata* on the Glucokinase Gene Expression in Type 1 Diabetic Rats. *Community Health*. 2013; 7(4):45-52.

29) **Mirzaei MR**, Mahmoodi M, Hasanshahi.GH, Ahmadi Z. Down-regulation of anti-apoptotic genes in tumor cell lines is facilitated by suppression of OCT4B1. *Advances in Medical Sciences* .2017; 62:97-102.

30) Taeb M, Mortazavi-Jahromi SS, Jafarzadeh A, **Mirzaei MR**, Mirshafiey A. An in vitro evaluation of anti-aging effect of guluronic acid (G2013) based on enzymatic oxidative stress gene expression using healthy individuals PBMCs. *Biomed Pharmacother*. 2017; 90:262-267.

31) Farzaneh Sadat Hosseini, Soudeh Khanamani Falahati-pour, Mohammad Reza Hajizadeh, Alireza Khoshdel, **Mohammad Reza Mirzaei**, Hadis Ahmadirad, Reza Behroozi, Nesa Jafari, Mehdi Mahmoodi. Persian shallot, *Allium hirtifolium* Boiss, induced apoptosis in human hepatocellular carcinoma cells. *Cytotechnology* . 2017; 69: 551–563.

32) Ramezani, Mahnaz; Ramezani, Mahin; Hassanshahi, Gholamhossein; Mahmoodi, Mehdi; Zainodini, Nahid; Darekordi, Ali; Falahati-Pour, Soudeh Khanamani; **Mirzaei, Mohammad Reza**. Does the Novel Class of (2R, 4S)-N-(2, 5-Difluorophenyl)-4-Hydroxy-1-(2, 2, 2-Trifluoroacetyl) Pyrrolidine-2-Carboxamide's Have Any Effect on Cell Viability and Apoptosis of Human Hepatocellular Carcinoma Cells? *International Journal of Cancer Management*. 2017; 10: 1-7.

- 33) V Akbarpoor, F Bagrezaei, M Mahmoodi, MR Hajizadeh, M Sheikh Fathollahi, **MR Mirzaei**. The Survey of Saffron Extract Effects on Expressional Pattern of Some Self-renewal genes in AGS (gastric adenocarcinoma) Tumor Cell Line. *Community Health*. 2017; 10(4):66-75.
- 34) Rahim Heidari barchi, Fatemeh Asadi, **Mohammad Reza Mirzaei**, Seyyed Meysam Abtahi Froushani. Comparison of the effects of 17 β - estradiol treated and untreated mesenchymal stem cells on ameliorating animal model of multiple sclerosis. *Iran J Basic Med Sci*, 2018;21(9): 936-942.
- 35) Nahid Zainodini, Gholamhossein Hassanshahi, Mohammadreza Hajizadeh, Soudeh Khanamani Falahati-Pour, Mehdi Mahmoodi, **Mohammad Reza Mirzaei**. Nisin Induces Cytotoxicity and Apoptosis in Human Astrocytoma Cell Line (SW1088). *Asian Pac J Cancer Prev*, 2018; 19 (8): 2217-2222.
- 36) **Mohammad Reza Mirzaei**, Shima Khajouee Ravari, Gholamhosein Hasanshahi, Mehdi Mahmoodi, Rahim Heidari barchi nezhad, Fatemeh Asadi. The Relationship between the Expression of Small Heat-Shock Proteins and Suppression of OCT4B1. *Journal of Kerman University of Medical Sciences*, 2018; 25 (2): 137-146.
- 37) **Mirzaei MR**, Hassanshahi GH, Mahmoodi M, Hajizadeh MR, Asadi F, Pooladvand V. OCT4B1 Suppression down Regulated BCL2 Gene Family Expression in Human Tumor Cell Lines. *International Journal of Cancer & Cellular Biology Research*. 2017; 2(1): 23-28.
- 38) Azadeh Rezaei, Soudeh Khanamani Falahati-Pour, Fatemeh Mohammadizadeh, Mohammad Reza Hajizadeh, **Mohammad Reza Mirzaei**, Alireza Khoshdel, Mohammad Ali Fahmidehkar, Mehdi Mahmoodi. Effect of a Copper (II) Complex on The Induction of Apoptosis in Human Hepatocellular Carcinoma Cells. *Asian Pac J Cancer Prev*. 2018; 19 (10):2877-2884.
- 39) Seddigheh Niknia, Ayat Kaeidi, Mohammad Reza Hajizadeh, **Mohammad**

- Reza Mirzaei, Alireza Khoshdel, Zahra Hajializadeh, Mohammad Ali Fahmidehkar, Mahdi Mahmoodi. Neuroprotective and antihyperalgesic effects of orexin-A in rats with painful diabetic neuropathy. *Neuropeptides*. 2019;73:34-40.
- 40) Aliakbar Yousefi-Ahmadipour, Amir Rashidian, Mohammad Reza Mirzaei, Alireza Farsinejad, Fatemeh PourMohammadi-Nejad, Mahmoud Ghazi-Khansari, Jafar Ai, Sadegh Shirian, Amir Allahverdi, Jamileh Saremi, Somayeh Ebrahimi-Barough. Combination therapy of mesenchymal stromal cells and sulfasalazine attenuates trinitrobenzene sulfonic acid induced colitis in the rat: The S1P pathway. *J Cell Physiol*. 2018;1-14
- 41) Farzaneh Sadat Hosseini¹, Mojgan Noroozi Karimabad, Mohammad Reza Hajizadeh, Alireza Khoshdel, Soudeh Khanamani Falahati-Pour, Mohammad Reza Mirzaei, Seyed Mehdi Mirmohamadi¹, Mehdi Mahmoodi. Evaluating of Induction of Apoptosis by Cornus mass L. Extract in the Gastric Carcinoma Cell Line (AGS). *Asian Pac J Cancer Prev*. 2018; 20 (1): 123-130.
- 42) Mahnaz Ramezani, Mahin Ramezani, Ali Darekordi, Gholamhossein Hassanshahi, Mohammad Reza Mirzaei. The New Compound of (2R, 4S)-N-(2, 5-difluorophenyl)-4- Hydroxy-1-(2, 2, 2-Trifluoroacetyl) Pyrrolidine-2-Carboxamide to Mediate the Expression of Some Apoptosis Genes by the HepG2 Cell Line. *Asian Pac J Cancer Prev*.2019; 20 (5): 1457-1462.
- 43) Rahim Heidari Barchi Nezhad, Fateme Asadi, Seyyed Meysam Abtahi Froushani, Gholamhossein Hassanshahi, Ayat Kaeidi, Soudeh Khanamani Falahati-pour, Zahra Hashemi, Mohammad Reza Mirzaei. The effects of transplanted mesenchymal stem cells treated with 17- β estradiol on experimental autoimmune encephalomyelitis. *Molecular Biology Reports*.2019; <https://doi.org/10.1007/s11033-019-05048-3>.
- 44) Maryam Mohammad-Sadeghipour, Mehdi Mahmoodi, Soudeh

Khanamani Falahati-pour, Alireza Khoshdel, Mohammad Ali Fahmidehkar, **Mohammad Reza Mirzaei**, Mojgan Noroozi Karimabad, Mohammad Reza Hajizadeh. Trigonella foenum-graecum seed extract modulates expression of lipid metabolism related genes in HepG2 cells. *Asian Pacific Journal of Tropical Biomedicine* 2019; 9(6): 240-248. doi: 10.4103/2221-1691.260396.

45) Maryam Mohamadi, Azadeh Rezaei, S. Yousef Ebrahimipour, Soudeh Khanamani Falahati-pour, Fatemeh Mohammadizadeh, Mahdeih Bemani, Mohammad Reza Hajizadeh, **Mohammad Reza Mirzaei**, Alireza Khoshdel and Mehdi Mahmoodi. *In-silico* and *In-vitro* Studies on the DNA/BSA-Binding Features of a Mixed Ligand Copper (II) Complex Containing 2-Methyl Imidazole and a Schiff Base Ligand. *ChemistrySelect* 2019;4. 13932–13939. DOI: 10.1002/slct.201904120.

46) Fatemeh Mohammadizadeh, Mehdi Mahmoodi, Azadeh Rezaei, Maryam Mohamadi, Mohammad Reza Hajizadeh, **Mohammad Reza Mirzaei**, Soudeh Khanamani Falahati-pour. A new copper complex enhanced apoptosis in human breast cancerous cells without considerable effects on normal cells *Gene Reports*. 2019(17). 100475,

47) Azadeh Rezaei, Mehdi Mahmoodi, Fatemeh Mohammadizadeh, Maryam Mohamadi, Mohammad Reza Hajizadeh, Mohammad Reza Mirzaei, Soudeh Khanamani Falahati-pour. A novel copper (II) complex activated both extrinsic and intrinsic apoptotic pathways in liver cancerous cells. *J Cell Biochem*. 2019; 1-10. DOI: 10.1002/jcb.28491.

48) Aliakbar Yousefi-Ahmadipour, Somayeh Ebrahimi-Barough, Seddigheh Niknia, Amir Allahverdi, Afsaneh Mirzahosseini-pourranjbar, Mahnaz Tashakori, Shima Khajouee Ravari, Fatemeh Asadid, Rahim Heidari Barchi Nezhadd., Nasrin

Lotfibaikshaiesh, [Mohammad Reza Mirzaei](#). Therapeutic effects of combination of platelet lysate and sulfasalazine administration in TNBS-induced colitis in rat. *Biomedicine & Pharmacotherapy* 2020(115) 109949

49) H. AHMADIRAD, M. MAHMOODI, F. RAHMATIAN, M.H. BAKHSHI, M.R. HAJIZADEH, [M.R. MIRZAEI](#), H. AHMADINIA, M. REZAEI, A. DINI, S. KHANAMANI FALAHATI-POUR. **THE HYDROALCOHOLIC EXTRACT OF BANEH LEAVES (PISTACIA ATLANTICA) INDUCES APOPTOSIS IN THE BREAST CANCER CELLS.** *WCRJ* 2019; x (x): exxx

50) Mehdi Pouraminaeia, [Mohammad Reza Mirzaei](#), Alireza Khoshdel, Mohammad Reza Hajizadeh, Mehdi Mahmoodi, Mohammad Ali Fahmidehkar. The effect of *Cressa Cretica* hydroalcoholic extract on apoptosis and the expression of Bcl2, Bax and P53 genes in hepatoma cell line HepG2. *Gene Reports* 2020 (20) 100692.

51) Reyhaneh Taebi, [Mohammad Reza Mirzaei](#), Mehdi Mahmoodi, Alireza Khoshdel, Mohammad Ali Fahmidehkar, Maryam Mohammad-Sadeghipour, Mohammad Reza Hajizadeh. The effect of *Curcuma longa* extract and its active component (curcumin) on gene expression profiles of lipid metabolism pathway in liver cancer cell line (HepG2). *Gene Reports* 2020 (18) 100581.

52) Maryam Mohammad-Sadeghipour, Mehdi Mahmoodi, Mojgan Noroozi Karimabad, [Mohammad Reza Mirzaei](#), Mohammad Reza Hajizadeh. *Diosgenin and 4-Hydroxyisoleucine from Fenugreek Are Regulators of Genes Involved in Lipid Metabolism in The Human Colorectal Cancer Cell Line SW480.* *Cell Journal(Yakhteh)*, 2021 (22-4); Pages: 514-522.

53) *Vajihe Akbarpoor, Mojgan Noroozi Karimabad, Mehdi Mahmoodi, [Mohammad Reza Mirzaei](#).* The saffron effects on expression pattern of critical self-renewal genes in adenocarcinoma tumor cell line (AGS). *Gene Reports*, 2020(19).

100629.

54) Zeynab Javadi, Alireza Khoshdel, Mohammad Ali Fahmidehkar, Mohammad Reza Hajizadeh, Mehdi Mahmoodi, [Mohammad Reza Mirzaei](#), Fatemeh Akyash, Behrouz Aflatoonian. Vitamin E and Selenium Facilitate the Osteogenesis and Adipogenesis of the Human Adipose Tissue-Derived Mesenchymal Stem/Stromal Cells. *International Journal of Medical Laboratory* 2020; 7(3):159-167.

55) Ali Jebali, Mojgan Noroozi Karimabad, Zahra Ahmadi, Hossein Khorramdel, Ayat Kaeidi, [Mohammadreza Mirzaei](#), Mohammad Zare-Bidaki, Hassan Ahmadinia, Alireza Vakilian, Ali Darekordi and Gholamhossein Hassanshahi. Attenuation of inflammatory response in the EAE model by PEGlated nanoliposome of pistachio oils. *Journal of Neuroimmunology* 2020; 374: 577352.

