

Curriculum Vitae

Sahar Moghbelinejad

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❖ Education

- Doctor of philosophy (PhD) in **Medical genetics**,
Tarbiat Modares University (Tehran), Iran, 2012
Thesis: *Study of induced genomic instability in AZFc region of Y chromosome and its relationship with sex chromosomes aneuploidy in sperm and lymphocyte samples of fertile and infertile men.*
- Master of science (MSc) in genetics,
Islamic Azad University, Research and Science Branch (Tehran), Iran, 2007
Thesis: *The study of numerical chromosome changes in different human-mouse hybridoma cell lines by using differential staining*
- Bachelor of science (BSc) in genetics,
Shahid Chamran university of Ahvaz, Iran, 2005

❖ Current Affiliation

- Associated professor of Medical genetics in Qazvin university of medical science, since 2018

❖ Awards

- Awarded, Third Place of Radiation Science Festival, Title: *The rate of induced microdeletion in AZFc region of Y chromosome by gamma radiation in lymphocytes of fertile and infertile men.*
- *Grant for Young Assistant professor who has article with **IF HIGHER THAN 2 (1393)***
- *Grant for Young Assistant professor who has article with **IF HIGHER THAN 3 (1394)***

❖ **Courses Taught**

- Basic genetic
- Molecular genetic
- Cytogenetic
- Human genetic
- Molecular oncology
- Molecular basis of human diseases
- Medical genetic

❖ **Highlights of professional experience**

- Head of student research committee, Qazvin university of medical science, 2012 to present
- Advisor of medicine students, 2013 to present
- Head of student journal of EDRAK, 2013 to present

❖ **Highlights of professional laboratory experience**

- Different cell lines and whole blood Culture
- Preparation of metaphase slide
- Doing FISH (fluorescence in situ hybridization) on the lymphocytes, sperm, and embryo
- Micronuclei test
- Hyper ovulation of Hamster and in vitro fertilization of hamster oocytes with human sperms and cytogenetic study of embryos
- DNA and RNA extraction from blood, tissue, and cell lines
- Doing different types of PCR: RFLP-PCR, ARMS, Real time PCR (copy number variation, expression analysis), and Ms PCR.
- Sequencing and analysis of results
- Primer & probe design with: Beacon designer, Oligo and gene runner software's

❖ Publication in peer reviewed Journals

- **Sahar Moghbelinejad**, Marjan Nassiri-Asl, Taghi Naserpour Farivar, Esmail Abbasi, Mehdi Sheikhi. Rutin activates the MAPK pathway and BDNF gene expression on beta-amyloid induced neurotoxicity in rats. *Toxicology Letters. Toxicol Lett.* **2014** Jan 3; 224(1):108-13.
- Marjan Nassiri-Asl, **Sahar Moghbelinejad**, Esmail Abbasi, Fatemeh Yonesi, Mohammad-Reza Haghighi, Mina Lotfizadeh, Parisa Bazahang. Effects of quercetin on oxidative stress and memory retrieval in kindled rats. *Epilepsy and Behavior.* **2013**; 28; 151-155.
- **Sahar Moghbelinejad**, Hossein Mozdarani, Zahra Rezaeian. The frequency of fertilization rate and premature chromosome condensation (PCC) after injection of irradiated sperm of infertile and fertile men in to golden hamster oocytes. *J of Reproductive and Medicine.* **2013** May; 11(5): 391-398.
- **Moghbeli-Nejad S**, Mozdarani H, Aleyasin A. Increased frequency of micronuclei in lymphocytes of infertile males after exposure to gamma irradiation: a possible sign of genomic instability. *J Assist Reprod Genet.* 2012 Jan; 29(1):89-94. Epub **2011** Mar 2.
- **Moghbeli-Nejad S**, Mozdarani H, Behmanesh M, Rezaiean Z, Fallahi P. Genome instability in AZFc region on Y chromosome in leukocytes of fertile and infertile individuals following exposure to gamma radiation. *J Assist Reprod Genet.* **2012** Jan; 29(1): 53-61.
- **Moghbeli-Nejad S**, Mozdarani H, Shokrgozar MA, Chromosomal Variation in Three Human-Mouse Hybridoma Cell Lines after Various Passaging Intervals as Assessed with Two Different Staining Methods. *Iranian Journal of Basic Medical Sciences* Vol. 11, No. 3, Autumn **2008**, 183-18.
- **S. Moghbelinejad**, Samimi Hashjin, Najafipour R. Evaluation of the correlation between Protamine-1 to protamine-2 mRNA ratio and mRNA contents of two regulatory factors of these genes in testis tissue of azoospermic men. *Cell J.* 2015 Spring;17(1):121-8
- Samimi Hashjin, **S. Moghbelinejad** *, Najafipour R Rajaei F , Rashvand Z. Protamine-1 to protamine-2 mRNA ratio and Contrin mRNA content (as a regulatory factor of these genes) in testicular spermatids discriminate between fertile and azoospermia men. *International Journal of Fertility and Sterility* Vol 9, No 3, Oct-Dec 2015, Pages: 338-345
- Najafipour Reza, Rashvand Zahra, Alizadeh Safar ali, Aleyasin Ashraf¹, **Moghbelinejad Sahar***. Association of (rs222859) polymorphism in exon 1 of YBX2 gene with azoospermia, among the Iranian infertile male.(Impress, Journal of Andrologia).

- Najafipour R, Ansari J, Jalilvand M, **Moghbelinejad S***, Cytogenetic evaluation of the couples with spontaneous abortion, stillbirth and recurrent miscarriage in Iran: report and review. (, Biotechnology and health science journal, 3(2): e35388).
- Mohseni F, **Moghbelinejad S**, Rashvand Z, Najafipour R, Hadizadeh Sh. Association of metabolic parameters and nutritional intakes with different genotypes of $-238 G>A$ of TNF- α gene polymorphisms in patients with NAFLD. (Biochem and genetic journal, 2016 Oct;54(5):685-95.).
- **Sahar Moghbelinejad**, Zahra Rashvand, Ghazaleh Mohammadi, Fatemeh Khodabandehloo, Arman Rahimi-Mohseni, Taghi Nasserpour, Reza Najafipour, Marjan Nassiri-Asl*. The modulatory effects of quercetin on gene expression of GluR1 subunit of AMPA receptor, NR2A and NR2B subunits of NMDA receptors and heat shock protein 70 in kainic acid-induced seizure in mice (Med J. 2017 ; 19(5):e42415. -6.).
- Mohammad Deihimi, Marjan Nassiri-Asl, Reza Najafipour, **Sahar Moghbelinejad**, Kazem Parivar. The Effects of Rutin on the Gene Expression of Dazl, Bcl2, and Caspase3 in Idarubicin-induced Testicular Damages in Mice (Iran Red Crescent Med J. 2017 April; 19(4):e44765).
- **Moghbelinejad S**, Rashvand Z, Khodabandehloo F, Mohammadi G, Nassiri-Asl M. Modulation of the Expression of the GABAA Receptor $\beta 1$ and $\beta 3$ Subunits by Pretreatment with Quercetin in the KA Model of Epilepsy in Mice: -The Effect of Quercetin on GABAA Receptor Beta Subunits. J Pharmacopuncture. 2016 Jun;19(2):163-6
- **Moghbelinejad S**, Najafipour R, Momeni A. Association of rs1057035 polymorphism in microRNA biogenesis pathway gene (DICER1) with azoospermia among Iranian population. Genes Genomics. 2018 Jan;40(1):17-24. doi: 10.1007/s13258-017-0605-9.
- **Moghbelinejad S**, Mozdaranian H, Ghoraeian P, Asadi R. Basic and clinical genetic studies on male infertility in Iran during 2000-2016: A review. Int J Reprod Biomed (Yazd). 2018 Mar;16(3):131-148.
- Norouzi-Barough L, Sarookhani M, Salehi R, Sharifi M, **Moghbelinejad S**. CRISPR/Cas9, a new approach to successful knockdown of ABCB1/P-glycoprotein and reversal of chemosensitivity in human epithelial ovarian cancer cell line. Iran J Basic Med Sci. 2018 Feb;21(2):181-187.
- Norouzi-Barough L, Sarookhani MR, Sharifi M, **Moghbelinejad S**, Jangjoo S, Salehi R. Molecular mechanisms of drug resistance in ovarian cancer. J Cell Physiol. 2018 Jun;233(6):4546-4562.

▪ Ghafelehbash H, Pahlevan Kakhki M, Kular L, **Moghbelinejad S**, Ghafelehbash SH. Decreased Expression of IFNG-AS1, IFNG and IL-1B Inflammatory Genes in Medicated Schizophrenia and Bipolar Patients. *Scand J Immunol.* 2017 Dec;86(6):479-485.

❖ **Presentation in congresses and seminars (Presenter or co-author)**

- **Moghbeli Nejad, S.** Somatic AZFc copy number variation after exposure to different doses of Gamma radiation in peripheral lymphocyte of infertile & normal men, *Eshreh congress*, Sweden, 2011(*Poster*).
- Hossein Mozdarani, **Sahar Moghbeli-Nejad**, Pegah Ghoraeian. Combind FISH and PRINS technique for the detection of radiation induced DAZ microdeletion on Y chromosomes in human leukocyte and serms: possible implication for biological dosimetry. *The 10th international symposium of chromosomal aberration.* Italy. October 2012(*Oral*).
- Samimi A, **Moghbelinejad S**, Najafipour R, Mozdarani H, Nassiri-Asl M. Quantifying the expression level of MSY2 gene in testicular tissues of men with non-obstructive azoospermia. *Medical genetic congress, 2013*, Tehran, Iran (*Oral*).
- **Moghbelinejad S**, Nassiri-Asl M, Abbasi E, Mozdarani H. The effects of rutin on MAP kinase gene expression pathway on beta-amyloides induced Alzheimer in rats. *Medical genetic congress, 2013*, Tehran, Iran (*Poster*).
- **Moghbelinejad S**, Mozdarani H. Decreasing the rate of embryo development after injection of irradiated sperms of fertile and sub fertile men into golden hamster oocytes. *Medical genetic congress, 2013*, Tehran, Iran(*Poster*).
- **Moghbelinejad S**, Fallahi P, Rezaeian Z. Study of relationship between chromosomal abnormality of lymphocyte cell in infertile men with intra cytoplasm sperm injection outcome, *The international and national congress on improvement in clinical laboratory, 2012*, Tehran, Iran (*Oral*).
- **Moghbelinejad, S.** The frequency of micronuclei in lymphocytes of infertile males after exposure to gamma irradiation: *Fertility and infertility congress*, Shiraz, Iran(*Poster*).
- Amidi F, Rezaeian Z, **Moghbelinejad S**. The role of selenium in optimizing different parameters of human sperm after cryopreservation process. *Fertility and infertility congress, 2014*, Isphahan, Iran(*Poster*).

- **Moghbelinejad S**, Najafipour R, Aleyasin A, Rezaeian Z, Fallahi P. YBX2 involved in down regulation of protamin 2 experssion in testicular spermatids of azoospermic men. . *Fertility and infertility congress,2014, Isphahan, Iran(Oral)*.

❖ **Supervisor of (MSc) thesis**

- Study of relationship between the rate of protamin expression and expression of regulatory genes (YBX2 and Jhdm2a) in testis tissue of azoospermic men (Amir Samimi, MSc candidate of medical biotechnology).
- Study of effect of Quersetin on the expression ratio of MAPK signaling pathway genes in kindle rats with tetra pantasol (Tara Mohebi, MSc candidate of medical biotechnology).
- Study of effect of Quersetin on the expression ratio of NRA2 and NRB2 genes in kainic acid-induced seizure in mice (Arman Rahimi, Medicin student).

❖ **Advisor of (MSc) thesis**

- Study of effect of Quersetin on the expression ratio of GABA genes in kindle rats with tatra pantasol (Marjan Bodaghi, MSc candidate of medical biotechnology).

❖ **Advisor of (PhD) thesis**

- Study of antioxidant effect of rutin on the spermatogenesis process which is caused by idarubicin (Mohamad Deihimi, PhD candidate of embryology).

❖ **Supervisor and co-worker of research proposals**

- Study of relationship between the rate of protamin expression and expression of regulatory genes (YBX2 and Jhdm2a) in testis tissue of azoospermic men in RNA and protein level (**Supervisor**).
- Study of effect of quercetin on the expersion of MAPK genes signaling pathway (**Co-worker**).
- Sequencing of exon 1 of YBX2 gene in men with primary infertility (**Supervisor**).
- Study of relationship between Adiponectin and TNF α polymorphisms with insulin resistance and oxidative stress parameters in non-alcoholic fatty liver patients (**Supervisor**).

