

In the name of God

**Curriculum Vitae** 

#### **Personal Information**

First name: Samira

Last name: Mohammadi-Yeganeh

Gender: Female

Marital status: Married (No children)

Date of birth: 28 August 1982

Place of birth: Iran-Tehran

Nationality: Iranian

Languages: Persian (native), English, French

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#### Education

□ Received BSc. Degree in Cellular and Molecular Biology, Microbiology, from Alzahra University in 2005. GPA: 18.35 out of 20

□ Received MSc. Degree in Medical Microbiology from Tehran University of Medical Sciences in 2008. GPA: 18.92 out of 20

□ Received PhD. Degree in Medical Biotechnology from Pasteur Institute of Iran, Tehran, Iran, in 2013. GPA: 19.04 out of 20

#### Honors, Prizes and Awards

□ The Top Student with 1st rank in Bachelor Degree, 2005

□ Member of Gifted & Exceptional Talented Center of Alzahra University

□ 3rd rank (Bronze Medal Winner) in the 10th state student's Olympia for Biology, Iran, 2005

□ 3rd rank in Microbiology master entrance exam of ministry of science, research, and technology, Tarbiat Modares University

 $\Box$  3rd rank in Microbiology master entrance exam of ministry of science, research, and technology, Tehran University

 $\Box$  The Top Student with 1st rank in Medical Microbiology in master entrance exam of ministry of health and medical education

□ The Top Student with 1st rank in Master Degree, 2008

□ Member of Gifted & Exceptional Talented center of Tehran University of Medical Sciences

 $\hfill\square$  3rd rank in Medical Biotechnology in PhD. entrance exam of ministry of health and medical education

□ The Top Student with 1st rank in PhD. Degree, 2013

 $\Box$  Member Of "**Iran's National Elites Foundation** (That consists of the most intelligent and talented students at universities of Iran)

#### **Research Experience**

#### MSc.

# The subject of my M.Sc. thesis was "Genotyping and drug resistance analysis of Klebsiella pneumoniae strains isolated from patients of Tehran University of Medical Sciences hospitals by PFGE"

In order to determine the susceptibility of *Klebsiella pneumoniae* isolates to different antimicrobial agents, to evaluate the effectiveness of tigecycline against ESBL-producing isolates and to genetically characterize the ESBL isolates by pulsed-field gel electrophoresis (PFGE). 104 isolates of *Klebsiella pneumoniae* were collected from 4 hospitals in Tehran during September 2006-June 2007. Disk diffusion method was used to determine the susceptibility of these isolates to 24 different antimicrobial agents. The MICs of imipenem and meropenem were determined for isolates showing low susceptibility to carbapenems using micro-broth dilution assay. The phenotypic confirmatory test (PCT) and double disk synergy test (DDST) were used to screen the isolates for production of ESBLs.

Supervisor of my MSc. thesis: Dr. Mohammad Mehdi Feizabadi

#### PhD.

# The subject of my PhD. thesis was 'Evaluation of miRNA expression on genes-mediated inhibition of metastatic breast cancer'

In this study expression analysis of CTNNB1 ( $\beta$ -catenin), RhoA and ROCK1 of Wnt pathway genes in metastatic breast cancer cells, MDA-MB-231, were performed with quantitative Real-Time PCR. The online software were used to query the miRNAs that directly target 3'UTR of mRNAs.miR-381 and mir-340 were selected as the highest scored miRNA targeting almost all 3'UTRs .Ectopic over expression of miRNAs in MDA-MB-231was performed. Quantitative Real-Time PCR and luciferase assay results showed decline in expression of above mentioned genes. Migration and invasion showed miR-381 cause more reduction in cell viability, proliferation, migration and invasion in vitro. In vivo experiences showed the benefits of miR-381 in inhibition of metastasis to lung and liver. In this study, we suggested miR-381 as an inhibitor of Wnt signaling pathway as well as breast cancer migration and invasion.

Supervisor of my PhD thesis: Dr. Morteza Karimipoor, Dr. Reza Mahdian

## **Practical Skills**

#### 1. Laboratory skills

- Primary and lined cell culture
- > Isolation, cultivation and differentiation of Primary stem cells
- Molecular methods of RT-PCR ,Real-time PCR, RFLP, PFGE, Cloning
- ➢ Western blot
- > PCR and Real-time PCR set up and interpretation of results
- > Troubleshooting of PCR and Real-time PCR techniques in the laboratory
- > Design and utilizing primers and probes for real-time PCR (PCR
- ➢ miRNA primer design and detection
- > Animal experimentation with mouse, rat, as well as Nude mice
- Lentiviral vector production, purification, titration, and transduction of primary cells and cell lines
- Adeno-associated virus (AAV) vector production, purification, titration, and transduction of primary cells and cell lines

### 2. Computer Skills

- Received ICDL certification from Tehran university academic center for education and research
- > Received Scientific Writing certification from Tehran University of Medical Sciences
- Expert in Systemic Searching
- Expert in the following software programs and application : The mapping viewer program such as: CLC and Map Viewer
  Primer designing and analyzing tolls and programs such as: Primer Premier, Allele ID7, Oligo7, Gene Runner
  Phylogenetic software such as: MEGA6.0
  Gene expression software such as: REST
  Reference manager software programs such as: Endnote, Mendeley
  Statistical software such as: SPSS, MATLAB

### Workshop Instructor

- > Practical workshop of **PFGE** for bacteria held by Tehran University of Medical Sciences
- **Real-time PCR** workshop held by Cell Tissue Biology Company, Tehran, Iran.
- **Real-time PCR** workshop held by Stem Cell Technology Research Center, Tehran, Iran.

- Bioinformatics and Primer Design Workshop held by Pasteur Institute of Iran, Tehran, Iran.
- Bioinformatics and Primer Design Workshop held by Cellular and Molecular Biology Research Center and Biotechnology Department, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
- SPSS software Workshop (Primary and professional levels) held by School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
- Reference manager, EndNote Workshop held by School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

#### **Scientific Interests**

- Cancer diagnosis and treatment using oligonucleotides
- Research about tumor marker for breast cancer diagnosis
- miRNAs and their Potential Therapeutic Applications
- Sensitive and Specific Detection of MicroRNAs
- Cell signaling and Cancer signaling pathways
- New diagnostic techniques for breast cancer detection
- Design of miRNAs detection kit
- > Cancer Diagnostics kit design by the evaluation of tumor markers
- Setting up New viral gene and miRNA transfer systems
- Design new gene transfer vectors for gene therapy
- Genetics and genetic engineering
- Application of biotechnology to detect microbes
- > New molecular methods and probes to detect HIV

### Publications

- 1. Karimkhanloo H, Mohammadi-Yeganeh S\*, Ahsani Z, Paryan M. Bioinformatics prediction and experimental validation of microRNA-20a targeting Cyclin D1 in hepatocellular carcinoma. Tumour Biol. 2017 Apr;39(4):1010428317698361.IF:2.99
- 2. Ahsani Z, **Mohammadi-Yeganeh S**, Kia V, Karimkhanloo H, Zarghami N, Paryan M. WNT1 Gene from WNT Signaling Pathway Is a Direct Target of miR-122 in Hepatocellular Carcinoma. Appl Biochem Biotechnol. 2017 Mar;181(3):884-897. IF:1.9
- Khosrowpour Z, Hashemi SM, Mohammadi-Yeganeh S, Soudi S. Pretreatment of Mesenchymal Stem Cells with Leishmania major Soluble Antigens Induce Anti-Inflammatory Properties in Mouse Peritoneal Macrophages. J Cell Biochem. 2017 Feb 8. doi: 10.1002. IF:3.49

- 4. Paryan M, Mohammadi-Yeganeh S, Rezvan H, Kia V, Mansouri A, Mirab Samiee S. Simultaneous Detection and Genotype Determination of HSV 1 and 2 by Real-time PCR Using Melting Curve Analysis and a Unique Pair of Primers. Appl Immunohistochem Mol Morphol. 2017 Feb;25(2):139-143.IF:2.012
- **5.** Abasi M, Bazi Z, **Mohammadi-Yeganeh S**, Soleimani M, Haghpanah V, Zargami N, Ghanbarian H. 7SK small nuclear RNA transcription level down-regulates in human tumors and stem cells.Med Oncol. 2016 Nov; 33(11):128. **IF:2.486**
- Pourteimoor V, Mohammadi-Yeganeh S\*, Paryan M. Breast cancer classification and prognostication through diverse systems along with recent emerging findings in this respect; the dawn of new perspectives in the clinical applications. Tumour Biol. 2016 Sep 20. [Epub ahead of print] Review. IF:3.611
- Mohammadi Yeganeh S., Vasei M., Tavakoli R., Kia V., Paryan M. The effect of miR-340 over-expression on cell-cycle related genes in triple negative breast cancer cells. Eur J Cancer Care - 2016 May 27. doi: 10.1111. IF:1.754
- Paryan M., Tavakoli R., Hosseini Rad SMA., Feizi N., Kamani F., Mostafavi E., Mohammadi-Yeganeh S.\*. Over-expression of NOTCH1 as a Biomarker for Invasive Breast Ductal Carcinoma.3 Biotech (2016) 6:58 -IF: 0.992
- **9.** Paryan M, Khodayar M, Kia V, **Mohammadi-Yeganeh S**, Kaghazian H. Development of an in-House TaqMan Real-Time PCR-Based Method to Detect Residual Host Cell DNA in HBV Vaccine. Appl Biochem Biotechnol. 2016 Feb 9. [Epub ahead of print] PMID: 26861732-IF:1.9
- 10. Mohammadi-Yeganeh S, Paryan M, Arefian E, Vasei M, Ghanbarian H, Mahdian R, Karimipoor M, Soleimani M. MicroRNA-340 inhibits the migration, invasion, and metastasis of breast cancer cells by targeting Wnt pathway. Tumour Biol. 2016 Jan 12. [Epub ahead of print]-IF:3.611
- Abedi N., Mohammadi-Yeganeh S.\*, Koochaki A., Karami F., Paryan M.miR-141 as potential suppressor of β-Catenin in breast cancer. Tumour Biol. 2015.Dec;36(12):9895-901-IF:3.611
- Karami F, Mohammadi-Yeganeh S\*, Abedi N, Koochaki A, Kia V, Paryan M. Bioinformatics prediction and in vitro analysis revealed that miR-17 targets Cyclin D1 mRNA in Triple Negative Breast Cancer cells. Chem Biol Drug Des. 2016 Mar;87(3):317-20 -IF:2.485
- Mohammadi-Yeganeh S., Mansouri A, Paryan M. Targeting Of miR9/NOTCH1 Interaction Reduces Metastatic Behavior in Triple-negative Breast Cancer. Chem Biol Drug Des. 2015 Nov;86(5):1185-91.-IF:2.485
- 14. Siamak Mirab Samiee, Samira Mohammadi-Yeganeh, Houri Rezvan, Ehsan Mostafavi, Parvin Pasalar. Polymorphism detection of VKORC1 and CYP2C9 genes for the Warfarin dose adjustment by real-time PCR. Thrita. 2014.3(1): E14033, DOI: 10.5812/thrita.14033-IF:0.09

- 15. Paryan M, Forouzandeh MM, Kia V, **Mohammadi-Yeganeh S**, Abbasali RA, Mirab SS. Design and development of an in-house multiplex RT-PCR assay for simultaneous detection of HIV-1 and HCV in plasma samples. Iran J Microbiol. 2012 Mar;4(1):8-14.
- 16. Paryan M, Mohammadi-Yeganeh S, Samiee SM, Soleimani M, Arefian E, Azadmanesh K, Poopak B, Mostafavi E, Karimipoor M, Mahdian R.Investigation of deregulated genes of Notch signaling pathway in human T cell acute lymphoblastic leukemia cell lines and clinical samples. Mol Biol Rep. 2013 Oct;40(10):5531-40-IF:2.024
- 17. Mahdi Paryan, Mahdi Forozandeh Moghadam, Vahid kia, **Samira Mohammadi Yeganeh**, Abbasali Raz, Siamak Mirab Samiee. Design and development of an In-House multiplex RT-PCR assay for simultaneous detection of HIV-1 and HCV in plasma Samples. Iranian Journal of Microbiol .2012 Mar; 4(1):8-14.
- 18. Mohammadi- Yeganeh S., Paryan M, Mirab Samiee S, Soleimani M, Arefian E, Azadmanesh K, Mostafavi E, Mahdian R, Karimipoor M.. Development of a robust, low cost stem-loop real-time PCR assay for quantification of miRNA expression. Mol Biol Rep. 2013 ;(40)5:3665-74- IF:2.024
- 19. Mahdi Paryan, Samira Mohammadi-Yeganeh, Siamak Mirab Samiee, Houri Rezvan. Design and Development of a Multiplex Real-Time PCR Assay for Detection of HIV-1 and HCV Using Molecular Beacons. Indian J Microbiol. 2012, DOI: 10.1007/s12088-012-0271-1-IF:0.899
- Mohammadi-Yeganeh S, Mirab Samiee S, Kia V, Rezvan H. Molecular beacon probesbase multiplex NASBA Real-time for detection of HIV-1 and HCV. Iran J Microbiol. 2012 Jun; 4(2):47-54.
- Paryan M., Fourozandeh moghadam M., Mohammadi-Yeganeh S. Application of a NASBA Real-time assay using molecular beacon for detection of HCV virus. Sci J Iran Blood Transfus Org .2012; 9(1):19-26
- 22. Mahdi Paryan, Mahdieh Mondanizadeh, **Samira Mohammadi-Yeganeh**, Behzad Khansarinejad. Development and application of a sensitive multiplex real-time RT-PCR for simultaneously detection of HIV-1 and HCV in plasma samples. J Arak Uni Med Sciences. Volume 14, Number 5 (11-2011)
- Paryan M, Mohammadi-Yeganeh S, Mondanizadeh M, Khansarinejad B. Multiplex RT-PCR assay for detection of Co-infection HIV-1 and HCV viruses in plasma samples. J Gorgan Uni Med Sci.2012; 14(1): 52-60.
- 24. Paryan M, Mohammadi-Yeganeh S, Khansarinejad B, Mondanizadeh M. Rapid detection of HIV-1 viral RNA by Real-time Transcription mediated amplification assay. J Arak Uni Med Sciences. 2012, 15(4): 18-25
- 25. **Mohammadi-Yeganeh S**, Paryan M , Azadmanesh K, Arefian E, Batool Rahimi F, Karimipour M, Mahdian R , Mirab Samiee S and Soleimani M. Modeling of metastatic breast cancer in BALB/c mouse with mouse derived cell line and stably transduction of this cell line with lentiviral vector . Breast Disease Journal. 2011. 4(1): 7-12.

- 26. Mahdi Paryan, Samira Mohammadi-Yeganeh, Behzad Khansarinejad, Mahdieh Mondanizadeh. Simultaneous Diagnosis of HIV-1 and HCV Infections by Nucleic Acid Sequence-Based Amplification. Journal of Isfahan Medical School. Vol 29, No 173: 4th week March 2012
- 27. Feizabadi MM, Mohammadi-Yeganeh S, Mirsalehian A, Mirafshar SM, Mahboobi M, Nili F, Yadegarinia D. Genetic characterization of ESBL producing strains of Klebsiella pneumoniae from Tehran hospitals. J Infect Dev Ctries. 2010 Oct 28; 4(10):609-15-IF:1.138
- Hekmatdoost A, Feizabadi MM, Djazayery A, Mirshafiey A, Eshraghian MR, Yeganeh SM, Sedaghat R, Jacobson K. The effect of dietary oils on cecal microflora in experimental colitis in mice. Indian J Gastroenterol. 2008 Sep-Oct; 27(5):186-9.
- 29. Feizabadi MM, Fathollahzadeh B, Taherikalani M, Rasoolinejad M, Sadeghifard N, Aligholi M, Soroush S, Mohammadi-Yeganeh S. Antimicrobial susceptibility patterns and distribution of blaOXA genes among Acinetobacter spp. Isolated from patients at Tehran hospitals. Japanese Journal of Infectious Disease. 2008 Jul; 61(4):274-8-IF:1.161
- 30. Mahboudi M, **Mohammadi-Yeganeh S**, Bokaee S, Dehdashti H, Feizabadi MM. Antimicrobial activity of essential oil from Oliveria decumbens and its synergy with vancomycin against Staphylococcus aureus. Herba Polonica.2007.vol.53, issue 4.
- 31. Haghiashteiani MT., Mohammadi-Yeganeh S., Sadeghifard N., and etal. Frequency and Antimicrobial Susceptibility of Haemophilus influenzae Type b Isolated from Children Suspected to Meningitis. Iranian J Publ Health, Vol. 37, No.4, 2008, pp.52-58IF:0.555-
- 32. Feizabadi MM., Etemadi G., Rahmati M., **Mohammadi-Yeganeh S.**, Shabanpour S., Antibiotic Resistance patterns and Genetic analysis of Klebsiella pneumoniae isolated from the respiratory tracts. Tanaffos Journal. (2007) 6(3), 20-25

#### **Articles in Congresses**

- 1. M. Feizabadi, S. Mohammadi-Yeganeh, F.Nili. A. Mirsalehian, S. M. Mirafshar. PFGE analysis of MDR isolates of Klebsiella pneumoniae cultured from patients at Tehran Hospitals. 18th European Congress of Clinical Microbiology and Infectious Diseases (Indexed in science direct)
- 2. Mana Khodayar, **Samira Mohammadi Yeganeh**, Mahdi Paryan.Roles of microRNAs in the Hepatitis B Virus Infection. 15 international Microbiology Congress, Tehran, Iran
- 3. Mohammadi Yeganeh S, Paryan M, Ranjbar A, Mirab Samiee S.Investigation the effect of miRNA expression on inhibition of b-catenin and breast cancer metastasis. 7<sup>th</sup> Breast Cancer Conress, Tehran, Iran
- 4. Pourteimoor V, **Mohammadi-Yeganeh S**, Yazdani M.Bioinformatic perusing the c\_MYC and diverse array of miRNAs conspiracy to the dysfunction of cell receptors in the invasive types of breast cancer. 7<sup>th</sup> Breast Cancer Conress, Tehran, Iran

- 5. Malekian M, **Mohammadi-Yeganeh S**, Koochaki A,Keykhosravi N.Investigation the expression of miR-31 and its correlation with RhoA expression in breast. 7<sup>th</sup> Breast Cancer Conress, Tehran, Iran
- Fazli M, Mohammadi-Yeganeh S, Sharif Beygli M, Koochaki A. miRNAs targeting mTOR signaling pathway in drug discovery for Breast cancer. 7<sup>th</sup> Breast Cancer Conress, Tehran, Iran
- 7. Abedi N, Paryan M, **Mohammadi-Yeganeh S**.Bioinformatical prediction of miRNAs targeting β-catenin in breast cancer. 7<sup>th</sup> Breast Cancer Conress, Tehran, Iran
- 8. Sharif Bigli M,Mohammadi-Yeganeh S, Fazli M, Koochak A.miRNAs targeting PTEN signaling pathway in drug discovery for Breast cancer. 7<sup>th</sup> Breast Cancer Conress, Tehran, Iran
- 9. Fazli M, **Mohammadi-Yeganeh S**, Sharif Beygli M, Tavakoli R.Bioinformatics investigation of microRNAs targeting mTOR and PIK3CA genes in breast cancer. 7<sup>th</sup> Breast Cancer Conress, Tehran, Iran
- 10. Mahdi Paryan, **Samira Mohammadi-Yeganeh**, Investigation the role of microRNAs in spermatogenesis and male infertility. 10<sup>th</sup> international congress of fertility, Tehran, Iran
- 11. Samira Mohammadi-Yeganeh, Mahdi Paryan. MicroRNAs in breast cancer stem cells and their potential for breast cancer therapy. 15<sup>th</sup> international Royan congress, Tehran, Iran

### **Teaching Experiences**

#### 1- PhD students at Shahid Beheshti Medical University, Tehran, Iran since 2013 till now:

- Cell Culture
- > Application of Stem Cell in Tissue Engineering
- Genetic Engineering
- Computational and system biology
- Bioethics
- New Methods of Diagnosis and Treatment of Diseases
- Cell signaling

# 2-Medical Students at Shahid Beheshti Medical University, Tehran, Iran since 2013 till now:

- Application of biotechnology in cancer
- Bioinformatics in Medicine

### Supervisor or co-supervisor of Ongoing Theses

 Zahra Bazi, PhD. Student of Medical Biotechnology; Investigation of regulatory role of 7SK non coding RNA on neural differentiation

- 2- Vhedeh Hosseini, PhD. Student of Medical Biotechnology; Application of miRNA targeting Wnt signaling for osteogenic differentiation of mesenchymal stem cells.
- 3- Zohreh Karimi, PhD. Student of Medical Biotechnology; Investigating the effect of miR-218 over expression on efficiency of osteoblast differentiation of Mesenchymal Stem Cells in bone defects healing in a mouse model
- 4- Hasan Nourbazargan, PhD. Student of Medical Biotechnology; Design and development of HIV detection kit based on proviral qualification and viral quantitation Real-time PCR analysis.
- 5- Fezeh Heidari, PhD. Student of Molecular Medicine; Evaluation of let-7a and miR-15a/16-1 expression in Embryos culture media of IVF, ICSI cycle and frozen embryo and their association with development and embryo implantation
- 6- Younes Moradi, PhD. Student of Molecular Medicine; The effect of ovarian Hyperstimulation syndrome on epigenetic changes in mouse oocytes and embryos
- 7- Noushin Shabani, PhD. Student of Molecular Medicine; Assessment of AXL signaling pathway and its controlling miRNAs in blood and tissue samples of medullary thyroid carcinoma patients
- 8- Zahra Nozhat, PhD. Student of Molecular Medicine; Assessment of metformin effects on genes and proteins expression involved in PI3KlAkt/ FoxO1 pathway, an MAPKindependent pathway, in anaplastic and medullary thyroid carcinoma cell lines
- 9- Vahid Kia, PhD. Student of Medical Biotechnology; Evaluation of miRNAs derived from microvesicles of metastatic breast cancer cells (MDA-MB-231) on non-metastatic breast cancer cell invasion (MCF-7)
- 10-Samaneh Shojaee, PhD. Student of Molecular Medicine; Investigating the effect of over expression of Mesenchymal stem cell-derived exosomal miRNAs involved in angiogenesis and metastasis of cancer
- 11- Zeinab Dehghan, PhD. Student of Molecular Medicine; Investigating the effect of changes in miR-21 and miR-155 expression in polycystic ovarian syndrome on oocyte and embryo development in mice models.
- 12- Shaghayegh Pishkari, MSc. student of Genetics; Investigation the effect of miR-144 and miR-34a on the expression of AXL and mTOR genes in Medullary Thyroid Carcinoma Cell line

- 13- Javad Razavian, MSc. student of Biochemistry; Investigating the expression of mTOR and S6K1 genes and bioinformatically predicted miRNAs including miR-96 (miR-557, and miR-3182 in breast cancer cell lines and clinical samples.
- 14- **Razieh Hadavi**, MSc. student of Biochemistry; Identification of miRNAs targeting PI3K and Akt genes by bioinformatics methods and validation of expression in breast cancer specimens

#### Adviser of theses

- 1- Maryam Moradi, PhD. Student of Molecular Medicine; Evaluating the effect of cancerderived exosomes containing modified miRNAs expression pattern on macrophage polarization
- 2- Hamidreza Houri, PhD. Student of Bacteriology; Investigating the effect of heterologous expression of Streptococcus pneumoniae *yefm-yoeb* Toxin-Antitoxin System in Apoptosis Induction and Selective Killing of Breast Cancer Cell Line, MCF-7
- 3- Samaneh Babazadeh, PhD. Student of Physics; A microdosimetric study of BNCT neutron field.
- 4- Mohammad Eftekhari, PhD. Student of Medical Biotechnology; Short non coding RNA mediated SOX9 induction for differentiation of MESENCHYMAL STEM CELLS to chondrocyte
- 5- Sara Hosseini, PhD. Student of Reproduction Biology; The effect of let-7a on regulation of TLR4 in fertilization success of Blastocyst Embryos of mice
- 6- Seyed Maryan Seyed Musavi, PhD. Student of Medical Biotechnology; Investigation of 7SK non-coding RNA regulatory roles in induction of pluripotent stem cells from human fibroblast.
- 7- Romina Dasmalchi, PhD. Student of Medical Genetics; Expression analysis of Bcl2, caspase 2 and caspase 8 from apoptosis pathway and the related miRNAs ( hsa-miR-17-5p, hsa-miR-20a-5p hsa-miR-29a-3p, hsa-29c-3p ) between responder-RRMS and non-responder-RRMS patients to interferon beta and healthy controls
- 8- Zohreh Lasjerdi, PhD. Student of Medical Parasitology; Effects of microRNA in apoptosis of macrophages infected with Leishmania major

- 9- Shahin Paktinat, PhD. Student of Anatomy. A study on the effect of extracellular vesicles on inflammation and implantation-related responses of cultured human endometrial epithelial and stromal cells
- 10-Zeinab Ahsani, MSc. student of Biotechnology; WNT1gene from WNT signaling pathway is a direct target of miR-122 in hepatocellular carcinoma
- 11- Hamzeh Karimkhanlou, MSc. student of Biotechnology; Predicting miRNAs and evaluating their roles on Cyclin D1 and beta-catenin gene expression in HepG2 hepathocellular carcinoma cell line

#### **Finished theses**

- 1. **Mohammadreza Malekian,** MSc. of Cellular and Molecular Biology; Investigating the correlation between miR-31 and RhoA gene in breast cancer cell lines and clinical samples
- 2. Vida pourteimoor, MSc. of Biochemistry; Assessment the expression and the relative role of c-MYC oncogene and its inhibitory microRNA in breast cancer cell lines and also in some clinical samples
- 3. **Mahsa Fazli**, MSc. of Cellular and Molecular Biology; Investigating the expression of mTOR and its targeting miRNA in breast cancer clinical samples
- 4. **Maryam Sharifbeigli,** MSc. of Cellular and Molecular Biology; Assessment the expression of miR-144 and PTEN gene, as its target, in human and mouse breast cancer cell line
- 5. Shadan Yazdi, MSc. student of Cellular and Molecular Biology; Bioinformatics prediction of miRNAs targeting AXL and C-MET genes and investigating its overexpression in Breast cancer cell lines

#### Principal Investigator on co-investigator of ongoing projects

 The effect of Sambucus Ebulus and Urtica dioica extracts on breast cell lines (School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran)

- 2- Application of miR-218 for osteogenic differentiation of mesenchymal stem cells for enhanced reconstruction of mouse calvarial defects (School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences)
- 3- A survey of correlation between RhoA and miR-31 in breast cancer patients, a pilot study (School of Medicine, Shahid Beheshti University of Medical Sciences)
- 4- Evaluation of the existence of the miRNAs (miR-9,21,125b, and 155) derived from microvesicles of metastatic breast cancer cells (MDA-MB-231) and their effects on nonmetastatic breast cancer cell invasion (MCF-7)( Shahid Beheshti University of Medical Sciences)
- 5- Investigation of Osteoblast Differentiation of human Mesenchymal Stem Cells by Overexpression of miR-4699( Regenerative medicine network, Shahid Beheshti University of Medical Sciences)
- 6- Assessment of AXL signaling pathway and its controlling miRNAs in blood and tissue samples of medullary thyroid carcinoma patients(Shahid Beheshti University of Medical Sciences)
- 7- Investigation of the effect of microRNA overexpression or downregulation on apoptosis induction in Iranian strain Leishmania major(MRHO/IR/75/ER )-infected macrophages(School of Medicine, Shahid Beheshti University of Medical Sciences)
- 8- Assessment of metformin effects on genes and proteins expression involved in PI3K/Akt/FoxO1 pathway, an AMPK-independent pathway, in anaplastic and medullary thyroid carcinoma cell lines(Shahid Beheshti University of Medical Sciences)
- 9- miRNA expression effect on ZNF703 oncogene in breast cancer (Stem Cell Technology research center, Tehran, Iran)
- 10-Feasibility study and development of adeno-associated virus (AAV) vector system for miRNA transfection (Stem Cell Technology research center, Tehran, Iran)

### **Collaborator of projects**

- 1- The effect of 7SK non-coding RNA on the proliferation of MCF7, HEK and A547 human cancer cells (Shahid Beheshti University of Medical Sciences, Tehran, Iran.)
- 2- Evaluation of let-7a microRNA and MiR-15a/16-1 expression in fresh and Frozen thawed
- 3- Blastocyst Embryos of mice resulting from In Vitro Fertilization (School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.)
- 4- Study the effect of leishmania major or LPS activated-mesenchymal stem cells on function of mouse peritoneal macrophages (Shahid Beheshti University of Medical Sciences, Tehran, Iran.)
- 5- Study of molecular and cellular biology of miRNA (Stem Cell Technology research center, Tehran, Iran)

- 6- Spread of SHV and TEM beta-lactamase in Klebsiella pneumoniae strains isolated from Labbafinejad hospital (Tehran University of Medical Sciences)
- 7- Genotyping and drug resistance analysis of Acinetobacter species isolated from patients of Tehran University of Medical Sciences hospitals by PFGE (Tehran University of Medical Sciences)
- 8- Genetic analysis of broad spectrum cephalosporins resistance Klebsiella pneumoniae by PFGE to determine their genetic identity (Tehran University of Medical Sciences)
- 9- Detection of SCC mec gene polymorphisms and virulence factors genes in MRSA strains isolated from patients of Tehran University of Medical Sciences hospitals by PFGE Tehran University of Medical Sciences)

#### **Finished projects**

- 1- The effect of Notch1 inhibition by miRNA in Breast cancer migration and metastasis (Stem Cell Technology research center, Tehran, Iran)
- 2- The expression of mTOR gene and its targeting miRNA in some breast cancer clinical samples (Shahid Beheshti University of Medical Sciences)
- 3- The impact of c- MYC oncogene expression and its inhibitory microRNA in breast cancer cell lines and also in some clinical samples (Cellular and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran)
- 4- The inhibitory effect of miR-141 on CTNNB1 gene from Wnt signaling in metastatic breast cancer (Cellular and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran)
- 5- The effect of Notch1 inhibition by miR-9 in Breast cancer migration and metastasis (Shahid Beheshti University of Medical Sciences, Tehran, Iran)
- 6- Assessment the effect of bioinformatically predicted miRNA on expression of CD1gene in triple negative breast cancer cell line, MDA-MB-231(Iran National Science Foundation)
- 7- The effect of miRNA expression on inhibition of breast cancer metastasis (Stem Cell Technology research center, Tehran, Iran)

#### Books

#### **1-Translation in Persian:**

Nelson textbook of Pediatrics: Infectious Diseases (2008). Hayyan publication.ISBBN:978-964-6985-70-4

#### 2-Authors of the books:

- Principles & Methods of Recombinant Bio-pharmaceuticals production (1). (2011) Hayyan publication.ISBBN:978-964-6985-69-8
- Principles & Methods of Recombinant Bio-pharmaceuticals production (2) (2011) Hayyan publication.ISBBN: 978-964-6985-70-4
- Principles & Methods of Recombinant Bio-pharmaceuticals production (3) (2011) Hayyan publication.ISBBN: 978-964-6985-70-4
- > Applied Bioinformatics. (2014) Roodgun publication. ISBBN: 978-600-7440-03-2