

Personal Resume

Personal Information

First and Last Name: Fatemeh Amiri

Employment Status: Formal

Educational Department: Department of Medical Laboratory Sciences

Academic Rank: Associate

Contact Number: 081-38381037 (109)

Address Department of Medical Laboratory Sciences, School of Paramedicine, Hamadan University of Medical Sciences, Infront of Mardom Park, Shahid Fahmideh Blve, Mahdihyeh Ave, Hamadan, Iran.

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Educational Information

Specialized or Professional Doctorate : Laboratory hematology and blood banking in Transfusion medicine institute (TMI), Tehran, Iran.

Thesis or Dissertation Title: Isolation and characterization of a sub population of umbilical cord-derived mesenchymal stem cells with ability to differentiate to three germ layers without induction

Year of Graduation: 2013

Master's Degree: Laboratory hematology and blood banking in Iranian Blood Transfusion organization (IBTO), Tehran, Iran.

Thesis Title: survey of anti-HLA antibodies prevalence in patients with hematologic disorders (acute leukemia, aplastic anemia and ITP) by flowcytometry

Year of Graduation: 2003

Bachelor's Degree: laboratory sciences in Shiraz University of Medical Sciences, Shiraz, Iran

Year of Graduation: 2000

Associate's Degree: laboratory sciences in Kashan University of Medical Sciences, Kashan, Iran.

Year of Graduation: 1998

Executive Records:

Membership in local, provincial, national, and international associations and societies:

- ❖ American Society Hematology (ASH)
- ❖ International Society of Blood Transfusion (ISBT)

Educational Records:

Teaching Records:

- 1- International congress of laboratory and clinic, Jan, 2019, Tehran, Iran.
- 2- 4th International Congress of Transfusion Medicine, Sep, 2018, Tehran, Iran.
- 3- 35th International ISBT Congress, June, 2018, Toronto, Canada.
- 4- AATM (AABB) Congress, 2016, Banglor, India
- 5- 3rd International Congress of Transfusion Medicine, Evidence-Based Use of Blood Components and Plasma Derived Medicines, Dec 15-17, 2015, Tehran, Iran.
- 6- GMP work shop, IBTO with WHO collaboration, March, 2016, as trainer
- 7- International congress on stem cell & regenerative medicine, May 20-22, 2015, Mashhad, Iran.
- 8- The 8th International congress of laboratory and clinic, Feb 6-8, 2016, Tehran, Iran.
- 9- MPHBS. 2016, Tehran, Iran.

- 10- "IT, Internet and Software in laboratory sciences" Workshop. 2002.10.21. Razi hall. Tehran - Iran.
- 11- "Inheritance Blood Disorders" Seminar . 2003.09.07-08. Imam Khomeini hospital. Tehran – Iran.
- 12- "9th Asian-Australian Congress Bone marrow Transplantation" Congress (1103647). 2003.08.28-30 Rahbaran Hall. Tehran- Iran.
- 13- "Statistic Methods in TQM" Workshop . 2003.10.13. Razi hall Tehran-Iran.
- 14- "Scientific-Educational AIDS" Workshop. 2003.12.12. Imam khomeini hall. Tehran-Iran.
- 15- "The first International Congress of Immunodeficiency diseases" 2003.12.10-12. Imam Khomeini hall. Tehran-Iran.
- 16- "4th Congress of Quality improvement in medical diagnosis laboratory service".2004.11.12-14. Razi hall. Tehran-Iran.
- 17- "Immunologic aspects of Human Stem Cell Therapy ". Workshop 2004.12.15-16. IBTO. Tehran-Iran.
- 18- "Safety standards methods". Workshop. 2004.04.09. IBTO. Tehran-Iran.
- 19- "Quality Control Re-education". Workshop. 2004.10.29. IBTO. Tehran-Iran.
- 20- "Routine Department Re-education". Workshop. 2005.09.13. IBTO Tehran-Iran.
- 21- "Platelet Immunology ".Seminar 2005.06.26-27. IBTO. Tehran-Iran.
- 22- "Blood transfusion in thalassemia patients" Seminar. 2005.04.22. IBTO. Tehran-Iran.
- 23- "Sperm preparation" Workshop. 2005.11.05. Avesina research Institute .Tehran-Iran.
- 24- "TQM ISO 9001-2000 Training". Workshop. 2005.04.30. I.B.TO. Tehran-Iran.
- 25- "TQM ISO 2000 Training". Workshop 2005.10.01 Avesina research Institute . Tehran-Iran.
- 26- "ART & prenatalogy". Workshop. 2005.12.20 Avesina research Institute.
- 27- "Infracted myocardium Repair with Stem Cells". Workshop. 2005.07.24. Avesina research Institute.
- 28- "Gene therapy: options for Parkinson's disease". Work shop. 2005.10.11. Avesina research Institute.
- 29- "Monoclonal antibody production". Workshop.2005.09.23-24 Avesina research Institute.
- 30- "Cancer and DNA Repair". Workshop. 2006.05.08. Avesina research Institute.
- 31- "Immunehistochemistry". Workshop.2006.06.01. Avesina research Institute.
- 32- "Nanomedicine" Workshop. March-June 2007. Shariati Hospital Research Development Center. Tehran Iran.
- 33- "Controversies in Assisted Reproductive Technology (ART) Failure". January 2007. Avesian research Institute. Tehran-Iran.
- 34- "Weekly Conference of Clinical Genetics". Conference.1387.03.08.Cancer Institute. Tehran -Iran.
- 35- "Novel Methodes in Hematology and Coagulation laboratory". Workshop.1387.05.21. Imam Khomeini hospital. Tehran – Iran.
- 36- "Molecular Methodes in Laboratory".Workshop.1387.11.12-15. Imam Khomeini hospital. Tehran – Iran.
- 37- "Clinical Indication of Blood and its Components". Seminar.1388.04.1-3. Imam Khomeini hospital. Tehran – Iran.
- 38- "Transfusion Medicine" .seminar.1388.02.28-30. Imam Khomeini hospital. Tehran – Iran.
- 39- "Blood Banking".Workshop.1388.05.17-28. Imam Khomeini hospital. Tehran – Iran.
- 40- Principle Of article, Workshop .Apr 2014, Shahid beheshti Jahad, Tehran – Iran.
- 41- "Controversies in Diagnostic Laboratory Testes in Viral Hepatites".Seminar.1388.07.29-30.Pasture Institute. Tehran -Iran.
- 42- "2th International Congress of Transfusion Medicine &Plasma Industry".Congress.1390.02.20-21.IBTO. Tehran – Iran

Laboratory techniques:

Hemoglobin electrophoresis and chromatography
Hematology and pathology stains
ELISA, radioimmunoassay and luminescence quantification
Antibody screening and identification
Antibody reactive panel
Western blot, protein electrophoresis and ribonucleoprotein (RIBA)
Immunohistochemistry and immunocytochemistry
Isolation of stem cells from various animal and human sources
Cell culture
MTT, WST
RNA, DNA and protein extraction
PCR, RT-PCR, Real-time-PCR
MACS
Isolation of mononuclear cells
Cloning and subcloning

Transfection and transformation

Theses:

- Comparison of two trauma severity scoring systems (GAP and MGAP) in predicting death in trauma patients (Saideh Afshar Hezarkhani)
- Investigation of the relationship between D-dimer level and disease severity in COVID-19 patients hospitalized in Hamadan Besat Hospital in 1400 (Mohammad Reza Khalilifard)
- Investigation of the levels of hepatocyte, fibroblast and vascular endothelial growth factors in the culture medium of mesenchymal stem cells in adherent and non-adherent states in a plate coated with Poly-HEMA (Mohammad Rosta)
- Investigation of changes in blood indices in patients with COVID-19 hospitalized in Hamadan Besat Hospital in 1399 and 1400 (Elham Salegi)
- Investigation of the effect of laboratory errors on the clinical outcome of patients hospitalized in Hamadan Besat Hospital in 1401 (Nima Akbari)
- Correlation and concordance LDH and IL-6 levels and CT scan findings of COVID-19 patients referred to Hamedan Besat Hospital during 2019 and 2020 (Alireza Maleki)
- Investigation of the relationship between platelet count and platelet to lymphocyte ratio on clinical outcomes of renal cell carcinoma patients in Shahid Beheshti Hospital, Hamedan during 2016 to 2021 (Mehdi Koushki)
- Investigation of major ABO system incompatibility cases, causes and therapeutic measures taken from 2016 to 2021 in Hamedan (Mostafa Yousef Vand)
- Investigation of antimicrobial, anti-inflammatory and restorative effects of umbilical cord-derived mesenchymal cells in an incisional wound infected with *Pseudomonas aeruginosa* strain (PAO1) and a clinical strain with multidrug resistance (MDR) in an animal model (Farhad Afrasiabi)
- Investigation of acute complications of blood product infusion in patients hospitalized in Besat Hospital, Hamadan during the years 2019-2021 (Hadith Akbari)
- Investigation of early, delayed, hemolytic and non-hemolytic complications related to blood transfusion in patients hospitalized in Besat Hospital, Hamadan during the years 2019-2021 (Mohammad Rezaei)
- Investigation of heparin-induced thrombocytopenia and its relationship with clinical outcomes in patients hospitalized in Shahid Beheshti Hospital, Hamadan in 2021 (Narges Gomar)
- Investigation of the rate of random errors and their causes in the laboratory of Besat Hospital, Hamadan during the years 2019-2021 (Mehrnaz Ghahremani)
- Comparison of the rate of secretion of hematopoietic growth factors in the culture medium of mesenchymal stem cells in monolayer or suspension culture under normoxia or Hypoxia (Mahsa Yousefian Fateh)
- Investigation of the relationship between hemoglobin threshold at the time of requesting packed red blood cell product with the blood transfusion index and wrist cross to blood transfusion in patients hospitalized in Besat Hospital of Hamadan in 1400 (Negin Bagheri)
- Investigation of the relationship between changes in blood cell count and disease severity in patients with COVID-19 referred to Besat Hospital of Hamadan in 1399 and 1400 (Hora Vafaei)
- Investigation of changes in the coagulation system in patients with COVID-19 hospitalized in Besat Hospital of Hamadan during 1399 and 1400 (Marim Moradi)
- Establishment of a stable CHO cell line expressing recombinant human hemopexin (Marzieh Bahadori - Issue 21)
- Establishment of a CHO cell line to express recombinant human haptoglobin (Marjan Movahed - Issue 22)
- Investigation of the antioxidant effects of L Carnitine in platelet concentrate during storage (Noushin Helmi Siasi-No. 27)
- Investigation of the possibility of increasing the expression of recombinant human factor VII in the HEK293 cell line transfected with Nrf2 (Zahra Abbasi-No. 35)
- Investigation of the effect of L-carnitine as an antioxidant on the amount of free radicals, lipid peroxidation, and platelet apoptosis in platelet concentrate during storage (Malihe Mohammadi Dehaj-No. 134)

Research Background

Research Interests:

Mesenchymal and Hematopoietic Stem Cells

- Cell Therapy
- Blood Diseases/Cancers
- Blood and Blood components

- Immunohematology and Transfusion Medicine

Published Books:

Published Articles:

- 1- Gomar N, Abbasi Garavand T, Amiri F, Alireza Goodarzi A, Hashemi SP. Heparin-induced thrombocytopenia-II in hospitalized patients with surgery or deep vein thrombosis. *Am J Blood Res* 2024;14(3):14-21.
- 2- Mohammad Shafiee S, Amiri A, Yousefi F, Akbari Nasab N. Pro-Oxidant/ Antioxidant Balance Correlates with Red Blood Cell Indices and Anemia Severity in the Anemic Patients. *Reports of Biochemistry & Molecular Biology* Vol.12, No.4, Jan 2024.
- 3- Goodarzi A, Valikhani M, Amiri F, Safari A. The mechanisms of mutual relationship between malignant hematologic cells and mesenchymal stem cells: Does it contradict the nursing role of mesenchymal stem cells? *Cell Commun Signal.* 2022 Mar 2;20(1):21. doi: 10.1186/s12964-022-00822-6. PMID: 35236376; PMCID: PMC8889655.
- 4- Shirdare M, Amiri F, Samiee MP, Safari A. Influential factors for optimizing and strengthening mesenchymal stem cells and hematopoietic stem cells co-culture. *Mol Biol Rep.* 2024 Jan 25;51(1):189. doi: 10.1007/s11033-023-09041-9. PMID: 38270694
- 5- Rafiee M, Amiri F, Mohammadi MH, Abbas Hajifathali A. MicroRNA-125b as a valuable predictive marker for outcome after autologous hematopoietic stem cell transplantation. *BMC Cancer* (2023) 23:202 <https://doi.org/10.1186/s12885-023-10665-0>
- 6- Molaei S, Amiri F, Salimi R, Ferdowsi Sh, Bahadori M. Therapeutic effects of mesenchymal stem cells- conditioned medium derived from suspension cultivation or silymarin on liver failure mice. *Molecular Biology Reports*, 2022, <https://doi.org/10.1007/s11033-022-07785-4>
- 7- Amiri F, Mohammadi Dahaj M, Helmi Siasi N, Deyhim MR. Treatment of platelet concentrates with the L-carnitine modulates platelets oxidative stress and platelet apoptosis due to mitochondrial reactive oxygen species reduction and reducing cytochrome C release during storage. *Journal of Thrombosis and Thrombolysis*, 2021; 51:277–285.
- 8- Amiri F, Kiani AA, Bahadori M, Habibi Roudkenar M. Co- culture of mesenchymal stem cell spheres with hematopoietic stem cells under hypoxia: a cost- effective method to maintain self- renewal and homing marker expression. *Molecular Biology Reports*, 2021, <https://doi.org/10.1007/s11033-021-06912-x>
- 9- Asgarpour K, Shojaei Z, Amiri F, Ai J, Mahjoubin-Tehran M, Ghasemi F. Exosomal microRNAs derived from mesenchymal stem cells: cell-to-cell messages. *Cell Communication and Signaling*, 2020; 18:149-160.
- 10- Meyari A, Mousavi E, Amiri F *, Rostami Moez M, Alafchi. The Effect of Including Research Educational Course in Program Curriculum of Laboratory Sciences in Hamadan University of Medical Sciences. *Research in Medical Education.* 2020;12 (4); 40-47.
- 11- Afshari M, Amiri F*, Seyedi MR, Biglari M, Jambozorg H. Evaluation of alloantibodies in thalassemia patients referred to Hamadan Besat hospital in 2019. *Sci J Iran Blood Transfus Organ*, 2021;18(3): 187-195
- 12- Amiri F, Jambozorg H, Biglari M, Mohammadi A, Afshari M, Seyedi MR. Survey on the blood transfusion-related reactions in blood recipients referred to Hamadan hospitals in 2018-2019. *Sci J Iran Blood Transfus Organ*, 2021;18(2): 87-96
- 13- Seyedi MR, Afshari M, Amiri F*, Daneshyar F, Biglari M, Jambozorg H. Survey on non-Conformities Reported in Public and Private Medical Laboratories of Hamadan Province. *Paramedical Sciences and Military Health*, 2021; 15(4): 20-28
- 14- Biglari M, Jambozorg H, Amiri F*, Tavakoli S, Seyedi MR, Afshari M. Survey on Laboratory Test Quality Control Establishment in Public and Private Medical Laboratories in Hamedan Province. *Paramedical Sciences and Military Health*, 2020; 15(3):21-30
- 15- Habibi Roudkenar M, Halabian R, Abdul Tehrani H, Amiri F, Jahanian-Najafabadi A, Mohammadi Roushandeh A, Abbasi-Malati Z, kuwahara Y. Lipocalin 2 enhances mesenchymal stem cell-based cell therapy in acute kidney injury rat model. *Cytotechnology*, 2018; 70:103–117
- 16- Zahra Abbasi -Malati · Fatemeh Amiri · Mahshid Mohammadipour · Mehryar Habibi Roudkenar. HEK293 Cells Overexpressing Nuclear Factor E2-Related Factor-2 Improve Expression of Recombinant Coagulation Factor VII. *Molecular Biotechnology*, 2019; 61:317–324

- 17- Shirin Ferdowsia, Ali Akbar Pourfathollah, Fatemeh Amiri, Mohammad Hessam Rafieea, Afsaneh Aghaeia. Evaluation of anticancer activity of α -defensins purified from neutrophils trapped in leukoreduction filters. *Life Sciences*, 2019; 224: 249–254.
- 18- Ali Hosseini, Fatemeh Amiri, Fereshteh Khalighi, Amaneh Mohammadi Roushandeh, Yoshikazu Kuwahara, Hamed Bashiri, et al. Cell Survival Effects of Autophagy Regulation on Umbilical Cord-Derived Mesenchymal Stem Cells Following Exposure to Oxidative Stress. *Iran J Med Sci*, 2019; 44 (6): 493-500.
- 19- Bashiri H, Amiri F, Hosseini A, Hamidi M, Mohammadi Roushandeh A, Kuwahara Y, Jalili MA, Habibi Roudkenar M. Dual Preconditioning: A Novel Strategy to Withstand Mesenchymal Stem Cells against Harsh Microenvironments. *Adv Pharm Bull*, 2018, 8(3), 465-470 doi: 10.15171/apb.2018.054
- 20- Movahed M, Roudkenar MH, Bahadori M, Mohammadipour M, Jalili MA, Amiri F*. Establishment of Stable CHO Cell Line Expressing Recombinant Human Haptoglobin: Toward New Haptoglobin-Based Therapeutics. *Iran J Sci Technol Trans Sci* (2018) 42:1097–1103. DOI 10.1007/s40995-017-0381-z.
- 21- Bahadori M, Amiri F, Movahed M, Roushandeh AM, Roudkenar MH. Establishment of Stable Chinese Hamster Ovary Cell Line Capable of Expressing Human Recombinant Hemopexin: A Promising Therapeutic Modality Against Hemolytic Anemia. *Gene Cell Tissue*. 2017 April; 4(2):e13360.
- 22- Roudkenar MH, Halabian R, Tehrani H, Amiri F, Jahanian-Najafabadi A, Mohammadi Roushandeh A, et al. Lipocalin 2 enhances mesenchymal stem cell-based cell therapy in acute kidney injury rat model. *Cytotechnology*. 2018;70(1):103-117.
- 23- Fatemeh Amiri, Sedigheh Molaei, Marzie Bahadori, Fatemeh Nasiri, Mohammad Reza Deyhim, Mohammad Ali Jalili, et al. Autophagy-Modulated Human Bone Marrow-Derived Mesenchymal Stem Cells Accelerate Liver Restoration in Mouse Models of Acute Liver Failure. *Iranian Biomedical Journal*, 2016; 20(3): 135-144.
- 24- Fatemeh Amiri, Raheleh Halabian, Mozhgan Dehghan Harati, Marzie Bahadori, Ahmad Mehdipour, Amaneh Mohammadi Roushandeh, et al. Positive Selection of Wharton's Jelly-derived CD105+ Cells by MACS Technique and Their Subsequent Cultivation under Suspension Culture Condition: A Simple, Versatile Culturing Method to Enhance the Multipotentiality of Mesenchymal Stem Cells. *Hematology*, 2015; 20 (4):208-216.
- 25- Fatemeh Amiri, Raheleh Halabian, Morteza Salimian, Mohammad Ali Shokrgozar, Masoud Soleimani, Ali Jahanian-Najafabadi, et al. Induction of multipotency in umbilical cord-derived mesenchymal stem cells cultivated under suspension conditions. *Cell Stress and Chaperones*. 2014, 19:657-666.
- 26- Fatemeh Amiri, Ali Jahanian-Najafabadi, Mehryar Habibi Roudkenar. In vitro augmentation of mesenchymal stem cells viability in stressful microenvironment. *Cell Stress and Chaperones*. 2015, 20: 237-251.
- 27- Fateme Zhaleh, Fatemeh Amiri, Mohammad Mohammadzadeh-Vardin, Marzie Bahadori, Mitra Dehghan Harati, Mehryar Habibi Roudkenar, et al. factor erythroid-2 related factor 2 overexpressed mesenchymal stem cells transplantation, improves renal function, decreases injuries markers and increases repair markers in glycerol-induced Acute kidney injury rats. *Iran J Basic Med Sci* 2016; 19:323-329.
- 28- Sedigheh Molaei, Mehryar Habibi Roudkenar, Fatemeh Amiri, Mozhgan Dehghan Harati, Marzie Bahadori, Fatemeh Jaleh, et al. Down-regulation of the autophagy gene, ATG7, protects bone marrow-derived mesenchymal stem cells from stressful conditions. *Blood Res* 2015;50:80-6.
- 29- Bahareh Bahmani, Fatemeh Amiri, Amaneh Mohammadi Roushandeh, Marzie Bahadori, Mozhgan Dehghan Harati, Mehryar Habibi Roudkenar. The Lcn2-engineered HEK-293 cells show senescence under stressful condition. *Iran J Basic Med Sci* 2015; 18:459-464.
- 30- Mozhgan Dehghan Harati, Fatemeh Amiri, Fatemeh Jaleh, Ahmad Mehdipour, Mitra Dehghan Harati, Sedigheh, et al. Targeting delivery of lipocalin 2-engineered mesenchymal stem cells to colon cancer in order to inhibit liver metastasis in nude mice. *Tumor Biol*. (2015) 36:6011–6018.
- 31- Ali Samadi kuchaksaraei, Ahmad Mehdipour, Mehryar Habibi Roudkenar, Javad Verdi, Mohammad Taghi Joghataei, Kamran As'adi, Fatemeh Amiri, et al. A Dermal Equivalent Engineered with TGF- β 3 Expressing Bone Marrow Stromal Cells and Amniotic Membrane: Cosmetic Healing of Full-Thickness Skin Wounds in Rats. *Artificial Organs* 2016, 40(12):E266–E279.
- 32- Helmi Siasi N, Deyhim M.R., Amiri F, Amini Kafi-Abad S. The antioxidant impact of the L-carnitine (LC) in platelet concentrates during storage. *Sci J Iran Blood Transfus Organ* 2017; 14(3): 175-187
- 33- Mehrabi Habibabadi H, Amiri F, Moslemi E, Habibi Roudkenar M, Jalili M. Over expression of Nrf2 in Umbilical Cord-derived Mesenchymal Stem Cells Up regulates Cytoprotective Genes, TXNRD1 and GCLC. *IJBC* 2015; 7(3): 155-162.
- 34- Bahareh Bahmani, Mehryar Habibi Roudkenar, Raheleh Halabian, Ali Jahanian-Najafabadi, Fatemeh Amiri, Mohammad Ali Jalili. Lipocalin 2 decreases senescence of bone marrow-derived mesenchymal stem cells under sub-lethal doses of oxidative stress. *Cell Stress and Chaperones*. 2014, 19: 685-693.

- 35- Nasiri F, Amiri F, Mohammadipour M, Molaei S, Habibi Roudkenar M, Jalili MA. H₂O₂-preconditioned mesenchymal stem cell regenerative effects on acute liver failure mice. *Sci Iran Blood Transfus Organ* 2015; 12(2): 124-111.
- 36- Soltani F, Amiri F, Kheirandish M, Mohammadipour M, Jalili M, Habibi Roudkenar M. Cell survival evaluation of mesenchymal stem cells cultivated in the presence of secretome of HIF-1 α /Nrf2-engineered-MSC. *Sci Iran Blood Transfus Organ* 2016; 12(4): 318-330.
- 37- Jaleh F, Amiri F, Dehghan Harati M, Habibi Roudkenar M, Jalili MA. Evaluation of the repair effects of MSCs cultivated with secretome of Nrf2 engineered MSCs on acute kidney injury in rats. *Sci Iran Blood Transfus Organ* 2017; 13(4): 291-303.
- 38- Mostafa Paridar, Naser Amirizadeh, Mahyar Habibi Roudkenar, Fatemeh Amiri, Hassan Abolghasemi, Mohammad Ali Jalili. Expression of Recombinant Coagulation Factor IX in Human Amniotic Membrane-derived Mesenchymal Stem Cells: A New Strategy to Gene Therapy of Hemophilia B. *IJBC*. 2014, 6 (3):133-141

Research Projects:

- Studying the relationship between red blood cell indices with CRP and IL-6 in patients with COVID-19 hospitalized in Hamadan hospitals in 2019 and 2020 (Student)
- Improving student learning by using blended learning method in the practical course of immunohematology in the field of laboratory sciences
 - Studying the relationship between serum selenium and zinc concentrations and antioxidant activity in people with anemia (Student)
 - Studying the effectiveness of radiotherapy and photodynamic therapy methods of gold nanoclusters carrying levulinic acid on K562 cells
 - The role of platelet angiogenesis in physiological, pathological and tumorigenic conditions (Student)
 - Studying the results of internal quality control of medical diagnostic laboratories of teaching hospitals in Hamadan in 2020 (Student)
 - Reviewing the mutual relationship between malignant blood cells and mesenchymal stem cells and its mechanisms (Student)
 - Study of effective factors in strengthening the co-culture system of mesenchymal stem cells and hematopoietic stem cells (Student)
 - Study of IL-6, LDH, CRP levels and disease severity in patients with coronavirus at Sina Hospital in 2019 (Student)
 - Study of the relationship between miR-125b, miR-126, miR-150 and miR-155 expression in plasma and extracellular vesicles with transplant outcome in multiple myeloma and lymphoma patients receiving autologous hematopoietic stem cell transplant
 - Design, implementation and evaluation of a professional ethics course for laboratory science students at Hamadan University of Medical Sciences in 2019
 - Study of the audit findings of medical diagnostic laboratories in Hamadan province (Student)
 - Comparison of the production rate of red blood cell rhizocycles in leukopenic and non-leukopenic red blood cell products and their effect on the secretion process Interleukin-1 and tumor necrosis factor
 - Study of the level of unwanted antibodies in thalassemia patients referred to Hamedan Besat Hospital in 2018 (Student)
 - Comparison of the level of quality control in testing in public and private laboratories in Hamedan province in 2018 (Student)
 - Study of the level of reactions related to blood transfusion in patients receiving blood in Hamedan hospitals in 2018 (Student)
 - Comparison of non-conformities in public and private laboratories in Hamedan province in 2018 (Student)
 - Study of the protective effects of mesenchymal stem cells on hematopoietic stem cells under simultaneous culture conditions in the adherent or non-adherent phase
 - Study of the therapeutic effects of milk thistle extract or culture medium on mesenchymal stem cells cultured in suspension in an animal model of acute liver injury
 - Review, design, implementation and evaluation of the research method course for laboratory science students at Hamadan University of Medical Sciences in 2019
 - Investigation of the prothrombotic ability of rhizovesicles derived from stored red blood cell units with and without leukocyte reduction filtration

- Transplantation of stem cells manipulated with lipocalin-2 and comparison of its reparative effects in rats with acute myocardial infarction
- Regulation of autophagy in umbilical cord-derived mesenchymal stem cells and investigation of their survival under oxidative stress conditions
- Dual preconditioning of mesenchymal stem cells, serum deprivation and oxidative stress induced by hydrogen peroxide, to increase their survival
- Increasing the therapeutic effects of mesenchymal stem cells in acute kidney injury by manipulating them with the Lcn-2 gene
- Comparison of the reparative effects of mesenchymal stem cells manipulated with lipocalin-2 and preconditioned with oxidative stress in the repair of acute liver injury in mice
- Investigation of the effect of regulation Autophagy on the survival rate of mesenchymal stem cells transplanted into a mouse model of acute liver injury
- Increasing Nrf2 expression in mesenchymal stem cells and investigating its effect on glycerol-induced renal injury in rats
- Increasing Nrf2 expression in umbilical cord mesenchymal stem cells and investigating the expression of cell protection genes GCLC and TXNRD in them
- Studying cellular senescence in HEK-293 cell line after increasing lipocalin expression and inducing oxidative stress with hydrogen peroxide
- Targeted transfer of lipocalin-2-manipulated mesenchymal stem cells into colon cancer to inhibit liver metastasis in an animal model of immunodeficient mice

Participation in Conferences and Meetings :

The summary of the articles is shown below:

Speaker:

- 1- HIF OVER EXPRESSING CHO CELLS: POSSIBLE STRATEGY TO IMPROVE EXPRESSION OF RECOMBINANT COAGULATION FACTOR VII. Dec, 2021, AABB & AATM. Jaipur, India.
- 2- USE OF EXOSOMAL miR-15b and miR-15a DERIVED FROM MESENCHYMAL STEM CELLS IN THE PROGRESSION OF DISEASES. Dec, 2021, AABB & AATM, Jaipur, India.
- 3- L-carnitine modulated oxidative stress during storage time of platelets due to enhancement of their total antioxidant capacity. International Congress of Laboratory and Clinic, Jan, 2019, Tehran, Iran.
- 4- Different strategies for manipulation of mesenchymal stem cells in vitro to enhance their potentialities. International Congress of Laboratory and Clinic, Jan, 2019, Tehran, Iran.
- 5- Implementation of EQA Program for Coagulation Factor VIII Assay in Iranian Blood Transfusion Organization, The 4th International Congress of Transfusion Medicine, Sep, 2018, Tehran, Iran.
- 6- Patient Blood Management, Hemovigilance Seminar, Sanandaj-Iran.
- 7- Trypsin Induced Multipotency in Umbilical Cord-Derived Mesenchymal Stem Cells 14th of ISBT Congress, June 2014 Seoul, South Korea.
- 8- Flowcytometric Detection of Anti-HLA Antibodies in Patients with Hematological Disorders Received Platelet Concentrates. Immunological aspect of platelet transfusion.26/6/85. IBTO, Tehran-Iran.

Poster:

- 1- The Effect of L-Carnitine on Platelet Oxidative Damage and Platelet Lipid Peroxidation During Storage of Platelet Concentrate. ISBT Congress, 2016, Dubai.
- 2- Nrf-2 Engineered Mesenchymal Stem Cells: Magic Cells for Treatment of Acute Kidney Injury In Vivo. AATM (AABB) Congress, 2016, India.
- 3- Prevalence of Transfusion-transmissible infections among blood donors in Kurdistan Province, Iran from 2011 to 2014. AATM (AABB) Congress, 2016, India.
- 4- Nuclear Factor E2-related Factor-engineered mesenchymal stem cells Ameliorate rat acute kidney Injury.14th of ISBT Congress, Jun 2014 Seoul, South Korea.
- 5- The Prevalence of Initially Reactive Testing for Transfusion Transmitted Infections (HIV, HBV and HCV) in Iranian Repeat Blood Donors. The 3rd International Congress of Transfusion Medicine, Evidence-Based Use of Blood Components and Plasma Derived Medicines, Dec 15-17, 2015, Tehran, Iran.
- 6- Evaluation of Coagulation Factor VIII Activity and Stability in Freeze-dried Fresh Frozen Plasma. The 3rd International Congress of Transfusion Medicine, Evidence-Based Use of Blood Components and Plasma Derived Medicines, Dec 15-17, 2015, Tehran, Iran.
- 7- Risk Assessment of the Plasma Blast Freezers Validation Procedure: a new Experience in Iranian Blood Establishments. The 3rd International Congress of Transfusion Medicine, Evidence-Based Use of Blood Components and Plasma Derived Medicines, Dec 15-17, 2015, Tehran, Iran.

- 8- Suspension Culture of Wharton's Jelly-derived Mesenchymal Stem Cells Improves Their Supportive Effects on Hematopoietic Stem Cells. International Congress on Stem Cell & Regenerative Medicine, May 20-22, 2015, Mashhad, Iran.
- 9- Nuclear factor e2-related factor 2-engineered mesenchymal stem cells ameliorate rat acute kidney injury. International Society of Blood Transfusion (ISBT), 2014, Seoul, Korea.
- 10- Autophagy suppression improves regeneration potentials of human bone marrow derived mesenchymal stem cells in acute liver failure-induced mice. The 8th International Congress of Laboratory and Clinic, Feb 6-8, 2016, Tehran, Iran.
- 11- Hemopexin, an iron-sequestering protein, improves cell viability in reactive oxygen species stressful conditions. The 8th International Congress of Laboratory and Clinic. Feb 6-8, 2016, Tehran, Iran.
- 12- Prevalence of red blood cell alloantibodies in blood donors of Zanjan blood transfusion center. The 8th International Congress of Laboratory and Clinic. Feb 6-8, 2016, Tehran, Iran.
- 13- Improvement of Paracrine Potentialities of Mesenchymal Stem Cells Using Simple Suspension Culturing Method. MPHBS. 2016, Tehran, Iran.
- 14- Enhancement of liver regeneration potentials of mesenchymal stem cells in acute liver failure by suppression of autophagy. MPHBS. 2016, Tehran, Iran.
- 15- Flowcytometric Detection of Anti – HLA Antibodies in Patients with Hematological Disorders. International Congress of Immunodeficiency Asthma, Feb 2005, Tehran-Iran.
- 16- Flow cytometric evaluation of platelet – specific antibodies in patients with platelet refractoriness. Jobmt Vol.1, No.3 and Supp. 1; Nov. 19, 19, 2004.
- 17- Anti-histocompatibility antigens class I antibodies in patients with hematological disorders who received platelet concentrates. Jobmt Vol.1, No.3 and Supp. 1; Nov. 19, 19, 2004.
- 18- Comparison of Flowcytometry and PRA methods in detection of Anti-HLA I Antibodies. 4th Balkan Congress of Immunology-Sep 2004- Turkey.