Curriculum Vitae of Karim Shamsasenjan

Last update: 2023 Jan.

Personal details:

Name	:	Karim Shamsasenjan
Permanent Address	:	No 14, Khordad Ave, Daneshgah St., Tabriz, Iran
Date of birth	:	1974 August 29
Place of birth	:	Tabriz
Nationality	:	Iranian
Present position	:	Associated Professor (2013 to now), Biochemistry and Clinical Laboratory Dep., Tabriz University of Medical Science, Tabriz-Iran
Phone number		+989146427690

Research and Working Experiences:

1. **Head of Biochemistry and clinical laboratory Dep.** (2022 to Now) Department of Biochemistry and clinical laboratory, Tabriz University of Medical Science, Tabriz, Iran

2. **Deputy of Technical and new Technology of the Iranian Blood Transfusion Organization (2015 to 2019)**

   As the deputy of technical and new technologies at the Iranian Blood Transfusion Organization, my primary responsibility was to coordinate technical and new technology-related activities of the organization. This included developing and monitoring strategies for blood and plasma production across the country, overseeing technical operations of 31 provincial transfusion headquarters, leading the design and implementation of new national transfusion-related projects, directing the technical headquarter, donor recruitment headquarters, hemovigilance headquarters, innovation and new technologies center, national cord blood stem-cell bank, and national bone marrow stem-cell donor registry. In addition, I was in charge of overseeing technical audits and inspections and approving technical SOPs.

3. **Managing Director of East Azarbaijan provincial Blood Transfusion Headquarter (2013 to 2015)**

   As the managing director of the East Azerbaijan Provincial Blood Transfusion Headquarter, I was responsible for managing and monitoring all technical and logistical activities related to blood collection, donor recruitment, specific and conventional plasma collection, hemovigilance, and other related activities within the provincial transfusion headquarter.

4. **Full-Time Assistant Professor** (2009 August to August 2013)

   Department of Haematology, High Institute for Education and Research in Transfusion Medicine, Tehran, Iran

   Teaching theoretical and practical hematology and immune-hematology and Clinical courses for Graduate Haematology Students

5. **Fulltime Lecturer** (2001 May to 2005 May)

   Department of Medical Laboratory Technology, Health and Para-Medical Faculty, Qazvin University of Medical Science, Bahonar Boulevard, Qazvin, IRAN

Educational Qualification:

Ph.D. Bio-Signal Analysis Dep. Graduate School of Medicine, Yamaguchi University, Japan. October 2005- March 2009

- Supervisor: Prof. Michio.M. Kawano from Bio-Signal Analysis Dep., Graduate School of Medicine, Yamaguchi University, Japan.
- Thesis title: "CD33 aberrant expression mechanism in myeloma cell and IL6 effect in its downregulation"

Master of Science from Haematology and Blood Banking Dep. High Institute for Education and Research in Transfusion Medicine, Tehran, Iran January 1998- January 2001

Bachelor of Science from Medical Laboratory Technology Dep. Para-Medical Faculty of Medical University of Tabriz, Tabriz, Iran. January 1994- January 1998

Research summary:

My research vision focuses on understanding the various aspects of stem cell biology, particularly Mesenchymal Stem Cells (MSCs). Specifically, my research has centered around investigating the biological impact of MSCs and their derivatives on regulating bone marrow and hematopoiesis. In conjunction with this, I have also explored the immune-modulatory effects of MSCs, as it pertains to their importance in bone marrow transplantation, and the different conditional parameters that impact their functionality.

Moreover, I have endeavored to optimize MSC proliferation and differentiation in a variety of culture systems, including innovative approaches such as 3D cultures models utilizing nanofibers and alginate beads, as well as using a new external stirred bioreactor.

Having published over 60 original research and review papers, most of which I corresponded with, I have developed a robust and longstanding record of achievement in stem cell research in the last 10 years, which can be further explored through my Google Scholar page.

My educational background is anchored by a Ph.D. from Yamaguchi University in Cellular Signal Transduction under the tutelage of Professor Michio M Kawano, a renowned name in the Multiple Myeloma field. During this period, I focused on the cellular signaling analysis of Multiple Myeloma biology with my primary project centered around understanding the impact of IL-6 on CD33 aberrant expression mechanism in myeloma cells. Additional projects that I worked on included researching the role of various cytokines/chemokines in human myeloma cells, investigating the significance of Galactin-1 in myeloma, and analyzing the apoptotic effect of Baicalin on myeloma cells. These research efforts led to published papers in peer-reviewed, international journals and have been presented at various international conferences.

Technical Proficiency:

- **Cell and tissue culture**: Isolation and culture of primary hematopoietic stem cell from bone marrow aspiration sample and cord blood, iPSC induction, Isolation and culture of primary mesenchymal stem cell from different sources, including bone marrow, cord, adipose tissue, amniotic membrane, Warton jelly and etc. Differentiation induction of HSCs and mesenchymal stem cells to different lineages. Culture and preservation of different cancer and normal cell lines,

- **Animal handling**: Rats/Mice

- **In vitro studies**: Evaluation of cell proliferation, cell cycle study, mineralization assay, collagenation, alkaline phosphatase activity and anti-resorptive activity in cancer and primary cells. Anticancer activity including nuclear apoptosis, MMP reduction, DNA fragmentation, Annexin V/FITC, ROS generation and different caspase molecule estimation of promising anticancer agents in different primary and cancer cell lines, ELISA assay

- **Molecular analysis**: Isolation and estimation of genomic DNA/RNA, cDNA synthesis, PCR amplification, Restriction digestion, carried out agarose and polyacrylamide gel electrophoresis, quantitative real-time PCR of expression analysis of specific genes and apoptotic markers of primary and cancer cell lines. Estimation of pro-apototic and anti-apototic markers of primary and cancer cells and immunoblot analysis of different protein markers in cells.

- **Cell signalling**: Cell culture and stimulation for cell signal analysis, protein extraction, and estimation, nuclear extraction, SDS-PAGE electrophoresis, Western blot, Immunoblotting using specific antibodies, Gel Shift assay (EMSA) , ChIP Assay, Confocal microscopy

- **Flow-cytometry analysis**: Flow cytometry analysis of extracellular and intracellular markers in primary and cancer cell lines, cell cycle analysis, mitochondrial activity analysis, cell sorting

- **Gene manipulation techniques**: Isolation and identification of antibiotic-sensitive bacteria, maintenance of microbiological strains, plasmid isolation from microbial cells, cloning and transformation, PCR product and plasmid purification, plasmid cloning, mammalian cell transfection, Neculofection, Lentiviral and Retroviral Transduction using different packaging systems, shRNA/siRNA design and transfection

- **Bioinformatics and computer skills**: Knowledge of computational and statistical analysis of biological systems by using software viz. SPSS, and GraphPad Prism, BLAST, Primer design using bioinformatics tools.

Publications:

Google scholar profile link:

https://scholar.google.com/citations?hl=en&user=CK8hNBUAAAAJ&view_op=list_works&sortby=pubdate

(*) indicates correspond author.

1. *Fisetin-loaded grape-derived nanoparticles improve anticancer efficacy in MOLT-4 cells* P Sarvarian, P Samadi, E Gholipour, R Pourakbari, P Akbarzadelale,, **K Shamsasenjan*** ... Biochemical and Biophysical Research Communications

2. *New horizons for reduction of blood use: Patient blood management*. K Shamsasenjan*, S Gharehdaghi, E Khalaf-Adeli, AA Pourfathollah , Medknow Publications

3. *Voluntary Unpaid Plasma Donation AA Pourfathollah*, **K Shamsasenjan**, MH Dehshal, International Journal of Hematology-Oncology and Stem Cell Research 17 (1), 1-3

4. *Chronic obstructive pulmonary disease and asthma: mesenchymal stem cells and their extracellular vesicles as potential therapeutic tools* H Abbaszadeh, F Ghorbani, S Abbaspour-Aghdam, A Kamrani,, **K Shamsasenjan** ... Stem Cell Research & Therapy 13 (1), 1-15

5. *An efficient non-chromatographic method to separate human serum albumin from cryo-poor plasma* P Akbarzadehlaleh, A Kamani, **K Shamsasenjan***… Separation Science and Technology 57 (15), 2491-2499

6. *Application of emerging plant-derived nanoparticles as a novel approach for nano-drug delivery systems*. P Sarvarian, P Samadi, E Gholipour**, K Shams Asenjan***, M Hojjat-Farsangi, ... Immunological Investigations 51 (4), 1039-1059

7. *Mesenchymal stromal cell-derived extracellular vesicles: novel approach in hematopoietic stem cell transplantation.* Sarvar DP, Effatpanah H, Akbarzadehlaleh P, **Shamsasenjan K***.Stem Cell Res Ther. 2022 May 16;13(1):202. doi: 10.1186/s13287-022-02875-3.

8. *An efficient non-chromatographic method to separate human serum albumin from cryo-poor plasma*. P akbarzadehlaleh , Abubaker Kamani, , **K Shamsasenjan***. Separation Science and Technology April 2022

9. Mesenchymal stem cells and natural killer cells interaction mechanisms and potential clinical applications. B Abbasi, K Shamsasenjan*, M Ahmadi, SA Beheshti, M Saleh. Stem Cell Research & Therapy March 2022

10. The effect of mesenchymal stem cell-derived microvesicles on differentiation of umbilical cord blood-derived CD34+ cells toward myeloid lineage **K Shamsasenjan***, H Timari, M Saleh Gene Reports 26, 101462

11. CAR Treg: A new approach in the treatment of autoimmune diseases SA Beheshti, K Shamsasenjan*, M Ahmadi, B AbbasiInternational immunopharmacology 102, 108409

12. Immunomodulatory Effect of Human Umbilical Cord Blood-derived Mesenchymal Stem Cells on Activated T-lymphocyte. P Lotfinejad, **K Shamsasenjan***, B Baradaran, E Safarzadeh, T Kazemi, ...Iranian Journal of Allergy, Asthma, and Immunology 20 (6), 711-720

13. The effect of Acellularized Wharton's Jelly-derived exosomes on myeloid differentiation of umbilical cord blood-derived CD34+ hematopoietic stem cells H Abbaszadeh, F Ghorbani, M Derakhshani, B Abbasi, Z Jalili, M Talebi, **K Shamsasenjan**. Gene Reports 25, 101298

14. Prevalence of HBV and HCV infection in beta-thalassemia major patients of Tabriz city, Iran G Mirzaei, **K Shamsasenjan***, B Jafari, Y Bagherizadeh, A Sadafzadeh, ...New Microbes and New Infections 43, 100912

15. Fibronectin within Sodium Alginate Microcapsules Improved Osteogenic Differentiation of BMMSCs in Dose Dependent Manner by Targeting SP7, OCN, CDK1, ZBTB16, and Twist1 Expression **K Shamsasenjan***, YB Khosrowshahi, M Mahmoodi, P Akbarzadehlaleh, ...Advanced Pharmaceutical Bulletin 12 (1), 109-117

16. Application of emerging plant-derived nanoparticles as a novel approach for nano-drug delivery systems P Sarvarian, P Samadi, E Gholipour, **K Shams Asenjan**, M Hojjat-Farsangi, Immunological Investigations, 1-21

17. Regenerative potential of Wharton's jelly-derived mesenchymal stem cells: A new horizon of stem cell therapy , H Abbaszadeh, F Ghorbani, M Derakhshani, AA Movassaghpour, **K Shamsasenjan** . Journal of Cellular Physiology 235 (12), 9230-9240

18. Berberine: A novel therapeutic strategy for cancer. Parisa Samadi, Parisa Sarvarian, Elham Gholipour**, Karim Shams Asenjan,** Leili Aghebati-Maleki, Roza Motavalli, Mohammad Hojjat-Farsangi, Mehdi Yousef IUBMB Life; First published: 31 July 2020 https://doi.org/10.1002/iub.2350

19. Effect of Mesenchymal Stem Cell-derived Microvesicles on Megakaryocytic Differentiation of CD34+ Hematopoietic Stem Cells. Sara Aqmasheh, **Karim Shamsasenjan***, Elham Khalaf Adeli, Aliakbar Movassaghpourakbari, Parvin Akbarzadehlaleh, Davod Pashoutan Sarvar, Hamzeh Timari Adv Pharm Bull. 2020 Jun; 10(2): 315–322. Published online 2020 Feb 20. doi: 10.34172/apb.2020.038

20. Regenerative potential of Wharton's jelly-derived mesenchymal stem cells: A new horizon of stem cell therapy Hossein Abbaszadeh, Farzaneh Ghorbani, Mehdi Derakhshani, Ali Akbar Movassaghpour, Mehdi Yousefi, Mehdi Talebi, **Karim Shamsasenjan*** Journal of Cellular Physiology June 2020, https://doi.org/10.1002/jcp.29810

21. Signaling Pathways of Receptors Involved in Platelet Activation and Shedding of These Receptors in Stored Platelets. Amelirad A**, Shamsasenjan K***, Akbarzadehlaleh P, Pashoutan Sarvar D. Adv Pharm Bull. 2019 Feb;9(1):38-47. doi: 10.15171/apb.2019.005. Epub 2019 Feb 21. Review.

22. Promoter Methylation Status of Survival-Related Genes in MOLT- 4 Cells Co-Cultured with Bone Marrow Mesenchymal Stem Cells under Hypoxic Conditions. Ahani-Nahayati M, Solali S, Shams Asenjan K, Movassaghpour Akbari AA, Talebi M, Zadi Heydarabad M, Baharaghdam S, Farshdousti Hagh M. Cell J. 2018 Jul;20(2):188-194. doi: 10.22074/cellj.2018.5101. Epub 2018 Mar 18

23. Effects of Hypoxia on Biology of Human Leukemia T-cell Line (MOLT-4 cells) Co-cultured with Bone Marrow Mesenchymal Stem Cells. Baharaghdam S, Yousefi M, Movasaghpour A, Solali S, Talebi M, Ahani-Nahayati M, Lotfimehr H**, Shamsasanjan K*.** Avicenna J Med Biotechnol. 2018 Apr-Jun;10(2):62-68

24. Down-regulation of intracellular anti-apoptotic proteins, particularly c-FLIP by therapeutic agents; the novel view to overcome resistance to TRAIL. Hassanzadeh A, Farshdousti Hagh M, Alivand MR, Akbari AAM, **Shams Asenjan K**, Saraei R, Solali S. J Cell Physiol. 2018 Oct;233(10):6470-6485. doi: 10.1002/jcp.26585. Epub 2018 May 9. Review.

25. The Effect of Mesenchymal Stem Cell-Derived Microvesicles on Erythroid Differentiation of Umbilical Cord Blood-Derived CD34+ Cells.Pashoutan Sarvar D, Karimi MH, Movassaghpour A, Akbarzadehlaleh P, Aqmasheh S, Timari H, **Shamsasenjan K***. Adv Pharm Bull. 2018 Jun;8(2):291-296. doi: 10.15171/apb.2018.034. Epub 2018 Jun 19.

26. The Effect of Mesenchymal Stem Cell-Derived Extracellular Vesicles on Hematopoietic Stem Cells Fate. Timari H, **Shamsasenjan K***, Movassaghpour A, Akbarzadehlaleh P, Pashoutan Sarvar D, Aqmasheh S. Adv Pharm Bull. 2017 Dec;7(4):531-546. doi: 10.15171/apb.2017.065. Epub 2017 Dec 31. Review.

27. The Angiogenic Chemokines Expression Profile of Myeloid Cell Lines Co-Cultured with Bone Marrow-Derived Mesenchymal Stem Cells. Mohammadi Najafabadi M, **Shamsasenjan K***, Akbarzadehlaleh P. Cell J. 2018 Apr;20(1):19-24. doi: 10.22074/cellj.2018.4924. Epub 2017 Dec 1.

28. Angiogenesis Status in Patients with Acute Myeloid Leukemia: From Diagnosis to Post-hematopoietic Stem Cell Transplantation. Mohammadi Najafabadi M, **Shamsasenjan K***, Akbarzadehalaleh P. Int J Organ Transplant Med. 2017;8(2):57-67. Epub 2017 May 1. Review.

29. The Effect of Bone Marrow Mesenchymal Stem Cells on the Granulocytic Differentiation of HL-60 Cells. Nikkhah H, Safarzadeh E, **Shamsasenjan K**, Yousefi M, Lotfinejad P, Talebi M, Mohammadian M, Golafshan F, Movassaghpour A. Turk J Haematol. 2018 Mar 1;35(1):42-48. doi: 10.4274/tjh.2016.0498. Epub 2017 Jun 13.

30. Effects of Mesenchymal Stem Cell Derivatives on Hematopoiesis and Hematopoietic Stem Cells. Aqmasheh S, **Shamsasanjan K***, Akbarzadehlaleh P, Pashoutan Sarvar D, Timari H. Adv Pharm Bull. 2017 Jun;7(2):165-177. doi: 10.15171/apb.2017.021. Epub 2017 Jun 30. Review

31. Inhibitory Effect of Mesenchymal Stem Cell Co-Culture on Erythroid Differentiation of K562 Cells Compared to The Control Group. Saleh M, **Shamsasanjan K***, Movassaghpour AA, Akbarzadehlaleh P, Molaeipour Z. Cell J. 2017 Apr-Jun;19(1):127-136. Epub 2016 Dec 21.

32. The Effect of Bone Marrow Mesenchymal Stem Cells on Vitamin D3 Induced Monocytic Differentiation of U937 Cells. Molaeipour Z, **Shamsasanjan K***, Movassaghpour AA, Akbarzadehlaleh P, Sabaghi F, Saleh M. Adv Pharm Bull. 2016 Mar;6(1):23-9. doi: 10.15171/apb.2016.005. Epub 2016 Mar 17

33. Canine articular cartilage regeneration using mesenchymal stem cells seeded on platelet rich fibrin: Macroscopic and histological assessments. Kazemi D, **Shams Asenjan K**, Dehdilani N, Parsa H. Bone Joint Res. 2017 Feb;6(2):98-107. doi: 10.1302/2046-3758.62.BJR-2016-0188.R1

34. SiRNA/DOX lodeded chitosan based nanoparticles: Development, Characterization and in vitro evaluation on A549 lung cancer cell line. Seifi-Najmi M, Hajivalili M, Safaralizadeh R, Sadreddini S, Esmaeili S, Razavi R, Ahmadi M, Mikaeili H, Baradaran B, **Shams-Asenjan K**, Yousefi M. Cell Mol Biol (Noisy-le-grand). 2016 Sep 30;62(11):87-94

35. Toll-like receptors as a key regulator of mesenchymal stem cell function: An up-to-date review. Shirjang S, Mansoori B, Solali S, Hagh MF**,** **Shamsasenjan K***. Cell Immunol. 2017 May; 315:1-10. doi: 10.1016/j.cellimm.2016.12.005. Epub 2016 Dec 26. Review.

36. Characterization of Common Chromosomal Translocations and Their Frequencies in Acute Myeloid Leukemia Patients of Northwest Iran. Amanollahi Kamaneh E, **Shams Asenjan K***, Movassaghpour Akbari A, Akbarzadeh Laleh P, Chavoshi H, Eivazi Ziaei J, Nikanfar A, Asvadi Kermani I, Esfahani A. Cell J. 2016 Spring;18(1):37-45. Epub 2016 Apr 4

37. The Effects of Hypoxia on U937 Cell Line in Mesenchymal Stem Cells Co-Culture System. Ejtehadifar M, **Shamsasenjan K***, Akbarzadehlaleh P, Zahedi S, Kazemi N. Adv Pharm Bull. 2016 Dec; 6(4):645-650. doi: 10.15171/apb.2016.079. Epub 2016 Dec 22.

38. The insulin-like growth factor-I receptor (IGF-IR) in breast cancer: biology and treatment strategies. Motallebnezhad M, Aghebati-Maleki L, Jadidi-Niaragh F, Nickho H, Samadi-Kafil H**, Shamsasenjan K**, Yousefi M. Tumour Biol. 2016 Sep;37(9):11711-11721. Epub 2016 Jul 21. Review.

39. NF-Kβ Activation in U266 Cells on Mesenchymal Stem Cells. Zahedi S, **Shamsasenjan K*,** Movassaghpour A, Akbarzadehlaleh P. Adv Pharm Bull. 2016 Sep;6(3):415-422. Epub 2016 Sep 25

40. PEGylated Human Serum Albumin: Review of PEGylation, Purification and Characterization Methods. Akbarzadehlaleh P, Mirzaei M, Mashahdi-Keshtiban M, **Shamsasenjan K**, Heydari H. Adv Pharm Bull. 2016 Sep;6(3):309-317. Epub 2016 Sep 25. Review.

41. Mesenchymal Stem Cell-Derived Exosomes: New Opportunity in Cell-Free Therapy. Pashoutan Sarvar D, **Shamsasenjan K***, Akbarzadehlaleh P. Adv Pharm Bull. 2016 Sep;6(3):293-299. Epub 2016 Sep 25.

42. Improved Survival and Hematopoietic Differentiation of Murine Embryonic Stem Cells on Electrospun Polycaprolactone Nanofiber. Dehdilani N, **Shamsasenjan K***, Movassaghpour A, Akbarzadehlaleh P, Amoughli Tabrizi B, Parsa H, Sabagi F. Cell J. 2016 Winter;17(4):629-38. Epub 2016 Jan 17.

43. Implications of mesenchymal stem cells in regenerative medicine. Kariminekoo S, Movassaghpour A, Rahimzadeh A, Talebi M, **Shamsasenjan K**, Akbarzadeh A. Artif Cells Nanomed Biotechnol. 2016 May;44(3):749-57. doi: 10.3109/21691401.2015.1129620. Epub 2016 Jan 13. Review

44. MicroRNA-15b target Sall4 and diminish in vitro UCB-derived HSCs expansion. Akhavan Rahnama M, Movassaghpour AA, Soleimani M, Atashi A, Anbarlou A, **Shams Asenjan K**. EXCLI J. 2015 May 8;14:601-10. doi: 10.17179/excli2014-687. eCollection 2015.

45. Time--and Concentration--Dependent Effects of Resveratrol on miR 15a and miR16-1 Expression and Apoptosis in the CCRF-CEM Acute Lymphoblastic Leukemia Cell Line. Azimi A, Hagh MF, Talebi M, Yousefi B, Hossein pour feizi AA, Baradaran B, Movassaghpour AA, **Shamsasenjan K**, Khanzedeh T, Ghaderi AH, Heydarabad MZ. Asian Pac J Cancer Prev. 2015;16(15):6463-8.

46. The Impact of Mesenchymal Stem Cells on Differentiation of Hematopoietic Stem Cells.Saleh M, **Shamsasanjan K***, Movassaghpourakbari A, Akbarzadehlaleh P, Molaeipour Z. Adv Pharm Bull. 2015 Sep;5(3):299-304. doi: 10.15171/apb.2015.042. Epub 2015 Sep 19. Review.

47. The Effect of Hypoxia on Mesenchymal Stem Cell Biology. Ejtehadifar M, **Shamsasenjan K***, Movassaghpour A, Akbarzadehlaleh P, Dehdilani N, Abbasi P, Molaeipour Z, Saleh M. Adv Pharm Bull. 2015 Jun;5(2):141-9. doi: 10.15171/apb.2015.021. Epub 2015 Jun 1. Review.

48. Effect of Superparamagnetic Iron Oxide Nanoparticles-Labeling on Mouse Embryonic Stem Cells. Parsa H, Shamsasenjan K*, Movassaghpour A, Akbarzadeh P, Amoghli Tabrizi B, Dehdilani N, Lotfinegad P, Soleimanloo F. Cell J. 2015 Summer;17(2):221-30. Epub 2015 Jul 11.

49. Mehdi Yousefi, Ali Akbar Movassaghpour, **Karim Shamsasenjan**, Ghasem Ghalamfarsa, Sanam Sadreddini, Farhad Jadidi-Niaragh, Mohammad Hojjat-FarsangiThe skewed balance between Tregs and Th17 in chronic lymphocytic leukemia . Future Oncology 05/2015; 11(10):1567-82. DOI:10.2217/fon.14.298 · 2.61 Impact Factor

50. Nasser Hashemi Goradel, Masoud Darabi, **Karim Shamsasenjan**, Mostafa Ejtehadifar, Sarah Zahedi. Methods of Liver Stem Cell Therapy in Rodents as Models of Human Liver Regeneration in Hepatic Failure. Adv Pharm Bull, 2015, 5(x), x-x

51. Mahshid Saleh, **Karim Shamsasanjan***, Aliakbar Movassaghpourakbari, Parvin Akbarzadehlaleh, Zahra Molaeipour. The Impact of Mesenchymal Stem Cells on Differentiation of Hematopoietic Stem Cells. Adv Pharm Bull, 2015, 5(x), x-x

52. Parvaneh Abbasi, **Karim Shamsasenjan***, Ali Akbar Movassaghpour, Parvin Akbarzadehlaleh, Nima Dehdilani, Mostafa Ejtehadifar The Effect of Baicalin as A PPAR Activator on Erythroid Differentiation of CD133+ Hematopoietic Stem Cells in Umbilical Cord Blood. Cell Jr 04/2015; 17(1):15-26. · 1.02 Impact Factor

53. YB Khosrowshahi, AB Khoshfetrat, **K Shamsasenjan**. Ex vivo expansion of hematopoietic stem cells in a proliferation chamber with external stirred conditioning tank: Sequential optimization of growth factors Engineering in Life Sciences 16 (3), 254-262

54. Younes Beygi Khosrowshahi, Ali Bardar Khoshfetrat, Zahra Abolghasemi, **Karim Shamsasenjan*** .Performance evaluation of a proliferation chamber with external stirred conditioning tank for expansion of a suspendable stem cell model Process Biochemistry 04/2015; 50(7). DOI:10.1016/j. procbio.2015.04.

55. Mehdi Yousefi, Ali Akbar Movassaghpour, **Karim Shamsasenjan**, Ghasem Ghalamfarsa, Sanam Sadreddini, Farhad Jadidi-Niaragh, Mohammad Hojjat-Farsangi The skewed balance between Tregs and Th17 in chronic lymphocytic leukemia . Future Oncology 05/2015; 11(10):1567-82. DOI:10.2217/fon.14.298 ·

56. Sabaghi, F., **Shamsasenjan, K***., Movasaghpour, A. A., Amirizadeh, N., Nikougoftar, M., & Bagheri, N. (2015). Evaluation of human cord blood CD34+ hematopoietic stem cell differentiation to megakaryocyte on aminated PES nanofiber scaffold compare to 2-D culture system. Artif Cells Nanomed Biotechnol. 2015 Mar 11:1-7

57. Ejtehadifar, M**., Shamsasenjan, K***., Movassaghpour, A., Akbarzadehlaleh, P., Dehdilani, N., Abbasi, P., Saleh, M. (2015). The Effect of Hypoxia on Mesenchymal Stem Cell Biology. Advanced Pharmaceutical Bulletin 06/2015; 5(2):141-149. DOI:10.15171/apb.2015.021 · 0.88 Impact Factor

58. Rahimzadeh, A., Tabatabaei Mirakabad, F. S., Movassaghpour, A., **Shamsasenjan, K**., Kariminekoo, S., Talebi, M., Akbarzadeh, A. (2014). Biotechnological and biomedical applications of mesenchymal stem cells as a therapeutic system. Artificial cells, nanomedicine, and biotechnology (0), 1-12.

59. Lotfinegad, P., **Shamsasenjan, K***., Movassaghpour, A., Majidi, J., & Baradaran, B. (2014). Immunomodulatory nature and site specific affinity of mesenchymal stem cells: a hope in cell therapy. Advanced pharmaceutical bulletin, 4(1).

60. Jahedi, M., **Shamsasenjan, K**., Sanaat, Z., Aliparasti, M., Almasi, S., Mohamadian, M., . . . Movassaghpour, A. A. (2014). Aberrant Phenotype in Iranian Patients with Acute Myeloid Leukemia. Advanced pharmaceutical bulletin, 4(1).

61. Mohammadian, M., **Shamsasenjan, K***. (2013). Mesenchymal stem cells: new aspect in cell-based regenerative therapy. Advanced pharmaceutical bulletin, 3(2).

62. Nojavan, M., **Shamsasenjan, K***., Movassaghpour, A. A., Akbarzadehlaleh, P., Torabi, S. E., & Ghojazadeh, M. (2012). Allelic prevalence of ABO blood group genes in Iranian Azari population. BioImpacts: BI, 2(4).

63. Iqbal, M. S., Otsuyama, K.-i., **Shamsasenjan, K***., Asaoku, H., & Kawano, M. M. (2010). CD56 expression in human myeloma cells derived from the neurogenic gene expression: possible role of the SRY-HMG box gene, SOX4. International journal of hematology, 91(2), 267-275.

64. Abroun, S., Otsuyama, K.-i., **Shamsasenjan, K**., Islam, A., Amin, J., Iqbal, M. S., Kawano, M. M. (2008). Galectin-1 supports the survival of CD45RA (−) primary myeloma cells in vitro. British journal of haematology, 142(5), 754-765.

65. **Shamsasenjan, K**., Otsuyama, K.-i., Iqbal, M. S., Abroun, S., Amin, J., Islam, A., & Kawano, M. M. (2007). IL-6-Induced C-MYC Down-Regulates the Expression of CD33 in CD33 (+) Myeloma Cell Lines. ASH Annual Meeting Abstracts, 110(11).

66. Otsuyama, K.-i., Amin, J., Abroun, S., Islam, A**., Shamsasenjan, K**., Iqbal, S. M., & Kawano, M. M. (2007, 2007). The PPAR beta activation mechanism which suppresses the constitutive NF-kappa B activity in human myeloma cell lines.

67. Otsuyama, K. I., Ma, Z., Abroun, S., Amin, J**., Shamsasenjan, K**., Asaoku, H., & Kawano, M. M. (2007). PPARβ-mediated growth suppression of baicalein and dexamethasone in human myeloma cells. Leukemia, 21(1), 187-190.

68. Liu, S., Otsuyama, K.-i., Ma, Z., Abroun, S., **Shamsasenjan, K**., Amin, J., Kawano, M. M. (2007). Induction of multilineage markers in human myeloma cells and their down-regulation by interleukin 6. International journal of hematology, 85(1), 49-58.

69. **Karim Shamsasenjan** *, Farzaneh Agaii. 2006. The efficiency of flow cytometeric method in Bernard Soulier syndrome diagnosis compares to routine aggregometric approaches. Journal of Qazvin Medical University. Vol. 33: 21-26 (in Persian language)

Conference abstracts/presentation:

I published over 30 abstracts in international and national conferences

Associations:

1. Member of the Iranian board of experimental Haematology and the Blood Banking
2. Member of Iranian Stem cell research network
3. Member of Iranian Medical Council

Language proficiency:

1. **Azeri**: Native
2. **Persian:** Native Official language
3. **English:** expert
4. **Turkish**: fluent
5. **Japanese:** Beginner