

Curriculum Vitae

Name and surname: Samaneh Mollazadeh

Present position: Assistant professor at North Khorasan University of Medical Sciences,
Bojnurd, Iran

E-MAIL: samanehmollazadeh@yahoo.com

Personal details

Nationality: Iranian

Sex: Female

Marital Status: Single

Education

2011-2017: **PhD in Pharmaceutical Biotechnology**, Mashhad University of Medical Sciences, Mashhad, Iran.

Dissertation: Optimization of mesencymal stem cell differentiation to osteogenic cell lineage in *in vitro* Condition.

2014 (summer): Two-month study course at Leiden University, the Netherlands.

2005-2008: **M. Sc in Animal Physiology**, Ferdowsi Unviersity of Mashhad, Mashhad, Iran.

Dissertation: Cytotoxic effects of salen ligand and salen-cobalt complex as well as the effects of feselol compounds in cisplatin and vincristine effectiveness in *in vitro* condition.

2001-2005: **B. Sc in Biology**. Ferdowsi Unviersity of Mashhad, Mashhad, Iran (**first class**).

Laboratory experiences

Professional in Persian and English Language.

Full command of computer and softwares like: word, power point, Excel, SPSS, JMP, Prism and ...

Full command of extraction and culture of rat and human bone marrow-derived mesenchymal stem cells and their differentiation

Full command of extraction and culture human adipose-derived mesenchymal stem cells and their differentiation

Full command of culture of different kind of human cancer stem cells such as TCC, MCF7, RT4, SD, NTERA2, 293T and ...

Full command of molecular techniques such as PCR, real-time PCR, immunostaining, DNA laddering as well as DNA, RNA, microRNA and protein extraction

Full command of genes and microRNAs designing

Full command of microRNA cloning and expression

Full command of gene cloning and expression

Full command of constructing viruses as well as transfection and transduction

Full command of culture of human and mouse fibroblast cells

Full command of extraction and culture of human cord blood mesenchymal stem cells and their differentiation

Expert on extraction and culture of human melanocytes

Expert on cytotoxicity assay (MTT) of anticancer drugs and materials and cell death analysis methods

Expert on comet assay (The Single Cell Gel Electrophoresis assay for the detection of DNA damage)

Full command of DAPI staining

Familiar with migration assay

Familiar with efflux assay and Flow cytometry (FACS)

Familiar with compound s nanoformulation

Full command of western blotting

Full command of column chromatography and thin layer chromatography (TLC)

Full command of EEG recording in rats (Wag/rij strain)

Full command of preparing plant extracts

Work experiences

Assistant professor at North Khorasan University of Medical Sciences, Bojnurd, Iran from 2018 till now.

The member of Stem Cells and Regenerative Medicine Research Group, Academic Center for Education, Culture and Research (ACECR), Khorasan-Razavi Branch, Mashhad, Iran (2011).

Collaborate in holding workshops

Scientific and executive member of the Mashhad Stem Cell School (2017 till now).

Executive member of 9nd international Stem Cells and Regenerative Medicine Congress. 2017. Ferdowsi University of Mashhad, Mashhad, Iran.

Executive member of the 1th Iranian congress on biology and application of stem cells. 2011. Ferdowsi University of Mashhad, Iran.

Collaboration at the theoretical and practical workshop on the preparation of MSCs derived from bone marrow, umbilical cord blood, and adipose tissue for cell therapy. The 1th Iranian congress on biology and application of stem cells. 2011. Ferdowsi University of Mashhad, Iran.

Contributing to the launch of the Stem Cells Training Center and its unique features at the First Cytotoxic Congress and its Applications. 2008. Ferdowsi University of Mashhad, Iran.

Attended Conferences, Symposium & Seminars

The 3rd International Nastaran Symposium. 2017. Mashhad, Iran.

The 2nd international Stem Cells and Regenerative Medicine Congress. 2017. Ferdowsi University of Mashhad, Mashhad, Iran.

The first seminar on Stem cells, Tissue engineering and Regenerative Medicine in Bone and Joint treatment. 2016. Ghaem Hospital, Mashhad, Iran.

2rd International Nastaran Cancer Symposium. 2016. Ferdowsi University of Mashhad, Mashhad, Iran.

16th Royan International Twin Congress. 2016. Tehran, Iran.

Second International and Fourteenth Iranian Genetic Congress. 2016. Tehran, Iran.

5th National Congress on Medicinal Plants, 2016. Isfahan University of Medical Sciences, Isfahan, Iran.

The 1nd international Stem Cells and Regenerative Medicine Congress. 2015. Ferdowsi University of Mashhad, Mashhad, Iran.

The 4th National Conference of "Updates on Biological Sciences". 2014. Ferdowsi University of Mashhad, Mashhad, Iran.

The 1th annual congress on stem cell research and application. 2013. Mashhad University of Medical Sciences, Mashhad, Iran

The 1th Iranian congress on biology and application of stem cells. 2011. Ferdowsi University of Mashhad, Iran.

Stem cell therapy conference. 2011. Medical university of Mashhad, Mashhad, Iran.

10th Royan International Twin Congress. 2011. Tehran, Iran.

Symposium on Molecular Aspects of Cancer. 2010. Institute of biotechnology, Ferdowsi university of Mashhad, Mashhad, Iran.

The 16th national and 4th international conference of biology. 2010. Ferdowsi university of Mashhad, Iran.

19th congress of physiology and pharmacology of Iran. 2009. Medical school of Shahid Beheshti university of Tehran, Iran.

1st congress of cytotechnology and its applications. 2008. Ferdowsi University of Mashhad, Mashhad, Iran.

The 11th Iranian pharmaceutical sciences conference. 2008. Kerman, Iran.

The 15th Iranian and 3rd International conference of biology, 2008. School of Biology, University of Tehran.

Symposium of stem cells, fundamentals and perspectives. 2008. Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran.

1st conference of mathematics application and control recommendation in medicine. 2008. Medical school , Mashhad University of Medical Sciences, Mashhad, Iran

18th congress of physiology and pharmacology of Iran. 2007. Medical university of Mashhad, Mashhad, Iran.

Symposium of stem cells and heart diseases. 2007. Razavi hospital, Mashhad, Iran.

Oral presentations

Mollazadeh S, Fazly Bazzaz BS, Kerachian MA, Mojarrad M, Naderi-Meshkin H, Neshati V. Role of Tbx20 Overexpression in Osteogenic Differentiation of Human Mesenchymal Stem Cells. Second International and Fourteenth Iranian Genetic Congress. 2016. Tehran, Iran (**Winner 1st place**).

Raheleh Miri; Gholamreza Khazae; Mahmood Rais-Almohaddesin; Hamid Reza Bidkhor; Hojjat Naderi-Meshkin; Maryam Sheikhbahaie; **Samaneh Mollazadeh**; Nasser Aghdami; Saeed Shafieyan; Hadi Bakhtiari; Ahmad Reza Bahrami (2013). Intraepidermal Injection of Non-cultured Suspension of Epidermal Cells for Treatment of Vitiligo. *Artificial Organs*. 37(7):A29–A30

Vajiheh Neshati, Maryam M. Matin, Mehrdad Iranshahi, Fatemeh Behnam-Rassouli, **Samaneh Mollazadeh**. Comparison of three coumarine compound on cisplatin cytotoxicity. The 16th national and 4th international conference of biology. 2010. Ferdowsi university of Mashhad, Iran.

Mollazadeh, S., Moghaddam Matin, M., Bahrami, A.R., Behnam Rassouli, M., Eshtiagh Hesseiny, H. *In vitro* study of anti-proliferative effect of cobalt complex liganded salen on cancer cells. 18th congress of physiology and pharmacology of Iran. 2007. Medical university of Mashhad, Mashhad, Iran.

Moghim, A., Hadad, F., Behnam Rassouli, F., **Mollazadeh, S.** Introducing an experimental model for absence epilepsy (Wag/rij) and comparing their Spike-Waves (SWs) with brain discharges of normal wistar rats and first generation of these two strains. 18th congress of physiology and pharmacology of Iran. 2007. Medical university of Mashhad, Mashhad, Iran.

Poster presentations

Kheradmand, N., **Mollazadeh, S***. MiR-203 as a novel biomarker for the diagnosis and prognosis of colorectal cancer. The 3rd International Nastaran Symposium. 2017. Mashhad, Iran.

Mollazadeh S, Neshati V., Fazly Bazzaz BS, de Vries AAS, Naderi-Meshkin H., Mojarrad M., Mirahmadi M., Neshati Z., Kerachian MA. Overexpression of MicroRNAs in Osteogenic and Cardiogenic Differentiation of Human Mesenchymal Stem Cells. 2nd International congress on Stem Cells and Regenerative Medicine. 2017. Mashhad, Iran (**Winner 1st place**).

Neshati V, **Mollazadeh S**, Fazly Bazzaz BS, de Vries AAS, Naderi-Meshkin H., Mojarrad M., Neshati Z., Kerachian MA. Differentiation of mesenchymal stem cells to cardiomyocytes using

lentiviral vectors carrying tbx-20. 2nd International congress on Stem Cells and Regenerative Medicine. 2017. Mashhad, Iran.

Neshati V, **Mollazadeh S**, Fazly Bazzaz BS, Iranshahi M, Naderi-Meshkin H., Mojarad M., Kerachian MA. Cardiogenic effects of geum urbanum extracts on adipose-derived human mesenchymal stem cells. 2nd International congress on Stem Cells and Regenerative Medicine. 2017. Mashhad, Iran.

Mollazadeh S, Fazly Bazzaz BS, de Vries AAS., Mojarad M, Naderi-Meshkin H, Neshati V., Kerachian MA. Overexpression of MicroRNA-148b-3p Stimulates Osteogenesis of Human Bone Marrow-Derived Mesenchymal Stem Cells. Royan International Twin Congress. 2016. Tehran, Iran (**Among the best projects**).

Mollazadeh S, Fazly Bazzaz BS, Kerachian MA, Mojarad M, Iranshahi M, Naderi-Meshkin H, Neshati V. Sophora Pachycarpa Enhances Osteogenesis in Adipose-Derived-Mesenchymal Stem Cells. 5th National Congress on Medicinal Plants, 2016. Isfahan University of Medical Sciences, Isfahan, Iran.

Mollazadeh S, Fazly Bazzaz BS, Kerachian MA, Mojarad M, Neshati V. Role of MicroRNA-148 on Osteogenic Differentiation of Human Mesenchymal Stem Cells. 1nd International congress on Stem Cells and Regenerative Medicine. 2015. Mashhad, Iran.

Neshati V, Fazly Bazzaz BS, Mojarad M, Kerachian MA, **Mollazadeh S**. Differentiation of MSCs to Cardiomyocyte Using lentiviruses Carrying MicroRNA-499. International congress on Stem Cells and Regenerative Medicine. 2015. Mashhad, Iran.

Samaneh Mollazadeh, Mahmood Rais Almohaddesin, Hamid Reza Bidkhor, Parvaneh Afsharian, Ahmad R. Bahrami, Naser Sanjar Moosavi. *In vitro* melanocyte expanding/culturing from epidermis towards autologous transplantation in vitiligo patients. The 1th Iranian congress on biology and application of stem cells. 2011. Ferdowsi university of Mashhad, Iran.

Vajiheh neshati, Ahmad-Reza Bahrami, Naser Sanjar Moosavi, **Samaneh Mollazadeh**, Naghme Ahmadian Kia, Mahmood Rais Almohaddesin, Hamid Reza Bidkhor. Comparative analysis of cell viability of the grafting fats at different laboratory conditions. The 1th Iranian congress on biology and application of stem cells. 2011. Ferdowsi university of Mashhad, Iran.

Samaneh Mollazadeh, Maryam M. Matin, Ahmad Reza Bahrami, Mehrdad Iranshahi, Fatemeh Behnam-Rassouli, Vajiheh Neshati. Investigating the effects of feselol in comparison with verapamil on vincristine cytotoxicity. The 16th national and 4th international conference of biology. 2010. Ferdowsi university of Mashhad, Iran.

Mollazadeh.S, Matin.M, Bahrami.A, Iranshahi.M, Behnam-Rassouli.M, Behnam-Rassouli.F, Neshati.V. DNA damage induced by cisplatin is increased by combination with feselol on 5637 cells. The 12th Iranian pharmaceutical sciences congress. 2010. Zanzan, Iran.

Neshati.V , Matin.M , Iranshahi.M , Bahrami.A, Behnam-Rassouli.F, **Mollazadeh.S.** Conferone enhances cisplatin cytotoxicity and cisplatin-induced DNA damage in 5637 cells. The 12th Iranian pharmaceutical sciences congress. 2010. Zanzan, Iran.

Mollazadeh, S., Nemati H., Shakeri MT. Prevalence of epilepsy, it's types and etiology in epileptic patients of neurologic clinic (Mashhad's Imam Reza hospital). 19th congress of physiology and pharmacology of Iran. 2009. Medical school of Shahid Beheshti university of Tehran, Iran.

Mollazadeh, S., Moghaddam Matin, M., Iranshahi, M., Bahrami, A.R., Behnam Rassouli, M., Behnam Rassouli, F., Neshati, V. Comparison the effects of Sesquiterpen qumarins in Vincristin cytotoxicity on 5637 cell line. 1st congress of cytotechnology and its applications. 2008. Ferdowsi University of Mashhad, Mashhad, Iran.

Behnam Rassouli, F., Moghaddam Matin, M., Iranshahi, M., Bahrami, A.R., **Mollazadeh, S.**, Neshati, V. Comparison the effects of three qumarins in Cisplatin cytotoxicity. 1st congress of cytotechnology and its applications. 2008. Ferdowsi University of Mashhad, Mashhad, Iran.

Neshati, V., Moghaddam Matin, M., Bahrami, A.R., **Mollazadeh, S.**, Behnam Rassouli, F. Investigation of Vincristine and Cisplatin effects on Bladder cancer cells (5637 and SD cell lines). 1st congress of cytotechnology and its applications. 2008. Ferdowsi University of Mashhad, Mashhad, Iran.

Sadeghian, R., Kheirabadi, M., Mahdavi Shahri, N., **Mollazadeh, S.**, Sadeghian M. Using cytological technique for studying dark stress on morphology and number of chicken blood cells. 1st congress of cytotechnology and its applications. 2008. Ferdowsi University of Mashhad, Mashhad, Iran.

Mollazadeh, S., Moghaddam Matin, M., Bahrami, A.R., Behnam Rassouli, M., Eshtiagh Hesseiny, H. *In vitro* study of cobalt salen and salen ligand anti-proliferative effects on NTERA2 cells. The 11th Iranian pharmaceutical sciences conference. 2008. Kerman, Iran.

Mollazadeh, S., Moghaddam Matin, M., Bahrami, A.R., Iranshahi, M., Behnam Rassouli, M. The synergistic effects of feselol on cisplatin cytotoxicity. The 11th Iranian pharmaceutical sciences conference. 2008. Kerman, Iran.

Mollazadeh, S., Moghaddam Matin, M., Iranshahi, M., Bahrami, A.R., Behnam Rassouli, M. Investigation of the feselol effects on vincristine cytotoxicity on TCC-5637 cell line. The 11th Iranian pharmaceutical sciences conference. 2008. Kerman, Iran.

Mollazadeh, S., Behnam Rassouli, F., Neshati, V., Moghaddam Matin, M., Bahrami, A.R. The comparison of cytotoxicity effects of cobalt- salen complex, cisplatin and vinceristine on NTERA2 cell line. The 15 th Iranian and 3rd International conference of biology, 200[^]. School of Biology, University of Tehran.

Moghim, A., Khalilzadeh, M., Behnam Rassouli, F., **Mollazadeh, S.**, Shii, R. Ciprofloxacin changes the frequency and amplitude of SWDs in the EEG of Wag/rij rats. The 15 th Iranian and 3rd International conference of biology. 2007. School of Biology, University of Tehran.

Behnam Rassouli, F., Neshati, V., **Mollazadeh, S.**, Moghaddam Matin, M., Bahrami, A.R. The *in vitro* comparison of TCC and NTERA2 cell drug resistance to cisplatin and vincristine. The 15 th Iranian and 3rd International conference of biology. 2007. School of Biology, University of Tehran.

Attended Workshops

International business development workshop. April 2017. Science Tech HQ, Mashhad, Iran.

Workshop of theoretical and practical training course entitled "Functional Analysis of microRNAs". 2016. Institute Pasteur, Tehran, Iran.

Workshop of whole cell patch clamp. 2009. Medical school of Tarbiat Modarres, Tehran, Iran.

Workshop of Gene cloning and expressing in prokaryotic and eukaryotic system. 2009. Genetic lab, Boali Institute. Mashhad, Iran.

Workshop of Neuroscience investigation techniques. 2008. Medical school, Mashhad University of Medical Sciences, Mashhad, Iran.

Papers

Mohammad Reza Taghavi, **Samaneh Mollazadeh***, Mohammad Bagheri Mansoori, Mahdi Asadi. (2019). Skin endometriosis between the breasts of a young girl: A case study and literature review. Journal of endometriosis and pelvic pain disorders. 11 (4): 207-209.

Parastoo Zarghami Moghaddam, Ameneh Mohammadi, Paiman Alesheikh, Peyman Feyzi, Ali Haghbin, **Samaneh Mollazadeh**, Zahra Sabeti, Ailar Nakhband, Jamal Kasaian. (2019). Antibacterial, antifungal and antioxidant activity of *Cleome coluteoides*: An In Vitro Comparative Study between Leaves, Stems, and Flowers. Turkish Journal of Pharmaceutical Sciences. doi.org/10.4274/tjps.59320.

Samaneh Mollazadeh, Bibi Sedigheh Fazly Bazzaz, Vajiheh Neshati, Antoine A. F. de Vries, Hojjat Naderi-Meshkin, Majid Mojarad, Zeinab Neshati, Mohammad Amin Kerachian. (2019). T-Box20 inhibits osteogenic differentiation in adipose-derived human mesenchymal stem cells: the role of T-Box20 on osteogenesis. 26:8.

Mollazadeh S, Fazly Bazzaz BS, Neshati V, de Vries AAS, Naderi H, Mojarrad M, Mirahmadi M, Neshati Z, Kerachian MA. (2019). Overexpression of MicroRNA-148b-3p stimulates

osteogenesis of human bone marrow-derived mesenchymal stem cells: the role of MicroRNA-148b-3p in osteogenesis. *BMC Medical Genetics*. 20(1); 117.

Neshati V, **Mollazadeh S**, Fazly Bazzaz BS, de Vries AAS, Mojarrad M, Neshati Z, Kerachian MA. (2018) Design and construction of the lentiviral vector coding miRNA-499a and transduction of human mesenchymal stem cells. *Journal of Mazandaran University of Medical Sciences* 28 (166):21-29

Neshati V, **Mollazadeh S**, Fazly Bazzaz BS, de Vries AAS, Naderi-Meshkin H, Mojarrad M, Kerachian Mirahmadi M, Neshati Z, Kerachian MA. (2018). MicroRNA-499a-5p Promotes Differentiation of Human Bone Marrow-Derived Mesenchymal Stem Cells to Cardiomyocytes. *Applied Biochemistry and Biotechnology*. doi.org/10.1007/s12010-018-2734-2.

Neshati V, **Mollazadeh S**, Fazly Bazzaz BS, de Vries AAS, Naderi-Meshkin H., Mojarrad M., Neshati Z., Kerachian MA (2018). Cardiomyogenic differentiation of human adipose-derived mesenchymal stem cells transduced with Tbx20-encoding lentiviral vectors. *Journal of cellular biochemistry*. 119(7):6146-6153.

Neshati V, **Mollazadeh S**, Fazly Bazzaz BS, Iranshahi M, Naderi-Meshkin H, Mojarrad M, Kerachian MA. (2018). Cardiogenic effects of characterized Geum urbanum extracts on adipose-derived human mesenchymal stem cells. *Biochemistry and Cell biology*. 96 (5), 610-618.

Mollazadeh S, Neshati V, Fazly Bazzaz BS, Iranshahi M, Mojarrad M, Naderi-Meshkin H, Kerachian MA. (2017). Standardized *Sophora pachycarpa* Root Extract Enhances Osteogenic Differentiation in Adipose-derived Human Mesenchymal Stem Cells. *Phytother Res*. 31(5):792-800.

Mollazadeh S, Neshati V, Fazly Bazzaz BS, Mojarrad M, Kerachian MA. (2017). Production of lentiviral vector expressing microRNA-148b. *J Isfahan Med Sch*. 35(434): 701-706.

Mollazadeh S, Fazly Bazzaz BS, Kerachian MA. (2015). Role of apoptosis in pathogenesis and treatment of bone-related diseases. *Journal of Orthopaedic Surgery and Research*. 10(1):15.

Moghimi A., **Mollazadeh S.**, Behnam Rassouli, F., Khalilzade, M. A (2013). The effect of ciprofloxacin injection on WAG/Rij rat's electroencephalogram characteristics. *Basic and Clinical Neuroscience*. 4(1):31-35.

Rassouli, F. B., Matin, M. M, Iranshahi, M., Bahrami, A. R., Behravan, J., **Mollazadeh, S.**, Neshati, V. (2011). Investigating the enhancement of cisplatin cytotoxicity by combination with mogoltacin on 5637 cells. *Toxiology in Vitro*. 25(2): 469-474.

Mollazadeh, S., Matin, M. M, Bahrami, A.R., Iranshahi, M., Behnam Rassouli, M., Rassouli, F., Neshati, V. (2011). Fesolol enhances the cytotoxicity and DNA damage induced by cisplatin in 5637 cells. *Z.Natuforsch*. 66 c, 555 – 561.

Mollazadeh, S., Matin, M. M, Iranshahi, M., Bahrami, A. R., Neshati, V., Behnam Rassouli, F. (2010) The Enhancement of Vincristine Cytotoxicity by Combination with Feselol. *Journal of Asian Natural Products Research*. **12**:569-572.

Behnam Rassouli, F., Matin, M. M, Iranshahi, M., Bahrami, A. R., Neshati, V. **Mollazadeh, S.**, Neshati, Z. (2009) Mogoltacin enhances vincristine cytotoxicity in human transitional cell carcinoma (TCC) cell line. *Phytomedicine*. **16**: 181-187

Neshati, V., Matin, M. M, Iranshahi, M., Bahrami, A. R., Behravan, J., **Mollazadeh, S.**, Behnam Rassouli, F. (2009) Cytotoxicity of Vincristin on the 5637 Cell line is enhanced by combination with conferone. *Z.Natuforsch*. **64c**: 317-322.