

In The Name Of GOD

Curriculum Vitae

Fatemeh Sanie-Jahromi, Ph.D.

Date of birth:	1983	Tel:	+98- 7132302830
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Nationality:	Iranian	Email:	fsanie@sums.ac.ir
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POSITIONS

2019- cont	Assistant professor, Poostchi Ophthalmology Research Center, Shiraz University of Medical Science
2019- cont	Executive director of Poostchi Ophthalmology Research Center
2018- cont	Chief executive director of Bina Afrooz Roshana Company

EDUCATION

2001- 2005	Shiraz University, BSc in the field of Biology
2007- 2010	National Institute of Genetic Engineering and Biotechnology (NIGEB), MSc in in the field of Molecular and Cellular Biology
2011- 2017	Shiraz University, PhD in in the field of Molecular and Cellular Biology

PUBLICATIONS

Thesis

MSc, 2010 The Effect of Amniotic Fluid on Human Retinal Pigmented Epithelial Cell Dedifferentiation

PhD, 2017 Effect of Extremely Low Frequency Electromagnetic Field in Combination with Morphine, Cisplatin, and Bleomycin on Expression Level of Some DNA Repair Genes in MCF-7 and SH-SY5 Cells

2021 Comparative analysis of central and nasal orbital adipocyte stem cells expanded by explant culture method. Dr.Shabaniyan M

2021 Evaluation of the effects of the secretome of human Whartons jelly mesenchymal stem cells on neuroprotective gene expression of the retinal pigmented epithelium. Dr.Ghazanfari SH

2022 The effect of adlay seed extract on the expression of genes involved in the inflammatory pathway in human corneal keratocytes. Dr. Mohsen zadeh A

2022 A review of the use of PCR in the diagnosis of endophthalmitis.

Dr.Lashnizadegan N

2022 Dose de-escalation study of bevacizumab vs. aflibercept on VEGF-A gene expression of hypoxic HRECs. Dr.Jahani M

PEER-REVIEWED PUBLICATIONS

1. Akrami H, Soheili ZS, Khalooghi K, Ahmadiieh H, Rezaie-Kanavi M, Samiei S, Davari M, Ghaderi S, *Sanie-Jahromi F*. Retinal pigment epithelium culture;a potential source of retinal stem cells. J Ophthalmic Vis Res. 2009 Jul;4(3):134-41. PMID: 23198062; PMCID: PMC3498558.
2. Ghaderi S, Soheili ZS, Ahmadiieh H, Davari M, *Sanie-Jahromi F*, Samie S, Rezaie-Kanavi M, Pakravesj J, Deezagi A. Human amniotic fluid promotes retinal pigmented epithelial cells' trans-differentiation into rod photoreceptors and retinal ganglion cells. Stem Cells Dev. 2011 Sep;20(9):1615-25. doi: 10.1089/scd.2010.0390. Epub 2011 Jan 23. PMID: 21142973.
3. *Sanie-Jahromi F*, Ahmadiieh H, Soheili ZS, Davari M, Ghaderi S, Kanavi MR, Samiei S, Deezagi A, Pakravesj J, Bagheri A. Enhanced generation of retinal progenitor cells from human retinal pigment epithelial cells induced by amniotic fluid. BMC Res Notes. 2012 Apr 10;5:182. doi: 10.1186/1756-0500-5-182. PMID: 22490806; PMCID: PMC3428660.
4. Davari M, Soheili ZS, Ahmadiieh H, *Sanie-Jahromi F*, Ghaderi S, Kanavi MR, Samiei S, Akrami H, Haghighi M, Javidi-Azad F. Amniotic fluid promotes the appearance of neural retinal progenitors and neurons in human RPE cell cultures. Mol Vis. 2013 Nov 17;19:2330-42. PMID: 24265548; PMCID: PMC3834594.
5. Mahmoudinasab H, *Sanie-Jahromi F*, Saadat M. Effects of extremely low-frequency electromagnetic field on expression levels of some antioxidant genes in human MCF-7 cells. Mol Biol Res Commun. 2016 Jun;5(2):77-85. PMID: 28097161; PMCID: PMC5219897.

6. *Sanie-Jahromi F*, Saadat I, Saadat M. Effects of extremely low frequency electromagnetic field and cisplatin on mRNA levels of some DNA repair genes. *Life Sci.* 2016 Dec 1;166:41-45. doi: 10.1016/j.lfs.2016.10.006. Epub 2016 Oct 6. PMID: 27721000.
7. *Sanie-Jahromi, Fatemeh*, Hamideh Mahmoudinasab, and Mostafa Saadat. "Extremely low frequency electromagnetic field in combination with β -Lapachone up-regulates the genes of non-homologous end joining." *Egyptian Journal of Medical Human Genetics* 18.4 (2017): 389-392.
8. *Sanie-Jahromi F*, Saadat M. Different profiles of the mRNA levels of DNA repair genes in MCF-7 and SH-SY5Y cells after treatment with combination of cisplatin, 50-Hz electromagnetic field and bleomycin. *Biomed Pharmacother.* 2017 Oct;94:564-568. doi: 10.1016/j.biopha.2017.07.115. Epub 2017 Aug 4. PMID: 28780472.
9. *Sanie-Jahromi F*, Saadat M. Effects of electromagnetic field, cisplatin and morphine on cytotoxicity and expression levels of DNA repair genes. *Mol Biol Rep.* 2018 Oct;45(5):807-814. doi: 10.1007/s11033-018-4223-7. Epub 2018 Jul 2. PMID: 29968116.
10. *Sanie-Jahromi F*, Mahmoudinasab H, Saadat M. Effects of β -Lapachone at Non-Toxic and Toxic Concentrations on the mRNA Levels of *XRCC1*, *GADD45A* and *LIG4* Genes. *Iran J Public Health.* 2019 Mar;48(3):559-560. PMID: 31223588; PMCID: PMC6570797.
11. *Sanie-Jahromi F*, Eghtedari M, Mirzaei E, Jalalpour MH, Asvar Z, Nejabat M, Javidi-Azad F. Propagation of limbal stem cells on polycaprolactone and polycaprolactone/gelatin fibrous scaffolds and transplantation in animal model. *Bioimpacts.* 2020;10(1):45-54. doi: 10.15171/bi.2020.06. Epub 2019 Sep 12. PMID: 31988856; PMCID: PMC6977591.
12. Afarid M, Namvar E, *Sanie-Jahromi F*. Diabetic Retinopathy and BDNF: A Review on Its Molecular Basis and Clinical Applications. *Journal of Ophthalmology.* 2020 May 18;2020.
13. Afarid M, *Sanie-Jahromi F*. Potential neuroprotective biomolecules in ophthalmology. *International Ophthalmology.* 2020 Nov 12:1-7.
14. *Sanie-Jahromi F*, Nowroozzadeh MH, Khodabandeh Z, Soheili ZS, Khajehahmadi Z, Emadi Z, Talebnejad MR. Effects of the secretome of human Wharton's jelly mesenchymal

- stem cells on the proliferation and apoptosis gene expression of the retinal pigmented epithelium. *Experimental Eye Research*. 2021 Apr 1;205:108528.
15. Afarid M, *Sanie-Jahromi F*. Mesenchymal Stem Cells and COVID-19: Cure, Prevention, and Vaccination. *Stem Cells International*. 2021 May 6;2021.
 16. *Sanie-Jahromi F*, Emadi Z, Khajehahmadi Z, Nowroozzadeh MH. The Role of Retinal Pigment Epithelium in the Pathogenesis and Treatment of Age Related Macular Degeneration. *Journal of Infertility and Reproductive Biology*. 2021 May 11;9(2):65-9.
 17. Bamdad S, *Sanie-Jahromi F*, Alamolhoda M, Masihpour N, Karimi M-H. Glutathione S-Transferase Omega-2 and Transforming Growth Factor- β 1 Polymorphisms in Iranian Glaucoma Patients. *Journal of Ophthalmology*. 2021;2021.
 18. *Sanie-Jahromi F*, Azizi A, Shariat S, Johari M. Effect of Electrical Stimulation on Ocular Cells: A Means for Improving Ocular Tissue Engineering and Treatments of Eye Diseases. *BioMed research international*. 2021;2021.
 19. Afarid M, *Sanie-Jahromi F*. Potential neuroprotective biomolecules in ophthalmology. *International Ophthalmology*. 2021;41(3):1103-9.
 20. *Sanie-Jahromi F*, NejatyJahromy Y, Jahromi RR. A Review on the Role of Stem Cells against SARS-CoV-2 in Children and Pregnant Women. *International Journal of Molecular Sciences*. 2021;22(21):11787.
 21. *Sanie-Jahromi F*, Nowroozzadeh MH. RPE based gene and cell therapy for inherited retinal diseases: A review. *Experimental Eye Research*. 2022:108961.
 22. Afarid M, Mohsenipoor N, Parsaei H, Amirmoezzi Y, Ghofrani-Jahromi M, Jafari P, et al. Assessment of macular findings by OCT angiography in patients without clinical signs of diabetic retinopathy: radiomics features for early screening of diabetic retinopathy. *BMC ophthalmology*. 2022;22(1):1-9.
 23. Afarid M, Sadeghi E, Johari M, Namvar E, Sanie-Jahromi F. Evaluation of the effect of garlic tablet as a complementary treatment for patients with diabetic retinopathy. *Journal of Diabetes Research*. 2022;2022.

24. Sanie-Jahromi F, Mahmoudi A, Khalili MR, Nowroozzadeh MH. A review on the application of stem cell secretome in the protection and regeneration of retinal ganglion cells; a clinical prospect in the treatment of optic neuropathies. *Current eye research*. 2022;47(11):1463-71.
25. Sanie-Jahromi F, Nowroozzadeh MH. RPE based gene and cell therapy for inherited retinal diseases: A review. *Experimental eye research*. 2022:108961.
26. Johari M, Safniyat S, Badie M, Amini A, Sanie-Jahromi F. The efficacy of oral pain relief cocktail during pan-retinal photocoagulation for diabetic retinopathy: a randomized clinical trial. *International journal of retina and vitreous*. 2023;9(1):10.
27. Sanie-Jahromi F, Zia Z, Afarid M. A review on the effect of garlic on diabetes, BDNF, and VEGF as a potential treatment for diabetic retinopathy. *Chinese Medicine*. 2023;18(1):1-14.
28. Nowroozzadeh MH, Ghazanfari S, Sanie-Jahromi F. Human Wharton's Jelly Mesenchymal Stem Cell Secretome Modifies the Processes of Neuroprotection and Epithelial-Mesenchymal Transition in Retinal Pigment Epithelium at Transcriptional Level. *Molecular Biology Reports*. 2023:1-8.
29. Sanie-Jahromi F, Nowroozzadeh MH, Emadi Z, Eghtedari M, Khajehahmadi Z. Intrastromal injection of honey-treated keratocytes as a cell-based therapy for experimental corneal laceration. *Journal of Complementary and Integrative Medicine*. 2023(0).
30. Afarid M, Bahari H, Sanie-Jahromi F. In Vitro Evaluation of Apoptosis, Inflammation, Angiogenesis, and Neuroprotection Gene Expression in Retinal Pigmented Epithelial Cell Treated with Interferon α -2b. *Journal of Interferon & Cytokine Research*. 2023.

PRESENTATIONS

- 1- Effect of Amniotic Fluid (AF) on Human Retinal Pigmented Epithelial (RPE) Cell Dedifferentiation. The 1st Annual Meeting of the Iranian Research Association for Vision & Ophthalmology (IRAVO), 2010, Iran.
- 2- Amniotic Fluid (AF) Promotes Retinal Progenitor Cell Establishment in Retinal Pigmented Epithelium (RPE) Cell Cultures. The 3rd Asia-ARVO Meeting January 20–22, 2011 *Singapore*.
- 3- Neural Progenitor Cells Arising from Amniotic Fluid (AF) treated Retinal Pigment Epithelium (RPE) Cell Cultures. The 1st international student congress on cell and molecular medicine (ISCCMM), 2011, shiraz, Iran
- 4- A Review of Experimental Procedure of Corneal Stem Cell Therapy, The webinar of Regenerative Medicine in Ophthalmology, 16th December 2020, Shiraz Institute for Stem Cells and Regenerative Medicine, Shiraz, Iran.
- 5- Effects of the Secretome of Human Wharton's Jelly Mesenchymal Stem Cells on the Proliferation of the Retinal Pigmented Epithelium, The 10th Annual Meeting of the Iranian Research Association for Vision and Ophthalmology (IRAVO), 17th February 2020, Tehran, Iran.
- 6- The Role of Stem Cells against SARS-CoV-2 in Children and Pregnant Women
The 25th Global Summit on COVID-19 conference, October 27-28, 2021, USA.

WORKSHOP LECTURER

- Isolation and culture of Limbal Stem Cells and Its Application in Ophthalmic Regenerative Medicine, Shiraz Institute for Stem Cell and Regenerative Medicine, January 2020.

BOOK CHAPTER

F Sanie-Jahromi, Z-S Soheili. ed., (2014). Cell Replacement Therapy and Retinal Destructive Diseases. In: Advances in Medicine and Biology, Volume 75, New York: Nova Science Publishers, pp: 153-160.

PATENT

Corneal Bio-Implant, Patent number: 101322, International classification: A61L 27/00; C12N 5/00

COMPUTING SKILLS

- Presentations: Office, Prezi
- Statistical analysis: SPSS software
- Article reference management: EndNote software

LABORATORY EXPERIENCE

- Cell culture (ocular stem cells from cornea, retina and stroma)
- DNA extraction
- RNA extraction
- Real- time PCR
- Cell death and proliferation analysis (MTT and ELISA assay)
- Flow cytometry

- Immunocytochemistry assay (ICC)
- Skills for biological substrate production in clean room

PEER REVIEWING IN JOURNALS

- Stem Cells Translational Medicine
- International Journal of Nanomedicine
- Journal of BIOCELL
- BMC Complementary Medicine and Therapies
- Molecular Biology Research Communications

LANGUAGES

- English (MHLE, MCHE, NOET certificates)
- Persian