

# Curriculum Vitae

**Fatemeh Sabet Sarvestani**

*Biotechnology Incubator  
Transplant Research Center  
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## **Personal information:**

**First name:** Fatemeh

**Last name:** Sabet Sarvestani

**Nationality:** Iranian

**Date of birth:** 16.09.1989

**City of birth:** Shiraz

**Marital status:** married, children: 1

## **Occupations:**

Non-faculty member of the Biotechnology Incubator Center

**EDUCATIONAL STATUS:**

**2016-2023:** PhD by research, Transplant Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.

Supervisor: Prof. Negar Azarpira & Prof. Ali-Mohammad Tamaddon

Thesis: “Construction of nanoparticle scaffold containing AngiomiR and evaluation of its effect on survival and function of mouse Islet cells”

GPA: 18.28

**2007-2013:** DVM, School of Veterinary Medicine, Shiraz University, Shiraz, Iran

Supervisor: Dr. Hoseini

Thesis: “Cloning and expression of *Mannheimia hemolytica PlpE* gene in *E. coli*”

GPA:16.40

**2003-2007:** Diploma (in Experimental Sciences)

Dr. Shariati High School, Sarvestan, Fars Province, Iran

**RESEARCH INTEREST**

- Stem cell
- Diabetes & Angiogenesis
- Reproductive Health
- Nanotechnology (Bioengineering)
- Molecular assay
- Handling animals

**RESEARCH EXPERIENCE****2016-present**

The focus of my research has been on diabetes, a group of metabolic disorders. I am studying the comparison of the effect of WJ-MSCs injection lonely in the animal model of type 1 diabetes in the acute state with the conventional drug remedy (insulin and insulin + metformin).

**2012-2016**

The focus of my research during this period was on reproductive cycles. I aimed to evaluate the relative mRNA expression of RFRP-3, KiSS-1, AGRP, and MC4R in the hypothalamus of rats at different situations, including pregnancy, malnutrition, and lactation. I investigated the morphological changes in the layers of the small intestine in rats during pregnancy. During this period, I had comprehensive research experience in Stem cell and Regenerative medicine. I studied the preventive effects of the neural stem cells (NSCs) and mesenchymal stem cells (MSCs) intraventricularly injected on strokes in rats.

**EXPERIMENTAL SKILLS**

- Tissue engineering
- Isolation and culturing of primary and stem cells
- Real-time PCR and PCR
- Primer design
- ELISA
- Gene cloning
- SPSS
- Animal surgery and handling
- Reproduction assay

**JOURNAL PUBLICATIONS**

Total Publications: 30; Total Citations: 505

Google Scholar profile link:

**[https://scholar.google.com/citations?hl=en&user=e7uxif8AAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=e7uxif8AAAAJ&view_op=list_works&sortby=pubdate)**

1. Exosomes as natural vectors for therapeutic delivery of bioactive compounds in skin diseases. Keshtkar S, Najafi H, Heidari M, Kaviani M, **Sabet Sarvestani F**, Asvar Z, Tamaddon AM, Sadati MS, Hamidizadeh N and Azarpira N. *Frontiers in Pharmacology* (2025). doi: 10.3389/fphar.2025.1485769.
2. The role of non-protein-coding RNAs in ischemic acute kidney injury. **Sabet Sarvestani F**, Afshari A, Azarpira N. *Frontiers in Immunology* (2024) doi: 10.3389/fimmu.2024.1230742.
3. Biocompatible scaffolds based on collagen and oxidized dextran for endothelial cell survival and function in tissue engineering. **Sabet Sarvestani F**, Tamaddon AM, Yaghoobi R, Geramizadeh B, Azarpira N. *Eng Life Sci* (2023), doi: 10.1002/elsc.202200140
4. Indirect co-culture of islet cells in 3D biocompatible collagen/laminin scaffold with angiomiRs transfected Mesenchymal Stem Cells. **Sabet Sarvestani F**, Tamaddon AM, Yaghoobi R, Geramizadeh B, Abolmaali S, Kaviani M, Keshtkar S, Pakbaz S, Azarpira N. *Cell Biochemistry & Function* (2023), doi: 10.1002/cbf.3781
5. Dehdari Ebrahimi N, Shojaei-Zarghani S, Taherifard E, Dastghaib S, Parsa S, Mohammadi N, **Sabet Sarvestani F**, Moayedfard Z, Hosseini N, Safarpour H, Sadeghi A, Azarpira N and Safarpour AR. Protective effects of melatonin against physical injuries to testicular tissue: A systematic review and meta-analysis of animal models. *Frontiers in Endocrinology* (2023), 30;14:1119553. doi: 10.3389/fendo.2023.1119553. PMID: 36793277; PMCID: PMC9922902.
6. Keshtkar S, Soleimani S, Kaviani M, **Sabet Sarvestani F**, Azarpira N, Asvar Z, Pakbaz S. Immune cell-derived extracellular vesicles in the face of pathogenic infections. *Frontiers in Immunology* (2022), 13: 3260
7. **Sabet Sarvestani F**, Tamaddon AM, Karimi MH, Yaghoobi R, Geramizadeh B, Heydari M, Al-Abdullah IH, Azarpira N. Construction and transfer of PEI-miRNA-126/210 polyplex into human umbilical vein endothelial cells with investigation of its effect on islets survival and function (In press). *Pharmaceutical Sciences* (2022), doi: 10.34172/PS.2022.24
8. Kaviani M, Keshtkar S, Soleimani S, **Sabet Sarvestani F**, Azarpira N and Pakbaz S. Susceptibility to Metabolic Diseases in COVID-19: To be or Not to be an Issue. *Front Mol Biosci.* (2022) 9:803314. doi: 10.3389/fmolb.2022.803314. PMID: 35187079; PMCID: PMC8852768.

9. **Sabet Sarvestani F**, Azarpira N. microRNAs alterations of myocardium and brain ischemia-reperfusion injury: insight to improve infarction. *Immunological investigations* (2022) 51 (1), 51-72
10. Azarpira N, Kaviani M, **Sabet Sarvestani F**. Incorporation of VEGF-and bFGF-loaded alginate oxide particles in acellular collagen-alginate composite hydrogel to promote angiogenesis. *Tissue and Cell* (2021) 72, 101539
11. Kaviani M, Keshtkar S, **Sabet Sarvestani F**, Azarpira N, Yaghobi R, Aghdaei M, Geramizadeh B, Esfandiari E, Shamsaeefar A, Nikeghbalian S, Al-Abdullah IH, Karimi MH, Motazedian N. The potential of the incorporated collagen microspheres in alginate hydrogel as an engineered three-dimensional microenvironment to attenuate apoptosis in human pancreatic islets. *Acta Histochemica* (2021) 123 (7), 151775
12. **Sabet Sarvestani F**, Azarpira N, Al-Abdullah IH, Tamaddon AM. microRNAs in liver and kidney ischemia reperfusion injury: insight to improve transplantation outcome. *Biomedicine & Pharmacotherapy* (2021) 133, 110944
13. Keshtkar S, Kaviani M, Jabbarpour Z, **Sabet Sarvestani F**, Ghahremani MH, Esfandiari E, Aghdaei M, Nikeghbalian S, Shamsaeefar A, Geramizadeh B, Azarpira N. Hypoxia-Preconditioned Wharton's Jelly-Derived Mesenchymal Stem Cells Mitigate Stress-Induced Apoptosis and Ameliorate Human Islet Survival and Function in Direct Contact Coculture System. *Stem cells international* (2020) 2020
14. **Sabet Sarvestani F**, Zare MA, Saki F, Koohpeyma F, Al-Abdullah IH, Azarpira N. The effect of human wharton's jelly-derived mesenchymal stem cells on MC4R, NPY, and LEPR gene expression levels in rats with streptozotocin-induced diabetes. *Iranian Journal of Basic Medical Sciences* (2020) 23 (2), 214
15. Keshtkar S, Kaviani M, **Sabet Sarvestani F**, Ghahremani MH, Aghdaei M, Al-Abdullah IH, Azarpira N. Exosomes derived from human mesenchymal stem cells preserve mouse islet survival and insulin secretion function. *EXCLI journal* (2020) 19, 1064
16. Yektaseresht A, **Sabet Sarvestani F**, Dordani M, Arsalan H Cloning and expression of Mannheimia haemolytica PlpE gene in Escherichia coli and its immunogenicity assessment. *Archives of Razi Institute* (2018) 73:-
17. **Sabet Sarvestani F**, Mehrabani D, Tanideh N, Mokhtari M, Koohi-Hosseiniabadi O, Rokhsari P and Daneshi S. Investigation of eucalyptus essence 1% and its mixture with licorice gel 10% on the infected third-degree burn wound in rat model. *Comparative Clinical Pathology* (2018). 1-7
18. Shaaban Z, Tamadon A, Zamiri J, Jafarzadeh Shirazi MR, Rahmanifar F, Razeghian Jahromi I, Ahmadloo S, Nooranizadeh MH, Ramezani A, **Sabet Sarvestani F**, and Koohi-Hosseiniabadi O. Decreased Expression of Arginine-Phenylalanine-Amide-Related Peptide-3 Gene in Dorsomedial Hypothalamic Nucleus of Constant Light Exposure Model of Polycystic Ovarian Syndrome. *Int J Fertil Steril* (2017). 12(1): 43-50.

19. Karami Kheirabad M, Ahmadloo S, Namavar Jahromi B, Rahmanifar F, Tamadon A, Ramezani A, Owjifard M, **Sabet Sarvestani F**, and Koochi-Hosseiniabadi O. Alterations of hypothalamic RF-amide related peptide-3 and Kiss1 gene expressions during spermatogenesis of rat in chronic stress conditions. *Veterinarski Arhiv* (2016). 86(6): 841-856.
20. Hosseini SM, Farahmandnia M, Kazemi S, Shakiba jahromi B, **Sabet Sarvestani F**, and Khodabande Z. A novel cell therapy method for recovering after brain stroke in rats. *Int J Stem Cells*. (2015). 8(2): 191-199.
21. Hosseini SM, Samimi N, Farahmandnia M, Shakibajahromi B, **Sabet Sarvestani F**, Sani M, and Mohamadpour M. The Preventive Effects of Neural Stem Cells and Mesenchymal Stem Cells Intra-ventricular Injection on Brain Stroke in Rats. *N Am J Med Sci*. (2015). 7(9): 390-396.
22. Hosseini SM, Farahmandnia M, Razi Z, Delavari S, Shakiba jahromi B, **Sabet Sarvestani F**, Kazemi S, and Semsar M. Combination Cell Therapy with Mesenchymal Stem Cells and Neural Stem Cells for Brain Stroke in Rats. *Int J Stem Cells*, (2015). 8(1): 99-105.
23. Asadi-yosefabad S, **Sabet Sarvestani F**, Tamadon A, Jafarzadeh Shiraz M, Ahmadloo S, Abolimoghadam A, Niazi A, and Moghiminasr R, Agouti-related peptide and melanocortin-4 receptor mRNAs expressions in arcuate nucleus during the pregnancy and lactation of rats. *Vet Arh*. (2015). 85(6): 689-700.
24. **Sabet Sarvestani F**, Rahmanifar F, Tamadon A. Histomorphometric changes of small intestine in pregnant rat. *Vet Res Forum*. (2014). 6(1): 69-73.
25. Tanideh N, Rokhsari P, Mehrabani D, Mohammadi Samani S, **Sabet Sarvestani F**, Ashraf M, Koochi Hosseinabadi O, Shamsian S, Ahmadi N. The Healing Effect of Licorice on Pseudomonas aeruginosa Infected Burn Wounds in Experimental Rat Model. *World J Plast Surg*. (2014). 3(2): 99-106.
26. **Sabet Sarvestani F**, Tamadon A, Hematzadeh A, Jahanara M, Jafarzadeh Shirazi MR, Moghadam A, Niazi A, and Moghiminasr R. Expression of melanocortin-4 receptor and agouti-related peptide mRNAs in arcuate nucleus during long term malnutrition of female ovariectomized rats. *Iran J Basic Med Sci*. (2014). 18(1): 104-107.
27. Sarkari B, Asgari Q, Bagherian N, Ashkani S, Kalantari M, Mohammadpour I, Ashraf Mansori M, Amerinia M, **Sabet Sarvestani F**. Molecular and Serological Evaluation of Toxoplasma gondii Contamination in Reared Turkeys in Southern Iran. *Jundishapur J Microbiol*. (2014). 7(7): e11598.
28. **Sabet Sarvestani F**, Tamadon A, Koochi-Hosseiniabadi O, Mohammadinezhad S, Rahmanifar F, Jafarzadeh Shiraz M, Tanideh N, Abolimoghadam A, Niazi A. Expression of RFamide-related peptide-3 (RFRP-3) mRNA in dorsomedial hypothalamic nucleus and KiSS-1 mRNA in arcuate nucleus of rat during pregnancy. *Int J Fertil Steril*. (2013). 8(3): 333-340.

29. Jahanara M, Tamadon A, Jafarzadeh Shiraz M, Rahmanifar F, **Sabet Sarvestani F**, Tanideh N, Abolimoghadam A, Niazi A. Long term malnutrition and mRNAs expression of RFRP-3 and KiSS-1 in hypothalamus of female ovariectomized rats. *J Physiol Pharmacol.* (2013). 17(4): 370-378.
30. Asadi-yosefabad S, Tamadon A, Rahmanifar F, Jafarzadeh Shiraz M, **Sabet Sarvestani F**, Tanideh N, Abolimoghadam A, Niazi A. Lactation effect on mRNAs expression of RFRP-3 and KiSS-1 in dorsomedial and arcuate nuclei hypothalamus of rat. *J Physiol Pharmacol.* (2013). 17(3): 277-285.

### **CONFERENCE PRESENTATIONS**

1. Nooranizadeh MH, Shaban Z, Tamadon A, Jafarzadeh Shirazi MR, Rahmanifar F, Ahmadloo S, Ramazani A, Razeghian Jahromi I, **Sabet Sarvestani F**, Koohi Hosseinabadi O. Increase in melanocortin 4 receptor (MC4R) mRNA expression in hypothalamic arcuate nucleus in polycystic ovary syndrome in rat. Royan International Twin Congress on Reproductive Biomedicine and Stem Cells Biology & Technology, International Journal of Fertility and Sterility. 10 (suppl 1): 32August 31-September 2, (2016). Tehran, Iran.
2. Jafarzadeh Shirazi MR, Tamadon A, Nooranizadeh MH, Rahmanifar F, Shaban Z, Ahmadloo S, Ramazani A, Razeghian Jahromi I, **Sabet Sarvestani F**, Koohi Hosseinabadi O. Polycystic ovary syndrome had no effect on hypothalamic arcuate nucleus expression of kisspeptin mRNA in rats. Royan International Twin Congress on Reproductive Biomedicine and Stem Cells Biology & Technology, International Journal of Fertility and Sterility. 10(suppl 1): 81. August 31-September 2, (2016). Tehran, Iran.
3. Karami Kheirabad M, Ahmadloo S, Namavar Jahromi B, Tamadon A, Ramezani A, **Sabet Sarvestani F**, Koohi-Hosseinabadi O. "RF-Amide Related Peptide mRNA Expression in Male Rat Dorsomedial Hypothalamic Nucleus during Chronic Stress". Royan International Twin Congress 16th Congress on Reproductive Biomedicine, Volume: 9 supplement 1. September (2015). Tehran, Iran
4. Namavar Jahromi B, Karami Kheirabad M, Ahmadloo S, Tamadon A, Ramezani A, **Sabet Sarvestani F**, Koohi-Hosseinabadi O. "Effect of Chronic Stress on Kiss-1 mRNA Expression in Male Rat Arcuate Hypothalamic Nucleus". 16th Congress on Reproductive Biomedicine, Volume: 9. Sep (2015), Tehran, Iran.

5. **Sabet Sarvestani F**, Rahmanifar F, Tamadon A. "Histomorphometric evaluation of small intestine during pregnancy in rat". Royan International Twin Congress on Reproductive Biomedicine and Stem Cells Biology & Technology. Jan (2014). Tehran, Iran
6. Farahmandnia M, Hosseini SM, Namavar MR, Shakiba B, **Sabet Sarvestani F**. "The Effects of Pre- and Post-Ischemic Neural Stem Cell Intra-Ventricular Injection on Brain Stroke in Rats". Royan International Twin Congress 10th Congress on Stem Cell Biology and Technology September (2014). Tehran, Iran
7. Namavar MR, Hosseini SM2, Farahmandnia M, Shakiba B, **Sabet Sarvestani F**. "The Effects of Pre- and Post- Ischemic Intra-Ventricle Injections of Mesenchymal Stem Cells on Brain Stroke in Rats". Royan International Twin Congress 10th Congress on Stem Cell Biology and Technology September (2014). Tehran, Iran
8. **Sabet Sarvestani F**, Mohammadinejad S, Tamadon A, Koohi-Hosseiniabadi O, Jafarzadeh Shirazi MR, Rahmanifar F, Tanideh N, Abolmoghadam A, Niazi A. "Expression of RFamide-related peptide-3 and KiSS-1 mRNA in the hypothalamus of pregnant rat". Royan International Twin Congress on Reproductive Biomedicine and Stem Cells Biology & Technology. Jan (2013). Tehran, Iran.
9. Asadi yosefabad S, Tamadon A, Rahmanifar F, Jafarzadeh Shirazi MR, **Sabet Sarvestani F**, Tanideh N, Abolmoghadam A, Niazi A. "Lactation and mRNAs expression of RFRP-3 and KiSS-1 in hypothalamus of rat". Royan International Twin Congress on Reproductive Biomedicine and Stem Cells Biology & Technology. Jan (2013). Tehran, Iran.
10. Jahanara M, Tamadon A, Jafarzadeh Shiraz M, Rahmanifar F, **Sabet Sarvestani F**, Tanideh N, Abolmoghadam A, Niazi A. "Long term malnutrition and mRNAs expression of RFRP-3 and KiSS-1 in hypothalamus of rat". The 10th Congress on Obstetrics and Gynecology. Jan (2013). Tehran, Iran
11. **Sabet Sarvestani F**, Koohi-Hosseiniabadi O, Tamadon A, Jafarzadeh Shiraz M, Rahmanifar F, Tanideh N. "A new method of early pregnancy determination in rat". The 2nd National Congress of Veterinary Laboratory Sciences. Jan (2012). Semnan, Iran