CURRICULUM-VITAE

Personal details

Surname: Ai

First name: Jafar

Date of birth: 16.08.1962

Place of birth: Shiraz, Iran

Nationality: Iranian

Gender: Male

Marital status: married (2 children)

Academic Rank: Professor in Tehran university of Medical Sciences

H index: 30 in Scopus (CITATION: 2147), 36 in google scholar (CITATION: 4369)

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Education

2004-2005 Postdoctoral flew Tissue Engineering, University of Toronto, Toronto, Canada

1996-2001 Ph.D in Anatomy, Shiraz University, Shiraz, Iran

1992-1993 M.Sc in Histology, Tabriz University of Medical Sciences, Tabriz, Iran

1986-1990 B.Sc in Biology, Shiraz university , Shiraz, Iran

Employment history:

- **Teaching experience**

- Professor in Tissue Engineering and Applied Cell Sciences Department, Tehran University of Medical Sciences (TUMS), 2011 until Now
- Assistant professor in shiraz university of medical sciences, 2000-2005

- **Administrative experience**

- **Vice Dean of Education in** Advanced Technologies in Medicine School, Tehran University of Medical Sciences, Tehran, Iran 2017 up to now
- **Head of tissue engineering and applied cell sciences department, TUMS, 2010-2019**
- **Head of Tissue engineering and applied cell sciences board** in the ministry of health and medical education, Tehran, Iran 2015 up to now
- **Research member of cell therapy and regenerative medicine research center**, Tehran University of Medical Sciences, Tehran, Iran, 2018 up to now
- **Member of Education Development Center**, Tehran University of Medical Sciences,2017 up to now
- **CEO of Pars zist eksir company**, Iran, 2017 up to now
- **Chairman of 1th international Iranian tissue engineering and regenerative medicine congress**, Tehran, Iran, 2018
- **Preparing of tissue engineering and applied cell sciences majors** in the ministry of health and medical education, Tehran, Iran 2015 up to now

Establishments and pioneer

- **Establishment of tissue engineering and applied cell sciences majors in IRAN in Ph.D level**

Course and workshop teaching:

Courses (Ph.D)

- Tissue engineering, TUMS, Tehran, Iran, 2014 until now

- Cell therapy and cell banking. TUMS, Tehran, Iran, 2015 until now
- The basics of stem cells. TUMS, Tehran, Iran, 2014 up now
- Regenerative medicine, TUMS, Tehran, Iran, 2014-2015
- 2D and 3D Cell culture, TUMS, Tehran, Iran, 2013 until now
- Anatomy and Embryology. TUMS, Tehran, Iran, 2010 up now

Workshops:

1. 2D and 3D cell culture workshop, Department of Tissue Engineering, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, 2012-2020

2. Two Dimensional versus Three Dimensional Cell Culture Methods, Department of Tissue Engineering, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, 2012-2018

3. Advances in Tissue Engineering 2014"short course(international), Department of Tissue Engineering, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, 2014

4. Tissue engineering in dentistry. Short course. Department of Tissue Engineering, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, 2017

Honors and achievements:

- Award winner on best book on second Annual Avicenna Student Festival, Tehran University of Medical Sciences,2013
- Educated Researcher award from national institute for medical research development (NIMAD), Tehran, Iran, 2018
- Award winner of The best clinical research paper, CFAS annual meeting, Toronto, Canada, 2007

Research Experience:

Postdoctoral Fellow, Tissue Engineering, University of Toronto, Toronto, Canada, 2004

Supervisor: prof. Robert Casper

Publications

Please find my latest papers in these links:

https://scholar.google.com/citations?hl=fa&user=217QRD0AAAAJ

1. Sadeghi Mahya, Jafar Ai, Shahrokh Shojae, Hossein Ali Khonakdar, Goldis Darbemamieh, Sadegh Shirian. Berberine loaded chitosan nanoparticles encapsulated in polysaccharide-based hydrogel for the repair of spinal cord. International Journal of Biological Macromolecules. 2021, 181:82-90

2. Faezeh Esmaeili Ranjbar, Farzad Foroutan, Mahdieh Hajian, Jafar Ai, Alireza Farsinejad, Somaye Ebrahimi- Barough , Mohammad Mehdi Dehghan , Mahmoud Azami. Preparation and characterization of 58S bioactive glass based scaffold with Kaempferol-containing Zein coating for bone tissue engineering. Journal of Biomedical Materials Research Part B: Applied Biomaterials, 2020, https://doi.org/10.1002/jbm.b.34786

3. Tamouchin Moharrami , Jafar Ai , Somayeh Ebrahimi-Barough , Mohammad Nouri , Maryam Ziadi , Hossein Pashaiefar , Fatemeh Yazarlou , Mohammad Ahmadvand , Soheil Najafi , Mohammad Hossein Modarressi. Influence of Follicular Fluid and Seminal Plasma on the Expression of Endometrial Receptivity Genes in Endometrial Cells. Cell J,2021 Jan;22(4):457-466.

4. Ahmad Reza Farmani, Mohammad Hossein Nekoofar, Somayeh Ebrahimi Barough, Mahmoud Azami, Nima Rezaei, Sohrab Najafipour, Jafar AiApplication of Platelet Rich Fibrin in Tissue Engineering: Focus on Bone Regeneration. Platelets, 2021, 32(2): 183-188

5. Jamileh Saremi, Mehdi Khanmohammadi, Mahmoud Azami, Jafar Ai, Aliakbar Yousefi-Ahmadipour, Somayeh Ebrahimi-Barough. Tissue-engineered nerve graft using silk-fibroin/polycaprolactone fibrous mats decorated with bioactive cerium oxide nanoparticles. 2021, https://doi.org/10.1002/jbm.a.37153
6. Bahareh Nazari, Zeinab Namjoo, Fatemeh Moradi, Mansure Kazemi, Somayeh Ebrahimi-Barough, Esmaeil Sadroddiny, Jafar Ai. miR-219 overexpressing oligodendrocyte progenitor cells for treating compression spinal cord injury. Metabolic Brain Disease, 2021, 1-9

7. Amir Allahverdi, Ehsan Arefian, Masoud Soleimani, Jafar Ai, Aliakbar Yousefi-Ahmadipour, Abouzar Babaei, Md Shahidul Islam, and Somayeh Ebrahimi-Barough. Involvement of EGFR, ERK-1, 2 and AKT-1, 2 Activity on Human Glioma Cell Growth. Asian Pac J Cancer Prev. 2020 Dec; 21(12): 3469–3475.

8. M Mahmoodi, S Ferdowsi, S Ebrahimi-Barough, S Kamian, J Ai, Tissue engineering applications in breast cancer. Journal of medical engineering & technology, 2020, 44 (4), 162-168
9. Vajihe Taghdiri Nooshabadi, Mehdi Khanmohammadi, Shilan Shafei, Hamid Reza Banafshe, ZibaVeisi Malekshahi, Somayeh Ebrahimi-Barough, Jafar Ai .Impact of atorvastatin loaded exosome as an anti-glioblastoma carrier to induce apoptosis of U87 cancer cells in 3D culture model. Biochemistry and Biophysics Reports. Volume 23, September 2020, 100792
10. Arash Goodarzi, Mehdi Khanmohammadi, Arman Ai, Hamid Khodayari, Armin Ai, Morteza Sagharjoghi Farahani, Saeed Khodayari, Somayeh Ebrahimi-Barough, Sanam Mohandesnezhad & Jafar Ai. Simultaneous impact of atorvastatin and mesenchymal stem cells for glioblastoma multiform suppression in rat glioblastoma multiform model. Molecular Biology Reports volume 47, pages7783–7795(2020)
11. Elham Hasanzadeh , Somayeh Ebrahimi- Barough, Narges Mahmoodi , Amir Mellati , Houra Nekounam, Arefeh Basiri , Shiva Asadpour, Diba Ghasemi , Jafar Ai Defining the role of 17β- estradiol in human endometrial stem cells differentiation into neuron- like cells. Cell biology international. 2020
12. Elham Hasanzadeh, Narges Mahmoodi, Arefeh Basiri, Faezeh Esmaeili Ranjbar, Zahra Hassannejad, Somayeh Ebrahimi-Barough, Mahmoud Azami, Jafar Ai, Vafa Rahimi-Movaghar. Proanthocyanidin as a crosslinking agent for fibrin, collagen hydrogels and their composites with decellularized Wharton's-jelly-extract for tissue engineering applications. Journal of Bioactive and Compatible Polymers,2020, 35 (6), 554-571
13. Narges Mahmoodi, Jafar Ai, Zahra Hassannejad, Somayeh Ebrahimi-Barough, Elham Hasanzadeh, Amin Hadi, Houra Nekounam, Vafa Rahimi-Movaghar. Are reported methods for synthesizing nanoparticles and microparticles by magnetic stirrer reproducible? Journal of Computational Applied Mechanics 2020, 51 (2), 498-500
14. Narges Mahmoodi, Jafar Ai, Somayeh Ebrahimi- Barough, Zahra Hassannejad, Elham Hasanzadeh, Arefeh Basiri, Alexander R Vaccaro, Vafa Rahimi- Movaghar. Microtubule stabilizer epothilone B as a motor neuron differentiation agent for human endometrial stem cells. 2020 may. Cell Biology International 44 (5), 1168-1183
15. Hossein Kargar Jahromi, Ali Farzin, Elham Hasanzadeh, Somayeh Ebrahimi Barough, Narges Mahmoodi, Mohammad Reza H Najafabadi, Morteza Sagharjoghi Farahani, Korosh Mansoori, Sadegh Shirian, Jafar Ai. Enhanced sciatic nerve regeneration by poly-L-lactic acid/multi-wall carbon nanotube neural guidance conduit containing Schwann cells and curcumin encapsulated chitosan nanoparticles in rat. Materials Science and Engineering: C, Volume 109, April 2020, 110564.
16. Leyla Fath-Bayati, Jafar Ai. Assessment of mesenchymal stem cell effect on foreign body response induced by intraperitoneally implanted alginate spheres. J Biomed Mater Res. 2019;1–9.
17. Akram Nadi1 & Lida Moradi2,3 & Jafar Ai4 & Shiva Asadpour. Stem Cells and Hydrogels for Liver Tissue Engineering: Synergistic Cure for Liver Regeneration. Stem Cell Reviews and Reports, 2020

18. M Izadpanah, L Dargahi, J Ai, A Asgari Taei, S Ebrahimi Barough, 2020. Extracellular Vesicles as Neprilysin Delivery Syemory Improvement of Alzheimer's Disease. Iranian Journal of Pharmaceutical Research
19. A Fathi, M Khanmohammadi, A Goodarzi, ZT Mobarakeh, J Saremi, 2020. Fabrication of Chitosan-Polyvinyl Alcohol and Silk Electrospun Fiber Seeded with Differentiated Keratinocyte for Skin Tissue Regeneration in Animal Wound Model. Europ PMC.
20. S Asadpour, S Kargozar, L Moradi, A Ai, H Nosrati, J Ai. 2020. Natural biomacromolecule based composite scaffolds from silk fibroin, gelatin and chitosan toward tissue engineering applications. International journal of biological macromolecules 154, 1285-1294
21. L Arab, A Fanni, S Nemati, E Arefian, J Ai, T Mokhtari, M Farahmandfar.2020. Human embryonic derived neural progenitor cells improves neurological scores following brain ischemia/reperfusion: Modulation of blood and brain tissue MicroRNA-210. Journal of Contemporary Medical Sciences 6 (3)
22. S Hajighasemlou, M Nikbakht, S Pakzad, S Muhammadnejad, Ai J. 2020. Sorafenib and Mesenchymal Stem Cell Therapy: A Promising Approach for Treatment of HCC. Evidence-Based Complementary and Alternative Medicine 2020
23. ME Astaneh, A Goodarzi, M Khanmohammadi, A Shokati, Ai J. 2020. Chitosan/gelatin hydrogel and endometrial stem cells with subsequent atorvastatin injection impact in regenerating spinal cord tissue. Journal of Drug Delivery Science and Technology, 101831
24. M Safari, A Amani, T Adebileje, J Ai, SM Rezayat, H Ghanbari, Ai J. 2020. Preparation of all-trans-retinoic acid-loaded mPEG-PLGA nanoparticles using microfluidic flow-focusing device for controlled drug delivery. NANO
25. J Ai, A Farzin, S Zamiri, M Hadjighassem, S Ebrahimi-Barough, A Ai, 2020. Repair of injured spinal cord using platelet-rich plasma-and endometrial stem cells-loaded chitosan scaffolds. International Journal of Polymeric Materials and Polymeric Biomaterials, 1-10
26. S Ababzadeh, A Farzin, A Goodarzi, R Karimi, M Sagharjoghi Farahani, Ai J. 2020. High porous electrospun poly (ε- caprolactone)/gelatin/MgO scaffolds preseeded with

endometrial stem cells promote tissue regeneration in full- thickness skin wounds: An in vivo …Journal of Biomedical Materials Research Part B: Applied Biomaterials

27. VT Nooshabadi, M Khanmohamadi, E Valipour, S Mahdipour, A Salati, Ai J. 2020. Impact of exosome loaded chitosan hydrogel in wound repair and layered dermal reconstitution in mice animal model. Journal of Biomedical Materials Research Part A
28. F Torabimehr, MR Kordi, R Nouri, J Ai, S Shirian.2020. The Role of Forced and Voluntary Training on Accumulation of Neural Cell Adhesion Molecule and Polysialic Acid in Muscle of Mice with Experimental Autoimmune Encephalomyelitis. Evidence-Based Complementary and Alternative Medicine 2020
29. S Kianersi, AAA Varjani, A Solouk, J Ai, BP Lee. 2020. Mussel-Inspired Polydopamine-coated Silk Fibroin as a Promising Biomaterial. Bioinspired, Biomimetic and Nanobiomaterials, 1-7
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31. A Allahverdi, E Arefian, M Soleimani, J Ai, N Nahanmoghaddam, 2020. MicroRNA-4731- 5p delivered by AD- mesenchymal stem cells induces cell cycle arrest and apoptosis in glioblastoma. Journal of Cellular Physiology
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35. B Nazari, M Kazemi, A Kamyab, B Nazari, S Ebrahimi- Barough, Ai J. 2020. Fibrin hydrogel as a scaffold for differentiation of induced pluripotent stem cells into oligodendrocytes. Journal of Biomedical Materials Research Part B: Applied Biomaterials 108 (1
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37. M Haddadi, J Ai, S Shirian, A Kadivar, M Farahmandfar. 2020. The effect of methadone, buprenorphine, and shift of methadone to buprenorphine on sperm parameters and antioxidant activity in a male rat model. Comparative Clinical Pathology, 1-8
38. A Ai, A Behforouz, A Ehterami, N Sadeghvaziri, S Jalali, S Farzamfar, Ai J. 2020. Sciatic nerve regeneration with collagen type I hydrogel containing chitosan nanoparticle loaded by insulin. International Journal of Polymeric Materials and Polymeric Biomaterials 68
39. F Nikfalah, K Alimohammadzadeh, M Jafari. 2020. The Impact Of Health System Reform On Students Health Indicators in Alborz Health Services Centers.Alborz University Medical Journal 8 (4), 387-396
40. S Farzamfar, M Salehi, SM Tavangar, J Verdi, K Mansouri, A Ai, Ai J. 2020. A novel polycaprolactone/carbon nanofiber composite as a conductive neural guidance channel: An in vitro and in vivo study. Progress in Biomaterials 8 (4), 239-248
41. J Ai, N Ketabchi, J Verdi, N Gheibi, HK Haghighian, M Kavianpour. 2020. Mesenchymal stromal cells induce inhibitory effects on hepatocellular carcinoma through various signaling pathways. Cancer Cell International 19 (1), 1-13
42. A Farzin, SA Etesami, A Goodarzi, J Ai. 2020. A facile way for development of three-dimensional localized drug delivery system for bone tissue engineering. Materials Science and Engineering: C 105, 110032
43. A Farzin, S Hassan, S Ebrahimi-Barough, A Ai, E Hasanzadeh, Ai J. 2020.A facile two step heat treatment strategy for development of bioceramic scaffolds for hard tissue engineering applications. Materials Science and Engineering: C 105, 110009

44. M Zahiri, M Khanmohammadi, A Goodarzi, S Ababzadeh, MS Farahani, Ai J. 2020. Encapsulation of curcumin loaded chitosan nanoparticle within poly (ε-caprolactone) and gelatin fiber mat for wound healing and layered dermal reconstitution. International journal of biological macromolecules
45. S Asadpour, H Yeganeh, F Khademi, H Ghanbari, J Ai. 2020. Resveratrol-loaded polyurethane nanofibrous scaffold: viability of endothelial and smooth muscle cells. Biomedical Materials 15 (1), 015001
46. Z Zarei-Behjani, M Soleimani, A Atashi, S Ebrahimi-Barough, J Ai, 2020.Tracking of GFP-labeled unrestricted somatic stem cells transplanted in the sepsis mouse model. Tissue and Cell 60, 33-37
47. Z Arabpour, A Baradaran- Rafii, NL Bakhshaiesh, J Ai, 2020. Design and characterization of biodegradable multi layered electrospun nanofibers for corneal tissue engineering applications. Journal of Biomedical Materials Research Part A 107 (10), 2340-2349
48. M Khanmohammadi, S Nemati, J Ai, F Khademi. 2020. Multipotency expression of human adipose stem cells in filament-like alginate and gelatin derivative hydrogel fabricated through visible light-initiated crosslinking. Materials Science and Engineering: C 103, 109808
49. M Jalali Monfared, F Nasirinezhad, S Ebrahimi- Barough, G Hasanzade, Ai J. 2019. Transplantation of miR- 219 overexpressed human endometrial stem cells encapsulated in fibrin hydrogel in spinal cord injury. Journal of cellular physiology 234 (10), 18887-18896
50. A Talebi, MA Sadighi-Gilani, M Koruji, J Ai, S Navid, MJ Rezaie, A Jabari, 2019. Proliferación y Diferenciación de Células Madre Espermatogónicas de Ratón en una Superficie Tridimensional Compuesta de Nanofibras PCL/Gel. International Journal of Morphology 37 (3), 1132-1141
51. M Kazemi, B Nazari, J Ai, N Lotfibakhshaiesh, A Samadikuchaksaraei, 2019. Preparation and characterization of highly porous ceramic-based nanocomposite scaffolds with improved mechanical properties using the liquid phase-assisted sintering method. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of …

52. ZZ Behjani, J Ai, M Soleimani, A Atashi, B Taheri, S Ebrahimi- Barough, 2019. Human unrestricted somatic stem cells ameliorate sepsis- related acute lung injury in mice. Journal of cellular physiology 234 (8), 13942-13950
53. S Farzamfar, A Hasanpour, N Nazeri, H Razavi, M Salehi, S Shafei, Ai J. 2019.Extracellular micro/nanovesicles rescue kidney from ischemia- reperfusion injury. Journal of Cellular Physiology 234 (8), 12290-12300
54. A Talebi, MAS Gilani, M Koruji, J Ai, S Navid, MJ Rezaie, A Jabari, Ai J. 2019. Proliferation and Differentiation of Mouse Spermatogonial Stem Cells on a Three-Dimensional Surface Composed of PCL/Gel Nanofibers.International Journal of Morphology 37 (3)
55. H Babaloo, S Ebrahimi- Barough, MA Derakhshan, M Yazdankhah, Ai J. 2019. PCL/gelatin nanofibrous scaffolds with human endometrial stem cells/Schwann cells facilitate axon regeneration in spinal cord injury. Journal of cellular physiology 234 (7), 11060-11069
56. A Yousefi- Ahmadipour, A Rashidian, MR Mirzaei, A Farsinejad, 2019. Combination therapy of mesenchymal stromal cells and sulfasalazine attenuates trinitrobenzene sulfonic acid induced colitis in the rat: the S1P pathway. Journal of Cellular Physiology 234 (7), 11078-11091
57. A Ehterami, M Salehi, S Farzamfar, H Samadian, A Vaez, S Ghorbani, J Ai, 2019. Chitosan/alginate hydrogels containing Alpha-tocopherol for wound healing in rat model. Journal of Drug Delivery Science and Technology 51, 204-213
58. B Nazari, F Soleimanifar, M Kazemi, B Nazari, SE Enderami, A Ai, Ai J. 2019. Derivation of preoligodendrocytes from human- induced pluripotent stem cells through overexpression of microRNA 338. Journal of Cellular Biochemistry 120 (6), 9700-9708
59. 44. I Seyhoun, S Hajighasemlou, S Muhammadnejad, J Ai, M Nikbakht, Ai J. 2019. Combination therapy of sorafenib with mesenchymal stem cells as a novel cancer treatment regimen in xenograft models of hepatocellular carcinoma. Journal of cellular physiology 234 (6), 9495-9503

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61. E Vojoudi, J Ai, M Baghaban Eslaminejad, M Azami, AM Kajbafzadeh, 2019. A novel inexpensive method for preparation of silk nanofibers from cocoons. Eurasian Chemical Communications 1 (3, pp. 242-317.), 301-309
62. A Farzin, S Hassan, R Emadi, SA Etesami, J Ai. 2019. Comparative evaluation of magnetic hyperthermia performance and biocompatibility of magnetite and novel Fe-doped hardystonite nanoparticles for potential bone cancer therapy. Materials Science and Engineering: C 98, 930-938
63. A Goodarzi, M Khanmohammadi, S Ebrahimi-Barough, M Azami, A Amani, Ai J. 2019. Alginate-based hydrogel containing taurine-loaded chitosan nanoparticles in biomedical application. Archives of Neuroscience 6 (2)
64. N Fani, M Farokhi, M Azami, A Kamali, NL Bakhshaiesh, Ai J. 2019. Endothelial and osteoblast differentiation of adipose-derived mesenchymal stem cells using a cobalt-doped CaP/Silk fibroin scaffold. ACS Biomaterials Science & Engineering 5 (5), 2134-2146
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66. A Basiri, M Farokhi, M Azami, S Ebrahimi-Barough, A Mohamadnia,Ai J. 2019. A silk fibroin/decellularized extract of Wharton's jelly hydrogel intended for cartilage tissue engineering. Progress in biomaterials 8 (1), 31-42
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68. A Farzin, N Bahrami, A Mohamadnia, S Mousavi, M Gholami, J Ai, 2019. Scaffolds in Dental Tissue Engineering: A Review. Archives of Neuroscience 7 (1)

69. F Hosseinzadeh, J Ai, S Ebrahimi-Barough, I Seyhoun, A Hajifathali,2019. Natural Killer Cell Expansion with Autologous Feeder Layer and Anti-CD3 Antibody for Immune Cell Therapy of Hepatocellular Carcinoma. Asian Pacific Journal of Cancer Prevention: APJCP 20 (12), 3797
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71. I Seyhoun, JA Saieh Hajighasemlou, F Hosseinzadeh, M Mirmoghtadaei, Ai J. 2019. Novel Combination of Mesenchymal Stem Cell-Conditioned Medium with Sorafenib Have Synergistic Antitumor Effect of Hepatocellular Carcinoma Cells. Asian Pacific Journal of Cancer Prevention: APJCP 20 (1), 263
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73. MS Namini, N Bayat, R Tajerian, S Ebrahimi-Barough, M Azami, S Irani, Ai J. 2019. A comparison study on the behavior of human endometrial stem cell-derived osteoblast cells on PLGA/HA nanocomposite scaffolds fabricated by electrospinning and freeze-drying. Journal of orthopaedic surgery and research 13 (1), 1-11
74. S Mardpour, SN Hassani, S Mardpour, F Sayahpour, M Vosough, J Ai, 2019. Extracellular vesicles derived from human embryonic stem cell- MSCs ameliorate cirrhosis in thioacetamide- induced chronic liver injury. Journal of cellular physiology 233 (12), 9330-9344
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76. F Mohamadi, S Ebrahimi-Barough, MR Nourani, A Ahmadi, J Ai. Use new poly (ε-caprolactone/collagen/NBG) nerve conduits along with NGF for promoting peripheral

(sciatic) nerve regeneration in a rat. Artificial cells, nanomedicine, and biotechnology 46 (sup2), 34-45

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84. M Rashtbar, J Hadjati, J Ai, S Shirian, I Jahanzad, M Azami, S Asadpuor, 2019. Critical- sized full- thickness skin defect regeneration using ovine small intestinal submucosa with or without mesenchymal stem cells in rat model. Journal of Biomedical Materials Research Part B: Applied Biomaterials 106 (6)

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88. S Sharif, J Ai, M Azami, J Verdi, MA Atlasi, S Shirian, 2019.Collagen- coated nano-electrospun PCL seeded with human endometrial stem cells for skin tissue engineering applications. Journal of Biomedical Materials Research Part B: Applied Biomaterials 106 (4
89. M Salehi, M Naseri-Nosar, S Ebrahimi-Barough, M Nourani, A Khojasteh, Ai J. 2019. Polyurethane/gelatin nanofibrils neural guidance conduit containing platelet-rich plasma and melatonin for transplantation of Schwann cells. Cellular and molecular neurobiology 38 (3), 703-713
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Scientific and panel member of congress

1- 1th Iinternational iranian tissue engineering and regenerative medicine congress. Tehran. 2018
2- 2nd Iranian congress on progress in tissue engineering and regenerative medicine. Tehran. 2016
3- 3th Iranian congress on progress in tissue engineering and regenerative medicine. Tehran. 2016
4- First Iranian wound and burn congress. Shiraz-2016
5- Wound and burn international congress. Tehran-2016-2019
6- Neuroscience international congress. Tehran, Iran 2015-2019
7- IANR VIII&12th GCNN congress. Tehran, 2015
8- 2nd International Stem cell and regenerative medicine congress,2017, Mashhad, Iran
9- Invited speaker of international and national congresses 2010 up to now

Patents:

1- Producing prolactin from endometrial stem cells at fibrin gel. Iran, 2019.
2- Producing microglia cells from endometrial stem cells (EnSCs). Iran, 2018.
3- Producing neural cells from endometrial stem cells by Schwann cells co-culture. Iran, 2018.
4- The preparation of Schwann cells from endometrial stem cells in 2D and 3D culture. Iran, 2016.
5- Studying discrimination of endometrial stem cells and ameloblast cells. Iran, 2012.
6- Studying discrimination of endometrial stem cells and hepatocyte cells for repairing liver tissue, Iran, 2012.

Books (Farsi)

1. Stem cells in regenerative medicine. Somayeh Ebrahimi, Jafar Ai, et al., 2019 (Persian)
2. Central Nervous System Tissue Engineering: Current Considerations and Strategies. Somayeh Ebrahimi, Jafar Ai, et al., 2018 (Persian)

3. Tissue engineering, Jafar Ai, et al., 2016 (Persian)
4. Endometrial stem cells, jafar ai, et al., 2016 (Persian)
5. Tissue engineering and regenerative-medicine, jafar ai, et al., 2017,(translated to Persian)

International Chapter Book:

1. Somayeh Ebrahimi-Barough · Reza Rahbarghazi · Zohreh Bagher · Jafar Ai · Elham Hoveizi. Current Understanding Realities of Umbilical Cord Stem Cells Biology and Future Perspectives in Clinical Application. In book: Perinatal Tissue-Derived Stem Cells-Alternative Sources of Fetal Stem Cells. Chapter: 6, Publisher: Springer International Publishing Switzerland 2017, Editors: B. Arjmand, pp.107-136
2. Somayeh Ebrahimi-Barough, Jafar Ai, Moloud Payab, Sepideh Alavi-Moghadam, Ameneh Shokati, Hamid Reza Aghayan, Bagher Larijani, Babak Arjmand. Standard Operating Procedure for the Good Manufacturing Practice-Compliant Production of Human Endometrial Stem Cells for Multiple Sclerosis. Methods in molecular biology (Clifton, N.J.), 2020
3. Fabin Han, Ebrahimi-Barough S, Abolghasemi R, Ai J, Yanming Liu. Cell-Based Therapy for Spinal Muscular Atrophy. Chapter8. F. Han and P. Lu (eds.), Stem Cell-based Therapy for Neurodegenerative Diseases, Advances in Experimental Medicine and Biology, 1266, https://doi.org/10.1007/978-981-15-4370-8_8
4. Ai Jafar, et al., endometrial stem cells and endometriosis, 2014

Reviewer:

1. Reviewer of Journal of Cell Biology International
2. Reviewer of Journal of Molecular Neuroscience
3. Reviewer of Journal of Molecular Biology Reports
4. Reviewer of Journal of Molecular Neurobiology
5. Reviewer of journal of biomedical material research part A
6. Reviewer of journal of tissue engineering and regenerative medicine
7. Reviewer of journal of cellular physiology
8. Reviewer of archives of neurosciences
9. Reviewer of International Journal of Biological Macromolecules
10. Reviewer of International Journal of Nanomedicine
11. Reviewer of stem cell congress, Royan
12. Reviewer of NIMAD Proposal
13. Reviewer of (from Iran national science foundation)INSF

PROFESSIONAL MEMBERSHIPS

1. Dean of Iranian tissue engineering and regenerative medicine society.

2. Member of tissue engineering and regenerative medicine society (TERMIS).

Editorial Board of journals:

1. Editorial board member of journal of applied tissue engineering

http://www.fmsbi.com/journal/ojs/index.php/JATE/about/editorialTeam

Grants:

- Grant NIMAD 2016
- Educated professor grant NIMAD 2017
- Grant from Iran national science foundation (INSF) 2014

Technological and Clinical Trial Grants:

- The effect of autologos endometrial stem cell transplantation in decreased ovarian reserve. clinical trial, Science and technology grant, TUMS, 2019

Products

- **VEGF growth factor extracted from human endometrial stem cells**
- **Prolactin growth factor extracted from human endometrial stem cells**
- **Human endometrial stem cells isolation and banking for clinical application**

Ph.D and Postdoctoral student supervisor:

- Fabrication of Hydrogel Scaffold Containing Crocin and Imipramine-Loaded Nano Particles for Repair of Spinal Cord Injury in Rat. Post doct project,2019
- Effect of periodontal pulp stem cells and taurine drug on inflammation, angiogenesis, apoptosis of glioblastoma tumor cells in animal model. Post doct project,2019
- Fabrication and characterization of Polyvinyl alcohol/chitosan/collagen blended nanofibers, contained curcumin and loaded with human endometrial MSCs for burn wound healing. Post doct project,2019
- Repair of dameged sciatic nerve in rat by use of polycaprolactone/collagen channels containing carbon nanofiber and endometrial stem cells. Post doct project,2018
- Sustained drug release of doxorubicin using hydrophobic microparticles for bone tissue engineering applications. Post doct project,2017
- Sustained drug release of doxorubicin by hydrophobic microparticles for bone tissue engineering applications. Post doct project,2017

- Cardiac-Like Tissue Using Microfluidic System and Hybrid Hydrogel of Hyaluronic acid containing Carbon nanotube and Gelatin. TUMS RESEARCH CENTER, 2018, Ph.D thesis

- Curcumin-loaded exosomes' influence on alpha-synuclein aggregates in animal model of Parkinson's disease. TUMS RESEARCH CENTER, 2018, Ph.D thesis
- bone tissue engineering based on gelatin/ PRF scaffold containing bioglass nano particles, Endometrial stem cells in Rat animal study. TUMS RESEARCH CENTER, 2018, Ph.D thesis
- Evaluation of Therapeutic Effects of adipos Mesenchymal Stem Cells and Stem cell-derived Exosomes encapsulated in Hydrogel for the Treatment of Spinal Cord Injury in the Rat Animal Model. TUMS RESEARCH CENTER, 2018, Ph.D thesis
- Designs of wound biodressing by Fabrication of electrospun polycaprolactone/ Gelatin coated with chitosan-Curcumin nanoparticle and endometrial stem cells in bedsore Wound. TUMS RESEARCH CENTER, 2018, Ph.D thesis
- The study of rat bone marrow mesenchymal stem cells (BMSC) differentiation into cardiomyocytes in the microfluidic system compared with two-dimensional cell culture. TUMS RESEARCH CENTER, 2018, Ph.D thesis
- Investigatiing the effect of cord blood stem cells with Atorvastatin on Breast Adenocarcinoma MCF-7cell line. TUMS RESEARCH CENTER, 2018, Ph.D thesis
- Use of Alginate / Chitosan Hydrogel Scaffolds Containing Berberine and endometrial stem cells for spinal cord Injury in rat model. TUMS RESEARCH CENTER, 2018, Ph.D thesis
- Differentiation of Stem Cells into Oligodendrocytes Using Small Molecules in Three-Dimensional Culture. TUMS RESEARCH CENTER, 2017, Ph.D thesis
- Fabrication of fibrin/polyurethane hydrogel scaffold seeded with endometrial stem cells differentiated into neural cells for repair and regeneration of spinal cord injury in Rat. TUMS RESEARCH CENTER, 2017, Ph.D thesis
- Neural tissue engineering using human endometrial stem cells differentiation into neurons cells on chitosan hydrogel scaffold loaded with PRP for repair spinal cord injury in wistar Rats. TUMS RESEARCH CENTER, 2017, Ph.D thesis
- Design, manufacturing and regeneration of damaged rat sciatic nerves by tissue engineering scaffold made from nanofibers of nano-bioglass/collagen(I) incorporated by NGF as growth factor. TUMS RESEARCH CENTER, 2016, Ph.D thesis
- Tissue engineering of cartilage by differentiation of human endometrial stem cells in the injectable nanocomposite hydrogels scaffold contaning cartilage extracellular matrix. TUMS RESEARCH CENTER, 2016, Ph.D thesis
- The study of human induced pluripotent stem cell (hiPS) differentiation into cardiomyocytes in the microfluidic system compared with two-dimensional cell culture. TUMS RESEARCH CENTER, 2016, Ph.D thesis
- Fabrication of hydrogel scaffold containing taurine loaded chitosan nanoparticles for the differentiation of Endometrial stem cells into retinal photoreceptor cells. TUMS RESEARCH CENTER, 2016, Ph.D thesis
- Investigating the potential therapeutic effect of exosomes Containing Neprylisin in Rat model of Alzimer's disease. TUMS RESEARCH CENTER, 2016, Ph.D thesis
- Diffrentiation of Human Endometrial Stem Cells (hEnSCs) to oocyte and spermatocyte like cells in 2D and 3D cultures. TUMS RESEARCH CENTER, 2016, Ph.D thesis
- Producing of Beta like cells derived from gene transfected adipose and endometrial stem cells forpancreas tissue engineering application. TUMS RESEARCH CENTER, 2015, Ph.D thesis
- investigation of the effect of miR-219 on induction of "induced pluripotent Stem Cells (iPS)" differentiation into oligodendrocyte for spinal cord injury repair in Rat. TUMS RESEARCH CENTER, 2015, Ph.D thesis
- Effect of co-transplantation of encapsulated pancreatic islets with mesenchymal stem cells within hydrogel as a treatment of diabetes mellitus in adult rat. TUMS RESEARCH CENTER, 2015, Ph.D thesis

- Using of fibrinoge hydrogel scaffold combined with mesenchymal stem cells in regeneration of retinal injury in animal model. TUMS RESEARCH CENTER, 2015, Ph.D thesis
- Investigation of osteogenic and angiogenesis effects of silk/cap scaffold with cobalt and mesenchymal stem cells in Rat, TUMS RESEARCH CENTER, 2015, Ph.D thesis

Appearance in social media:

- **Interview about endometrial stem cells application in clinic, 2014, link:** http://www.bonyannews.ir/News/ID/5060/%D8%B3%D9%84%D9%88%D9%84-%D9%87%D8%A7%DB%8C-%D8%A8%D9%86%DB%8C%D8%A7%D8%AF%DB%8C-%D8%A8%D8%A7%D9%81%D8%AA-%D8%B1%D8%AD%D9%85-%D9%82%D8%A7%D8%A8%D9%84%DB%8C%D8%AA-%D8%AF%D8%B1%D9%85%D8%A7%D9%86%DB%8C-%DA%86%D8%B4%D9%85%DA%AF%DB%8C%D8%B1%DB%8C-%D8%AF%D8%A7%D8%B1%D9%86%D8%AF
- **TV Interview about tissue engineering and regenerative medicine, july 2018,link:** http://tv5.ir/program/121125

Skills:

- Computer: Excellent knowledge of Office XP (Excel, Word, PowerPoint).
- Internet.

Language capabilities:

- Persian (native)
- English (advanced)