Short Curriculum Vitae

Dr. Ahmad Vaez

Personal Information:

- **Name:** Ahmad
- **Surname:** Vaez
- **Date of Birth:** Nov. 22, 1980
- **Place of Birth:** Firouzabad, Fars prince, Iran.
- **Sex:** Male
- **Marital Status:** Married

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Languages:

-Persian (Original Language)

-English

Academic Degrees

- **Assistant Professor**
- **Ph.D.** in Tissue engineering
- Department of Tissue Engineering and Applied Cell Sciences, School of Advanced Medical Sciences and Technologies, Shiraz University of Medical Sciences, Shiraz, Iran

Main Research Fields

- Tissue engineering
- Regenerative medicine
- Microfluidics

Research Project Areas

- Skin tissue engineering
- Bone tissue engineering
- Skin on a chip
- Bone on a chip
- Cancer modeling

Publications:

Sample Papers

1. Mahdi Naseri-Nosar, Saeed Farzamfar, Hamed Sahrapeyma, Sadegh Ghorbani, Farshid Bastami, **Ahmad Vaez***, Majid Salehi*. Cerium oxide nanoparticle-containing poly (ε-caprolactone)/gelatin electrospun film as a potential wound dressing material: in vitro and in vivo evaluation. ***Materials Science and Engineering: C***. 2017; 81: 366-372.
2. Mohammad Mardani, **Ahmad Vaez**, Shahnaz Razavi. Effect of saffron on rat sperm chromatin integrity. ***Iranian journal of reproductive medicine***. 2014;12(5): 343–350.
3. Saeed Farzamfar, Mahdi Naseri-Nosar, Hadi Samadian, Simin Mahakizadeh, Roksana Tajerian, Majid Rahmati, **Ahmad Vaez**, Majid Salehi. Taurine-loaded poly (ε-caprolactone)/gelatin electrospun mat as a potential wound dressing material: In vitro and in vivo evaluation. ***Journal of Bioactive and Compatible Polymers***. 2018; 33(3): 282-294.
4. Hadi Samadian, Majid Salehi, Saeed Farzamfar, **Ahmad Vaez**, Arian Ehterami, Hamed Sahrapeyma, Arash Goodarzi, Sadegh Ghorbani. In vitro and in vivo evaluation of electrospun cellulose acetate/ gelatin/ hydroxyapatite nanocomposite mats for wound dressing applications. ***Artificial cells, nanomedicine, and biotechnology***. 2018; 1-11.
5. Majid Salehi, Mahdi Naseri-Nosar, Somayeh Ebrahimi-Barough, Mohammdreza Nourani, **Ahmad Vaez**, Saeed Farzamfar, Jafar Ai. Regeneration of sciatic nerve crush injury by a hydroxyapatite nanoparticle-containing collagen type I hydrogel. ***The Journal of Physiological Sciences***. 2018; 68(5): 579-587.

6. Mahdi Naseri-Nosar, Saeed Farzamfar, Majid Salehi, **Ahmad Vaez**, Roksana Tajerian, Mahmoud Azami. Erythropoietin/aloe vera-releasing wet-electrospun polyvinyl alcohol/chitosan sponge-like wound dressing: In vitro and in vivo studies. ***Journal of Bioactive and Compatible Polymers***. 2018; 33(3): 269-281.
7. Saeed Farzamfar, Mahdi Naseri-Nosar, **Ahmad Vaez**, Farshid Esmaeilpour, Arian Ehterami, Hamed Sahrapeyma, Hadi Samadian, Amir-Ali Hamidieh, Sadegh Ghorbani, Arash Goodarzi, Arian Azimi, Majid Salehi. Neural tissue regeneration by a gabapentin-loaded cellulose acetate/gelatin wet-electrospun scaffold. ***Cellulose***. 2018; 25(2): 1229-1238.
8. Majid Salehi, **Ahmad Vaez**, Mahdi Naseri-Nosar, Saeed Farzamfar, Arman Ai, Jafar Ai, Shima Tavakol, Mehrdad Khakbiz, Somayeh Ebrahimi-Barough. Naringin-loaded Poly (ε-caprolactone)/Gelatin Electrospun Mat as a Potential Wound Dressing: In vitro and In vivo Evaluation. ***Fibers and Polymers***. 2018; 19(1): 125-134.
9. Saeed Farzamfar, Mahdi Naseri-Nosar, Hamed Sahrapeyma, Arian Ehterami, Arash Goodarzi, Majid Rahmati, Gholamreza Ahmadi Lakalayeh, Sadegh Ghorbani, **Ahmad Vaez**, Majid Salehi. Tetracycline hydrochloride-containing poly (ε-caprolactone)/poly lactic acid scaffold for bone tissue engineering application: in vitro and in vivo study. ***International Journal of Polymeric Materials and Polymeric Biomaterials***. 2018; 1-8.
10. Arian Ehterami, Majid Salehi, Saeed Farzamfar, **Ahmad Vaez**, Hadi Samadian, Hamed Sahrapeyma, Mehdi Mirzaii, Sadegh Ghorbani, Arash Goodarzi. In vitro and in vivo study of PCL/collagen wound dressing loaded with insulin-chitosan nanoparticles on cutaneous wound healing in rats model. ***International journal of biological macromolecules***. 2018; 117: 601-609.
11. **Seyed Ahmad Vaez**, Somayeh Ebrahimi-Barough, Masoud Soleimani, Sedighe Kolivand, Saeed Farzamfar, Seyed Hossein Ahmadi Tafti, Mahmoud Azami, Farshid Noorbakhsh, Jafar Ai. The cardiac niche role in cardiomyocyte differentiation of rat bone marrow-derived stromal cells: comparison between static and microfluidic cell culture methods. ***EXCLI journal***. 2018; 17: 762.
12. Saeed Farzamfar, Mahdi Naseri-Nosar, Alireza Ghanavatinejad, **Ahmad Vaez**, Amir Hassan Zarnani, Majid Salehi. Sciatic nerve regeneration by

transplantation of menstrual blood-derived stem cells. ***Molecular biology reports***. 2017; 44(5): 407-412.

13. Saeed Farzamfar, Farshid Esmailpour, Majid Rahmati, **Ahmad Vaez**, Mehdi Mirzaii, Behzad Garmabi, Asghar Shayannia, Elham Ebrahimi, Hamid Vahedi, Majid Salehi. Poly-lactic Acid/Gelatin Nanofiber (PLA/GTNF) Conduits Containing Platelet-Rich Plasma for Peripheral Nerve Regeneration. ***International Journal of Health Studies.*** 2017; 3(2).
14. Saeed Farzamfar, Majid Salehi, Arian Ehterami, Mahdi Naseri-Nosar, **Ahmad Vaez**, Amir Hassan Zarnani, Hamed Sahrapeyma, Mohammad-Reza Shokri, Mehdi Aleahmad. Promotion of excisional wound repair by a menstrual blood-derived stem cell-seeded decellularized human amniotic membrane. ***Biomedical Engineering Letters***. 2018; 1-6.
15. Hahnaz Razavi, **Sayyed Ahmad Vaez**, Mohammad Mardani. Optimizing Acridine orange staining for assessment of protective effects of saffron and vitamin E on rat sperm DNA structure. ***Journal of Isfahan Medical School (IUMS)***. 2014; 32 (293), 1-12.
16. Nazem Ghasemi, Gholam-Reza Dashti, Fatimah Amoozgar, **Seyed Ahmad Vaez**. Effect of Cholesterol, Iron and Vitamin E on Protamine Deficiency and DNA Fragmentation of Male Rabbit Sperm. ***Journal of Isfahan Medical School***. 2014; 31 (259).
17. Saeed Farzamfar, Arian Ehterami, Majid Salehi, **Ahmad Vaez**, Amir Atashi, Hamed Sahrapeyma. Unrestricted Somatic Stem Cells Loaded in Nanofibrous Conduit as Potential Candidate for Sciatic Nerve Regeneration. ***Journal of Molecular Neuroscience***. 2018; 1-14.
18. Saeed Farzamfar, Akram Hasanpour, Niloufar Nazeri, Hengameh Razavi, Majid Salehi, Shilan Shafei, Vajiheh T Nooshabadi, **Ahmad Vaez**, Arian Ehterami, Hamed Sahrapeyma, Jafar Ai. Extracellular micro/nanovesicles rescue kidney from ischemia-reperfusion injury. ***Journal of cellular physiology***. 2019.
19. Ehterami, A., M. Salehi, S. Farzamfar, H. Samadian, **A. Vaez**, S. Ghorbani, J. Ai, and H. Sahrapeyma. Chitosan/alginate hydrogels containing Alpha-tocopherol for wound healing in rat model. ***Journal of Drug Delivery Science and Technology***, 2019; **51**: p. 204-213.
20. Samadian, H., **A. Vaez**, A. Ehterami, M. Salehi, S. Farzamfar, H. Sahrapeyma, and P. Norouzi, Sciatic nerve regeneration by using collagen type I hydrogel containing naringin. ***Journal of Materials Science****: Materials in Medicine*, 2019; 30(9): p. 107.

21. Arabpour, Z., A. Baradaran-Rafii, N. Lotfi Bakhshaiesh, J. Ai, S. Ebrahimi-Barough, H. Esmaeili Malekabadi, N. Nazeri, **A. vaez**, M. Salehi, and F. Sefat. Design and Characterization of Biodegradable Multi Layered Electrospun Nanofibers for Corneal Tissue Engineering Applications. ***Journal of Biomedical Materials Research Part A***, 2019.
22. Salehi, M., A. Ehtrami, F. Bastami, S. Farzamfar, S. Hosseinpour, H. Vahedi, **A. Vaez**, M. Rahvar, and A. Goodarzi. Polyurethane/Gelatin Nanofiber Neural Guidance Conduit in Combination with Resveratrol and Schwann Cells for Sciatic Nerve Regeneration in the Rat Model. ***Fibers and Polymers***, 2019; 20(3): p. 490-500.
23. Majid Salehi, Maryam Niyakan, Arian Ehterami, Saeed Haghi-Daredeh, Simin Nazarnezhad, Ghasem Abbaszadeh-Goudarzi, **Ahmad Vaez** et al. Porous electrospun poly (ε-caprolactone)/gelatin nanofibrous mat containing cinnamon for wound healing application: in vitro and in vivo study. ***Biomedical engineering letters***, 2020; 10 (1): 149-161.
24. Salehi M, Ehterami A, Farzamfar S, **Vaez A**, Ebrahimi-Barough S. Accelerating healing of excisional wound with alginate hydrogel containing naringenin in rat model. ***Drug Delivery and Translational Research***. 2020.
25. Ehterami A, Salehi M, Farzamfar S, Samadian H, **Vaez A**, Sahrapeyma H, et al. A promising wound dressing based on alginate hydrogels containing vitamin D3 cross-linked by calcium carbonate/d-glucono-δ-lactone. ***Biomedical Engineering Letters***. 2020;10(2):309.
26. Samadian H, Zamiri S, Ehterami A, Farzamfar S, **Vaez A**, Khastar H, et al. Electrospun cellulose acetate/gelatin nanofibrous wound dressing containing berberine for diabetic foot ulcer healing: in vitro and in vivo studies. ***Scientific Reports***. 2020;10(1):1-12.
27. Abbaszadeh-Goudarzi, Ghasem, Saeed Haghi-Daredeh, Arian Ehterami, Majid Rahmati, Simin Nazarnezhad, Seyedeh Fatemeh Hashemi, Maryam Niyakan, **Ahmad Vaez**, and Majid Salehi. Evaluating effect of alginate/chitosan hydrogel containing 4-Methylcatechol on peripheral nerve regeneration in rat model. ***International Journal of Polymeric Materials and Polymeric Biomaterials***. 2020:1-10.
28. Samadian H, Farzamfar S, **Vaez A**, Ehterami A, Bit A, Alam M, et al. A tailored polylactic acid/polycaprolactone biodegradable and bioactive 3D porous scaffold containing gelatin nanofibers and Taurine for bone regeneration. ***Scientific reports***. 2020;10(1):1-12.
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31. Fatemehsadat Dehghani, Saied Shahmoradi, Matin Naghizadeh, Tahereh Firuzyar, **Ahmad Vaez**, Seyed Reza Kasaee, Ali Mohammad Amani, Sareh Mosleh-Shirazi. Magnetic graphite-ODA@ CoFe2O4: attempting to produce and characterize the development of an innovative nanocomposite to investigate its antimicrobial properties. Applied Physics A. ***Appl. Phys. A*** 2022;128, 250.
32. Amir Hossein Meisami, Milad Abbasi, Sareh Mosleh-Shirazi, Arezo Azari, Ali Mohammad Amani, **Ahmad Vaez**, Ali Golchin. Self-propelled micro/nanobots: A new insight into precisely targeting cancerous cells through intelligent and deep cancer penetration. ***European journal of pharmacology***. 2022; 175011.
33. Leili Shabani, Milad Abbasi, Masoomeh Amini, Ali Mohammad Amani, **Ahmad Vaez**. The brilliance of nanoscience over cancer therapy: Novel promising nanotechnology-based methods for eradicating glioblastoma. ***Journal of the Neurological Sciences***. 2022; 120316.
34. Ali Mohammad Amani, Peyman Danaie, **Ahmad Vaez**, Razieh Gholizadeh, Tahereh Firuzyar, Fatemehsadat Dehghani, Sareh Mosleh-Shirazi. Rutin precursor for the synthesis of superparamagnetic ZnFe2O4 nanoparticles: experimental and density functional theory. ***Applied Physics A***. 2022; 128.8, 1-10.
35. Sareh Mosleh-Shirazi, Milad Abbasi, **Ahmad Vaez**, Mostafa Shafiee, Seyed Reza Kasaee, Ali Mohammad Amani, Saeid Hatam. Nanotechnology Advances in the Detection and Treatment of Cancer: An Overview. ***Nanotheranostics***. 2022; 6.4: 400-423.
36. **Ahmad Vaez**, Milad Abbasi, Leili Shabani, Esmat Azizipour, Mostafa Shafiee, Mohammad Ali Zare, Omid Rahbar, Arezo Azari, Ali Mohammad Amani, Ali Golchin. A bright horizon of intelligent targeted-cancer therapy: nanoparticles against breast cancer stem cells. ***Current Stem Cell Research & Therapy***. 2022.
37. Ali Jangjou, Zahra Zareshahrabadi, Milad Abbasi, Amirreza Talaiekhozani, Hesam Kamyab, Shreeshivadasan Chelliapan, **Ahmad Vaez**, Ali Golchin, Lobat Tayebi, Ehsan Vafa, Ali Mohammad Amani, Hossein Faramarzi. Time to Conquer Fungal Infectious Diseases: Employing Nanoparticles as Powerful

and Versatile Antifungal Nanosystems against a Wide Variety of Fungal Species. ***Sustainability***. 2022; 14.19: 12942.

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39. Milad Abbasi, Razieh Gholizadeh, Seyed Reza Kasaee, **Ahmad Vaez** et al. An intriguing approach toward antibacterial activity of green synthesized Rutin-templated mesoporous silica nanoparticles decorated with nanosilver. ***Scientific reports***. 13.1 (2023): 5987.
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43. Shabani, L., Kasaee, S.R., Chelliapan, S., Abbasi, M., Khajehzadeh, H., Dehghani, F.S., Firuzyar, T., Shafiee, M., Amani, A.M., Mosleh-Shirazi, S. and **Vaez, A.**, 2023. An investigation into green synthesis of Ru template gold nanoparticles and the in vitro photothermal effect on the MCF-7 human breast cancer cell line. ***Applied Physics A***, 129(8), p.564.
44. Vafa, E., Tayebi, L., Abbasi, M., Azizli, M.J., Bazargan-Lari, R., Talaiekhozani, A., Zareshahrabadi, Z., **Vaez, A**., Amani, A.M., Kamyab, H. and Chelliapan, S., 2023. A better roadmap for designing novel bioactive glasses: effective approaches for the development of innovative revolutionary bioglasses for future biomedical applications. ***Environmental Science and Pollution Research***, 30(55), pp.116960-116983.
45. Rezaei Kolarijani, N., Cheraghali, D., Khastar, H., Ehterami, A., Alizade, M., **Vaez, A.**, Amini, S.M. and Salehi, M., 2023. Nanofibrous polycaprolactone/gelatin scaffold containing gold nanoparticles: Physicochemical and biological characterization for wound healing. ***Wound Repair and Regeneration,*** 31(6), pp.804-815.

46. Amani AM, Tayebi L, Abbasi M, **Vaez A**, Kamyab H, Chelliapan S, Vafa E. The need for Smart materials in an Expanding Smart World: MXene-Based Wearable Electronics and their advantageous applications. ***ACS omega***. 2023 Dec 29;9(3):3123-42.
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Books and Book Chapters

1. Beheshtizadeh N, **Vaez A**, Siminzar P, Azami M, Farzin A. Encapsulation: Shell and core. ***InPrinciples of Biomaterials Encapsulation*** 2023 Jan 1 (pp. 115-148). Woodhead Publishing.
2. Farzin A, Beheshtizadeh N, **Vaez A**, Siminzar P, Varzandeh M, Azami M. Encapsulation: Controlled drug delivery. ***InPrinciples of Biomaterials Encapsulation*** 2023 Jan 1 (pp. 149-200). Woodhead Publishing.
3. **Vaez A**, Amani AM, Salehi M, Zarei-Behjani Z, Rezvani A, Dourtaj H, Hooshmand-Ardakani A, Arabpour Z. Different administration routes for nanovectors in cancer immunotherapy. ***InNanomedicine in Cancer Immunotherapy*** 2024 Jan 1 (pp. 71-110). Academic Press.

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