NAFISEH BAHEIRAEI

Tehran, Iran
n.baheiraei@modares.ac.ir
Oficial page: en.modares.ac.ir/~n.baheiraei
SCHOLAR: HTTPS://SCHOLAR.GOOGLE.COM/CITATIONS?USER=9U36RT0AAAAJ&HL=EN
SCOPUS :https://www.scopus.com/authid/detail.uri?authorId=54792717600
PHONE: +98-21-82884853

EDUCATION

Ph.D. in Tissue Engineering 2014
Tehran University of Medical Sciences, Tehran, Iran
Thesis: Design and synthesis of electroactive polyurethanes for cardiac patches (GPA: 19.75/20, Top-ranked).

M.Sc. in Biomedical Engineering (Biomaterials)
Amirkabir University of Technology, Tehran, Iran **2010**
Thesis: Antibacterial Ag/SiO_2 thin films on ceramic tiles (GPA: 19.48/20, Top-ranked).

B.Sc. in Midwifery 1999
Shahid Beheshti University of Medical Sciences, Tehran, Iran
(GPA: 17.03/20)

ABOUT

Accomplished researcher with expertise in tissue engineering and regenerative medicine, specializing in electroactive biomaterials and graphene-based nanomaterials. Demonstrated ability to lead multidisciplinary projects, mentor researchers, and establish productive academic-industry partnerships. Recognized as one of the top 2% of scientists in 2023,2024&2025 in the field of bioengineering.

PROFESSIONAL EXPERIENCES

Associate Professor
Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran
2015 – Present

- Spearheaded innovative research in regenerative medicine, focusing on cardiac and bone tissue engineering.
- Developed electroactive biomaterials and scaffolds with applications in cardiovascular repair and bone regeneration.
- Led collaborative projects and secured substantial research funding.
- Member of the scientific committee and chairperson for multiple national congresses on tissue engineering and regenerative medicine.

CEO and Founder
Parsian Novel Tissue Co., Tehran, Iran
2022 – Present

- Established a knowledge-based company focused on developing tissue engineering solutions.
- Commercialized synthetic bone grafts and electroactive cardiac patches for medical use.

Head of Tissue Engineering Laboratory
Tarbiat Modares University, Tehran, Iran
2020 – Present

- Supervised the development of cutting-edge biomaterials and regenerative therapies.
- Expanded laboratory capabilities to include advanced 3D bioprinting techniques for tissue engineering applications.

Deputy Director of Applied Research and Technology Office
Tarbiat Modares University, Tehran, Iran
2020 – 2022

- Facilitated interdisciplinary collaborations to translate research into innovative products.

Vice Dean of Tissue Engineering Affairs
Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran
2017 – 2019

- Oversaw the strategic development of research initiatives in tissue engineering.

Visiting Researcher
Humanitas Clinical and Research Center, Milan, Italy
2014

- Conducted advanced research on cardiac patches integrating neonatal rat cardiomyocytes.

Associated Researcher
Avicenna Research Institute, Tehran, Iran
2015

- Investigated biocompatible scaffolds for tissue engineering applications.

RESEARCH INTEREST

- Bone tissue engineering
- Cardiac tissue engineering (electroactive cardiac patches)
- Antibacterial materials (self-cleaning surfaces)
- Graphene and Graphene- oxide Based Nanomaterials

PUBLISHED BOOKS (IN PERSIAN)

- F.Bagheri,Baheiraei N.,S.Vahdat. Practical basics and principles of animal cell culture. Royan Pazhouh Publishing.Tehran.Iran.Sept.2022.
- Baheiraei N., Graphene-based nanomaterials and antibacterial properties: a novel approach in tissue engineering and medical equipments. Royan Pazhouh Publishing.Tehran.Iran.Apr.2022.
- Baheiraei N., Vahdat S.,Madani H., Heart and regenerative medicine; potential and perspective aspects of new therapeutic strategies in cardiovascular disease. Royan Pazhouh Publishing.Tehran.Iran.Sep.2018.
- E.Sadroddini, Baheiraei N., et al.3D Cell Culturing principles and methods. Royan Pazhouh Publishing. Tehran.Iran. Feb.2018.
- Baheiraei N., Imani R.,Khayatan F., An introduction on characterization methods in tissue engineering, Jihad Tehran University Publishing.Tehran. Iran. Sep.2013.
- Baheiraei N. and Hedayati M., Antibacterial Silver Nanoparticles in Industry & Medicine.Jihad Amirkabir University Publishing.Tehran.Iran.May 2011.
- Baheiraei N. and Illukani M., Coating in drugs and nanostructures. Metaloon Publishing.Tehran.Iran. May 2011.

BOOK CHAPTERS (IN ENGLISH)

- N., **N. Baheiraei***,Maryam Safaee , Fatemeh Shams,(2026).In Situ Gellable Hydrogels for Cardiac Tissue Engineering, under press (Nature).
- S. Bahrami, **N. Baheiraei***, M. Najafi-Ashtiani, Sh. Nour, M.Razavi , (2020). Microfluidic Devices in Tissue Engineering, Biomedical Applications of Microfluidic Devices, ISBN: 9780128187920, Elsevier.
- S.Tabatabaee, M. Najafi-Ashtiani, A. Mousavi, and **N. Baheiraei*** (2020). Nanobiomaterials for Musculoskeletal Regeneration, Nanoengineering in Musculoskeletal Regeneration, ISBN: 9780128202623, Elsevier.
- S. Sh. Mirsasaani, M.Hajipour Manjili, and **N. Baheiraei** (2011).Chapter in Dental Nanomaterials, Advances in Diverse Industrial Applications of Nanocomposites, Boreddy Reddy(Ed.), ISBN:978-953-307-202-9, InTech.

HONORS AND AWARDS

Top 2% of the most cited researchers in the world in the field of engineering	https://topresearcherslist.com/Home/Search?AuthFull=Baheiraei%2C+Nafiseh	2023 & 2024& 2025
Award winner on the selected researcher in the field of technology and social impact	Faculty of Medical Sciences, Tarbiat Modares University	Dec 2025
Award winner on the selected researcher	Faculty of Medical Sciences, Tarbiat Modares University	Dec 2023
Award winner on the selected researcher	Faculty of Medical Sciences, Tarbiat Modares University	Dec 2022
Award winner on best orthopedic article of the year	Department of orthopedic surgery, Iran University of Medical Sciences	Feb. 2022
Award winner on selected research section in the field of medical sciences	2nd Modares women's event	Feb 2021
Award winner on best poster prize	Royan International 16th Congress on Stem Cells Biology & Technology	Sept 2020
Award winner on selected invention	Faculty of Medical Sciences, Tarbiat Modares University	Dec 2019
Award winner on selected invention	Faculty of Medical Sciences, Tarbiat Modares University	Dec 2017
Award winner on best innovation on medical sciences	International Congress of Prof. Yalda	Oct 2016
Dr Kazemi Ashtiani Award winner	Iranian National Elite Organization	Sept 2016
Award winner on best poster prize	Royan International 12th Congress on Stem Cells Biology & Technology	Sept 2016

Award winner on the second Avicenna Festival	Tehran University of Medical Sciences	Dec 2015
Honored Ph.D. graduate student	School of Advanced Technologies, Tehran University of Medical Sciences	June 2015
Award winner on best poster prize	International Congress of Prof. Yalda	Oct 2014
First-rank postgraduate student (Ph.D. degree)	Tehran University of Medical Sciences	2014
First-rank postgraduate student (M.Sc. degree)	Amirkabir University of Technology	2010
First rank in the comprehensive PhD Examination		2013
Award winner of the Annual Student Writers Contest		2013
Member of Exceptional Talent Development Center (ETDC)	Tehran University of Medical Sciences	2016

PUBLICATIONS

1. Zamani S., Ehterami A., ….., **Baheiraei N**, Farahani A., Djalilian A., Salehi M.(2026).Natural and synthetic polymers in burn wound healing. *Journal of Biomater Sci Polym Ed*, 37(1):118-183. DOI: 10.1080/09205063.2025.2523505 .
2. Forouzandeh F., Aldhaher A.,**Baheiraei, N.***,Shams F.,Doostmohammadi A.,Samimi H.(2026).Fabrication and characterization of novel composite scaffolds composed of sulfated alginate integrated with cerium-doped bioactive glass using a freeze-drying method for cardiac tissue engineering. Cell Journal(Yakhteh).DOI:10.22074/cellj.2025.2059774.1851.
3. Shams F.,**Baheiraei, N.***,Shams-Ghahfarokh M.(2026).Multifunctional Cerium-Doped Bioactive Glass for Probable Bone Regeneration: Physicochemical, Antioxidant, and Antibacterial Evaluations Cell Journal(Yakhteh)under press.
4. Rahbari F., Shams-Ghahfarokh M., **Baheiraei N.,** Razzaghi-Abyaneh M.(2025).Effect of quercetin nanoemulsions encapsulated with beta-cyclodextrin/succinate on biofilm formation and ALS3 gene expression in drug-resistant Candida albicans. *Journal of Drug Delivery Science and Technology*, https://doi.org/10.1016/j.jddst.2025.107451.
5. Fathi M., **Baheiraei, N.***, Moradi N., Salehi M., Zamani S., Razavi M., Eyni H. Development, in vitro, and in vivo assessments of PCL-gelatin-βTCP fibrous scaffolds for cardiac regeneration. *Bioimpacts* (2025) 17;15:31096.https:// doi: 10.34172/bi.31096.
6. Eyni H., Shabani R., **Baheiraei N.**, Falak R.,Dehghani S., Asgari H.,Koruj M.(2025).Development of a Gelatin Methacrylate and Human Testicular Extracellular Matrix Bioink for Engineering Bioartificial Testis. *Polymers for Advanced Technologies*,36(8).https://doi.org/10.1002/pat.70259.
7. Jalilinejad, N., **Baheiraei, N.***., Azami, M. et al. Fabrication and characterizations of 3D printed GelMA-Gel/bioactive glass scaffolds containing cerium for bone damage repair. *Sci Rep* 15, 28156 (2025). https://doi.org/10.1038/s41598-025-13449-7.
8. Ramezani M., **Baheiraei, N.***, Bathaie Z., Razavi M. , Naderi N.(2025).Alginate hydrogel-encapsulated bone marrow-derived mesenchymal stem cells and crocin improve cardiac function in a rat model of myocardial infarction.*International journal of biological macromolecules, 306,* 141548.

9. **Baheiraei, N.**, Hajishoreh, N. K., Naderi, N., Salehnia, M., & Razavi, M. (2024). Left ventricular geometry and angiogenesis improvement in rat chronic ischemic cardiomyopathy following injection of encapsulated mesenchymal stem cells. *Cell journal*, *26*(5), 334-335.
10. Forouzandeh, F., Tabatabaee, S., **Baheiraei, N.***, Mostajeran, H., … (2024). Bilayer Wound Dressing Composed of Allograft Collagen-Glycosaminoglycan and Silicone: Synthesis, Characterization and Biological Behavior. *Journal of Polymers and the Environment*, *32*(5), 2350-2364.
11. Nasiri, Z., Soleimanjahi, H., **Baheiraei, N.**, Hashemi, S. M., & Pourkarim, M. R. (2024). The impact understanding of exosome therapy in COVID-19 and preparations for the future approaches in dealing with infectious diseases and inflammation. *Scientific Reports*, *14*(1), 5724.
12. Mostajeran, H., **Baheiraei, N.*,** & Bagheri, H. (2024). Effects of cerium-doped bioactive glass incorporation on an alginate/gelatin scaffold for bone tissue engineering: In vitro characterizations. *International journal of biological macromolecules*, *255*, 128094.
13. Forouzandeh, F., Tabatabaee, S., **Baheiraei, N***. *et al.* Bilayer Wound Dressing Composed of Allograft Collagen-Glycosaminoglycan and Silicone: Synthesis, Characterization and Biological Behavior. *J Polym Environ* **32**, 2350–2364 (2024).
14. Nasiri, Z., Soleimanjahi, H., **Baheiraei, N.,** Hashemi, S. M., & Pourkarim, M. R. (2024). The impact understanding of exosome therapy in COVID-19 and preparations for the future approaches in dealing with infectious diseases and inflammation. *Scientific reports*, *14*(1), 5724.
15. **Baheiraei, N**.*, Razavi, M., & Ghahremanzadeh, R. (2023). Reduced graphene oxide coated alginate scaffolds: potential for cardiac patch application. *Biomaterials research*, *27*(1), 109.
16. F. Pourebrahim ,**N. Baheiraei***, M. Movahedin. Design and fabrication of electrospun scaffold based on gelatin containing calcium phosphate nanoparticles: in vitro and in vivo study.
17. Edrisi F**, Baheiraei N***. Advancements and Challenges in 3D Printing of Electroconductive Hydrogels for Cardiovascular Bioprinting. mjms 2023; 26 (2) :27-37.
18. Edrisi, F., **Baheiraei, N.*,** Razavi, M., Roshanbinfar, K., Imani, R., & Jalilinejad, N. (2023). Potential of graphene-based nanomaterials for cardiac tissue engineering. *Journal of Materials Chemistry B*.
19. Rabiee, N., Bagherzadeh, M., Ghadiri, A. M., Fatahi, Y., **Baheiraei, N.,** Safarkhani, M., Aldhaher, A., & Dinarvand, R. (2021). Bio-multifunctional noncovalent porphyrin functionalized carbon-based nanocomposite. *Scientific reports*, *11*(1), 6604.
20. Rafieyan, S., Vasheghani-Farahani, E., **Baheiraei, N.**, & Keshavarz, H. (2023). MLATE: Machine learning for predicting cell behavior on cardiac tissue engineering scaffolds. *Computers in biology and medicine*, *158*, 106804.
21. Tabatabaee, S., Hatami, M., Mostajeran, H., & **Baheiraei, N***. (2023). Modeling of the PHEMA-gelatin scaffold enriched with graphene oxide utilizing finite element method for bone tissue engineering. *Computer methods in biomechanics and biomedical engineering*, *26*(5), 499–507.
22. Jalilinejad, N., Rabiee, M., **Baheiraei, N.,** Ghahremanzadeh, R., Salarian, R., Rabiee, N., Akhavan, O., Zarrintaj, P., Hejna, A., Saeb, M. R., Zarrabi, A., Sharifi, E., Yousefiasl, S., & Zare, E. N. (2022). Electrically conductive carbon-based (bio)-nanomaterials for cardiac tissue engineering. *Bioengineering & translational medicine*, *8*(1), e10347. https://doi.org/10.1002/btm2.10347
23. Bagherzadeh, M., Aldhaher, A., **Baheiraei, N**., Ahmadi, S., & Rabiee, N. (2023). Enhanced osteogenic gene expressions and alkaline phosphatase activity of the composites based on bioactive glass and CuAl LDH for bone tissue engineering. *Applied Organometallic Chemistry*, *37*(2), e6970.
24. Tabatabaee, S., **Baheiraei, N**.*, & Salehnia, M. (2022). Fabrication and characterization of PHEMA–gelatin scaffold enriched with graphene oxide for bone tissue engineering. *Journal of Orthopaedic Surgery and Research*, *17*(1), 216.
25. Hajishoreh, N. K., **Baheiraei, N.*,** Naderi, N., Salehnia, M., & Razavi, M. (2022). Left ventricular geometry and angiogenesis improvement in rat chronic ischemic cardiomyopathy following injection of encapsulated mesenchymal stem cells. *Cell Journal (Yakhteh)*, *24*(12), 741.

26. Bagherzadeh, M., Aldhaher, A., Ahmadi, S., **Baheiraei, N.**, & Rabiee, N. (2022). Carbon-based nanocomposite decorated with bioactive glass and CoNi2S4 nanoparticles with potential for bone tissue engineering. *OpenNano*, *8*, 100102.
27. Panahi, F., **Baheiraei, N**., Sistani, M. N., & Salehnia, M. (2022). Analysis of decellularized mouse liver fragment and its recellularization with human endometrial mesenchymal cells as a candidate for clinical usage. *Progress in biomaterials*, *11*(4), 409-420.
28. Feyzmanesh, S., Halvaei, I., & **Baheiraei, N.** (2022). Alginate Effects on Human Sperm Parameters during Freezing and Thawing: A Prospective Study. *Cell journal*, *24*(7), 417–423.
29. Amirkhani, Z., Movahedin, M., **Baheiraei, N**., & Ghiaseddin, A. (2022). Mini bioreactor can support in vitro spermatogenesis of mouse testicular tissue. *Cell Journal (Yakhteh)*, *24*(5), 277.
30. Bahrami, S., **Baheiraei, N.*,** & Shahrezaee, M. (2021). Biomimetic reduced graphene oxide coated collagen scaffold for in situ bone regeneration. *Scientific Reports*, *11*(1), 16783.
31. Rezvaninia, M., Bagheri, F., & **Baheiraei, N.** (2021). Effects of kartogenin/PLGA nanoparticles on silk scaffold properties and stem cell fate. *Bioinspired, Biomimetic and Nanobiomaterials*, *10*(2), 45-53.
32. **Baheiraei, N**.*, Eyni, H., Bakhshi, B., Najafloo, R., & Rabiee, N. (2021). Effects of strontium ions with potential antibacterial activity on in vivo bone regeneration. *Scientific Reports*, *11*(1), 8745.
33. Rabiee, N., Bagherzadeh, M., Ghadiri, A. M., Fatahi, Y., **Baheiraei, N.**, Safarkhani, M., ... & Dinarvand, R. (2021). Bio-multifunctional noncovalent porphyrin functionalized carbon-based nanocomposite. *Scientific Reports*, *11*(1), 6604.
34. Mousavi, A., Mashayekhan, S., **Baheiraei, N.***, & Pourjavadi, A. (2021). Biohybrid oxidized alginate/myocardial extracellular matrix injectable hydrogels with improved electromechanical properties for cardiac tissue engineering. *International journal of biological macromolecules*, *180*, 692-708.
35. Shahmoradi, E., **Baheiraei, N.**, & Halvaei, I. (2022). Trehalose attenuates detrimental effects of freeze-drying on human sperm parameters. *Biopreservation and Biobanking*, *20*(1), 31-37.
36. G.A Roth, G.A Mensah, C. O Johnson,…… **N. Baheiraei** , *et al.* Global burden of cardiovascular diseases and risk factors, (2020). Global burden of cardiovascular diseases and risk factors, 1990–2019: update from the GBD 2019 study. *Journal of the American college of cardiology*, *76*(25), 2982-3021.
37. Najafloo, R., **Baheiraei, N.*,** & Imani, R. (2021). Synthesis and characterization of collagen/calcium phosphate scaffolds incorporating antibacterial agent for bone tissue engineering application. *Journal of Bioactive and Compatible Polymers*, *36*(1), 29-43.
38. Najafloo, R., **Baheiraei, N.***, & Imani, R. (2021). Synthesis and characterization of collagen/calcium phosphate scaffolds incorporating antibacterial agent for bone tissue engineering application. *Journal of Bioactive and Compatible Polymers*, *36*(1), 29-43.
39. Mousavi, A., Vahdat, S., **Baheiraei, N.*,** Razavi, M., Norahan, M. H., & Baharvand, H. (2020). Multifunctional conductive biomaterials as promising platforms for cardiac tissue engineering. *ACS biomaterials science & engineering*, *7*(1), 55-82.
40. Khalil, W., Tiraihi, T., Soleimani, M., **Baheiraei, N.,** & Zibara, K. (2020). Conversion of neural stem cells into functional neuron-like cells by MicroRNA-218: Differential expression of functionality genes. *Neurotoxicity Research*, *38*, 707-722.
41. S. Ahmadi, N. Rabiee…… **N. Baheiraei**,…… et al. Stimulus-responsive sequential release systems for drug and gene delivery. *Nano today*, *34*, 100914.
42. P. Zarrintaj, E.Zangene, ……, **N. Baheiraei….** *et al.* (2020). Conductive biomaterials as nerve conduits: recent advances and future challenges. *Applied Materials Today*, *20*, 100784
43. Karimi Hajishoreh, N., **Baheiraei, N.*,** Naderi, N., & Salehnia, M. (2020). Reduced graphene oxide facilitates biocompatibility of alginate for cardiac repair. *Journal of Bioactive and Compatible Polymers*, *35*(4-5), 363-377.
44. S. Ahmadi, N. Rabiee, ….., **N. Baheiraei**, *et al* . (2020). Controlled gene delivery systems: Nanomaterials and chemical approaches. *Journal of biomedical nanotechnology*, *16*(5), 553-582.

45. Mehrabi, A., **Baheiraei, N.*,** Adabi, M., & Amirkhani, Z. (2020). Development of a novel electroactive cardiac patch based on carbon nanofibers and gelatin encouraging vascularization. *Applied biochemistry and biotechnology*, *190*, 931-948.
46. Burstein, R., Henry, N.J., Collison, M.L….. **N. Baheiraei,……** *et al.* (2019). Mapping 123 million neonatal, infant and child deaths between 2000 and 2017. *Nature*, *574*(7778), 353-358.
47. S. Safiri, ….., **N. Baheiraei**, et al. (2019). The global, regional, and national burden of colorectal cancer and its attributable risk factors in 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The lancet Gastroenterology & hepatology*, *4*(12), 913-933.
48. Nour, S., **Baheiraei, N.*,** Imani, R., Khodaei, M., Alizadeh, A., Rabiee, N., & Moazzeni, S. M. (2019). A review of accelerated wound healing approaches: biomaterial-assisted tissue remodeling. *Journal of Materials Science: Materials in Medicine*, *30*, 1-15.
49. Nour, S., **Baheiraei, N**.*, Imani, R., Rabiee, N., Khodaei, M., Alizadeh, A., & Moazzeni, S. M. (2019). Bioactive materials: a comprehensive review on interactions with biological microenvironment based on the immune response. *Journal of Bionic Engineering*, *16*, 563-581.
50. Bagheri, B., Zarrintaj, P., Surwase, S. S., **Baheiraei, N.**, Saeb, M. R., Mozafari, M., ... & Park, O. O. (2019). Self-gelling electroactive hydrogels based on chitosan–aniline oligomers/agarose for neural tissue engineering with on-demand drug release. *Colloids and Surfaces B: Biointerfaces*, *184*, 110549.
51. **Baheiraei, N**.*, Adeli Mehr, A., & Eyni, H. (2019). Influence of Strontium Substitution on Osteogenesis of Bioglass/Gelatin Scaffold in Critically Sized rabbit Calvarial Defects. *Pathobiology Research*, *22*(3), 141-147.
52. Norahan, M. H., Pourmokhtari, M., Saeb, M. R., Bakhshi, B., Zomorrod, M. S., & **Baheiraei, N.*** (2019). Electroactive cardiac patch containing reduced graphene oxide with potential antibacterial properties. *Materials Science and Engineering: C*, *104*, 109921.
53. Tebyanian, H., Norahan, M. H., Eyni, H., Movahedin, M., Mortazavi, S. J., Karami, A., ... & **Baheiraei, N.*** (2019). Effects of collagen/β-tricalcium phosphate bone graft to regenerate bone in critically sized rabbit calvarial defects. *Journal of applied biomaterials & functional materials*, *17*(1), 2280800018820490.
54. Bahrami, S., **Baheiraei, N.***, Mohseni, M., Razavi, M., Ghaderi, A., Azizi, B., ... & Karimi, M. (2019). Three-dimensional graphene foam as a conductive scaffold for cardiac tissue engineering. *Journal of biomaterials applications*, *34*(1), 74-85.
55. Goodarzi, H., Hashemi-Najafabadi, S., **Baheiraei, N.*,** & Bagheri, F. (2019). Preparation and characterization of nanocomposite scaffolds (collagen/β-TCP/SrO) for bone tissue engineering. *Tissue Engineering and Regenerative Medicine*, *16*, 237-251.
56. Shojaie S, Rostamian M, Samadi A, Alvani MA, Khonakdar HA, Goodarzi V, Zarrintaj R, Servatan M, Asefnejad A, **Baheiraei N**, Saeb MR. (2019). Electrospun electroactive nanofibers of gelatin-oligoaniline/Poly (vinyl alcohol) templates for architecting of cardiac tissue with on-demand drug release. *Polymers for Advanced Technologies*, *30*(6), 1473-1483.
57. Norahan, M. H., Amroon, M., Ghahremanzadeh, R., Mahmoodi, M., & **Baheiraei, N.*** (2019). Electroactive graphene oxide-incorporated collagen assisting vascularization for cardiac tissue engineering. *Journal of biomedical materials research Part A*, *107*(1), 204-219.
58. Jalise, S. Z., **Baheiraei, N.*,** & Bagheri, F. (2018). The effects of strontium incorporation on a novel gelatin/bioactive glass bone graft: In vitro and in vivo characterization. *Ceramics International*, *44*(12), 14217-14227.
59. **Baheiraei, N.***, Nourani, M. R., Mortazavi, S. M. J., Movahedin, M., Eyni, H., Bagheri, F., & Norahan, M. H. (2018). Development of a bioactive porous collagen/β-tricalcium phosphate bone graft assisting rapid vascularization for bone tissue engineering applications. *Journal of Biomedical Materials Research Part A*, *106*(1), 73-85.
60. M.Meskinfam , S.Bertoldi, N.Albanese, A.Cerri, M.C.Tanzi, R.Imani, **N.Baheiraei**, M.Farokhi, S.Farè. (2018). Polyurethane foam/nano hydroxyapatite composite as a suitable scaffold for bone tissue regeneration. *Materials Science and Engineering: C*, *82*, 130-140.
61. **Baheiraei, N.**, Zare Jalise, S., & Saneie, S. A. (2017). Recent advances in bioglass applications for bone tissue engineering. *Pathobiology Research*, *20*(2), 1-22.

62. Kazemnejad, S., Khanmohammadi, M., **Baheiraei, N.,** & Arasteh, S. (2017). Current state of cartilage tissue engineering using nanofibrous scaffolds and stem cells. *Avicenna Journal of Medical Biotechnology*, 9(2), 50.
63. Modares, S. Z., Zamaniyan, M., **Baheiraei, N.***, Saharkhiz, N., Abed, F., Malih, N., & Sohrabi, M. R. (2016). A comparative analysis between day 2 and day 3 embryo transfer in IVF/ICSI: a retrospective cross-sectional study. *Int J Women's Health Reprod Sci*, *3*, 119-124.
64. **Baheiraei, N.*,** Gharibi, R., Yeganeh, H., Miragoli, M., Salvarani, N., Di Pasquale, E., & Condorelli, G. (2016). Electroactive polyurethane/siloxane derived from castor oil as a versatile cardiac patch, part II: HL-1 cytocompatibility and electrical characterizations. *Journal of Biomedical Materials Research Part A*, *104*(6), 1398-1407.
65. **Baheiraei, N.***, Gharibi, R., Yeganeh, H., Miragoli, M., Salvarani, N., Di Pasquale, E., & Condorelli, G. (2016). Electroactive polyurethane/siloxane derived from castor oil as a versatile cardiac patch, part I: Synthesis, characterization, and myoblast proliferation and differentiation. Journal of Biomedical Materials Research Part A, 104(3), 775-787.
66. Saharkhiz, N., Zamaniyan, M., Salehpour, S., Zadehmodarres, S., Hoseini, S., Cheraghi, L., ... & **Baheiraei, N.** (2016). A comparative study of dydrogesterone and micronized progesterone for luteal phase support during in vitro fertilization (IVF) cycles. *Gynecological Endocrinology*, *32*(3), 213-217.
67. **Baheiraei, N.,** Yeganeh, H., Ai, J., Gharibi, R., Ebrahimi-Barough, S., Azami, M., ... & Baharvand, H. (2015). Preparation of a porous conductive scaffold from aniline pentamer-modified polyurethane/PCL blend for cardiac tissue engineering. Journal of biomedical materials research Part A, 103(10), 3179-3187.
68. **Baheiraei, N.,** Yeganeh, H., Ai, J., Gharibi, R., Azami, M., & Faghihi, F. (2014). Synthesis, characterization and antioxidant activity of a novel electroactive and biodegradable polyurethane for cardiac tissue engineering application. Materials Science and Engineering: C, 44, 24-37.
69. **Baheiraei, N.,** Azami, M., & Hosseinkhani, H. (2015). Investigation of magnesium incorporation within gelatin/calcium phosphate nanocomposite scaffold for bone tissue engineering. *International Journal of Applied Ceramic Technology*, *12*(2), 245-253.
70. **Baheiraei, N**., & Azami, M. (2013). Investigation of fluorine incorporation within gelatin/calcium phosphate nanocomposite scaffold prepared through a diffusion method. *Advanced Composites Letters*, *22*(5), 096369351302200503.
71. **Baheiraei, N**., Moztarzadeh, F., & Hedayati, M. (2012). Preparation and antibacterial activity of Ag/SiO2 thin film on glazed ceramic tiles by sol–gel method. *Ceramics international*, *38*(4), 2921-2925.
72. Zadehmodares, S., **Baheiraei, N**., Sharafi, A., Hedayati, M., & Mousavi, M. (2012). The ratio of cervical fluid and serum human chorionic gonadotropin as a predictor of abortion. *Iranian Journal of Reproductive Medicine*, *10*(5), 473.
73. Imani, R., Sh, H. E., Sharifi, A. M., **Baheiraei, N**., & Fakhrzadeh, F. (2011). Evaluation of novel "biopaper" for cell and organ printing application: an in vitro study. *Journal of Diabetes and Metabolic Disorders*, *10*, 19.
74. Azami, M., Tavakol, S., Samadikuchaksaraei, A., Hashjin, M. S., **Baheiraei, N**., Kamali, M., & Nourani, M. R. (2012). A porous hydroxyapatite/gelatin nanocomposite scaffold for bone tissue repair: in vitro and in vivo evaluation. *Journal of Biomaterials Science, Polymer Edition*, *23*(18), 2353-2368.
75. Imani, R., Emami, S. H., Moshtagh, P. R., **Baheiraei, N.,** & Sharifi, A. M. (2012). Preparation and characterization of agarose-gelatin blend hydrogels as a cell encapsulation matrix: An in-vitro study. *Journal of Macromolecular Science, Part B*, *51*(8), 1606-1616.
76. Azami, M., Moosavifar, M. J., **Baheiraei, N**., Moztarzadeh, F., & Ai, J. (2012). Preparation of a biomimetic nanocomposite scaffold for bone tissue engineering via mineralization of gelatin hydrogel and study of mineral transformation in simulated body fluid. *Journal of biomedical materials research Part A*, *100*(5), 1347-1355.
77. Imani, R., Hojjati Emami, S., Fakhrzadeh, H., **Baheiraei, N.**, & Sharifi, A. M. (2012). Optimization and comparison of two different 3D culture methods to prepare cell aggregates as a bioink for organ printing. *Biocell*, *36*(1), 37-45.

*Corresponding author

Presentations

1- **N. Baheiraei** *, Effects of strontium and cerium substitution on the properties of bioactive glass-containing scaffolds for bone tissue engineering. TERMIS EU 2025, Germany (oral).
2- **N. Baheiraei** *,N.Jalili, Graphene- based materials for cardiac tissue engineering. 2nd International Conference on Graphene & 2D Materials.Nov.2023, UK (oral).
3- **N. Baheiraei** *, Reduced graphene oxide: potential for cardiac tissue engineering .6th World Conference TERMIS, Nov.2021, the Netherlands (oral).
4- N. Jalilinejad**,N. Baheiraei** *, Electroactive Biomaterials: Encouraging Tools for Cardiac Tissue Engineering. 3rd International Conference on Material science and nanotechnology,Aug.2021, Portugal (Invited speaker).
5- Z.Amirkhani,M.Movahedin, **N. Baheiraei** ,In Vitro Transplantation of Spermatogonial Stem Cells Isolated from Mouse Testis Tissue Can Induce Spermatogenesis in a Mini-Perfusion Bioreactor, 9th Yazd International Congress and Student Award on reproductive Medicine,May2021,Iran(Oral).
6- Raziyeh Najafloo, **N. baheiraei***, R .Imani :A Niosomal Thymol loaded collagen/β-TCP scaffold for addressing bone infection control. Royan International 16th Congress on Stem Cells Biology & Technology. Sept.2020,Iran(poster)
7- N. karimi hajishoreh, **N. baheiraei***, Graphene: an angiogenic platform for cardiac application.4th Iranian congress on progress in tissue engineering and regenerative medicine, Nov.2018, Iran(oral).
8- **N. Baheiraei**, Strontium-based bioactive glass composite for bone regeneration. The First International Iranian Tissue Engineering and Regenerative Medicine, July 2018, Iran. (Invited speaker).
9- M. H. Norahan, **N. Baheiraei** *, Plant scaffolds: a green solution for tissue engineering.The First International Iranian Tissue Engineering and Regenerative Medicine, July 2018, Iran(Invited speaker).
10- S. Bahrami, **N. Baheiraei***, M. Mohseni, M. Karimi, Fabrication and biocompatibility assay of three-dimensional graphene foam nanostructure. 2nd Nanomedicine & Nanosafety Conference, Nov.2017, Iran (Poster).
11- S. Zareh , **N. Baheiraei***. Fabrication of nanobioglass composite containing gelatin for bone tissue engineering. 2nd Nanomedicine & Nanosafety Conference, Nov.2017, Iran(Poster).
12- A. Mehrabi, M. Adabi, **N. Baheiraei** *, Eelectroactive Carbon Nanofiber Composite for Myocardial Tissue Engineering Application. International conference on nanofibers, Oct.2017, Iran (Poster).
13- H. Goodarzi1, S. Hashemi-Najafabadi, **N. Baheiraei**, the effect of strontium doped β-TCP on bioactivity of collagen scaffold for bone tissue engineering. 7th International Conference on Tissue Engineering & Regenerative Medicine.Oct.2017, Spain (Poster).
14- **N. Baheiraei** *, SM Javad Mortazavi, Development and characterization of a bioactive porous collagen/β-tricalcium phosphate graft for bone tissue engineering. 8th International Conference on Tissue Science and Regenerative Medicine.Sept,2017, Singapore (Oral).
15- A. Mehrabi, **N. Baheiraei***. In Vitro Effects of Carbon Nanofiber On Cardiomyocyte Function. International Stem Cells and Regenerative Medicine Congress.April,2017, Mashhad, Iran (Poster).
16- M. H. Norahan, **N.Baheiraei*** , M. Mahmoodi. Effect of Graphene-Based Nanomaterials On Cell Function for Cardiac Tissue Regeneration: An In-Vitro Study. International Stem Cells and Regenerative Medicine Congress. April,2017, Mashhad, Iran(Poster).
17- H. Goodarzi1, S. Hashemi-Najafabadi, **N. Baheiraei**. Synthesis of a novel nanocomposite scaffold based on collagen / β-TCP for bone tissue engineering. International Stem Cells and Regenerative Medicine Congress.April,2017, Mashhad, Iran (Poster).

18- M.Amron, **N. Baheiraei***, M.Mahmoodi. Osteogenic differentiation of mesenchymal stem cells on graphene oxide-coated collagen scaffold for bone tissue engineering application, International Stem Cells and Regenerative Medicine Congress. April, 2017, Mashhad, Iran(Poster).

19- M.Amron, **N. Baheiraei***, M.Mahmoodi. Fabrication of dense, tissue like construct using a new and improved technique of plastic compression. International Stem Cells and Regenerative Medicine Congress.April,2017, Mashhad, Iran(Poster).

20- S. Zareh, **N. Baheiraei***. In Vitro Effects of Strontium on Cell Proliferation and Osteoinduction : a Review. Stem Cells, Tissue Engineering and Regenerative Medicine in Bone and Joint Repair.Dec. 2016, Tehran,Iran (Poster).

21- **N. Baheiraei**. Update on the state of cardiac muscle engineering: a review.3rd Iranian congress on progress in tissue engineering and regenerative medicine. Oct. 2016, Tehran,Iran (Oral).

22- M. H. Norahan, **N. Baheiraei***. Synthesis and Characterization of Electroactive Scaffold as a Cardiac Patch. 3rd Iranian congress on progress in tissue engineering and regenerative medicine. Oct. 2016, Tehran,Iran (Oral).

23- M. H. Norahan, **N. Baheiraei***. Graphene- based nanomaterials for tissue engineering: a review. 3rd Iranian congress on progress in tissue engineering and regenerative medicine. Oct. 2016, Tehran,Iran (Poster).

24- M. H. Norahan,M. amron, **N. Baheiraei***. Design and Synthesis of Electroactive Scaffold as a Cardiac Patch. Royan International 12th Congress on Stem Cells Biology & Technology. Sept. 2016, Tehran,Iran (Poster).

25- **N. Baheiraei***, H. Yeganeh, Myoblast Proliferation and Differentiation on ElectroactivePolyurethane/siloxane Derived from Castor Oil for Cardiac Patch Application. Royan International 12th Congress on Stem Cells Biology & Technology. Sept. 2016, Tehran,Iran (Poster).

26- **N. Baheiraei**. Cardiac Tissue Engineering,Stem cells and regenerative medicine in cardiovascular system symposium, Feb. 2016, Shahid Rajaee Heart Center,Tehran,Iran (Invited speaker).

27- **N. Baheiraei**. An update on the state of cardiac muscle engineering, 2nd conference of novel approaches of biomedical engineering in cardiovascular diseases, Jan. 2016, Tehran,Iran(Oral).

28- **N. Baheiraei** . New approaches for cardiac tissue engineering.6th international congress of newest research achievements in medical science. Nov. 2014, Tehran, Iran (Oral).

29- **N. Baheiraei***, H. Yeganeh, R. Gharibi, synthesis and characterization of Electroactive polyurethanes for cardiac patch application.2nd Iranian congress on progress in Tissue Engineering and Regenerative Medicine.Nov.2015, Tehran, Iran(Oral).

30- **N. Baheiraei***, H. Yeganeh. Conductive scaffolds for cardiac tissue engineering.4th International Preventive Cardiology Congress. Sept.2015, Shiraz,Iran (Invited speaker).

31- **N. Baheiraei***, H. Yeganeh. Cardiac patch: a biomaterial approach to prevent heart failure.4th International Preventive Cardiology Congress. Sept. 2015, Shiraz, Iran (Poster).

32- **N. Baheiraei***, H. Yeganeh, R. Gharibi,S. Vahdat. A Novel Electroactive Polyurethane Scaffold for Cardiac Tissue Engineering. Royan International 11th Congress on Stem Cells Biology & Technology.Sept. 2015, Tehran,Iran (Poster).

33- **N. Baheiraei***, S. Kazemnejad, Stem Cell Therapy for Cardiac Repair: A Review. Stem Cells and Regenerative Medicine Int. Congress.May 2015, Mashhad, Iran (Poster).

34- **N. Baheiraei***, H. Yeganeh, R. Gharibi, Aniline pentamer-modified polyurethane for cardiac tissue engineering.3rd National Congress on Cellular and Molecular News in Non- Contagious Disease.May 2015, Babol, Iran (Poster).

35- **N. Baheiraei***, SH. Zadehmodares,A. Sharafi,M. Hedayati. Predicting abortion: The ratio of cervical fluid and serum human chorionic gonadotropin. 5th international congress of newest research achievements in medical science.Oct. 2014, Tehran, Iran (Poster).

36- **N. Baheiraei***, H. Yeganeh, J. Ai, R. Gharibi. Design and synthesis of biodegradable and electroactive polyurethanes as a cardiac patch, second International congress on Cardiovascular Technologies.Oct. 2014, Rome, Italy (Oral).

37- **N. Baheiraei***, F. Moztarzadeh, M. Hedayati. Characterization of silver doped ceramic tiles and its antibacterial activity. International Conference MiMe-Materials in Medicine.Oct. 2013, Bologna, Italy (Poster).

38- **N. Baheiraei*** , M. Azami . Evaluation of fluorine and magnesium incorporation within gelatin/calcium phosphate nanocomposite scaffold for bone tissue engineering. Advances in Tissue Regeneration 2013 Conference.Nov. 2013. Lattrop, The Netherlands (Poster).

39- **N. Baheiraei***, F. Moztarzadeh, M. Hedayati. Antibacterial Ag/SiO2 Thin Film on Glazed Ceramic Tiles Prepared by Sol-gel Method. 18th Iranian Conference on BioMedical Engineering. Dec. 2011, Tehran, Iran (Oral).

NATIONAL PATENTS

1- Synthesis of a biocompatible and bioactive bone graft based on gelatin/ strontium-doped bioactive glass by freeze drying technique.Sept.2018. certified by the Iranian Research Organization for Science and Technology (IROST) (patent No.96902).

2- Electroactive cardiac patch based on carbon nanofiber and gelatin, Jan.2018. certified by the Iranian Research Organization for Science and Technology (IROST) (patent No.94280).

3- Synthesis and characterization of an electroactive collagen/graphene oxide cardiac patch, Oct.2016, certified by the Iranian Research Organization for Science and Technology (IROST) (patent No.89915).

4- Synthesis and characterization of collagen/β tricalcium phosphate scaffold for bone tissue engineering and bone repair, Sept. 2016, certified by Iranian Research Organization for Science and Technology (IROST) (patent No.89766).

5-Antibacterial tiles by sol-gel method, Nov.2010, certified by Iranian National Elite Organization and Iranian Research Organization for Science and Technology (IROST) (patent No.67689).

SUPERVISED THESIS

Supervised Post DOC

1- F.Forouzandeh, PhD in chemistery, 2024, research title "Preparation and evaluation of cardiac patch with vascularization ability based on sulfated alginate and bioactive glass for cardiac tissue engineering".Iran National Science Foundation(INSF), Grant No.4003142.

Thesis Supervisor/Co supervisor

1- M.Jafarian, PhD in Wood and paper science and industry, 2025, Thesis title" Fabrication and evaluation of electrospun scaffolds based on cellulose nanocrystals for the treatment of bone injuries", Tarbiat Modares University, Tehran, Iran.

2- R.Azadian, M.Sc in Mechanical Engineering ,2024, Thesis title" Investigating a microfluidic chip to study the development of cardiac cells",Tarbiat Modares University, Tehran, Iran.

3- F.Montazar, M.Sc in stem cell technology and tissue regeneration, 2024, Thesis title" Fabrication and characterization of a scaffold based on carboxymethyl cellulose (CMC) and bioactive glass doped with strontium for bone tissue engineering", Tarbiat Modares University, Tehran, Iran.

4- M.Sabaghi, M.Sc in stem cell technology and tissue regeneration, 2024, Thesis title" Evaluation of the effects of crocin on the survival, proliferation and gene expression of Rat-derived cardiac cells ", Tarbiat Modares University, Tehran, Iran.

5- E.Behzadi، PhD in Cellular And Molecular Biology,2020 , Thesis title"Evaluation of cardiac function following implantation of Electroactive alginate/gelatin patch seeded by Human mesenchymal stem cells in a rat model of ischemic myocardial infarction", Islamic Azad Universitv. Tehran. Iran.

6- F. Pour Ebrahim, M.Sc in Anatomical science , 2023, Thesis title" Synthesis and chracterizations of electrospun scaffold based on gelatin/βTCP :in vitro & in vivo experiment" , Tarbiat Modares University, Tehran, Iran.

7- B. keramati, PhD in tissue engineering, 2022, Thesis title" Synthesis and characterizations of scaffolds based on gelatin/cerium doped bioactive glass for bone damage repair: in vivo and in vitro study ", Tarbiat Modares University, Tehran, Iran.

8- M.Ramezani, PhD in tissue engineering, 2022, Thesis title" Evaluation of cardiac function following intramyocardial injection of alginate and extracted crocin along with bone marrow derived mesenchymal stem cells in rat model of myocardial infarction", Tarbiat Modares University, Tehran, Iran.

9- M.Safaei, M.Sc in stem cell technology and tissue regeneration, 2022, Thesis title" Investigating on the effect of microfluidic chip hemodynamics on the gene expression of cardiomyocytes encapsulated within electroactive alginate hydrogel", Tarbiat Modares University, Tehran, Iran.

10- F.Shams, M.Sc in stem cell technology and tissue regeneration ,2022, Thesis title" Investigation of physicochemical, antimicrobial and antioxidant properties of alginate-gelatin cerium-doped bioactive glasses for bone tissue engineering", Tarbiat Modares University, Tehran, Iran.

11- H. Ghaebi, M.Sc in Mechanical Engineering , 2022, Thesis title" Preparation and characterization of Gelatin/Bioglass scaffolds using 3D printing for bone tissue engineerin ", Tarbiat Modares University, Tehran, Iran.

12- F.Edrisi, M.Sc in Biomedical Engineering , 2022, Thesis title" Alginate/ GO composition as a novel bio-ink for 3D-printing of cardiac patch ", Tarbiat Modares University, Tehran, Iran.

13- H. Mostajeran, M.Sc in Biomedical Engineering , 2021, Thesis title" Effects of cerium incorporation on a novel bioactive glass/alginate/gelatin bone scaffold : in vitro characterization ", Tarbiat Modares University, Tehran, Iran.

14- M.Fathi, M.Sc in hematology,2020, Thesis title" Alginate scaffold coated with graphene oxide: potential for angiogenesis of HUVECs", Tarbiat Modares University, Tehran, Iran.

15- S. Tabatabaee, M.Sc in Biomedical Engineering , 2020, Thesis title" Fabrication and Characterization of Graphene Oxide-Enriched PHEMA Scaffold for Bone Tissue Engineering ", Tarbiat Modares University, Tehran, Iran.

16- M .Feyzmanesh, M.Sc in Anatomical science , 2018, Thesis title" Effects of alginate on parameteres of human spermatozoa during freezing and thawing " , Tarbiat Modares University, Tehran, Iran.

17- A. mousavi, M.Sc in chemical engineering , 2018, Thesis title "Synthesis ,characterization an optimization insitu forming hydrogel derived extracellular matrix for cardiac tissue engineering application", Sharif university of technology, Tehran, Iran.

18- N. karimi, PhD in tissue engineering, 2017, Thesis title" Efficacy of intramyocardial injection of electroactive alginate containing reduced graphene oxide with human bone marrow derived mesenchymal stem cells in rat model of ischemic cardiomyopathy", Tarbiat Modares University, Tehran, Iran.

19- S. Mokhtari, M.Sc in biomedical engineering , 2017, Thesis title "Synthesis and evaluation of antibacterial activity of cardiac patch based on reduced graphene oxide", Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.

20- R. Najafloo, M.Sc in biomedical engineering , 2017, Thesis title "Synthesis and evaluation of collagen / calcium phosphate composite scaffold containing antibacterial agent for bone tissue engineering application " , Tarbiat Modares University, Tehran, Iran.

21- S. Zareh , M.Sc in Anatomical science , 2016, Thesis title" Effects of strontium incorporation on diferentiation of rat mesenchymal stem cells cultured on gelatin / bioglass scaffold ", Tarbiat Modares University, Tehran, Iran.

22- A. Mehrabi, M.Sc in Anatomical science, 2016, Thesis title" Evaluation of rat Cardiomyocyte function on electroactive carbon nanofiber cardiac patch", Tarbiat Modares University, Tehran, Iran.

23- H. goodarzi , M.Sc in chemical engineering , 2016, Thesis title" Synthesic and characterization of a novel scaffold based on collagen/βTCP for bone tissue engineering ", Tarbiat Modares University, Tehran, Iran.

24- S. Bahrami, M.Sc in nanomedicine ,2016, Thesis title "Design and Synthesis of Electroactive and Biocompatible Three Dimensional Gelatin Coated Graphene Foam Nanostructure for Cardiac Tissue Engineering" , Iran Medical university, Tehran, Iran.

25- M. Amroon , M.Sc in biomedical engineering,2015, Thesis title" Design and synthesis of electroactive scaffold as a cardiac patch " , Azad university, Yazd, Iran.

26- M. H. Norahan, MSc in biomedical engineering ,2015, Thesis title" Collagen/graphen oxide biocomposites: mechanical properties and biocompatibility", Azad university, Yazd, Iran.

Thesis Consultant

1- S.Shafiei, M.Sc in Vector Biology and Control of Diseases,2025, Thesis title" Investigating in vitro and in vivo effects of larval secretion/excretion of Lucilia sericata loaded in Gelatin-Alginate Nanofibers against Leishmania major", Tarbiat Modares University, Tehran, Iran.

2- Z.Poordehghan, M.Sc in medical genetics,2025, Thesis title" Investigating the cell-free DNA integrity (cfDI) index using Alginate-based nanoparticles in IDC breast cancer patients compared to IDC/DCIS patients", Tarbiat Modares University, Tehran, Iran.

3- F.Rahbari, M.Sc in virology,2023, Thesis title" Investigating the effect of gelatin-alginate with cerium scaffold on biofilm formation and ALS3 gene expression involved in Candida albicans strains isolated from candidemia", Tarbiat Modares University, Tehran, Iran.

4- H.Eyni, PhD in Reproductive Biology,2022, Thesis title" Investigation of proliferentiation and differentiation of human spermatogonial cells on 3D- printed culture system with testis-derived extracellular matrix/ gelatin metaacrylate", Iran medical University, Tehran, Iran.

5- Z.Kashani,M.Sc in molecular and cellular biology,2020, Thesis title" The effect of deferoxamine drug in the treatment of ischemia reperfusion rat model using cardiomyocyte drived mesenchymal stem cells with PGS-co-PCL/PGC/PPy/Gelatin scaffolds", Azad University, Tehran, Iran.

6- Z.Nasiri. PhD in virology,2020, Thesis title" Immunomodulatory effects of human mesenchymal stem cells secretome and exosome for treatment of patients with COVID-19: in vitro evaluation", Tarbiat Modares University, Tehran, Iran.

7- F. Panahi, M.Sc in Biomedical Engineering , 2020, Thesis title" Evaluation of decellular liver tissue In terms of preservation of extracellular matrix compounds ". Tarbiat Modares University, Tehran, Iran.

8- S.Rafiyan. M.Sc in chemical engineering, 2019, Thesis title" Predicting cell behavior on cardiac tissue engineering scaffolds using machine learning algorithms", Tarbiat Modares University, Tehran, Iran.

9- E. Shahmoradi, M.Sc in Anatomical science , 2018, Thesis title" effect of trehalose on human spermatozoa freeze-drying" , Tarbiat Modares University, Tehran, Iran.

10- A. Babaee, PhD in tissue engineering, 2017, Thesis title" Regeneration of spinal cord injury in rat model using injectable alginate hydrogel loaded with Lithium Chloride", Tarbiat Modares University, Tehran, Iran.

11- F. Khosravi, M.Sc in medical physics , 2017, Thesis title" Treatment of diabetic ulcers in the mice using adipose derived mesenchymal stem cells and low frequency ultrasound ", Tarbiat Modares University, Tehran, Iran.

12- N. Shokraei, M.Sc in medical nanotechnology, 2016, Thesis title "Electroactive and biodegradable nanofibrous scaffolds for cardiac patch application", School of Advanced Technologies, Tehran University of Medical Sciences, Tehran, Iran.

13- W. Khalil, PhD in Anatomical sciences, 2016, Thesis title" Cytotherpy with neurons induced by microRNA218 in rats with spinal cord injury treated by valproic acid ", Tarbiat Modares University, Tehran, Iran.

14- A. Ghasemi, M.Sc in Tissue Engineering, 2016, Thesis title "Synthesis and characterization of a conductive nano-composite based on graphene for cardiac patch application", Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.

15- Z.Amirkhani, PhD in Anatomical sciences, 2017, Thesis title" Spermatogenesis in perfusion Bioreactor after invitro transplantation of mouse spermatogonial stem cells to the testis of azoospermia mouse model “, Tarbiat Modares University, Tehran, Iran.
16- M.Rezvanian. M.Sc in chemical engineering, 2016, Thesis title" Synthesic of Silk Scaffold Containing PLGA Nanoparticles for Cartilage Tissue Engineering ", Tarbiat Modares University, Tehran, Iran.

PROFESSIONAL MEMBERSHIPS

- Iranian Medical Device Soceity (IMEDS), membership No.402087,since 2024
- Iranian Tissue Engineering and Regenerative Medicine Society (ITERMS) since 2016
- Tissue Engineering and Regenerative Medicine International Society (TERMIS) since 2015
- The Institute for Systems and Technologies of Information, Control and Communication (INSTICC), No.6297.
- Medical Council of the Islamic Republic of Iran, membership No. 7032M.
- Iranian Society for Biomedical Engineering (ISBME), membership No.10948.

REVIEWER FOR JOURNAL

- Macromolecular Materials and Engineering
- Additive Manufacturing
- International Journal of Biological Macromolecules
- Colloids and Surfaces B: Biointerfaces
- Bioactive Materials
- Applied Biomaterials & Functional Materials
- Biomedical materials research: Part A
- Cell Journal (Yakhteh)
- Acta Biomaterialia
- Biomacromolecules
- Bioactive Materials
- Iranian Polymer Journal
- Materials Letters
- Materials Today Bio
- Bionic Engineering
- Materials Research and Technology

EDITORIAL BOARD

Journal of Pathobiology Research
Journal of Applied Tissue Engineeering

GRANT ACQUISITION

- Grant of Product-oriented research, Iran Nanotechnology Innovation Council (INIC), 3 Billion Iranian Rials (IRR), 2025. Project title: “Synthetic bone graft containing collagen and ceramic nanoparticles for the treatment of orthopedic defects”.
- Incentive grant, National Institute for Medical Research Development (NIMAD) 2 Billion Iranian Rials (IRR), 2024. Project title: “Fabrication and characterization of collagen-based synthetic bone grafts for the treatment of bone lesions: Preclinical studies”.

- Grant of Elite Researcher, National Institute for Medical Research Development (NIMAD), 550 million Iranian Rials(IRR), 2023. Project title: “Design and fabrication of microfluidic cardiac cell culture system mimicking left ventricular mechanical environment in order to evaluate cell-laden alginate-based hydrogel for cardiac tissue engineering ”.
- Grant of international Bilateral Research Collaboration from Iran Vice-Presidency for Science, Technology and Knowledge-based Economy, Stem Cells Sciences and Technologies Development Headquarter, 5 Billion Iranian Rials (IRR), 2025. Project title: “development of a novel microfluidic Heart-on-a-chip platform simulating intraventricular pressure to evaluate cell-laden electroactive graphene-based hydrogel for cardiac tissue engineering.

LANGUAGES

Persian: Native
English: Fluent
French: Elementary

HOBBIES

Jogging, listening to the Music, Writing and Reading Poems