



Curriculum Vitae

Mahboobeh Mahmoodi, Ph.D.

- ❖ Professor of Biomedical Engineering, Azad University of Yazd (2008-Present)
- ❖ Head of Department of Biomedical Engineering, Azad University of Yazd (2010-Present)
- ❖ Professor at Shahid Sadoughi University of Medical Sciences, Yazd (Dental School) (2014-Present)
- ❖ Chair of the Board of Directors (COB) of Sanat Pajooohan Amitis Yazd Company and Novel Wound Dressing Aramis Company. (Medical Device) (Scientific Research Institute) (2015-Present) and Wound dressing (2020-Present)
- ❖ Founding Board and Research Council Member of the Joint Replacement Research Center, School of Medicine, University of Tehran (2021-Present)
- ❖ The Editorial Board of Progress in Biomaterials Journal

Phone +989121852480

Email

M.Mahmoodi@aut.ac.ir
Ma.Mahmoodi@iaui.ac.ir
Mahboobeh1002@gmail.com

Googel Scholer /Citations

<https://scholar.google.com/citations?user=S7O5ON8AAAAJ&hl=en>

Web of Science Researcher ID (Publons)

[ABA-2243-2021](#)

Scopus ID

[56877604300](#)

ORCID

[0000-0002-9763-658](#)

Education

(2019- June, 2020) **Visiting Research Scholar (visiting professor), Center for Minimally Invasive Therapeutics California NanoSystems Institute and Department of Bioengineering, University of California (UCLA), Los Angeles, California, USA**
Biomaterials and 3D Bioprinting team in Khademhosseini Lab

(2006-2011) **Ph.D. Biomedical Engineering (Biomaterials)- Amirkabir University of Technology (Tehran Polytechnic University)**

Thesis-Synthesis and Laser Delivery Studies of Model and tPA Drug Encapsulated by PLGA/CS Nanoparticles for Thrombolysis

(2002-2004) **M.Sc. Biomedical Engineering (Biomaterials)- Islamic Azad University Science and Research Branch-Tehran**

Thesis-*In vivo* and *Invitro* Studies of Bone Growth on Modified Titanium Alloy Surface by Sand Paper and Nd:YAG Laser

(1994-1999) **B.Sc. Biomedical Engineering - Islamic Azad University South Tehran Branch**

Thesis-Design and Manufacturing of Heart Sound Signal Amplifier (Phonocardiograph)

Research Expertise

- Biomaterials
- 3D Bioprinting
- Tissue Engineering and Regenerative Therapeutics
- Biomedical devices
- Advanced Drug Delivery system
- Biochemistry
- Cell Biology and Immunostaining
- Angiogenesis Experiments
- PRF encapsulated Biomaterial
- Synthesis of Nanoparticles
- Surface Coating
- Biophotonics and Laser Surface Modification
- Wound Healing
- Electrospinning
- Herbal Novel Drug Delivery
- Liposome and Niosome

Projects and Papers- Khadem hosseini Lab (UCLA)

Projects

- 1- 3D bioprinting of cancer models
- 2- Three-dimensional bioprinting of BMP-2 expressing genetically modified mesenchymal stem cells for the treatment of large bone defects
- 3- Enhancing Pancreatic Cancer Effectiveness with Radiotherapy
- 4-3D Bioprinting of PRF Releasing Bioinks for Bone Regeneration and Tissue Engineering
- 5- Novel Bone Bioinks
- 6-Synthesis of New Biomaterial, Egg white Photo-Crosslinkable Hydrogel, for Promoting Angiogenesis and Bone Regeneration.
- 7- Nanoparticles Inhibit Tumor Growth by Inducing Pro-Inflammatory Macrophage Polarization in Tumor Tissues
- 8- Development of a gut-on-a-chip using gut microbiota for studying COVID-19 infection and evaluate the drug response

Papers

- 1- Healthy and diseased in vitro models of vascular systems
Vahid Hosseini, Anna Mallone, Fatemeh Nasrollahi, Serge Ostrovidov, Rohollah Nasiri, **Mahboobeh Mahmoodi**, Reyhaneh Haghniaz, Avijit Baidya, Mehdi Salek, Mohammad Ali Darabi, Gorka Orive, Mehmet Dokmeci, Samad Ahadian, Ali Khademhosseini, **Lab on Chip (Review Paper)**.
- 2- Multimaterial bioprinting towards the fabrication of biomimetic tissues and organs
Maryam Tavafoghi, Mohammad Ali Darabi, , **Mahboobeh Mahmoodi**, Rumeysa Tutar, Chun Xu, Arshia Mirjafari, Fabrizio Billi, Wojciech Swieszkowski, Ali Khademhosseini, Nureddin Ashammakhi, **Biofabrication (Review Paper)**
- 3- Droplet-based microfluidics in biomedical applications
Leyla Amirifar, Rohollah Nasiri, Mohsen Besanjideh ,Amir Shamloo, Fatemeh Nasrollahi, Natan Barros, Elham Davoodi, Ahmet Erdem, **Mahboobeh Mahmoodi**, Vahid Hosseini, Hossein Montazerian, Jamileh Jahangiry, Ali Darabi, Reihaneh Haghniaz, Nasim Annabi , Samad Ahadian , Ali Khademhosseini, **Lab on a chip (Review Paper)**
- 4- Recent developments in mussel-inspired materials for biomedical applications
Natan Barros, Yi Chen, Seyed Vahid Hosseini, Yonggang Wang, Rohollah Nasiri, **Mahboobeh Mahmoodi**, Jai Thakor, Shima Sarabi, Han-jun Kim, Ali Khademhosseini, **Biomaterials Science (Review Paper)**
- 5- Role of biomaterials in the diagnosis, prevention, treatment and study of corona virus disease 2019 (COVID-19)
Yavuz Nuri Ertas, **Mahboobeh Mahmoodi**, Fahimeh Shahabipour, Vahid Jahed, Sibel Emir Diltemiz, Rumeysa Tutar, Nureddin Ashammakhi, **Emerget Materials (Review Paper)**

6- Three-dimensional bioprinting of BMP-2 expressing genetically modified mesenchymal stem cells for large bone defect regeneration

M.A. Darabi, **M. Mahmoodi**, J. Iqbal, A. Mirjafari, N. Ashammakhi, Ali Khademhosseini (**Under preparation**).

7- Egg White Photocrosslinkable Hydrogels as Versatile Bioinks for Advanced Tissue Engineering Applications

M. Mahmoodi, M.A. Darabi Neda Mohaghegh, Ahmet Erdem, Amir Ahari, Reza Abbasgholizadeh, Maryam Tavafooghi, Paria Mir Hashemian, Vahid Hosseini, Javed Iqbal, Reihaneh Haghniaz, Hossein Montazerian, Jamileh Jahangiry, Fatemeh Nasrolahi, Arshia Mirjafari, Erik Pagan, Mohsen Akbari, Hojae Bae, Johnson V. John, Hossein Heidari, Ali Khademhosseini, and Alireza Hassani Najafabadi (**Advanced Functional Materials**).

8- Three-dimensional bioprinted pancreatic cancer on a chip for drug screening

M.A. Darabi, Sibel E. Diltemiz, **M. Mahmoodi**, A. Mirjafari, N. Ashammakhi, Ali Khademhosseini (**Under preparation**).

9- Micro and Nanoscale Technologies for Diagnosis of Viral Infection

Fatemeh Nasrollahi, Reihaneh Haghniaz, Vahid Hosseini, Elham Davoodi, **Mahboobeh Mahmoodi**, Solmaz Karamikamkar, Mohammad Ali Darabi, Yangzhi Zhu, Junmin Lee, Sibel Emir Diltemiz, Hossein Montazerian, Sivakoti Sangabathuni, Maryam Tavafooghi, Vadim Jucaud, Wujin Sun, Han-Jun Kim, Samad Ahadian, Ali Khademhosseini, **Small (Review Paper)**

10- Engineering organ-on-a-chip systems to model viral infections

Fahimeh Shahabipour, Sandro Satta, **Mahboobeh Mahmoodi**, Argus Sun, Natan Roberto de Barros, Song Li, Tzung K. Hsiai, Nureddin Ashammakhi, **Biofabrication (Review Paper)**

11- Use of biomaterials in COVID-19 studies Argus, **Mahboobeh Mahmoodi**, Sibel, Song Li, Tzung Hsiai, Nureddin Ashammakhi (**Review Paper**)

12- Devices and applications at the micro-and nanoscale rsc. li/loc

Misagh Rezapour Sarabi, Nan Jiang, Ece Ozturk, Ali K Yetisen, Savas Tasoglu, Vahid Hosseini, Anna Mallone, Fatemeh Nasrollahi, Serge Ostrovidov, Rohollah Nasiri, **Mahboobeh Mahmoodi**, Reihaneh Haghniaz, Avijit Baidya, M Mehdi Salek, Mohammad Ali Darabi, Gorka Orive, Amir Shamloo, Mehmet R Dokmeci, Samad Ahadian, Ali Khademhosseini, **Lab on a chip (Review Paper)**

13- Smart and multi-functional microneedles for biomedical applications

Maryam Tavafooghi, Fatemeh Nasrolahi, Solmaz Karami Kamkar, **Mahboobeh Mahmoodi** Samad Ahadian, Ali Khademhosseini, **Biotechnology and Bioengineering (Review Paper)**

Vol. (Issue) Year, Pages	Journal	Papers Title/ Authors	Type of Article	Row (#)
83. 2007, 1-22	J. of Adhesion	Analysis of Bioadhesivity of Osteoblast Cells on Ti Alloy Surface Modified by Nd:YAG Laser Mohammad E Khosroshahi, Javad Tavakoli, Mahboobeh Mahmoodi	ISI Q2	1
253. 2007, 8772-8781	Applied surface science	Characterization of Ti6AL4V Implant Surface Treated by Nd:YAG Laser and Emery Paper for Orthopedic Application ME Khosroshahi, M Mahmoodi (Co-first) , J Tavakoli	ISI Q1	2
20.(4) 2008, 209-217	J. of laser application	Effect of Nd:Yttrium-Aluminum-Garnet Laser Radiation on Ti6AL4V Alloy Properties for Biomedical Applications ME Khosroshahi, M Mahmoodi (Co-first), J Tavakoli, M Tahriri	ISI Q3	3
24.(3) 2008, 1-10	Surface Engineering	Evaluation of Mechanical and Electrochemical Properties of Ti6AL4V Alloy Modified by Nd:YAG Laser for Biomedical Applications: an In Vitro Study ME Khosroshahi, M Mahmoodi (Co-first) , H Saeedinasab, M Tahriri	ISI Q3	4
20.(1) 2007	International Journal of Engineering, Transactions B: Applications	Characterization of Nd:YAG Laser Radiation Effects on Ti6AL4V Physical-Chemical Properties: an In Vivo Study ME Khosroshahi, J Tavakoli, M Mahmoodi	ISC	5

16. (62-T) 2006	Amirkabir J. of science & Technology	Application of Nd:YAG Laser in the Adhesion of Cells on the Surface of Titanium Alloys J Tavakoli, ME Khosroshahi, M Mahmoodi	ISC	6
4.(3) 2006, 6-13	Laser in Medical Journal	Surface Modification of Titanium Alloy with Nd: YAG Laser for Bone-Cell Adhesion in Orthopedic Applications J Tavakoli, ME Khosroshahi, M Mahmoodi	ISC	7
2006	Journal of Metallurgy and Materials Engineering	Investigation of the Effect of Nd: YAG Laser on Physical and Chemical Properties of Titanium Alloy Surface J Tavakoli, ME Khosroshahi, M Mahmoodi	ISC	8
24. 2009, 925- 939	Lasers in Medical Science	In vitro and In vivo Studies of Osteoblast Cell Response to a Titanium-6 Aluminium-4 Vanadium Surface Modified by Neodymium:Yttrium- Aluminium-Garnet Laser and Silicon Carbide Pape ME Khosroshahi, M Mahmoodi (Corresponding Author) , H Saeedinasab	ISI Q2	9
5.(2) 2009, 48- 52	Laser in Medical Journal	Experimental Studies of Model Drug Delivery Using Super-Pulsed CO ₂ Laser ME Khosroshahi, ZS Mansoori, A Jafari Ardebili, M Mahmoodi	ISC	10
256.(24) 2010, 7421-7427	Applied surface science	In Situ Monitoring of Pulsed CO ₂ Laser Interaction with 316-L Stainless Steel Using Acoustical Signals and Plasma Analysis ME Khosroshahi, M Hadavi, M Mahmoodi	ISI Q1	11
4.(2) 2010, 7421-7427	Inter.J of Biology and Biomed. Eng. (WSEAS Publisher)	Laser Thrombolysis and In vitro Study of tPA Release Encapsulated by Chitosan Coated PLGA Nanoparticles for AMI Mahboobeh Mahmoodi , Mohammad E Khosroshahi, Fatemeh Atyabi	ISI	12

2.(6) 2012	J of Physics Expre.	Experimental Study and Modeling of Tissue Plasminogen Activators Release Encapsulated by Chitosan Coated Poly (Lactide-co-Glycolide Acid) Nanoparticles Mahboobeh Mahmoodi , Mohammad E Khosroshahia, Fatemeh Atyabic	ISI	13
4.(6) 2011, 403-414	J of Biophotonics (Wiley-VCH)	Dynamic Study of PLGA/CS Nanoparticles Delivery Containing Drug Model into Phantom Tissue Using CO ₂ Laser for Clinical Applications Mahboobeh Mahmoodi , Mohammad E Khosroshahi, Fatemeh Atyabi	ISI Q3	14
6.(3) 2011, 889-905	Digest. J of Nano BioStruct.	Early Experimental Results of Thrombolysis Using Controlled Release of Tissue Plasminogen Activator Encapsulated by PLGA/CS Nanoparticles and Delivered by Pulsed 532 nm Laser M. Mahmoodi , ME Khosroshahi, F Atyabi	ISI Q4	15
10. 2011	Journal of Metallurgy	Investigation of Metallurgical Properties and Factors Affecting the Failure of Bone Fracture Plates from 316L Stainless Steel Mahboobeh Mahmoodi	Scientific Research	16
2014	Journal of Metallurgical and Materials Engineering	Fabrication of TiO ₂ -Al ₂ O ₃ -HA Nanobiocomposites by Sintering Method and Evaluation of In Vitro Bioactivity for Orthopedic Applications Mahboobeh Mahmoodi (Corresponding Author) , Peyman Mahmoodi Hashemi	ISC	17
2014	Journal of New Materials	Corrosion Behavior and Biocompatibility of Tantalum Carbide Nanolayer Coated Ti-6Al-4V for Orthopedic Application M Esmaeili, M Mahmoodi (Corresponding Author)	ISC	18
3: 25 2014	Progress in Biomaterials	Characterization of a Novel Nanobiomaterial Fabricated From HA, TiO ₂ and Al ₂ O ₃ Powders: an In Vitro Study Mahboobeh Mahmoodi (Corresponding Author) ,	ISI Q2	19

		Peyman Mahmoodi Hashemi, Rana Imani		
11 (3) 2017	Advanced Processes in Materials Engineering	Synthesis and Evaluation of Polyvinyl Alcohol/Aloe Vera Hydrogel Film for Wound Dressing Applications Mona Hajian, Mahboobeh Mahmoodi (Corresponding Author) , Rana Imani	ISC	20
14 (3) 2017	International Applied Ceramic Technology	Tantalum Carbide Coating on Ti-6Al-4V by Electron Beam Physical Vapor Deposition Method: Study of Corrosion and Biocompatibility Behavior Mohammad Mahdi Esmaeili, Mahboobeh Mahmoodi (Corresponding Author) , Rana Imani	ISI Q2	21
7(27), 2017	Journal of New Materials	Synthesis of Temperature-Sensitive Hydrogel Copolymer Based on N-isopropylacrylamide for Medical Applications MRS Rayati, M Mahmoodi (Corresponding Author) , N Nasirizadeh	ISC	22
27(2) 2017	Journal of Metallurgical and Materials Engineering	Corrosion Behavior of Ti-6Al-4V Implant Coated with a Tantalum Nanolayer for Medical Applications M Mahmoodi (Corresponding Author) , P Hashemi Mahmoudi, A Bidaki Zare	ISC	23
56 (7) 2017	Journal of Macromolecular Science, Part B	In Vitro Assessment of Poly (Vinyl Alcohol) Film Incorporating Aloe Vera for Potential Application as a Wound Dressing Mona Hajian, Mahboobeh Mahmoodi , Rana Imani	ISI Q4	24
28 (5) 2017	Bio-medical materials and engineering	In vitro Evaluation of Collagen Immobilization on Polytetrafluoroethylene through NH ₃ Plasma Treatment to Enhance Endothelial Cell Adhesion and Growth Mahboobeh Mahmoodi (Corresponding Author) , Mohammad Zamanifard, Mina Safarzadeh, Shahin Bonakdar	ISI Q4	25

118, 2017, 4203-4209	Journal of Cellular Biochemistry	Enhanced Entrapment and Improved in Vitro Controlled Release of N-Acetyl Cysteine in Hybrid PLGA/Lecithin Nanoparticles Prepared Using a Nanoprecipitation/Self-Assembly Method Parvin Ahmaditabar, Amir A Momtazi-Borojeni, Ali H Rezayan, Mahboobeh Mahmoodi , Amirhossein Sahebkar, Mostafa Mellat	ISI Q3	26
182, 2016	Medical Bioengineering	Dextran Based Antibacterial Wound Dressing M. Mohamzadeh, A. Asefnejad, M. Mahmoodi	Promotional Science	27
4 (36) 2018	Advanced Materials in Engineering	Effect of Hydroxyapatite Nanoparticles on Properties of Keratin/Poly Caprolactone Nanofibers for Tissue Engineering M Mirhaj, M Mahmoodi (Corresponding Author) , A Shybani	ISC	28
7-1, 2018	Journal of Advanced Materials and Technologies	Synthesis and Characterization of Hydrogel Loaded Curcumin Encapsulated Chitosan Nanoparticles as novel wound dressing SA Mirzababaei, M Mahmoodi (Corresponding Author) , R Mohebat	ISC	29
72 (85) 2017, 92	Materials Science in Semiconductor Processing	Preparation, Magnetic Properties, and Photocatalytic Performance Under Natural Daylight Irradiation of Fe ₃ O ₄ -ZnO Core/Shell Nanoparticles Designed on Reduced GO Platelet S Ghanbarnezhad, S Baghshahi, A Nemati, M Mahmoodi	ISI Q2	30
12(4), 2018, 105-112	Applied Research in Chemistry	Investigation of Magnetic Properties and Photocatalytic Performance of Fe ₃ O ₄ Nano Particles after Coating with ZnO and TiO ₂ S Ghanbarnezhad, A Nemati, S Baghshahi, M Mahmoodi	ISC	31

2018, 7, 47-68	Advances in Nanoparticles	Fabrication, Visualization and Analysis of Fluorescein Sodium Encapsulated PLGA@CS Nanoparticles as Model for Photothermomechanical Drug Delivery Using Pulsed 532 nm Laser Mohammad E Khosroshahi, Mahboobeh Mahmoodi	ISI	32
2018 107(1) 204-219	Journal of Biomedical Materials Research Part A	Electroactive graphene oxide incorporated collagen assisting vascularization for cardiac tissue engineering Mohammad Hadi Norahan, Masoud Amroon, Ramin Ghahremanzadeh, Mahboobeh Mahmoodi , Nafiseh Baheiraei	ISI Q2	33
Volume 299, 1 January 2023, 120225 https://doi.org/10.1016/j.carbpol.2022.120225	Carbohydrate Polymers	Laser thrombolysis and in vitro release kinetics of tPA encapsulated in chitosan polysulfate-coated nanoliposome Parvin Ahmaditabar, M. Mahmoodi (Corresponding Author) , Ramezan Ali Taheri, Azadeh Asefnejad	ISI Q1	34
119(10):2715-2730, 2022 https://doi.org/10.1002/bit.28186	Biotechnology and Bioengineering	Advances and challenges in developing smart, multi-functional microneedles for biomedical applications Maryam Tavafoghi, Fatemeh Nasrollahi, Solmaz Karamikamkar, Mahboobeh Mahmoodi , Sara Nadine, João F. Mano, Mohammad Ali Darabi, Jamileh Jahangiry, Samad Ahadian, Ali Khademhosseini	ISI Q2	35
2020, V. 1.21, No.3, 480-488	Fibers and Polymers	Electrospun Fibroin/Graphene Oxide Nanocomposite Mats: an Optimization for Potential Wound Dressing Applications Sajedeh Khorshidi, Mahboobeh Mohebbali, Rana Imani, Mahboobeh Mahmoodi , Atefeh Solouk	ISI Q1	36
27(10) Jan 2020	Journal of Shahid Sadoughi University of Medical Sciences	Evaluation of Biocompatibility and Release Profile of Ginger Extract Loaded Hyaluronic Acid Nanocapsules for Medical Applications Marjan Ashegh Moalla, Mahboobeh Mahmoodi (Corresponding Author) , Masoumeh Tabatabaee	ISC	37

14(1), 55-71 2020	Advanced Processes in Materials Engineering	Effect of Hydroxyapatite Nanoparticles on Differentiation of Mesenchymal Stem cells into Bone cells in Polycaprolacton/Keratin/Hydroxyapatite Scaffolds M. Kalantari, M.Mahmoodi (Corresponding Author) , M.Mirhaj	ISC	38
10(3), 15-30, 2020	Journal of New Materials	Fabrication and Evaluation of Surface and Biodegradable Properties of Keratin Nanofibers Scaffolds containing Carbon Nanotube for Use in Bone Tissue Engineering V. Haghighi, M.Mahmoodi (Corresponding Author) , M.Mirhaj	ISC	39
23(38), 1-22, 2020	Journal of Corrosion Science and Engineering	<i>In vitro</i> Evaluation and Electrochemical Analysis of Hydroxyapatite/Tantalum Nanolayer Coatings on Ti- 6Al-4V Implants for Orthopedic applications M.Mahmoodi (Corresponding Author) , P.Hashemi Mahmoudi, R. Imani, J.Eghbal	ISI listed	40
31, 7719–7733, 2022 https://doi.org/10.1007/s11665-022-06766-	Journal of Materials Engineering and Performance	<i>In vitro</i> Corrosion and Tribological Behavior of Multiwall Carbon Nanotubes-Coated Ti-6Al-4V/Tantalum Carbide Surface for Implant Applications MM Esmaeili, M.Mahmoodi (Corresponding Author) , A. Mokhtari, R. Imani	ISI Q3	41
Vol. 36, No. 1, 47-60 April- May 2023 DOI: 10.22063/JIPST. 2023.2336.1857	Iran. J. Polym. Sci. Technol.	Electron Beam-Irradiated Crosslinked Hydrogel Scaffold form Natural and Synthetic Polymers: Synthesis and Characterization Zeinab Aghelinejad, Moslem Tavakol, Mahboobeh Mahmoodi , Maryam Dehghan-Niri	ISC	42
424, 127642, 2021	Surface and Coatings Technology	Electrophoretic deposition of graphene oxide reinforced hydroxyapatite on the tantalum substrate to improve nanoscratch characteristics and corrosion behavior for dental implant applications	ISI Q1	43

		M. Mahmoodi (Corresponding Author) , A. Hydari, L. Mahmoodi, L. Ghazanfari, M. Mirhaj		
117 (8), 1-17, 2020	Biomedicines	Phytogenic synthesis of Nickel oxide nanoparticles (NiO) using fresh leaves extract of <i>Rhamnus triquetra</i> (Wall.) and investigation of its multiple in vitro biological potentials J.Eghbal, B. Abbasi, R. Ahmadi, M.Mahmoodi , A. Munir, S. Anber, A,Shahbaz, M. Shaukat, S. Kanwal, S. Uddin, T. Mahmood	ISI Q1	44
15(2), 49-63,2021	Journal of Advanced Processes in Materials Engineering	Fabrication and characterization of chitosan/ polycaprolactone core-shell nanofiber scaffold containing platelet-rich fibrin by coaxial electrospinning method for biomedical A. Rastegar, M.Mahmoodi (Corresponding Author) , M. Mirjalili, N. Nasirizadeh	ISC	45
225, 2023, 588–604 https://doi.org/10.1016/j.ijbiomac.2022.11.117	International Journal of Biological Macromolecules	Controlled release of protein from gelatin/chitosan hydrogel containing platelet-rich fibrin encapsulated in chitosan nanoparticles for accelerated wound healing in an animal model F.Mirjalili, M.Mahmoodi (Corresponding Author)	ISI Q1	46
27, 2021, 102401 https://doi.org/10.1016/j.mtcomm.2021.102401	Materials Today Communications	Highly osteogenic and mechanically strong nanofibrous scaffolds based on carbon nanotubes - reinforced electrospun keratin /poly (ϵ -caprolactone) M. Mahmoodi (Corresponding Author) , V. Haghighi, M.Mirhaj, M.Tavafoghi, F. Shams, A.Darabi	ISI Q2	47
10(2): 439-451, Spring 2023	Journal of Nanoanalysis	Synthesis and Characterization of Chitosan/ Soy Protein /Clay Nanocomposite BioFilm for the Release of the Drug Fateme Mirjalili, Mahboobeh Mahmoodi , Fateme Sadeghian-Nodoushan, Seyed Ahmad Mirzababaie	ISI listed	48

9(3): 182-192, Summer 2022 10.22034/JNA.2 022.1943284.12 75	Journal of Nanoanalysis	Fabrication of S646 bioactive glass and the effect of adding it to chitosan nanocomposites / carbon nanotubes for bone regeneration Fatemeh Mirjalili, Mahboobeh Mahmoodi , Farniya Mohamadi	ISI listed	49
20- 2021 DOI: 10.1039/D1BM 01126J	Biomaterials Science	Recent developments in mussel-inspired materials for biomedical applications Natan Barros, Yi Chen, Seyed Vahid Hosseini, Yonggang Wang, Rohollah Nasiri, Mahboobeh Mahmoodi , Jai Thakor, Shima Sarabi, Han-jun Kim, Ali Khademhosseini	ISI Q1	50
2021, 4(1):35- 55. https://doi.org/10.1007/s42247-021-00165-x	Emergent Materials	Role of biomaterials in the diagnosis, prevention, treatment and study of corona virus disease 2019 (COVID-19) Yavuz Nuri Ertas, Mahboobeh Mahmoodi Fahimeh Shahabipour, Vahid Jahed, Sibel Emir Diltemiz, Rumeysa Tutar, Nureddin Ashammakhi	ISI	51
2021, 21, 641	Lab on a Chip	Healthy and diseased in vitro models of vascular systems Vahid Hosseini ¹ , Anna Mallone, Fatemeh Nasrollahi, Serge Ostrovidov, Rohollah Nasiri, Mahboobeh Mahmoodi , Reyhaneh Haghniaz, Avijit Baidya, Mehdi Salek, Ali Darabi ¹ , Gorka Orive, Mehmet R. Dokmeci ¹ , Samad Ahadian ¹ , Ali Khademhosseini	ISI Q1	52
2021, 269, 118351 https://doi.org/10.1016/j.carbpol.2021.118351	Carbohydrate Polymers	Platelet-rich Fibrin-Loaded Polycaprolactone/Chitosan Electrospun Nanofibrous scaffold with a Core-Shell Structure for Enhanced Osteogenic Differentiation of Mesenchymal Stem Cells Amirabas Rastegar, Mahboobeh Mahmoodi (Corresponding Author), Mohammad Mirjalili, Navid Nasirizadeh	ISI Q1	53
13(4) 2021 PMID: 34130266 https://doi.org/10.1088/1758-5090/ac0b9a	Biofabrication	Multimaterial bioprinting towards the fabrication of biomimetic tissues and organs Maryam Tavafoghi, Mohammad Ali Darabi, Mahboobeh Mahmoodi , Rumeysa Tutar, Chun Xu, Arshia Mirjafari, Fabrizio Billi, Wojciech Swieszkowski, Fatemeh Nasrollahi, Samad Ahadian, Vahid Hosseini, Ali Khademhosseini, Nureddin Ashammakh	ISI Q1	54

2021, 17(45), p.2100692.	Small © 2021 Wiley- VCH GmbH	Micro and Nanoscale Technologies for Diagnosis of Viral Infections Fateme Nasrollahi, Reihaneh Haghniaz, Vahid Hosseini, Elham Davoodi, Mahboobeh Mahmoodi , Solmaz Karamikamkar, Mohammad Ali Darabi, Yangzhi Zhu, Junmin Lee, Sibel Emir Diltemiz, Hossein Montazerian, Sivakoti Sangabathuni, Maryam Tavafoghi, Vadim Jucaud, Wujin Sun, Han-Jun Kim, Samad Ahadian, Ali Khademhosseini	ISI Q1	55
2022- 10(4):89- 106. 10.30501/JAMT .2021.278619.1 164	Journal of Advanced Materials and Technologies	Enhanced Biomineralization of Stem Cells and Adsorption of Extracellular Matrix Proteins on Bioactive Scaffold Reinforced with Carboxylated Multi-Walled Carbon Nanotubes Marjan Mirhaj, Mahboobeh Mahmoodi (Corresponding Author), Seyed Amir Mirafzali, Mansoor Alizadeh, Mohammadreza Tavakoli	ISC	56
14 (2), 2022 https://doi.org/10.1088/1758-5090/ac39a9	Biofabrication	Droplet-based microfluidics in biomedical applications Leyla Amirifar, Rohollah Nasiri, Mohsen Besanjideh , Amir Shamloo, Fateme Nasrollahi, Natan Barros, Elham Davoodi, Ahmet Erdem, Mahboobeh Mahmoodi , Vahid Hosseini, Hossein Montazerian, Jamileh Jahangiry, Ali Darabi, Reihaneh Haghniaz, Nasim Annabi , Samad Ahadian , Ali Khademhosseini	ISI Q1	57
2021, 21, 641	Lab on a Chip	Devices and Applications at the Micro-and Nanoscale rsc.li/loc Misagh Rezapour Sarabi, Nan Jiang, Ece Ozturk, Ali K Yetisen, Savas Tasoglu, Vahid Hosseini, Anna Mallone, Fateme Nasrollahi, Serge Ostrovidov, Rohollah Nasiri, Mahboobeh Mahmoodi , Reihaneh Haghniaz, Avijit Baidya, M Mehdi Salek, Mohammad Ali Darabi, Gorka Orive, Amir Shamloo, Mehmet R Dokmeci, Samad Ahadian, Ali Khademhosseini	ISI Q1	58

34(32)- 2024, 2315040 (1-15) DOI: 10.1002/adfm.2 02315040	Advanced Functional Materials	Egg White Photocrosslinkable Hydrogels as Versatile Bioinks for Advanced Tissue Engineering Applications Mahboobeh Mahmoodi , , Mohammad Ali Darabi, Neda Mohaghegh, Ahmet Erdem, Amir Ahar, Reza Abbasgholizadeh, Maryam Tavafooghi, Vahid Hosseini, Javed Ighbal, Reihaneh Haghniaz, Hossein Montazerian, Jamileh Jahangiri, Fatemeh Nasrolahi, Arshia Mirjafari, Erik Pagan, Mohsen Akbari, Hojae Bae, Johnson V. John, Hossein Heidari, Ali Khademhosseini, Alireza Hassani Najafabadi	ISI Q1	59
11(3), 2021, 287-294	Iranian Journal of Catalysis (IJC)	Encapsulation of a Cu(II) complex with pyridine- 2,6-dicarboxylic acid in zeolite-X nanoporosity, an efficient heterogeneous catalyst for oxidation of aniline Mahboubeh A. Sharifb, Masoumeh Tabatabaee, Mahboobeh Mahmoodi	ISI	60
150 (2024) 106322 https://doi.org/10.1016/j.jmbbm.2023.106322	Journal of the Mechanical Behavior of Biomedical Materials	Characterization and <i>in vitro</i> bioactivity evaluation of polyvinyl alcohol incorporated electro spun chitosan/ fluor apatite nanofibrous scaffold for bone tissue engineering Fatemeh Mirjalili, Mahboobeh Mahmoodi , Shiva Khazali	ISI Q2	61
2023 Feb 6;15(2):022001. https://doi.org/10.1088/1758-5090/ac6538	Biofabrication	Engineering organ-on-a-chip systems to model viral infections Fahimeh Shahabipour, Sandro Satta, Mahboobeh Mahmoodi , Argus Sun, Natan Roberto de Barros, Song Li, Tzung K. Hsiai, Nureddin Ashammakhi	ISI Q1	62
2023, 37(3)	Bull. Chem. Soc. Ethiop	Zeolite-x encapsulated Ni (II) and Co (II) complexes with 2, 6-pyridine dicarboxylic acid as catalysts for oxidative degradation of atenolol in an aqueous solution Fatmeh Hasani, Masoumeh Tabatabaee;; Mahboubeh A. Sharif; Mhboobeh Mahmoodi	ISI Q3	63

2023, 17 (4) 10.30495/APM E.2023.1968591 .2124	Advanced Processes in Materials Engineering	Evaluation of Wear Properties and Radiopacity of Strontium Oxide-Coated Polyether Ether Ketone Implant for the Treatment of Anterior Cruciate Ligament Rupture Mahboobeh Mahmoodi (Corresponding Author)	ISC	64
Preprint Research Square https://doi.org/10.21203/RS.3.RS-2356552/V1	Iranian Journal of Catalysis	Atenolol oxidation by Zeolite X encapsulated M(II)-L complex (M= Cu(II), Co(II) L = a Schiff base ligand) Masoumeh Tabatabaee, Fatmeh Hasani, Mahboubeh Sharif, Mahboobeh Mahmoodi	ISI Listed ISC	65
308, 2023, 128210 https://doi.org/10.1016/j.matchemphys.2023.128210	Materials Chemistry and Physics	In vitro tribological behavior and corrosion resistance of SiO ₂ /TiO ₂ /ZrO ₂ coatings formed on the tantalum substrate using plasma electrolytic oxidation for orthopedic implant applications Ashkan Ahangari, Ali Mokhtarzade, Mahboobeh Mahmoodi (Corresponding Author)	ISI Q2	66
1868 (2024) 130704	Biochimica et Biophysica Acta: General Subject (BBA - General Subjects)	Preparation and in vitro evaluation of tissue plasminogen activator-loaded nanoliposomes with anticoagulant coating Parvin Ahmaditabar, Mahboobeh Mahmoodi (Corresponding Author) , Ramezan Ali Taheri, Azadeh Asefnejad	ISI Q2	67
Volume 43, Issue 1 - Serial Number 111- June 2024- Pages 217-238	Nashrieh Shimi va Mohandesi Shimi Iran	Chitin extraction and chitosan production from shrimp shells using electron beam irradiation Ahmad Tavakoli, Moslem Tavakol, Mahboobeh Mahmoodi , Fateme Anvari	ISC	68
2025 May 12:1-5	Journal of Materials Engineering and Performance	Laser-Induced Surface Modification to Improve the Physicochemical Properties of Tantalum for Biomedical Applications Mahboobeh Mahmoodi (Corresponding Author) , Davood Sharifpour, Mohammad E. Khosroshahi, Mahya Najari, Fatemeh Parsaeian, Javed Iqbal	ISI Q3	69

36 (2024) 103321 ISSN: 1018-3647	Journal of King Saud University - Science	Investigation of bioactive constituents and evaluation of in vitro bioactivities of different Setaria glauca extracts Shumaila Ijaz, Javed Iqbal, Banzeer Ahsan Abbasi, Sobia Kanwal , Mahboobeh Mahmood , Mohammad Raish, Tariq Mahmood	ISI Q1	70
36 (2024) 103421	Journal of King Saud University - Science	Centaurea iberica trevir. Ex spreng. Phytochemical content and evaluation of cytotoxicity, phytotoxicity, anti-inflammatory, larvicidal and anti-inflammatory potentials H Bibi, J Iqbal, BA Abbasi, S Kanwal, Mahboobeh Mahmoodi , M Raish, T Mahmood	ISI Q1	71
Volume 33, Issue 1 (3) 2025	Iranian Journal of Crystallography and Mineralogy	Synthesis and structural characterization of cobalt (II) complex with Schiff base ligand capsulated in Zeolite ZMS-5 Masoumeh Tabatabaee, Fatmeh Hasani, Mahboubeh Sharif, Mahboobeh Mahmoodi	ISC	72
Preprint Research Square https://doi.org/10.21203/rs.3.rs-4442228/v1 This work is licensed under a CC BY 4.0 License	Scientific Reports	Ameliorative Effect of Green synthesized Zinc Oxide Nanoparticles of Malvastrum coromandelianum Linn. on CCl 4 Induced Oxidative Stress in Sprague Dawley Rats Liver Sana Naseer, Abeel Naseer, Mehreen Fatima, Javed Iqbal, Sobia Kanwal, Banzeer Ahsan Abbasi, Mohsin Kazi, Mahboobeh Mahmoodi , Tariq Mahmood	ISI Q1	73
Preprint Research Square https://doi.org/10.21203/rs.3.rs-4442285/v1 This work is licensed under a Creative Commons Attribution 4.0 International License.	Scientific Reports	Rhynchosia capitata driven bioproduction of Zinc oxide nanoparticles, characterization and multifaceted therapeutic applications Zakir Ullah, Javed Iqbal, Banzeer Ahsan Abbasi, Farhat Gul, Shumaila Ijaz, Sobia Kanwal, Mahboobeh Mahmoodi , Mohsin Kazi, Tariq Mahmood	ISI Q1	74

20412, 15, 2025 https://doi.org/10.1038/s41598-025-98964-3	Scientific Reports (Nature Portfolio)	Investigating the Role of Bulk and Nano Nickel in Amelioration of Morphophysiology and Photosynthetic Activity of <i>Triticum aestivum</i> L.	ISI Q1	75
Accepted 2025	Scientific Reports (Nature Portfolio)	Green-synthesized chromium oxide (Cr ₂ O ₃ NPs) nanoparticles derived from flower extract of <i>Cassia fistula</i> for diverse antibacterial, antifungal, cytotoxicity and antioxidants properties	ISI Q1	76
324 (2025) 147220 https://doi.org/10.1016/j.ijbiomac.2025.147220	International Journal of Biological Macromolecules	Evaluation of gene expression levels in diabetic rat skin wound healing treated with chitosan/curcumin nanoparticles-loaded sodium alginate/chitosan hydrogels Mahboobeh Mahmoodi (Corresponding Author) , Seyed Ahmad Mirzababaie, Ali Mokhtarzade, Atena Taghavi Roknabadi, Fereshteh Barikzahi, Maedeh Mastori, Fatemeh Parsaeian, Seyed Reza Kamaliyan, Maryam Navabi	ISI Q1	77
Accepted 2025	Progress in Biomaterials	Angiogenesis and in vitro bone differentiation of HMSCs on PCL nanofiber scaffolds containing homogenized platelet-rich fibrin-chitosan nanoparticles: an <i>in ovo</i> CAM model Alizadeh, Mahboobeh Mahmoodi (Corresponding Author)	ISI Q2	78
Under review	Carbohydrate Polymers	Gene expression from chitosan/platelet-rich fibrin nanoparticles in 3D-printed PLA scaffold for tissue engineering repair: an animal model study Fatemeh Miirjalili, Mahboobeh Mahmoodi	ISI Q1	79

Presented Papers at Professional Meetings

Year	Location	Title	Subject of Conference	Row (#)
------	----------	-------	-----------------------	---------

2004	10 th conference Physics- Bahonar university of kerman	Surface Modification of Ti Alloy by Nd:YAG Laser for Orthopedic application	Photonic Conference	1
2007	Esfahan university and Kargar hospital	Investigation and studies of mechanical properties of three Plates for Orthopedic applications	Orthopedic Conference	2
2007	Eghbal Factory- Yazd	Methods of plate testing for orthopedic implants	Metallurgy Conference	3
2007/11/12 P-24	1st Asian Biomaterial Congress Tsokuba, Japan	Synthesis and characterization of magnetite nanoparticles with co-precipitation method under N ₂ gas at room temperature for biomedical applications	Conference Japan Nano- Biomaterial	4
March 2008 P.11-14	Kish university	Synthesis and characterization of FeSO ₄ super paramagnet with co-precipitation technique under N ₂ gas at room temperature	Conference (NS2008) Nanostructures	5
2007	Bahonar university of kerman	Minidental Implants	Minidental Conference	6
2010	10 th conference Surface Engineering (Esfahan)	Surface Modification of Si-Al ₂ O ₃ by CO ₂ Laser	Surface Engineering Conference	7
2011	Islamic Azad University- Chalos Branch	Investigation and studies of biodegradable and hydrophobic paper as daily dishes	New technologies in wood and paper industry conference	8
ID Number: 309106 3-4 Nov. 2010	(ICBME2010), Esfahan university	Synthesis and Release Study of Tissue Plasminogen Activator (tPA) loaded and Chitosan Coated Poly (Lactide-Co-Glycolide Acid) Nanoparticles	the 17th Iranian Conference of Biomedical Engineering	9
ID Number: 103-145	Conference: Cardiology-	Laser thrombolysis and in vitro study of Tissue Plasminogen Activator (tPA) Release Encapsulated by	WORLD MEDICAL	10

September 15-17, 2010	Malta	Chitosan Coated PLGA Nanoparticles for acute myocardial infarction (AMI)	CONFERENCE	
ID Number: 2539 9-11 November 2010	the 3th confer. ICNN2010, shiraz university	In Vitro Studies of Thrombolysis with Chitosan Coated Tissue Plasminogen Activators Encapsulated in Poly (Lactide-Co-Glycolide) Nanoparticles	International congress on nanoscience and nanotechnology	11
2011	Islamic Azad University- Yazd Branch	Modification of consumption patterns of water in desert areas	Modification of consumption patterns Conference	12
27-28 Feb. 2012	Las Vegas USA	Laser Drug Delivery and Controlled Release Study of tPA Encapsulated by PLGA/CS Nanoparticles for Thrombolysis	2nd Ubiquitin Research and Drug Discovery Conference	13
2013	Esfahan university	Synthesis and characterization of CoFeCu nanowire for drug delivery	Conference on Nano magnetic	14
2014	Kish university	Evaluation of the In Vitro Bioactivity of a Nanobiocomposite Fabricated From HA, TiO ₂ and Al ₂ O ₃ Powder for Medical Applications	the 5th International Conference on Nanostructures (ICNS5)	15
2014	Hamadan University	Corrosion Behavior of Tantalum Carbide Nanolayer-Coated Ti-6Al-4V	1st Nanotechnology conference	16
May-2014	Islamic Azad University- Nagaf abad Branch- Esfahan	Evaluation of platelet adhesion on LLDPE/TiO ₂ nanocomposite for cardiovascular stent application	Nano Sym93	17
22-24 Oct. 2014	Tehran- Tarbiyat Modares University	Effects of Tantalum Nanolayer Coating on Surface and Corrosion Characteristics of Ti Alloy for Medical Applications	5th International Congress on Nanoscience & Nanotechnology (ICNN2014)	18
22-24 Oct. 2014	Tehran- Tarbiyat Modares University	In vitro Biocompatibility Evaluation of Tantalum Carbide Nanolayer-Coated Ti-6Al-4V for Dental Implants	5th International Congress on Nanoscience & Nanotechnology (ICNN2014)	19

Feb. 2015	Baghiyatalah Hospital Tehran	Synthesis nanocomposite of LLDPE/TIO and evaluation structural properties and its hemocompatibility for application of stent cardiovascular	First confer. On Novel Approaches in cardiovascular Diseases (NABICAD)	20
Feb. 2015	Tehran university	Synthesis and Characterization of Polyvinyl Alcohol / Aloe Vera Hydrogel for Antimicrobial Wound Dressings	7 International Cong. Of Laboratory and Clinic	21
Feb. 2015	Tehran university	Antimicrobial Wound Dressings Fabricated from Bombyx Mori Silk Fibroin	7 International Cong. Of Laboratory and Clinic	22
May 2015	Kharazmi University (Tehran)	HA Coated Ti Alloy by Sol_ Gel Method	2nd Nanotechnology and Science	23
8-11 march 2015	Kish university	Sol-Gel deposition of nano-hydroxyapatite coating on Ti-13Nb-13Zr alloy	Asian Nano Forum Conference	24
Feb- 2016	Azad University – Yazd Branch	Synthesis and Characterization of Temperature-Sensitive Hydrogel Copolymer for Biomedical engineering applications	First Food and Environmental Chemistry Conference	25
10-March - 2016	Dubai- Emarat	Preparation and Characterization Of PLGA-Lipid Hybrid Nanoparticles for Control Release of N-acetyl cysteine to Lung Cancer Cells	International Conference on Engineering and Applied Science	26
August 2015	MIT University USA	Laser Thrombolysis Following Treatment Of Blood Clot With tPA Encapsulated By Chitosan Coated PLGA Nanoparticles	Micro- and Nanotechnologies for Medicine: Emerging Frontiers and Applications	27
March- 2016	Tehran university	Production and quality control of holmium acetylacetonate for radioablation of solid malignancies	8 International Cong. Of Laboratory and Clinic	28
Summer- 2016	Amirkabir university- Tehran	Fabrication and characterization of keratin/ poly-caprolactone/ hydroxyapatite nanocomposite scaffold for bone tissue engineering	The 13th Conference of metallurgical and materials engineering of Iran	29
	Amirkabir	Synthesis and evaluation of curcumin release from	The 13th	

Summer-2016	university-Tehran	curcumin-loaded chitosan nanocomplex for wound healing applications Chosen As the Best Presentation	Conference of metallurgical and materials engineering of Iran	30
Summer 2016	University of Mohaghegh Ardabili	Design and manufacture of miRNA bio-based nanosensors to measure early detection of colon cancer.	First International Conference on the Application of New Technologies	31
2016	Islamic Azad University of Yazd	The position and role of the academic community in corporations and knowledge institutions	Workshop Lecture	32
2016	Islamic Azad university Central Organization and South Tehran Branch	Wound Healing Machine	Women as management in higher education systems	33
Sept-2017	Tehran University	Synthesis and characterization of polyurethane/gelatin foams for hemostat after angiography	National Congress on Chemistry and nano-chemistry	34
Sept-2017	Tehran University	Synthesis and coating of GO / HA composite on orthopedic implant surfaces and evaluation of corrosion resistance	National Congress on Chemistry and nano-chemistry	35
Sept-2017	Tehran University	Surface Coating of Titanium Alloy by Platelet- Rich Fibrin (PRF) Loaded Chitosan Nanoparticles for Dental Applications	National Congress on Chemistry and nano-chemistry	36
2017	Mashhad university	Effect of graphene-based nanomaterials on cell function for cardiac tissue regeneration: an in vitro study	2th International stem & regenerative medicine congress	37
April,2017	Mashhad university	Osteogenic differentiation of mesenchymal stem cells on graphene oxide-coated collagen scaffold for bone tissue engineering application	2thInternational stem & regenerative medicine congress	38

April,2017	Mashhad university	Fabrication of dense, tissue like construct using a new and improved technique of plastic compression	2thInternational stem & regenerative medicine congress	39
Fall 2017	Basir Institute ISC	Preparation of gelatin-tragacanth hydrogel-containing Ag nanoparticles with electron beam for use as a wound dressing	4th National Conference on New Research in Chemistry and Chemical Engineering	40
Feb -2017	Kerman University of Medical science	Preparation of pH sensitive hydrogel microparticles using chemically modified tragacanth for oral drug delivery	2nd middle east /7th Iranian controlled Release Conference	41
Oct- 2017	Tehran University of Medical science	Fabrication, Evaluation and Optimization of Fibroin/Graphene Oxide Nano-fibrous Composite for potential application as anti-bacterial wound dressing	International conference on Nanofibers (ICNF)	42
2017	Milan university - Italy	Magnetic, microstructure and antimicrobial investigation of Fe ₃ O ₄ /ZnO nano-powder and film synthesized by sol/gel and solvent evaporation in a vacuum methods	16 th World Nano Conference	43
2017	Budapest Hungary	A simple approach for synthesis and functionalization of Graphene oxide nano-platelet	261st International Conference on Recent Innovations in Engineering and Technology (ICRIET)	44
Nov- 2017	Tehran University of Medical science	Osteoblast – like cell behavior on porous scaffolds based on keratin nano fibers	2 nd Nanomedicine and Nanosafety	45
27 Feb-1March 2018	Sharif University	Synthesis and Characterization of Hypericum Perforatum Loaded Nanoethosomes forTransdermal Delivery	7th Intern. Confer. On Nanostructures (ICNS7)	46
10-11 May- 2018	Islamic Azad University- Yazd Branch	Synthesis and characterization of extracts of sea cucumber loaded nanoliposoma for wound healing	1st Nanobiotechnology Conference	47

10-11 May-2018	Islamic Azad University-Yazd Branch	Synthesis and characterization of hyaluronic acid nanocomposite containing ginger for treatment of arthritis Chosen As the Best Presentation	1 st National Conf. on Nanobiotechnology	48
10-11 May-2018	Islamic Azad University-Yazd Branch	Preparation of nano dioxide titanium bioactive glass based on SiO ₂ -CaO-P ₂ O ₅ for dental applications.	1 st National Conf. on Nanobiotechnology	49
10-11 May-2018	Islamic Azad University-Yazd Branch	Synthesis and characterization of graphene oxide as a nanocarrier for loading and delivery of Indole	1 st National Conf. on Nanobiotechnology	50
10-11 May-2018	Islamic Azad University-Yazd Branch	Synthesis of nano-hydroxyapatite from bioactive glass based on SiO ₂ -CaO-MgO-ZrO ₂ by sol-gel method for dental applications	1 st National Conf. on Nanobiotechnology	51
10-11 May-2018	Islamic Azad University-Yazd Branch	Optimization and preparation of chitosan derivatives from shrimp shells by electron beam irradiation	1 st National Conf. on Nanobiotechnology	52
10-11 May-2018	Islamic Azad University-Yazd Branch	Study of nano-fibrous wound dressing based on graphene oxide as anti-bacterial for wound healing: optimization of properties and structure	1 st National Conf. on Nanobiotechnology	53
28 Feb- 1 March 2019	Iran University of Science and Technology – Tehran, Iran	Differentiation of mesenchymal stem cells into osteoblasts on electrospun keratin nanofiber scaffold	2019 IEEE 5th International Conference on Knowledge-Based Engineering and Innovation (KBEI)	54
Jun- 2019	Tehran University	Investigation of Alkaline Phosphatase Activity in Osteoblast Cells on Nanofiber Scaffold based on Hydroxyapatite Nanoparticles	2nd National Congress on Chemistry and nano-chemistry	55
Nov.2019	Esfahan University	Preparation of a Hydrogel Scaffold Based on PVA and Glycidyl Methacrylate Functionalized Carboxymethyl Chitosan and Tragacanth	The 5 th National Seminar on Polymer	56
Nov- 2020	Tehran	Fabrication of Zirconia/Zilica/Titania Composite - Coated Tantalum Surface for Medical Applications	The 9 th International Conference on	57

			Materials engineering and metallurgy	
Nov- 2020	Tehran	Proliferation and Differentiation of Adipose-Derived Mesenchymal Stem Cells on Carbon Nanotube- Reinforced Polymeric Scaffold	The 9 th International Conference on Materials engineering and metallurgy	58
March 2 -3, 2021	Yazd University	Synthesis and Evaluation of Fluorapatite Nanoparticles and Fluorapatite /Chitosan Composite	1 st National Conference on New Materials	59
March 10-11, 2021	Pakistan-Islamabad National University of Science and Technology	ORAL PRESE Effect of Multiwall carbon nanotube on osteogenic differentiation of human adipose-derived stem cells	International Conference on Research Advancements in Chemistry (ICRA-C 2021)	60
27 June 2019	Esfahan Jami	Differentiation Potensial of mesenchymal stem cells into osteoblasts on nanofiber-reinforced scaffolds for bone tissue	6 th National Conf. on Nanotechnology Theory to Application	61
27 Oct 2021	Tabriz Sahand University of Technology	Synthesis and characterization of Hybrid Hydrogel Scaffold Based on Tragacanth, Carboxymethyl Chitosan and PVA	6 th National Polymer Conference of Iran	62

Research Projects

Year	location	Responsibility in project	Title of project	Row
2007-2008	Social Security Hospital	Colleague	Investigation and studies of mechanical properties of 3 Plate for Orthopedic applications	1
2011-2013	Sadoghi University and Hospital of Yazd	Executive	Design and Manufacturing of Wound Healing Machine	2 Production and Sales Knowledge Based
2013	Biomedical Engineering Group of Islamic Azad University-Yazd	Executive	Synthesis of HA-TiO ₂ -Al ₂ O ₃ nanocomposite by sintering method and evaluation of bioactivity and its properties	3
2013-2014	Science and Research Park in Yazd	Social Security Organization	Fabrication of polymeric Endobutton for ACL- (Radiopaedia) (In vivo and In vitro)	4 Production and Sales Technology Idea
2019-2020	Science and Research Park in Azad University	Executive	Encapsulation of Curcumin Loaded Chitosan Nanoparticles within Hydrogel as a Novel Wound Dressing	5 Production and Sales Knowledge Based
2018-2019	International Iberian Nanotechnology Laboratory (INL) Portugal	Supervision	Analysis of Cancer-Host Cell Crosstalk Using Co-Culture Devices	6 International
2019-2020	Islamic Azad University of Mybod and Yazd	Executive	In vivo and In vitro Studied on Chitosan/ PRF loaded Gelatin/ Chitosan Hydrogel for Wound Healing	7
	Science and Research		Manufacturing of	8

2019-2020	Park in Islamic Azad University	Executive	Alginate/Chitosan Hydrogel Containing Chitosan/Curcumin Nanocomplexes Wound Dressing for the Treatment of Various Types of Ulcers	
-----------	---------------------------------	-----------	---	--

Patents and Inventions

Year	Location	Title	Row (#)
2008	Iran	Design and Manufacturing of Transducer Stethoscope	1
2009	Iran: scientific approval from Iran's national research organization	Surface Modification of Titanium Alloy by Laser for surgical Implants	2
2011	Iran	Synthesis and Laser Delivery of Model and tPA Drug Encapsulated to Coronary Vessel for Thrombolysis	3
2011	Iran: scientific approval from Iran's national research organization	Synthesis of PLGA/CS Nanoparticles for Thrombolysis	4 Knowledge Based
2014	Iran: scientific approval from Iran's national research organization	Fabrication of Endobutton Implant with PEEK for Anterior Cruciate Ligament and Orthopedic Applications	5
2014	Iran: scientific approval from Iran's national research organization	Smart Device for Washing, Local Drug Delivery, and Wound Healing	6

2016	Iran	Fabrication of PVA/Aloe Vera Hydrogel for Wound Healing	7
2017	Iran	One-Step Synthesis of Low-Level Graphene Oxide Nanosheets	8
2017	Iran: scientific approval from Iran's national research organization AND scientific approval from Iran's national research organization	Manufacturing of Alginate/Chitosan Hydrogel Containing Chitosan/Curcumin Nanocomplexes for the Treatment of Various Types of Ulcers	9
2017	Iran: Iran's Nano Headquarters AND scientific approval from Iran's national research organization	Fabrication of Keratin/Polycaprolactone/Hydroxyapatite Composite Nano-Scaffold via Electrospinning for Bone Tissue Engineering Chosen As the Best Invention	10
2018	Iran: Iran's Nano Headquarters	Synthesis of Nanoethosomes Containing Cinnamon Coated by Chitosan for Preventing Colds	11
2018	Iran	Synthesis of Lavandula Agustifolia Loaded Nanoethosome for Treatment of Depression	12
2017	Iran: Iran's Nano Headquarters	Fabrication and Coating of Chitosan Nanoparticles Loaded Fibrin-Rich Platelets (PRF) on Ti-13Zr-13Nb Alloy Surface for Use in Medicine	13
2017	Iran: Iran's Nano Headquarters	Synthesis of Keratin/Polycaprolactone/Carbon Nanotube-Nanocomposite Scaffold via Electrospinning for Bone Tissue Engineering	14
2018	Iran: Iran's Nano Headquarters	Zirconia /Silica/ Titania Nanocoating on Tantalum Surface for Dental and Orthopedic Implants	15

2019	Iran	Synthesis of Chitosan Coated Ginger Encapsulated in Hyaluronic Acid Nanoparticles for Treatment of Arthritis	16
2018	Iran	Alginate /Chitosan / Aloe Vera Hydrogel Wound Dressings with Controlled Release of Tetracycline for Wound Healing	17
2021	Iran	Release of Aloe Vera, Salvadora, and Mint from Chitosan Particles and Use of in as Toothpaste	18
2023	Iran	Electrospun Polycaprolactone Scaffold Containing Platelet Rich Fibrin (PRF)- Loaded Chitosan Particle for Bone Defect Healing	19
2024	Iran	Thrombolysis with Liposomal Drug System Containing Tissue Plasminogen Activator with Chitosan Polysulfate Coating for the Treatment of Cardiovascular Diseases	20
Under review	Iran	Alginate Hydrogel Wound Dressing Containing Cefazolin-Loaded Chitosan Nanoparticles for Treatment of Various Wounds	21
Under review	USA	Natural Protein-Based Biomaterials and Methods of Making and Use Thereof	22

Book Contribution

Country	Year	Publisher	Title/Name	Row
USA	2010	Nova Publisher	Fundamental of biomedical application of laser induced surface modification of titanium alloys (Chapter 1- 100 Page) ME Khosroshahi, M Mahmoodi	1
Austria	2011	Intech Publisher	Properties and Applications of Silicon Carbide Fundamentals of biomedical applications of biomorphic SiC (Chapter 14- 50 Page) M Mahmoodi , L Ghazanfari	2
Iran	2010	Islamic Azad University – Yazd Branch	Laser Application in Surface Science and Technology ME Khosroshahi, M Mahmoodi	3
Austria	2012	Intech Publisher	Physics and Technology of Silicon Carbide Devices Silicon Carbide: A Biocompatible Semiconductor used in Advanced Biosensors and BioMEMS/NEMS Book Chapter M Mahmoodi , L Ghazanfari	4
Iran	2013	Islamic Azad University – Yazd Branch	Novel Methods of Surface Modification of materials and Biomaterials (Laser and Plasma) M Mahmoodi , L Ghazanfari	5
Iran	2019	Islamic Azad University – Yazd Branch	Properties of SiC and its applications as a semiconductor bioceramic in medicine M Mahmoodi	6

Iran		In press	Properties and application of Tantalum in biomedical engineering M Mahmoodi	7
Iran	2016	Islamic Azad University – Yazd Branch	Biomaterials in introduction M Mahmoodi, P Mahmoudi	8
Amazon	31 Oct-2017	CRC Press Taylor & Francis	Applications of Biophotonics and Nanobiomaterials in Biomedical Engineering (Chapter 3 - Drug Delivery) ME Khosroshahi, M Mahmoodi	9
Iran	2022	Islamic Azad University – Yazd Branch	Anatomy and Tissues Engineering M Mahmoodi , F Peyghambari, A Nikonejad	10
Iran	2023	Islamic Azad University – Yazd Branch	New Biomedical Technologies for Diagnosing and Treating Disease M Mahmoodi , Fatemeh Naserbafghi	11

Reviewer

Year	Journal and Conference	Row
2021	Editorial Board of Progress in Biomaterials	1
2011-2016	Asian Journal of Pharmaceutics	2
2012	2nd International Conference on Electronic & Mechanical Engineering and Information Technology (EMEIT 2012)	3
2012	the 5th World Congress: APPLIED COMPUTING CONFERENCE 2012 (ACC '12)	4
2011-2016	WSEAS Journal and conferences (36 articles)	5
2012	10th International Seminar on Polymer Science and Technology	6
2012	Iranian Journal Medica Physica	7
2012	the 3rd International Conference on MEDICAL PHARMACOLOGY (PHARMACO'12)	8
2012	the 7th IASME/WSEAS International Conference on CONTINUUM MECHANICS (CM '12) to review	9
2014-present	Progress in Biomaterials Journal reviewer	10
2015-2016	Science Technology and Research Park	11

2015 - present	Investigating and determining the competencies of knowledge-based companies	12
2016 - present	Patent Attorney at The University	13
2015 - present	Referee of Engineering Projects in Yazd Science and Technology Park	14
Spring2017	Director of Medical Engineering Referees at 6 Invention Competitions of Azad University and 8 Damavand Festivals of the Elite Foundation	15
Spring2017	Evaluation of Pardis Pajohan Inc. (Knowledge Based) in Yazd Science and Technology Park	16
Spring2017	Evaluation and survey of the use of high-quality materials in the field of health	17
10 Nov. 2017	The Open Anesthesiology Journal	18
May- 2018	Secretary of the National Conference on Nanobiotechnology	19
May- 2018	Reviewer 10 articles in the Scientific Committee of the National Conference on Nanobiotechnology	20

2008	Genetic Engineering Conference in Sadoghi University	21
2021- September	Artificial Organs as a Reviewer (2 articles)	22
2021	Scientific Reports as a Reviewer	23
2016	Surface and Coating Technology as a Reviewer	24
2021	Journal Basic & Applied Sciences, Advanced on Science (Reviewer, Editorial Board)	25
2021-present	Carbohydrate Polymers (Reviewer : 9 paper)	26
2021-present	Editorial Board of Artificial Intelligence Tools in Software and Data Engineering	27

Design and Oversight of Laboratories

Year	Location	Laboratory
2008	Islamic Azad University- Taft Branch	Digital Electric Circuit Lab.
2008	Islamic Azad University- Taft Branch	Physics 1 and 2 Labs
2000	Yazd Hospital	Implementation of PM in 2 Hospitals
2002	Kabir Factory in Yazd	Implementation of ISO 9001-2000
2003	Kabir Factory in Yazd	Implementation of HAACP

Supervisor of more than 60 M.Sc. and Ph.D. Projects

- 1– Evaluation of Structural and Mechanical properties of Hydroxy Apatite- titanium dioxide coated with poly Hydroxy Butyrate- Bioglass nano Composite scaffold for bone Tissue Engineering
- 2- Fabrication of nano- fiber of PGS by electrosin for heart tissue engineering applications
- 3-Evaluation of Structural and Mechanical properties of Hydroxy Apatite – titanium dioxide coated with poly Hydroxy Butyrate – Bioglass nano Composite scaffold for bone Tissue Engineering.
- 4-Design and synthesis of electroactive scaffold as a cardiac patch.
- 5-Synthesis of Collagen/graphene oxide nanocomposite, mechanical and biocompatibility evaluation for tissue engineering.
- 6-Fabrication, evaluation, and optimization of silk/graphene oxide nano composite film used as antibacterial wound dressing.
- 7-In vivo studies and evaluation of drug delivery mechanism from aloe vera / polyvinyl alcohol hydrogel for wound dressing.
- 8-Synthesis, Physicochemical and Biological Characteristics of Chitosan-Starch-Organosilane Scaffolds.
- 9-Design and Fabrication of miRNA Nanobiosensors for Early Diagnosis of Colon Cancer.
- 10-In situ injectable nano-composite hydrogel composed of curcumin, chitosan and alginate for wound healing application.
- 11-Synthesis and characterization of polyhydroxybutyrate valerate / polyaniline nanocomposite with carbon nanotube for nerve tissue engineering.
- 13-Fabrication and evaluation of the properties of keratin-based scaffolds for bone tissue engineering.
- 14-Surface modification of titanium membrane by PRF/chitosan and development of its application in dental tissue.
- 15-Evaluation of plant material delivery mechanism of nano fibers for use in smoothing pads.
- 16-Synthesis and evaluation of hyaluronic acid -propolis composite hydrogel containing drug for wound healing applications.
- 17-The production of chitosan nano capsule containing cinnamon for preventing cold.
- 18-Coating of Tantalum Surface with hydroxyapatite by plasma electrolytic oxidation (PEO).
- 19-In vivo study and mechanical Properties of PEEK implant for medical applications.
- 20-Surface modification of titanium alloys by CS/CNT nanocomposite coating and evaluation its biocompatibility.
- 21-Fabrication and characterization of bio adhesive substrate of oak marble galls extract release for leg varicose treatment.
- 22-Synthesis, magnetic and photocatalytic properties hybrid nano composite of Graphene-Fe₃O₄- TiO₂-ZnO.
- 23- Synthesis and characterization of hyaluronic acid nanocomposite containing ginger for treatment of arthritis.
- 24- Synthesis and evaluation of delivery of Hypericum Perforatum (St John's Wort) extract loaded nanoethosome and development its application for treatment of depression.
- 25- Synthesis and characterization of nanocarriers containing opuntia ficus indica for treatment of diabetes.
- 26-Characterization and synthesis of graphene oxide/Hydroxyapatite nanocomposite coated tantalum surface and evaluation of its corrosion resistance.
- 27- Synthesis and characterization of extracts of sea cucumber loaded polymeric wound dressing for healing of diabetic ulcers.
- 28- Synthesis and characterization of hyaluronic acid nanocomposite containing ginger for treatment of arthritis.
- 29- Preparation of nano-hydroxyapatite from bioactive glasses based on SiO₂-CaO-MgO-ZrO₂.
- 30- Preparation of nano dioxide titanium bioactive glass based on SiO₂-CaO-P₂O₅ for dental applications.
- 31- Fabrication and characterization of dual-layer PVDF / PAN nanofiber containing an eucalyptus plant by electrostatic method for use in sub-knee capillary socks.
- 32- Preparation of antimicrobial chitosan derivatives from shrimp shells by electron beam irradiation for use in wound dressing hydrogels.
- 33- Synthesis of graphene oxide as a nanocarrier for loading and delivery of Indole.
- 34- Fabrication and evaluation of aloe vera: poly caprolactone/ keratin core-shell nanofibers scaffold by coaxial electrosin for wound healing.
- 35- Proliferation and differentiation of mesenchymal stem cells to osteoblasts on nanofibers scaffold keratin/ poly caprolactone / hydroxyapatite nanofibers scaffold for use in bone tissue engineering.

- 36- In vivo studies of curcumin loaded chitosan/ alginate nano-composite hydrogel for wound healing.
- 37- Fabrication and characterization of poly ether ether ketone (PEEK) with radio opaque properties and development of its applications in orthopedic fixator.
- 38- In vivo studies of PRF encapsulated-chitosan nanoparticles-loaded alginate hydrogel for wound healing.
- 39- In- vitro and in-vivo studies of graphene oxide / magnetite / zinc oxide nanocomposite for medical applications.
- 40- Design and synthesis of electroactive scaffold as a cardiac patch.
- 41-Synthesis of collagen/graphene oxide nanocomposite, mechanical and biocompatibility evaluation for tissue engineering.
42. Effect of platelet rich fibrin (PRF) encapsulated in chitosan nanocapsule on aggregation of growth factors in pressure ulcer
- 43.Synthesis of PRF encapsulated in chitosan / PCL core –shell nanofibers as scaffold in tissue engineering.
44. Synthesis and Characterization of PRF / chitosan / PCL nanofibers as scaffold by electrospinning for tissue engineering.
45. Proliferation and differentiation of mesenchymal stem cells to osteoblasts on keratin/ poly caprolactone / carbon nanotube nanofibers scaffold surface for bone tissue engineering.
46. In vivo and In vitro Studied on Chitosan/ PRF loaded Gelatin/ Chitosan Hydrogel for Wound Healing.
47. Enhanced Biomineralization of Stem Cells and Adsorption of Extracellular Matrix Proteins on Bioactive Scaffold Reinforced with Carboxylated Multi-Walled Carbon Nanotubes

Memberships

- Inventors Association
- Editorial Board of Progress in Biomaterials
- Iranian Society of Nanomedicine
- Iran's National Elites Foundation
- Medical devices specialist society
- Iranian nanotechnology
- Author of In Tech Publisher
- Author of WSEAS
- University Publications Council
- Iranian Patent Center
- Council of the Center for the Development of Technology at Azad University
- COB of Sanat Pajohan Amits Yazd Inc. (Medical Device)
- Yazd Publications Council
- Yazd Unemployment Investment and Income Opportunities
- Biomaterials Team in Yazd Province
- Biomedical Auditor in Yazd Province for Various Research Companies
- Biomedical Engineering Center of Iran
- Research Council on Biomedical Engineering
- Research Council on Materials and Metallurgy
- Research Council in Engineering Department
- The Auditor of Patents at the University
- COB of novel wound dressing Aramis Inc. (Wound dressing)
- The member of Professional Committee for PhD Thesis in Biomedical Engineering

Training and Teaching Experiences

- Polymers in Medical
- Biocompatibility of Materials
- Hemocompatibility of Materials
- Tissue Engineering
- Drug Delivery
- Electronic
- Powder Metallurgy
- Synthesis of Nanomaterial
- Methods of analysis
- Properties of Materials
- Advanced material in dental
- Composite and its medical applications

Honors and Awards

1. 2012 -Award of Iran's National Elites Foundation for Excellent Innovation
2. 2011 -IAU-Yazd-Branch Award for Excellent Teacher
3. 2011 -IAU-Yazd-Branch Award for Excellent Researcher
4. 2012 -IAU-Yazd-Branch Award for Excellent Researcher
5. 2010 -IAU-Yazd-Branch Award for Excellent Teacher
6. 2013 - State of Yazd Award for Excellent Researcher
7. 2014 -IAU-Yazd-Branch Award for Excellent Researcher
8. 2012-TV Interview for Synthesis of Nanoparticles for Thrombolysis in Heart
9. 2012-Radio Interview for Laser Thrombolysis in Coronary Vessels
- 10.2011- Award of Iranian Nanotechnology Initiative Council for Synthesis of 2 Layer Nanoparticles
- 11.2012-Invite as Invited speaker at the upcoming "International Conference and Exhibition on Neurology & Therapeutics" (Neuro-2012) on May 14-16, 2012 – USA
- 12.2010-Invited speaker in the World Medical Multiconference, Dec.15,2010
- 13.2011-Excellent paper in Journal of Biophotonic titled Laser Drug Delivery
- 14.2011-Top 20 Articles, in the Domain of Article 21328701, Since its Publication (2011)
- 15.Invited speaker in "3rd International Conference and Exhibition on
- 16.2013-Invited speaker in Pharmaceutics & Novel Drug Delivery Systems" (Pharmaceutica-2013) on April 08-10, 2013 at Hilton Chicago/ Northbrook, USA

- 17.2012-Invited speaker in "2nd International Conference on Nanotek and Expo"(Nanotek-2012) on December 3-5, 2012 at Double Tree by Hilton Philadelphia Center City, USA
- 18.2012-Invited speaker in "International Conference on Tissue Science & Engineering" (Tissue Science-2012) on October 1-3, 2012.
- 19.2011- Excellent Paper in Wseas Conference (Top Article at the Malta World Scientific Conference)
- 20.2014- Radio Interview for my Innovations
- 21.2013-2014 -the best Innovation in Khwarizmi Festival for wound-healing device
- 22.2013 -Award presidency (Nano) for tPA Loaded in PLGA/CS Nanoparticles for AMI
- 23.2016 -National Award for Excellent Women Researcher in IRAN
- 24.2011 - National Award in Biomedical Engineering Group (Level 3 Elite) at the Festival (Royesh) of Iran's National Elites Foundation
- 25.2017 -Excellent Inventor in Yazd Province
- 26.2016 -Excellent Researcher in Yazd Province
- 27.2017 - Excellent Researcher in Islamic Azad University in Yazd Province
- 28.2017 - National Award in Biomedical Engineering Group (level 3 elite) at the festival (Royesh Zardkoh) of Iran's National Elites Foundation for Smart Device for Washing, Drug Delivery and Wound Healing.
- 29.2019- The best invention titled "Fabrication of Keratin/Polycaprolactone/Hydroxyapatite Composite Nano-Scaffold via Electrospinning for Bone Tissue Engineering" at 4th Nanotechnology Festival (Ali Abad Katoul. Iran), 27-28 Feb 2019
- 30.2018- 2019- Supervisor professor for a research study titled "Analysis of Cancer- Host Cell Crosstalk Using Co-Culture Devices in International Iberian Nanotechnology Laboratory (INT) in **Portugal**.
- 31.2019-2021- Supervisor professor for Exchange visitor in Azad University of Yazd. We performed a research study on "In vivo and In vitro Studied on Chitosan/ PRF loaded Gelatin/ Chitosan Hydrogel for Wound Healing".
32. The best Dissertations in Khayam International Innovation and Invention festival, **3 Dissertations**, June 2020
33. The best Dissertations in Professor Hesabi Festival, **3 Dissertations**, June 27-2020
34. Iran's First Festival of Creative and Entrepreneur Women, Iranian Association for Management of Technology and Innovation, February 2 and 3, 2021.
35. Chairman of the Nanobiotechnology Conference, 2018
36. Chairman of the Biomedical Engineering and Tissue Engineering Event, 2022
37. IAU-Yazd-Branch, Award for Excellent Researcher, 2018 and 2021
38. IAU-Yazd-Branch Award for Excellent Teacher, 2023

Introductio

I am a Full Professor of Biomedical Engineering with a Ph.D. in Biomaterials from Amirkabir University of Technology (Tehran Polytechnic), awarded in 2010. With over two decades of academic and research experience, my work primarily focuses on nano-biomaterials, surface modification techniques (including laser and plasma-based methods) for dental and orthopedic implants, drug delivery systems, wound healing technologies, and the development of scaffolds for tissue engineering.

Since 2007, I have been a faculty member at the Department of Materials Engineering, Islamic Azad University, and since 2010, I have chaired the Department of Biomedical Engineering. In addition to my academic roles, I have been actively involved in providing instruction on tissue engineering and biomaterials to dental residents in orthodontics, periodontics, and endodontics at the University of Medical Sciences in Yazd since 2014.

I am also engaged in translational research and innovation. I currently serve as Chair of the Board of Directors at Sanat Pajoohan Amitis Yazd Company and Novel Wound Dressing Aramis Company. These companies focus on the development and commercialization of medical devices and smart wound care technologies. Since 2021, I have been a Founding Board and Research Council Member of the Joint Replacement Research Center at the School of Medicine, University of Tehran. I also serve on the Editorial Board of the Progress in Biomaterials journal.

My research has led to the publication of over 100 articles, 11 books and book chapters, and the registration of more than 20 patents. A significant portion of my work involves designing and synthesizing multifunctional nanomaterials and advanced biomaterials for regenerative medicine applications. My contributions have been recognized with several national and international awards, especially for the development of the Endobutton Implant and a Smart Wound Healing Device.

In May 2019, I joined the Khademhosseini Lab at the California NanoSystems Institute at UCLA as a Research Scholar. During my time there, I expanded my work in the areas of nanotechnology, 3D bioprinting, and regenerative therapies, exploring new interdisciplinary approaches in biomedical engineering.