

**National cell Bank Department
Pasteur Institute of Iran**

No. 358, 12th Farwardin Ave, Jomhhoori St, Tehran, Iran,

Post Code: 1316943551

Tel: +98-21-66492595

shahinbonakdar@yahoo.com

sh_bonakdar@pasteur.ac.ir

ACADEMIC AND RESEARCH EXPERIENCE

Head of National Cell Bank of Iran	since 2015
Academic staff National Cell Bank Department, Iran Pasteur Institute	since 2011
Post Doctoral Fellow, Tissue Engineering, Pasteur Institute of Iran Under supervision of Prof. M. A. Shokrgozar	2010-2011
Ph.D., Biomaterial Engineering, Amirkabir University of Technology Under supervision of Prof. S. H. Emami	2005- 2010

INTERNSHIP PROGRAM

Visiting researcher at Center of Micronanotechnology (CMi), EPFL, Lausanne, Swiss	2016
Visiting researcher at Microsystem Laboratory 4, EPFL, Lausanne, Swiss Under supervision of Prof. Philippe Renaud	2015
Visiting scientist at Biophotonic Laboratory, EPFL, Marburg University Under supervision of Prof. Wolfgang Parak	2013

BOOK CHAPTER

- M. Mahmoudi, Sh. Bonakdar, O. Mashinchian, Stem Cell Nanoengineering from bench to bed, Editor: H. Baharvand, N. Aghdami, Stem Cell Nanoengineering, John Wiley & Sons Incorporation, 2015.
- Sh. Bonakdar, O. Mashinchian, Toxicity of Nanobiomaterials, Editor: H. Baharvand, N. Aghdami, Stem Cell Nanoengineering, John Wiley & Sons Incorporation, 2015.

BOOK PUBLICATION

- M. Rabie, Sh. Bonakdar, Application of Polymers in Medicine, Published by Amirkabir University of Technology (AUT) Press Center. 2009. ISBN: 978-964-463-375-1, <http://www.aku-press.com/eBook.asp?M=13&Seq=799>.

BOOK TRANSLATION

- M. Rafienia, Sh. Bonakdar, Biomaterials, Principles and Applications, by Joon B. Park (Editor), Joseph D. Bronzino (Editor), 2003, Published by Amirkabir University of Technology (AUT) Press Center, ISBN : 978-964-463-318-8,
<http://www.aku-press.com/eBook.asp?M=13&Seq=799>.
- Sh. Bonakdar, M. Rafienia, Tissue Biomaterials Interaction, by Kay C Dee, David A. Puleo, Rena Bizios, Copyright (2002 John Wiley & Sons, Inc). Published by AmirKabir Publication Institute. ISBN: 978-964-463-344-7.
<http://www.aku-press.com/Book.asp?M=13&Seq=715>.

HONORS

- Distinguished academic staff at Iran Pasteur Institute 2018
 - 1st ranked in Patent and commercialization
- Distinguished academic staff at Iran Pasteur Institute 2017
 - 1st ranked in annual research administration evaluation
- Distinguished academic staff at Iran Pasteur Institute 2017
 - For the best published article
- Distinguished academic staff at Iran Pasteur Institute 2014
 - 1st ranked in Patent and commercialization
- Distinguished academic staff at Iran Pasteur Institute 2014
 - Ranked as a young researcher

PATENTS

- Sh. Bonakdar, Cell Insert with cell membrane topography for cell culture, Iran Patent, 97520, C08J 5/00.
- H. Nazokdast, Sh. Bonakdar, Optimization in hyaluronic acid extraction from rooster comb and a method for characterization, Iran patent 91914, 2017.
- S. Mohammadi, Sh. Bonakdar, alginate sulfate nanofibers for growth factor sustain release, Iran patent, 86312, 2015.
- F. Asghari, M. Razaghi, Sh. Bonakdar, Wound dressing containing terbinafine, Iran patent 84967, 2015.
- V. Jalali, Sh. Bonakdar, A transparent film for absorbing armpit sweat, Iran patent 82890, 2014.
- F.Orang, S.A. Poursamar, Sh. Bonakdar, A tissue engineering scaffold based on hydroxyapatite, gelatin and polyvinyl alcohol, Iran patent, 2007.
- Sh. Bonakdar, F. Orang, Synthesis of New Biomedical Grade Polyurethane – Silicon Composition based on MDI and PTHF, Iran patent, 2006.
- F. Orang, Sh. Bonakdar, Synthesis of a New Biomedical Grade Polyurethane based on MDI and PTHF, Iran patent, 2006.

JOURNAL PUBLICATION

- Kavand H, van Lintel H, Bakhshi Sichani S, Bonakdar S, Kavand H, Koohsorkhi J, Renaud P. Cell-Imprint Surface Modification by Contact Photolithography-Based Approaches: Direct-Cell Photolithography and Optical Soft Lithography Using PDMS Cell Imprints. *ACS applied materials & interfaces*. 2019 Feb 21;11(11):10559-66.
- Moosazadeh Moghaddam M, Bonakdar S, Shokrgozar MA, Zaminy A, Vali H, Faghihi S. Engineered substrates with imprinted cell-like topographies induce direct differentiation of adipose-derived mesenchymal stem cells into Schwann cells. *Artificial cells, nanomedicine, and biotechnology*. 2019 Dec 4;47(1):1022-35.
- Mohammadi S, Ramakrishna S, Laurent S, Shokrgozar MA, Semnani D, Sadeghi D, Bonakdar S, Akbari M. Fabrication of Nanofibrous PVA/Alginate-Sulfate Substrates for Growth Factor Delivery. *Journal of Biomedical Materials Research Part A*. 2019 Feb;107(2):403-13.
- Samani S, Shokrgozar MA, Zamini A, Majidi M, Tavassoli H, Aidun A, Bonakdar S. Preparation of skin tissue engineering scaffold based on Adipose-derived Tissue. *Journal of Tissues and Materials*. 2019 Mar 1;2(1):47-54.
- Askari M, Bonakdar S, Anbouhi MH, Shahsavarani H, Kargozar S, Khalaj V, Shokrgozar MA. Sustained release of TGF- β 1 via genetically-modified cells induces the chondrogenic differentiation of mesenchymal stem cells encapsulated in alginate sulfate hydrogels. *Journal of Materials Science: Materials in Medicine*. 2019 Jan 1;30(1):7.
- Aidun A, Safaei Firoozabady A, Moharrami M, Ahmadi A, haghhighipour N, Bonakdar S, Faghihi S. Graphene Oxide Incorporated Polycaprolactone/Chitosan/Collagen Electrospun Scaffold: Enhanced Osteogenic Properties for Bone Tissue Engineering. *Artificial organs*. 2019 Apr 23.
- Aryan A, Bayat M, Bonakdar S, Taheri S, Haghparast N, Bagheri M, Piryaee A, Abdollahifar MA. Human Bone Marrow Mesenchymal Stem Cell Conditioned Medium Promotes Wound Healing in Deep Second-Degree Burns in Male Rats. *Cells Tissues Organs*. 2019 Jul 24:1-3.
- Lotfi L, Khakbiz M, Moosazadeh Moghaddam M, Bonakdar S. A Biomaterials Approach to Schwann cell Development in Neural Tissue Engineering. *Journal of Biomedical Materials Research Part A*. 2019 Jun 29.
- Shaghghi B, Khoee S, Bonakdar S. Preparation of multifunctional Janus nanoparticles on the basis of SPIONs as targeted drug delivery system. *International journal of pharmaceutics*. 2019 Mar 25;559:1-2.
- Moghaddam MM, Bonakdar S, Shariatpanahi MR, Shokrgozar MA, Faghihi S. The effect of physical cues on the stem cell differentiation. *Current stem cell research & therapy*. 2019 Apr 1;14(3):268-77.
- Shahmoradi SR, Salmani MK, Soleimanpour HR, Tavakoli AH, Hosaini K, Haghhighipour N, Bonakdar S. Induction of Chondrogenic Differentiation in Human Mesenchymal Stem Cells Cultured on Human Demineralized Bone Matrix Scaffold under Hydrostatic Pressure. *Tissue engineering and regenerative medicine*. 2019 Feb 8;16(1):69-80.
- Ansari S, Karkhaneh A, Bonakdar S, Haghhighipour N. Simultaneous Effects of Hydrostatic Pressure and Dexamethasone Release from Electrospun Fibers on Inflammation-Induced Chondrocytes. *European Polymer Journal*. 2019 Jun 5.
- Ghasemi A, Imani R, Yousefzadeh M, Bonakdar S, Solouk A, Fakhrzadeh H. Studying the Potential Application of Electrospun Polyethylene Terephthalate/Graphene Oxide Nanofibers as Electroconductive Cardiac Patch. *Macromolecular Materials and Engineering*. 2019:1900187.
- Kazemiha VM, Azari S, Habibi-Anbouhi M, Amanzadeh A, Bonakdar S, Shokrgozar MA, Mahdian R. Effectiveness of Plasmocure™ in Elimination of Mycoplasma Species from Contaminated Cell Cultures: A Comparative Study versus Other Antibiotics. *Cell Journal (Yakhteh)*. 2019 Jul 1;12(2).
- Ghaleh H, Jalili K, Maher BM, Rahbarghazi R, Mehrjoo M, Bonakdar S, Abbasi F. Biomimetic antifouling PDMS surface developed via well-defined polymer brushes for cardiovascular applications. *European Polymer Journal*. 2018 Sep 1;106:305-17.

- Aminipour Z, Kolouei Z, Tohidi S, Bonakdar S. Encapsulation of Theophylline in Poly (vinyl alcohol) using Electrospraying Method. *Journal of Tissues and Materials*. 2018 Dec 1;1(1):32-9.
- Shourgashti Z, Keshvari H, Torabzadeh H, Rostami M, Bonakdar S, Asgary S. Physical Properties, Cytocompatibility and Sealability of HealApex (a Novel Premixed Biosealer). *Iranian endodontic journal*. 2018;13(3):299.
- Moosazadeh Moghaddam M, Bonakdar S, Shokrgozar MA, Faghihi S. Repair of spinal cord injury; mesenchymal stem cells as an alternative for Schwann cells. *Journal of Applied Biotechnology Reports*. 2018 Jun 1;5(2):42-7.
- Enayati MS, Behzad T, Sajkiewicz P, Rafienia M, Bagheri R, Ghasemi-Mobarakeh L, Kolbuk D, Pahlevanneshan Z, Bonakdar SH. Development of electrospun poly (vinyl alcohol)-based bionanocomposite scaffolds for bone tissue engineering. *Journal of Biomedical Materials Research Part A*. 2018 Apr;106(4):1111-20. Nikshoar MS, Khosravi S, Jahangiri M, Zandi A, Miripour ZS, Bonakdar S, Abdolahad M. Distinguishment of populated metastatic cancer cells from primary ones based on their invasion to endothelial barrier by biosensor arrays fabricated on nanoroughened poly (methyl methacrylate). *Biosensors and Bioelectronics*. 2018 Oct 30;118:51-7.
- Dehnavi SS, Mehdikhani M, Rafienia M, Bonakdar S. Preparation and in vitro evaluation of polycaprolactone/PEG/bioactive glass nanopowders nanocomposite membranes for GTR/GBR applications. *Materials Science and Engineering: C*. 2018 Sep 1;90:236-47
- Derakhshi M, Ashkarran AA, Bahari A, Bonakdar S. Shape selective silver nanostructures decorated amine-functionalized graphene: A promising antibacterial platform. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 2018 May 20;545:101-9.
- Derakhshi M, Ashkarran AA, Bahari A, Bonakdar S. Synergistic effect of shape-selective silver nanostructures decorating reduced graphene oxide nanoplatelets for enhanced cytotoxicity against breast cancer. *Nanotechnology*. 2018 May 17;29(28):285102.
- Enayati MS, Behzad T, Sajkiewicz P, Rafienia M, Bagheri R, Ghasemi-Mobarakeh L, Kolbuk D, Pahlevanneshan Z, Bonakdar SH. Development of electrospun poly (vinyl alcohol)-based bionanocomposite scaffolds for bone tissue engineering. *Journal of Biomedical Materials Research Part A*. 2018 Apr;106(4):1111-20.
- Tavassoli H, Javadpour J, Taheri M, Mehrjou M, Koushki N, Arianpour F, Majidi M, Izadi-Mobarakeh J, Negahdari B, Chan P, Ebrahimi Warkiani M. Incorporation of Nanoalumina Improves Mechanical Properties and Osteogenesis of Hydroxyapatite Bioceramics. *ACS Biomaterials Science & Engineering*. 2018 Mar 5;4(4):1324-36.
- Kowsari-Esfahan R, Jahanbakhsh A, Saidi MS, Bonakdar S. A microfabricated platform for the study of chondrogenesis under different compressive loads. *Journal of the mechanical behavior of biomedical materials*. 2018 Feb 28;78:404-13.
- Kamguyan K, Katbab AA, Mahmoudi M, Thormann E, Moghaddam SZ, Moradi L, Bonakdar S. An engineered cell-imprinted substrate directs osteogenic differentiation in stem cells. *Biomaterials science*. 2018;6(1):189-99.
- Ghorbani F, Moradi L, Shadmehr MB, Bonakdar S, Droodinia A, Safshekan F. In-vivo characterization of a 3d hybrid scaffold based on PCL/decellularized aorta for tracheal tissue engineering. *Materials Science and Engineering: C*. 2017 Dec 1;81:74-83.
- Aminipour Z, Khorshid M, Bayoumi M, Losada-Pérez P, Thoelen R, Bonakdar S, Keshvari H, Maglia G, Wagner P, Van der Bruggen B. Formation and electrical characterization of black lipid membranes in porous filter materials. *physica status solidi (a)*. 2017 Sep 1;214(9).
- Saeedi M, Vahidi O, Bonakdar S. Synthesis and characterization of glycyrrhizic acid coated iron oxide nanoparticles for hyperthermia applications. *Materials Science and Engineering: C*. 2017 Aug 1;77:1060-7.
- Aleahmad F, Talaei-Khozani T, Rajabi-Zeleti S, Sani M, Jalili-Firoozinezhad S, Bonakdar S, Heshmat-Azad S, Azarnia M, Jaberipour M. Fabrication and Characterization of Heparin/Collagen Sponge for in Vitro Differentiation of Wharton's Jelly-Derived Mesenchymal Stem Cells into Hepatocytes. *Hepatitis Monthly*. 2017 Feb 1;17(2).

- Mahmoodi M, Zamanifard M, Safarzadeh M, Bonakdar S. In vitro evaluation of collagen immobilization on polytetrafluoroethylene through NH₃ plasma treatment to enhance endothelial cell adhesion and growth. *Bio-medical materials and engineering*. 2017 Jan 1;28(5):489-501.
- Paskiabi FA, Bonakdar S, Shokrgozar MA, Imani M, Jahanshiri Z, Shams-Ghahfarokhi M, et al. Terbinafine-loaded wound dressing for chronic superficial fungal infections. *Materials Science and Engineering: C*. 2017;73:130-6.
- Nojoomi A, Tamjid E, Simchi A, Bonakdar S, Stroeve P. Injectable polyethylene glycol-laponite composite hydrogels as articular cartilage scaffolds with superior mechanical and rheological properties. *International Journal of Polymeric Materials and Polymeric Biomaterials*. 2017;66:105-14.
- Moradi L, Vasei M, Dehghan MM, Majidi M, Mohajeri SF, Bonakdar S. Regeneration of meniscus tissue using adipose mesenchymal stem cells-chondrocytes co-culture on a hybrid scaffold: In vivo study. *Biomaterials*. 2017;126:18-30.
- Sadeghi D, Karbasi S, Razavi S, Mohammadi S, Shokrgozar MA, Bonakdar S. Electrospun poly (hydroxybutyrate)/chitosan blend fibrous scaffolds for cartilage tissue engineering. *Journal of Applied Polymer Science*. 2016;133.
- Panahi-Joo Y, Karkhaneh A, Nourinia A, Abd-Emami B, Negahdari B, Renaud P, et al. Design and fabrication of a nanofibrous polycaprolactone tubular nerve guide for peripheral nerve tissue engineering using a two-pole electrospinning system. *Biomedical Materials*. 2016;11:025017.
- Naeimi M, Rafienia M, Fathi M, Janmaleki M, Bonakdar S, Ebrahimian-Hosseinabadi M. Incorporation of chitosan nanoparticles into silk fibroin-based porous scaffolds: Chondrogenic differentiation of stem cells. *International Journal of Polymeric Materials and Polymeric Biomaterials*. 2016;65:202-9.
- Montazeri L, Hojjati-Emami S, Bonakdar S, Tahamtani Y, Hajizadeh-Saffar E, Noori-Keshtkar M, et al. Improvement of islet engrafts by enhanced angiogenesis and microparticle-mediated oxygenation. *Biomaterials*. 2016;89:157-65.
- Montazeri L, Bonakdar S, Taghipour M, Renaud P, Baharvand H. Modification of PDMS to fabricate PLGA microparticles by a double emulsion method in a single microfluidic device. *Lab on a Chip*. 2016;16:2596-600.
- Mehrasa M, Anarkoli AO, Rafienia M, Ghasemi N, Davary N, Bonakdar S, et al. Incorporation of zeolite and silica nanoparticles into electrospun PVA/collagen nanofibrous scaffolds: the influence on the physical, chemical properties and cell behavior. *International Journal of Polymeric Materials and Polymeric Biomaterials*. 2016;65:457-65.
- Khosroshahi ME, Rezvani HA, Keshvari H, Bonakdar S, Tajabadi M. Evaluation of cell viability and T2 relaxivity of fluorescein conjugated SPION-PAMAM third generation nanodendrimers for bioimaging. *Materials Science and Engineering: C*. 2016.
- Kazemiha VM, Bonakdar S, Amanzadeh A, Azari S, Memarnejadian A, Shahbazi S, et al. Real-time PCR assay is superior to other methods for the detection of mycoplasma contamination in the cell lines of the National Cell Bank of Iran. *Cytotechnology*. 2016;68:1063-80.
- Eslahi N, Simchi A, Mehrjoo M, Shokrgozar MA, Bonakdar S. Hybrid cross-linked hydrogels based on fibrous protein/block copolymers and layered silicate nanoparticles: tunable thermosensitivity, biodegradability and mechanical durability. *RSC Advances*. 2016;6:62944-57.
- Esfahanizadeh N, Motalebi S, Daneshparvar N, Akhoundi N, Bonakdar S. Morphology, proliferation, and gene expression of gingival fibroblasts on Laser-Lok, titanium, and zirconia surfaces. *Lasers in medical science*. 2016;31:863-73.
- Bonakdar S, Mahmoudi M, Montazeri L, Taghipoor M, Bertsch A, Shokrgozar MA, et al. Cell Imprinted Substrates Modulate the Differentiation, Redifferentiation, and Transdifferentiation. *ACS Applied Materials & Interfaces*. 2016.
- Shojaee M, Navaee F, JaliliFiroozinezhad S, Faturechi R, Majidi M, Bonakdar S. Fabrication and characterization of ovalbumin films for wound dressing applications. *Materials Science and Engineering: C*. 2015;48:158-64.
- Mashinchian O, Turner L-A, Dalby MJ, Laurent S, Shokrgozar MA, Bonakdar S, et al. Regulation of stem cell fate by nanomaterial substrates. *Nanomedicine*. 2015;10:829-47.

- Koushki N, Katbab AA, Tavassoli H, Jahanbakhsh A, Majidi M, Bonakdar S. A new injectable biphasic hydrogel based on partially hydrolyzed polyacrylamide and nanohydroxyapatite as scaffold for osteochondral regeneration. *RSC Advances*. 2015;5:9089-96.
- Derakhshan ZH, Shaghghi B, Asl MP, Majidi M, Ghazizadeh L, Chegini A, et al. In Situ Forming Hydrogel Based on Chondroitin Sulfate-Hydroxyapatite for Bone Tissue Engineering. *International Journal of Polymeric Materials and Polymeric Biomaterials*. 2015.
- Babavalian H, Latifi AM, Shokrgozar MA, Bonakdar S, Mohammadi S, Moghaddam MM. Analysis of Healing Effect of Alginate Sulfate Hydrogel Dressing Containing Antimicrobial Peptide on Wound Infection Caused by Methicillin-Resistant *Staphylococcus aureus*. *Jundishapur journal of microbiology*. 2015;8.
- Asadian M, Rashidi A, Majidi M, Mehrjoo M, Emami BA, Tavassoli H, et al. Nanofiber protein adsorption affected by electrospinning physical processing parameters. *Journal of the Iranian Chemical Society*. 2015;12:1089-97.
- Nasri-Nasrabadi B, Mehrasa M, Rafienia M, Bonakdar S, Behzad T, Gavanji S. Porous starch/cellulose nanofibers composite prepared by salt leaching technique for tissue engineering. *Carbohydrate polymers*. 2014;108:232-8.
- Naeimi M, Fathi M, Rafienia M, Bonakdar S. Silk fibroin-chondroitin sulfate-alginate porous scaffolds: Structural properties and in vitro studies. *Journal of Applied Polymer Science*. 2014;131.
- Mashinchian O, Bonakdar S, Taghinejad H, Satarifard V, Heidari M, Majidi M, et al. Cell-Imprinted Substrates Act as an Artificial Niche for Skin Regeneration. *ACS applied materials & interfaces*. 2014;6:13280-92.
- Kazemiha VM, Amanzadeh A, Memarnejadian A, Azari S, Shokrgozar MA, Mahdian R, et al. Sensitivity of biochemical test in comparison with other methods for the detection of mycoplasma contamination in human and animal cell lines stored in the National Cell Bank of Iran. *Cytotechnology*. 2014:1-13.
- Karkhaneh A, Naghizadeh Z, Shokrgozar MA, Bonakdar S. Evaluation of the chondrogenic differentiation of mesenchymal stem cells on hybrid biomimetic scaffolds. *Journal of Applied Polymer Science*. 2014;131.
- Aghaei H, Nourbakhsh AA, Karbasi S, JavadKalbasi R, Rafienia M, Nourbakhsh N, et al. Investigation on bioactivity and cytotoxicity of mesoporous nano-composite MCM-48/hydroxyapatite for ibuprofen drug delivery. *Ceramics International*. 2014;40:7355-62.
- Zamani Y, Rabiee M, Shokrgozar M, Bonakdar S, Tahriri M. Response of Human Mesenchymal Stem Cells to Patterned and Randomly Oriented Poly(Vinyl Alcohol) Nano-fibrous Scaffolds Surface-Modified with Arg-Gly-Asp (RGD) Ligand. *Applied Biochemistry and Biotechnology*. 2013:1-12.
- Tajabadi M, Khosroshahi ME, Bonakdar S. An efficient method of SPION synthesis coated with third generation PAMAM dendrimer. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 2013.
- Shokrgozar MA, Bonakdar S, Dehghan MM, Emami SH, Montazeri L, Azari S, et al. Biological evaluation of polyvinyl alcohol hydrogel crosslinked by polyurethane chain for cartilage tissue engineering in rabbit model. *Journal of Materials Science: Materials in Medicine*. 2013:1-12.
- Montazeri L, Javadpour J, Shokrgozar MA, Bonakdar S, Khayyat Moghaddam M, Asgary V. The interaction of plasma proteins with nano-size fluoride-substituted apatite powders. *Ceramics International*. 2013.
- Mirahmadi F, Tafazzoli-Shadpour M, Shokrgozar MA, Bonakdar S. Enhanced mechanical properties of thermosensitive chitosan hydrogel by silk fibers for cartilage tissue engineering. *Materials Science and Engineering: C*. 2013;33:4786-94.
- Majedi FS, Hasani Sadrabadi MM, VanDersarl JJ, Mokarram N, Hojjati Emami S, Dashtimoghdam E, et al. On Chip Fabrication of Paclitaxel Loaded Chitosan Nanoparticles for Cancer Therapeutics. *Advanced Functional Materials*. 2013.
- Mahmoudi M, Bonakdar S, Shokrgozar MA, Aghaverdi H, Hartmann R, Pick A, et al. Cell-Imprinted Substrates Direct the Fate of Stem Cells. *ACS Nano*. 2013.

- Shokrgozar MA, Fattahi M, Bonakdar S, Kashani IR, Majidi M, Haghhighipour N, et al. Healing potential of mesenchymal stem cells cultured on a collagen-based scaffold for skin regeneration. *Iranian biomedical journal*. 2012;16:68.
- Rafienia M, Zarinmehr B, Poursamar SA, Bonakdar S, Ghavami M, Janmaleki M. Coated urinary catheter by PEG/PVA/gentamicin with drug delivery capability against hospital infection. *Iranian Polymer Journal*. 2012;22:75-83.
- Dezfuli SN, Sadrnezhaad SK, Shokrgozar MA, Bonakdar S. Fabrication of biocompatible titanium scaffolds using space holder technique. *Journal of Materials Science: Materials in Medicine*. 2012;23:2483-8.
- Mahmoudi M, Shokrgozar MA, Bonakdar S, Moghadam MK, Laurent S. Interaction of bare and gold-coated superparamagnetic iron oxide nanoparticles with fetal bovine serum. *Journal of the Iranian Chemical Society*. 2011;8:944-50.
- Kazemiha VM, Azari S, Amanzadeh A, Bonakdar S, Moghadam MS, Anbouhi MH, et al. Efficiency of Plasmocin[®] on various mammalian cell lines infected by mollicutes in comparison with commonly used antibiotics in cell culture: a local experience. *Cytotechnology*. 2011;63:609-20.
- Asefnejad A, Khorasani MT, Behnamghader A, Farsadzadeh B, Bonakdar S. Manufacturing of biodegradable polyurethane scaffolds based on polycaprolactone using a phase separation method: physical properties and in vitro assay. *International journal of nanomedicine*. 2011;6:2375.
- Poursamar SA, Orang F, Bonakdar S, Savar MK. Preparation and characterisation of poly vinyl alcohol/hydroxyapatite nanocomposite via in situ synthesis: a potential material as bone tissue engineering scaffolds. *International Journal of Nanomanufacturing*. 2010;5:330-4.
- Montazeri L, Javadpour J, Shokrgozar MA, Bonakdar S, Javadian S. Hydrothermal synthesis and characterization of hydroxyapatite and fluorhydroxyapatite nano-size powders. *Biomedical Materials*. 2010;5:045004.
- Emami SH, Abad AMA, Bonakdar S, Tahriri MR, Samadikuchaksaraei A, Bahar MA. Preparation and evaluation of chitosan-gelatin composite scaffolds modified with chondroitin-6-sulphate. *International journal of materials research*. 2010;101:1281-5.
- Bonakdar S, Emami SH, Shokrgozar MA, Farhadi A, Ahmadi SAH, Amanzadeh A. Preparation and characterization of polyvinyl alcohol hydrogels crosslinked by biodegradable polyurethane for tissue engineering of cartilage. *Materials Science and Engineering: C*. 2010;30:636-43.
- Mahmoudi M, Shokrgozar MA, Simchi A, Imani M, Milani AS, Stroeve P, et al. Multiphysics flow modeling and in vitro toxicity of iron oxide nanoparticles coated with poly (vinyl alcohol). *The Journal of Physical Chemistry C*. 2009;113:2322-31.
- Bonakdar S, Poursamar SA, Rafienia M, Shokrgozar MA, Farhadi A, Hosseini M. Effect of Freezing and Thawing Process on Betamethasone Acetate Release from Polyvinyl Alcohol Nanospheres. *Solid State Phenomena*. 2009;151:159-65.
- Bonakdar S, Orang F, Rafienia M, Imani R. Comparison of the effect of hydrophilicity on biocompatibility and platelet adhesion of two different kinds of biomaterials. *Iran J Pharm Sci*. 2008;4:37-44.
- Owlia P, Sadeghzadeh L, Orang F, Rafienia M, Bonakdar S. Evaluation of ceftriaxone releasing from microspheres based on starch against salmonella spp. *Biotechnology*. 2007;6:597-600.

CONFERENCE PUBLICATION

- Shahin Bonakdar, Seyyed Ali Poursamar, Mohammad Rafienia, Motahharez Hosseini Preparation of PVA Nanocapsules for Control Release of Betamethasone, 3rd Conference on Nanostructures, Tabriz, Iran, 2008.
- S.A. Poursamar, F. Orang, S.Bonakdar , M. Khorshid Savar, Preparation and characterization of biodegradable Poly vinyl alcohol /Hydroxyapatite nanocomposite via in situ synthesis: a potential material as Bone tissue engineering scaffolds, 2nd Conference on Nanostructures, March 11-14, 2008, Kish University, Iran.

- M. Rafienia, M. Kabiri, R. Imani, Sh. Bonakdar, Synthesis and Evaluation of Blood Absorbent Gelatin Sponge Crosslinked by EDC for Biomedical Applications, ICBME 2008, Shahed University, Iran.
- Zahra Fahimi, Maryam Parviz, F.Orang, Sh.Bonakdar, Release of Teofilin Through pH Sensitive Hydrogels, Iranian Biomaterial Conference, 2007, Tehran University IBB.
- S. Bonakdar, F. Orang, M. Rafienia, R. Imani, Study of Hydrophilic/Hydrophobic Parameter on Biocompatibility and Platelet Adhesion of Polyether Urethane and Polyvinyl alcohol Hydrogel in vitro, Iranian Biomaterial Conference, 2007, Tehran University IBB.
- S. Bonakdar, F. Orang, M. Rafienia, A. Navvabzadeh A Comparative Study of Physical-Mechanical Properties, Cytotoxicity and Platelet Adhesion of Biomedical Polyurethane Elastomers, ISPST 8th International Seminar on Polymer Science and Technology, Tehran, Iran, 2007.
- Sh.Bonakdar, F.Orang, Sh.Heidary, Ali Poursamar, "Evaluation of physical and chemical properties of biomedical polyvinyl alcohol hydrogels", Sharif university of Tehran, ICBME 2007.
- A. Navvabzadeh, F. Orang, Sh. Bonakdar, "Plasma nano surface modification of medical grade polyether urethane based on PTHF, HD and MDI", Sharif university of Tehran, ICBME 2007.
- A. Asefnejad, F. Orang, Sh. Bonakdar, "Characterization of a Porous and Biodegradable Polyester Urethane Scaffold Based on Polycaprolactone for Tissue Engineering Application", Sharif university of Tehran, ICBME 2007.
- Leila Sadeghzadeh, Fariba Orang, Parvize Olia, Mohamade Rafienia, Shahin Bonakdar, "Evaluation of Ceftriaxone release from microspheres based on starch, The 8th national Congress of Microbiology", Isfahan, IRAN, 23-25 May 2006.
- Rafienia M., Mirzade H., Mobedi H., Jamshidi A., Bonakdar Sh., Controlled delivery of Betamethasone from injectable in situ forming biodegradable PLGH system (In vitro study), 10th Iranian Pharmaceutical Sciences Conference (IPSC 2006), August 21-24, 2006.
- Sh.Bonakdar, F.Orang, M.Rafienia, Synthesis and Evaluation of Physical-chemical Properties, Cytotoxicity and Blood Compatibility of Biostable Polyurethanes Based on MDI, PTHF, BD and Baysilon®, Sahand University of Tabriz, ICBME 2005.
- Sh. Bonakdar, S. Karimianpour, F. Orang, "Synthesis and Characterization of Biomedical Polyether Urethane Elastomers Based on PTHF and PEG", AmirKabir University of Technology, ISPST 2005.
- S. Karimianpour, F. Orang, M. Rafienia, Sh. Bonakdar, "Biocompatibility and Mechanical Properties Evaluation of PEG and PTMO based Biomedical grade Polyurethanes", Sahand University of Tabriz, ICBME 2005.

TEACHING EXPERIENCE

- Course name: Stem cell engineering
Science and Research Campus, Tehran, Ph.D student of Biomaterials Engineering, spring & fall semester, 2016-2017 & 2017-2018.
- Course name: Tissue Engineering
Science and Research Campus, Tehran, MSc student of Biomaterials Engineering, spring & fall semester, 2016-2017 & 2017-2018.
- Course name: Tissue Engineering
Science and Technology University, Tehran, MSc student of Biomaterials Engineering, spring semester, 2012-2015.
- Course name: Biological Evaluation
Amirkabir University of Technology, Tehran, BSc student of Biomaterials Engineering, spring semester, 2012 & 2013.
- Course name: Cell Cultures, 6 hours
Pasteur Institute of Iran, Ph.D student of Medical Biotechnology, fall semester, 2012-2018
- Course name: Medical Implants

Amirkabir University of Technology, Tehran, BSc student of Biomaterials Engineering, fall semester, 2010 & 2011.

- Course name: Principles of Polymer Science in medicine
Amirkabir University of Technology, Tehran, BSc student of Biomaterials Engineering, fall semester, 2010.