

Resume

(PERSONAL INFORMATION)

Name & Surname: **Azadeh Asefnejad**

Date birth: 02/03/1979

Place of birth: Tehran, Iran

Languages: Persian, English, French

Marital status: Married

Assistant professor

Ph.D. Biomedical Engineering (Biomaterials)

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(EDUCATIONS)

- Ph.D. of Biomedical Engineering (Biomaterials).
Azad University Science & Research Branch, Tehran (2005-2010).
Thesis, "*Fabrication of biodegradable polyurethane- calcium phosphate composite scaffold*"
- Master of Science, Biomedical Engineering (Biomaterials).
Azad University Science & Research Branch, Tehran (2002- 2005).
- Bachelor of Science, applied Chemistry.
Azad University, Central Tehran Branch, Tehran (1998-2002).

Work Experience:

- Head of Biomaterials engineering department- Azad University Science & Research Branch, Tehran (2012-2018).
- Faculty member of Islamic Azad University, Science & Research Branch, Assistant Professor
- Teaching the courses of implantable biomaterials, Drug delivery systems, introductions of biomaterials, Biopolymers, Tissue engineering and scaffolds, biochemistry and biotechnology, Research methods, biomaterial prosthesis.
- Member of Iran nanotechnology initiative council.
- Think tank of high-tech. in ministry of health.
- Collaboration with the Biomedical Engineering Magazine.
- Collaboration with the nanomaterials Magazine.
- Official referee of international journal of nanomedicine.

(AREA OF INTEREST)

- Tissue Engineering
- Nanomedicine
- Surface Modification
- Biopolymers
- Nanofibers
- Biomaterials and nano/ Biotechnology
- Drug delivery and biopolymers
- Polymeric Biomaterials Design and Preparation
- Wound dressing

(AWARDS)

- First elected at International Competition of Biomaterials in Iran, 2005.

LIST OF PUBLICATIONS:

(Journal Papers)

1- Azadeh Asefnejad, Aliasghar Behnamghader, Mohammad Taghi Khorasani," Polyurethane/fluor-hydroxyapatite nanocomposite scaffolds for bone tissue engineering. Part I: morphological, physical, and mechanical characterization", *International Journal of Nanomedicine* 2011:6 93–100.

- 2- Azadeh Asefnejad, Mohammad Taghi Khorasani, Aliasghar Behnamghader, "Manufacturing of biodegradable polyurethane scaffolds based on polycaprolactone using phase separation method: 1- physical properties and in-vitro assay", 2011:6 2375–2384
- 3- Seyed Mohammad Ahmadi, Aliasghar Behnamghadghader, Azade Asefnejad, " Synthesis of 58 SiO₂ -38 CaO- 4 P₂O₅ bioactive glass nanopowder for use in bone defects repair, Journal of current research in science. S (2), 2016: 490-495.
- 4- Seyed Mohammad Ahmadi, Aliasghar Behnamghadghader, Azade Asefnejad, "Sol-Gel Synthesis, characterization and In Vitro evaluation of SiO₂–CaO–P₂O₅ bioactive glass nanoparticles with various CaO/P₂O₅ Ration, Digest Journal of Nanomaterials and Biostructures, Vol. 12, No. 3, July - September 2017, 681-694.
- 5- Parastoo Namdarian, Ali Zamanian, Azadeh Asefnejad, Maryam Saeidifar, "Evaluation of freeze-dry chitosan-gelatin scaffolds with olibanum microspheres containing dexamethasone for bone tissue engineering", Polymer(Korea) journal, In press.
- 6- Seyed Mohammad Ahmadi, Aliasghar Behnamghadghader, Azade Asefnejad, "Evaluation of hMSCs response to sodium alginate / bioactive glass composite paste: effect of CaO/P₂O₅, sodium alginate concentration and P/L ratios", Current stem cell research and therapy., In press.
- 7-Parastoo Namdarian, Azadeh Asefnejad, Fardad Farokhi," Knowledge Discovery by Decision Tree to Model the Rate of Drug Release from Matrix Substrates", *International Journal of Computer Applications (0975 – 8887) Volume 138 – No.7, March 2016.*
- 8- Esmaeil Biazar, Majid Heidari, Azadeh Asefnezhad, Naser Montazeri, "The relationship between cellular adhesion and surface roughness in polystyrene modified by microwave plasma radiation", *International Journal of Nanomedicine*, 2011:6, 631–639.
- 9- Saeed Heidari Keshel, S Neda Kh Azhdadi, Azadeh Asefnezhad, Mohammad Sadraeian, Mohamad Montazeri, "The relationship between cellular adhesion and surface roughness for polyurethane modified by microwave plasma radiation" *International Journal of Nanomedicine*, 2011:6, 641-647.
- 10- Esmaeil Biazar, S Mahdi Rezayat, Naser Montazeri, Khalil Pourshamsian, Reza Zeinali, Azadeh Asefnejad, " The effect of acetaminophen nanoparticles on liver toxicity in a rat model", *International Journal of Nanomedicine*, 2010:5 197–201.
- 11- Esmaeil Biazar, Ali Beitollahi, S Mehdi Rezayat, Tahmineh Forati, Azadeh Asefnejad, " Effect of the mechanical activation on size reduction of crystalline acetaminophen drug particles", *International Journal of Nanomedicine* 2009:4 283–287.
- 12- Esmaeil Biazar, Reza Zeinali, Naser Montazeri, Khalil Pourshamsian, Mahmoud Jabarvand Behrouz, Azadeh Asefnejad,. " Cell engineering: nanometric grafting of Poly-N-isopropylacrylamide onto polystyrene film by different doses of gamma radiation", *International Journal of Nanomedicine* 2010:5 549–556.

13- Jafar Ai, Saeed Heidari K, Fatemeh Ghorbani, Fahimeh Ejazi, Esmaeil Biazar, Azadeh Asefnejad,. "Fabrication of Coated-Collagen Electrospun PHBV Nanofiber Film by Plasma Method and Its Cellular Study", Journal of Nanomaterials, 2011:123724, 1-8.

14- Esmaeil Biazar, Hossein Mohammadi, Azadeh Asefnejad, ,"Design of Smart Surface by Nanometric Grafting of NIPAAm with Benzophenone Initiator under UV Radiation", Oriental journal of chemistry, 2011, Vol. 27, 997-1003.

(Conference Papers)

1- Azadeh Asefnejad, Aliasghar Behnamghader, Mohammad Taghi Khorasani, "Characterization & Biocompatibility evaluation of porous and biodegradable polyurethane scaffolds based on polycaprolactone", International meeting on developments in materials (MPA-2009), Manchester, UK.

2- Azadeh Asefnejad, Aliasghar Behnamghader, Mohammad Taghi Khorasani, "Preparation of polyurethane /hydroxyapatite composite scaffold for tissue regeneration". IASTED International Conference on biomedical engineering, Innsbruck, Austria.

3- Azadeh Asefnejad, Aliasghar Behnamghader, Mohammad Taghi Khorasani, "Fluor-hydroxyapatite/ polyurethane nanocomposite scaffolds for bone tissue engineering.", Second International Conference on Multifunctional, Hybrid & Nanomaterials, 2011, Strasbourg, France.

4- Sarah Rabiei, J Tavakoli, Azadeh Asefnejad, "Design and evaluation of Superabsorbent Hemostatic foam based on natural polymers", Flinders Center for Nanoscale Science and Technology 5th annual conference, 2015.

5- Sarah Rabiei, Azadeh Asefnejad, "Production of liquid bio-adhesive PVA / PVP with Herbal extracts to wound healing", International conference of modern research results in science engineering and technology, March 2016.

6- Sarah Rabiei, Azadeh Asefnejad, "Making wound cover of starch, gelatin, borax to wound healing and blood clotting", International conference of modern research results in science engineering and technology, March 2016.

7- Faeze Mojiri, Sarah Rabiei, Azadeh Asefnejad, "Sterile gauze surface modification with starch and gelatin nanofibers for blood coagulation application", International conference of modern research results in science engineering and technology, March 2016.

8- Sarah Rabiei, Faeze Mojiri, Azadeh Asefnejad, "Making Polymer Sponge of Gelatin & Starch for the application of emergency blood coagulation", International conference of modern research results in science engineering and technology, March 2016.

9-Akbari H, Asefnejad A, "Encapsulation of Arsenic terioxide into Polycaprolactone (PCL) Nanofibers", The 3rd IGCC conference, Iran. 2016.

10- Ahmadi F, Asefnejad A, Khorasani MT, " Influence of SO₂ Plasma on Cell Attachment to PET Surface ", Eminent Association of Researchers in Biological & Medical Sciences (EARBM), March 30, 2018.

11- Akbari H, Asefnejad, "Preparation of Electrospun Poly (vinyl alcohol)/ Poly(ϵ -caprolactone) Hybrid Nanofibers for anti-cancer drugs", The 3rd IGCC conference, Iran., 25th November 2016.

12- Zahra akhoundi, Azadeh Asefnejad, "International Congress on Engineering Innovation and Technology Development "16-18 FEB 2016, Tabriz, Iran

13-Naderkhamseh H,Asefnejad A,Movahedi M,Fabrication and Evaluation of Phb/Chitosan Electrospun Nanocomposite Scaffold For Cartilage Tissue Engineering.The 4th ICSD conference,Iran,july 2017.

14-Omidi E,Asefnejad A,Movahedi M,Role Of Cyclodextrine In Development Of Custumary And New Drug Delivery System. The 4th ICSD conference,Iran,july 2017.

15-Hanani H,Asefnejad A,Movahedi M,Study Of Mechanism Performance Of Druge Delivery Pumps. The 4th ICSD conference,Iran,july 2017.

16-Farsi M,Asefnejad A,Movahedi M,Nano Particles Technologies Cancer Treatment . The 5th ICSD conference,Iran,july 2018.

(BOOKS)

1-Asefnejad A, Movahedi M, Yarahmadian R, "Biomedical Hydrogels, Biochemistry, Manufacture and Medical Applicatins". Publications Islamic Azad University,2016.

2- Asefnejad A, Movahedi M, Yarahmadian R, "Injectable Biocompatible Materials" Publications Islamic Azad University,2017.

3- Asefnejad A, Movahedi M, Yarahmadian R, "New Techniques in Releasing Biological Substances in Body". Publications Islamic Azad University, 2017.

4- Asefnejad A, Movahedi M, "Implantable Materials in Body" Publications Islamic Azad University, 2017.

(Projects Advisor)

- 1- Enrichment of Chitosan-Polyvinyl alcohol Scaffolds by Magnesium and Silicone Agents for Osteoinduction.2018.
- 2-Fabrication and Characterization of PU/PAMPS Hybrid Structure Containing Curcumin by Electrospinning Method.2018
- 3-Synthesis and characterization of chitosan / gelatin/ hydroxyapatite/ scaffold enriched with GPTMS and magnesium nano particles,2018.
- 4-Fabrication and Characterization of PGS/Gelatin Nanocomposite Electrospun Wound dressing for Diabetic Wound Healing, 2018.
- 5-Fabrication and Characterization of Biological Properties of Biodegradable Gelatin/Chitosan/Aloe Vera nanocomposites wound dressings Containing cephalexin (CEX) for the Treatment of Skin Burns, 2017.
- 6- Synthesis of 58 SiO₂ -38 CaO- 4 P₂O₅ bioactive glass nano powder for use in bone defects repair, 2017.
- 7- Enrichment of Chitosan-Polyvinyl alcohol Scaffolds by Magnesium and Silicone Agents for Osteoinduction, 2016.
- 8--Deposition of Gold Nanoparticles on Polyvinylalcohol Nanofibers in Neural Regeneration, 2016.
- 9- Production of liquid bio -adhesive PVA / PVP with Herbal extracts to wound healing, 2016.
- 10- Making Polymer Sponge of Gelatin & Starch for the application of emergency blood coagulation, 2016.