

CURRICULUM VITÆ OF HOSSEIN GHANBARI (MD, PhD)

○ PERSONAL DETAILS

Full Name: **Hossein Ghanbari**
Current position: **Associate Professor of Nanotechnology & Regenerative Medicine,
Dean of the School of Advanced Technologies in Medicine,
Head of the Department of Medical Nanotechnology,
School of Advanced Technologies in Medicine, Tehran University of Medical Sciences (TUMS), Tehran, Iran
Research Director & Co-Founder of the Research Center for Advanced Technologies in Cardiovascular Medicine, Cardiovascular Diseases Research Institute, Tehran Heart Center, Tehran, Iran**

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○ EDUCATION

2019- 2020 ***Robert Koch Institute, Berlin, Germany***

Fellowship in Biosecurity, obtained in 2020 after completing Global-Partnership-Initiated-Biosecurity-Academia for Controlling Health Threats (GIBACHT) fellowship program conducted by the Robert Koch Institute, Berlin, Germany, the Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, the Swiss Tropical and Public Health Institute, Basel, Switzerland and the African Field Epidemiology Network, AFENET.

2010- 2011 ***RAFT (the Restoration of Appearance and Function Trust) Institute, London, UK***

Post-Doctoral Fellowship in Skin Regeneration: the RAFT (the Restoration of Appearance and Function Trust) Institute, London, UK, 2010– 2011.

Project: Development of “Smart Matrix”; a novel skin replacement prosthesis

2007- 2010 ***University College London (UCL), London, UK***

PhD in Nanotechnology and Regenerative Medicine, obtained in 28th January 2011, University College London, Centre for Nanotechnology &

Regenerative Medicine, UCL Division of Surgery and Interventional Science, London, UK

Project: *Developing a novel heart valve using a new nanocomposite material and stem cell technology*

Selected courses completed:

Nanotechnology (15 credits), *Tissue Engineering* (15 credits), *Translation of Nanotechnology* (15 credits), *Research funding* (15 credits), *Molecular and bio-nanotechnology techniques* (15 credits), *Statistics for biomedical research* (15 credits), *Biomaterials* (15 credits), *Training Courses for Animal Users* (10 credits)

1994 - 2002 **Tehran University of Medical Sciences (TUMS), Tehran, Iran**

MD in General Medicine obtained in 23rd September 2002.

Thesis: *Survey of Prevalence of Psychiatric Disorders in Semnan Province in year 2000*

○ **RESEARCH ACTIVITIES**

- **Principal Investigator & Research Supervisor:** *TUMS, Tehran, Iran, 2011- present*

Several research projects including:

- Stem cell labelling using super-paramagnetic nanoparticles,
- Tissue engineering coronary artery bypass graft using nanofibrous scaffolds,
- Nanostructured tissue engineering heart valve,
- Next generation bio-absorbable cardiac stents based on nanotechnology,
- Development of novel nanocomposite materials for biomedical and cardiovascular applications
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- **Research Assistant:** in the *National Research Centre for Medical Sciences (NRCMC), Tehran, Iran, 2000 - 2003*

Projects:

- An Epidemiological Study of Psychiatric Disorders of Adults in Semnan Province, 2000
- Reproductive knowledge, Attitude and Practice of Tehranian adolescent boys aged 15–18 years, 2002

○ **WORK EXPERIENCES**

- **Associate Professor of Nanotechnology & Regenerative Medicine**, Department of Medical Nanotechnology, School of Advanced Medical Technologies, Tehran University of Medical Sciences (TUMS), Tehran, Iran, 2016- present
- **Assistant Professor of Nanotechnology & Regenerative Medicine**, Department of Medical Nanotechnology, School of Advanced Medical Technologies, Tehran University of Medical Sciences (TUMS), Tehran, Iran, 2011-2016
- **Liver transplant team member**, Royal Free Hampstead NHS Trust Hospital, London, UK, Member of the Royal Free Liver Transplant and Retrieval Team, 2008 – 2011
- **Family Physician:** Manager of the Cham Clinic and Head of Primary Health Care Team in Cham, Zarrinshahr, Isfahan, Iran, 2005-2007
- **General Practitioner:** Blood donors physician in the Blood Transfusion Organization of Qum & General Practitioner in private sector, Qum, Iran, 2003 - 2005

○ **TEACHING EXPERIENCE**

- **Lecturer at TUMS** (2011- present) instructing taught courses for MSc and PhD students in the field of Nanomedicine and Tissue engineering:
 - Mechanisms of tissue & organ regeneration
 - Advanced Nanobiotechnology,
 - Nanobiomedicine,
 - Nanosafety and nano-biocompatibility
 - Nanotechnology in regenerative medicine
- **MSc lectures** (2009-2011) at UCL, Centre for Nanotechnology and Regenerative Medicine, entitled “*Tissue engineering heart valve*”
I was also **supervisor** of two MSc students in their research projects.
- **Workshop Instructor** (2011-), Academic writing, Introduction to the Nanotechnology & Regenerative Medicine, International Nano-electrospinning seminar and workshop (UTM, Malaysia, 19-21 November 2013)

○ POSITIONS & ORGANISING ACTIVITIES

- **Dean of School of Advanced Technologies in Medicine**, Tehran University of Medical Sciences (TUMS), Tehran, Iran, 2021-present
- **Head of the Department on Medical Nanotechnology**, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences (TUMS), Tehran, Iran, 2018-present
- **Co-founder & Research Director**, Research Center for Advanced Technologies in Cardiovascular Medicine, Tehran Heart Center, TUMS, Tehran, Iran, 2018-present
- **Member of National Board of Nanomedicine**, Ministry of Health and Medical Education, Tehran, Iran, 2019-present
- **Member of Executive Council of Institute of Biomaterials**, University of Tehran & Tehran University of Medical Sciences, Tehran, Iran, 2018-present
- **Vice Dean for Education**, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, Iran, 2014- 2017
- Member of the **Technology Development Board**, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, Iran, 2014- present
- **Director of Cultural & Students Affairs**, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, Iran, 2012- 2014
- Member of the **Research Board**, Medical Biomaterials Research Center, Tehran University of Medical Sciences, Tehran, Iran, 2014-present
- Member of the **Innovation Committee**, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, Tehran, Iran, 2013- present
- **Head of the Scientific Committee**, 3rd Nanomedicine and Nanosafety Conference, 25-26 January 2020, TUMS. Tehran, Iran
- **Chair of Scientific Committee**, 2nd Nanomedicine and Nanosafety Conference, 29-30 November 2017, TUMS. Tehran, Iran
- **Co-organiser and Scientific Director** of Iranian Academics Symposium, 25-26 April 2009, UCL, London, UK
- **Co-organiser and Co-chair** of Nanotechnology and Regenerative Medicine Symposium, TERMIS 2011, 6-10 June 2011, Granada, Spain.
- **Scientific Director** of the 12th Iranian Nanotechnology Graduates Conference, 23-24 May 2012, TUMS. Tehran, Iran
- **Scientific Director** of the 13th Iranian Nanotechnology Graduates Conference, 8-10 May 2013, TUMS. Tehran, Iran

- **Scientific Director** of the 14th Iranian Nanotechnology Graduates Conference, 25-26 December 2013, TUMS. Tehran, Iran

○ PROFESSIONAL MEMBERSHIPS AND QUALIFICATIONS

- Member of **Tissue Engineering & Regenerative Medicine International Society (TERMIS)**, since June 2010
- Board Member of the **Iranian Society of Nanomedicine**, Tehran, Iran, since 2013
- Member of the **Institute of Nanotechnology**, Scotland, UK, from January 2008
- Member of the **Centre for Materials Research**, UCL, London, UK 2007-2011
- Member of **Nanotechnology Knowledge Transfer Network**, since 2010
- Member of **London Regenerative Medicine Network**, since 2007
- Member of the **Faculty of Biomedical Sciences Library Committee, UCL**, 2008-2010
- **Iranian Permanent Medical Practice Qualification**, obtained on 21th January 2003
- Member of the **Iranian Medical Council** since October 2002, MC no: 91348
- Member of the **National Research Centre of Medical Science of Iran**, 2000-2002

○ SCHOLARSHIPS AND AWARDS

- **Fellowship Scholarship**, obtained in 2020 from Global-Partnership-Initiated-Biosecurity-Academia for Controlling Health Threats (GIBACHT) fellowship program conducted by the Robert Koch Institute, Berlin, Germany, the Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, the Swiss Tropical and Public Health Institute, Basel, Switzerland and the African Field Epidemiology Network, AFENET.
- **Postgraduate Scholarship in Medical Nanotechnology** awarded by Ministry of Health of Iran in 2005
- **Winner** of the **First Prize** of Royal Free Research Competition held at **Royal Free Medical School, UCL**, 9th July 2007; titled "Development of Self-Endothelialisation Heart Valve Using Anticalcification Nanocomposite and Stem Cell Technology"
- Winner of the **first prize** in Educational Leadership – **Motahari Medical Education Festival**, 2017, Tehran, Iran
- Short-listed for **Patey Prize** in the **Society of Academic and Research Surgery (SARS)** 2010 annual meeting
- Selected by the **Scientific Committee of the UK Parliament** for **SET for Britain 2009** Early Stage Research in Biomedical Field.
- Winner of the **top nanotechnology research award** of the **4th International Conference on Nanostructures (ICNS4)**, 12-14 March, 2012, Kish Island, I.R. Iran

○ EDITORIAL BOARD & REVIEWING ACTIVITIES

- **Editorial Board Member** of Nanomedicine Research Journal, Journal of Applied Tissue Engineering, Global Journal of Nanomedicine, Frontiers in Cardiovascular Medicine,...
- **Peer Reviewer** of the Journal of Biomaterials, Acta Biomaterialia, Journal of Biomedical Materials Research, IOP journals, ...

○ PATENTS

International:

1. Fibrous Nerve Conduit For Promoting Nerve Regeneration

National:

2. Nanofibrous structures based on polymanitolsebasate (PMS) for medical and tissue engineering applications

○ PUBLICATIONS AND PRESENTATIONS

Book Chapters:

3. Yahyaei H, Mohseni M, Ghanbari, H. **POSS Hybrid Materials for Medical Applications: Preparation, Properties, Applications**; In book: Polymer/POSS Nanocomposites, Springer, 2018
4. **Ghanbari, H.**, Vakili-Ghartavol, R. **Bone Regeneration: Current Status and Future Prospects**. In book: Advanced Techniques in Bone Regeneration (2016), pp1-23, <http://dx.doi.org/10.5772/63912>
5. **Ghanbari H**, Marashi SM, Rafeie Y, Seifalian AM. **Biomedical Application of Polyhedral Oligomeric Silsesquioxane Nanoparticles**. In: Hartmann-Thompson C, Editor. *Applications of Polyhedral Oligosilsesquioxanes (POSS)*. London: Springer; 2010.
6. Rahmani B, **Ghanbari H**, Tzamtzis S, Burriesci G, and Seifalian AM. **Polymeric Heart Valves**. In: Roberts, Gordon C. K. Ed. *Encyclopedia of Biophysics*. New York, Springer; 2012
7. Seifalian AM, **Ghanbari H**, Bakhshi R, Kannan RY. **Polyhedral oligomeric silsesquioxane nanocomposites**. In: Lukehart C, editor. *Nanomaterials: Inorganic and Bioinorganic Perspectives*. New York: John Wiley & Sons Inc; 2008.

Peer Reviewed Journal Articles

1. Nazeri N, Karimi R, **Ghanbari H**, **The effect of surface modification of poly-lactide-co-glycolide/carbon nanotube nanofibrous scaffolds by laminin protein on nerve tissue engineering**, Journal of Biomedical Materials Research Part A, 2021: 109 (2), 159-169
2. Afrash, H., Nazeri, N., Davoudi, P., Majidi, R.F., **Ghanbari, H. Development of a bioactive scaffold based on ngf containing pcl/chitosan nanofibers for nerve regeneration**. Biointerface Research in Applied Chemistry, 2021, 11(5), pp. 12606–12617
3. Alyani Nezhad Z, Geraily G, Hataminia F, Parwaie W, **Ghanbari H**, Gholami, S. **Bismuth oxide nanoparticles as agents of radiation dose enhancement in intraoperative radiotherapy**. Progress in Organic Coatings, Volume 150, January 2021, Article number 105965

4. Vakili H, Mohseni M, Makki H, Yahyaei H, **Ghanbari H**, González A, Irusta L, **Synthesis of segmented polyurethanes containing different oligo segments: Experimental and computational approach.** Progress in Organic Coatings, 2021, 150, 105965
5. Shokraei, S. Mirzaei, E. Shokraei, N. Derakhshan, M.A. **Ghanbari, H.** Faridi-Majidi, R. **Fabrication and characterization of chitosan/kefiran electrospun nanofibers for tissue engineering applications.** Journal of Applied Polymer Science. 2021, article in press
6. Tegaw, E.M, Geraily, G. Etesami, S.M.Gholami, S. Ghanbari, H.Farzin, M. Tadesse, G.F. Shojaei, M. **A comparison between electron gamma shower, national research council/easy particle propagation (EGSNRC/EPP) and monte carlo n-particle transport code (MCNP) in simulation of the intrabeam system with spherical applicators.** Journal of Biomedical Physics and Engineering, Volume 11, Issue 1, 2021, Pages 47-54
7. Rahmani, M. Khani, M.-M. Rabbani, S. Mashaghi, A. Noorizadeh, F. Faridi-Majidi, **Ghanbari, H.** **Development of poly (mannitol sebacate)/poly (lactic acid) nanofibrous scaffolds with potential applications in tissue engineering.** Materials Science and Engineering C. Volume 110, May 2020, Article number 110626
8. Shafei, S. Khanmohammadi, M. Heidari, R. **Ghanbari, H.** Taghdiri Nooshabadi, V. Farzamfar, S. Akbariqomi, M. Sanikhani, N.S. Absalan, M. Tavoosidana, G. **Exosome loaded alginate hydrogel promotes tissue regeneration in full-thickness skin wounds: An in vivo study.** Journal of Biomedical Materials Research - Part A Volume 108, Issue 3, 1 March 2020, Pages 545-556
9. Asadpour, S. Yeganeh, H. Khademi, F. Ghanbari, H. Ai, J. **Resveratrol-loaded polyurethane nanofibrous scaffold: Viability of endothelial and smooth muscle cells.** Biomedical Materials (Bristol). Volume 15, Issue 1, 2020, Article number 015001
10. Mojdeh Safari, Amir Amani, Tajudeen Adebileje, Jafar Ai, Seyed Mahdi Rezayat, Hossein Ghanbari and Reza Faridi-Majidi. **Preparation of All-Trans-Retinoic Acid-Loaded mPEG-PLGA Nanoparticles Using Microfluidic Flow-Focusing Device for Controlled Drug Delivery.** Nano, Vol. 15, No. 08, 2050101 (2020)
11. Mahya Rahmani, Reza Faridi-Majidi, Mohammad- Mehdi Khani, Alireza Mashaghi, Farsad Noorizadeh, Hossein Ghanbari. **Cross-linked PMS/PLA nanofibers with tunable mechanical properties and degradation rate for biomedical applications.** European Polymer Journal, Volume 130, 5 May 2020, 109633
12. Helma Vakili, Mohsen Mohseni, Hossein Ghanbari, Hossein Yahyaei ORCID Icon, Hesam Makki, Alba González, Ana Alonso-Varona, Patricia Garrido Pascual & Lourdes Irusta **Enhanced hemocompatibility of a PEGilated polycarbonate based segmented polyurethane**, International Journal of Polymeric Materials and Polymeric Biomaterials, 16 Dec 2020
13. Parvin Samadi Pakchin, Marziyeh Fathi, Hossein Ghanbari, Reza Saber, Yadollah Omid,

A novel electrochemical immunosensor for ultrasensitive detection of CA125 in ovarian cancer, *Biosensors and Bioelectronics*, Volume 153, 1 April 2020, 112029

14. Fereshteh Ziaei Amiri, Zaiddodine Pashandi, Nasrin Lotfibakhshaiesh, Mohammad Javad Mirzaie Parsa, Hossein Ghanbari, Reza Faridi-Majidi, **Cell attachment effects of collagen nanoparticles on crosslinked electrospun nanofibers**, *The International Journal of Artificial Organs*, August 17, 2020
15. Ghazal Kianpour, Reza Bagheri, Ali Pourjavadi, Hossein Ghanbari, **In situ synthesized TiO₂-polyurethane nanocomposite for bypass graft application: In vitro endothelialization and degradation**, *Materials Science and Engineering: C* Volume 114, September 2020, 111043
16. Zahra Alyani Nezhad; Ghazale Geraily; Fatemeh Hataminia; Somayeh Gholami; Seyed Mohammad Mahdi Abtahi; Hossien Ghanbari, **Investigation of the dose enhancement effect of spherical bismuth oxide nanoparticles in external beam radiotherap**, *Nanomedicine Research Journal*, Volume 5, Issue Winter 2020, Pages 55-62
17. helma Vakili, Mohsen Mohseni, Hesam Makki, Hossein Yahyaei, Hossein Ghanbari, Alba González, Lourdes Irusta, **Microphase Arrangement of Smart Superhydrophilic Segmented Polyurethanes at Their Interface with water**, *Langmuir* 2020, 36, 44, 13201–13209 Publication Date: October 29, 2020
18. Fatemeh Hataminia, Hossein Ghanbari, **Predicting the effect of phototherapy method on breast cancer cells by mathematical modeling: UV-IR non-ionization radiation with gold nanoparticles**, *Nanotoxicology*, 16 Oct 2020
19. Helma Vakili, Mohsen Mohseni, Hesam Makki, Hossein Yahyaei, Hossein Ghanbari, Alba González, Lourdes Irusta, **Self-assembly of a patterned hydrophobic-hydrophilic surface by soft segment microphase separation in a segmented polyurethane: Combined experimental study and molecular dynamics simulation**, *Polymer*, Volume 195, 8 May 2020, 122424
20. Saeed Farzamfar, Niloofar Nazeri, Majid Salehi, Alireza Valizadeh, Sayed Mahdi Marashi, Gholamreza Savari Kouzehkonan, Hossein Ghanbari, **Will Nanotechnology Bring New Hope for Stem Cell Therapy?**, *Cells Tissues Organs*, 2019 Jul 9.
21. Gholamreza Savari Kouzehkonan, Majid Salehi, Saeed Farzamfar, Hossein Ghanbari, Mehdi Adabi, Amir Amani, **Preparation and characterization of PCL polymeric scaffolds coated with chitosan/bioactive glass/gelatin nanoparticles using the tips methodology for bone tissue engineering**, *Nanomedicine Journal*, Volume & Issue: Volume 6, Issue 4, Autumn 2019, Pages 241-328
22. Neda Bohlouli, Esmail Mirzaei, Hossein Ghanbari, Seyed Mahdi Rezayat Sorkhabadi, Reza Faridi-Majidi, **Reinforcing mechanical strength of electrospun chitosan nanofibrous scaffold using cellulose nanofibers**, *Journal of Nano Research*, Vol. 52, 2018
23. Mohamad Javad Mirzaei-Parsa, Hossein Ghanbari, Behnam Alipoor, Amirhossein, Tavakoli, Mohammad Reza H Najafabadi, Reza Faridi-Majidi, **Nanofiber-acellular dermal matrix as a bilayer scaffold containing mesenchymal stem cell for healing of full-thickness skin wounds**, *Cell and tissue research*, 375, pages 709–721 (2019)

24. Rahmani M, Khani MM, Rabbani S, Mashaghi A, Noorizadeh F, Faridi-Majid R, **Ghanbari H, Development of poly (mannitol sebacate)/poly (lactic acid) nanofibrous scaffolds with potential applications in tissue engineering.** 2020, Materials Science and Engineering: C, <https://doi.org/10.1016/j.msec.2020.110626>
25. Shafei S, Khanmohammadi M, Heidari R, **Ghanbari H**, Taghdiri V, Absalan M, Tavoosidana G. **Exosome loaded alginate hydrogel promotes tissue regeneration in full-thickness skin wounds: An in vivo study.** 2019 Journal of Biomedical Materials Research Part A 108(4), DOI: 10.1002/jbm.a.36835
26. Asadpour S, Yeganeh H, Ai J, Khademi F, **Ghanbari H. Resveratrol loaded polyurethane nanofibrous scaffold: viability of endothelial and smooth muscle cells.** Biomedical Materials, 2019, DOI: 10.1088/1748-605X/ab4e23
27. Shokraei N, Asadpour S, Shokraei S, Nasrollahzadeh Sabet M, Faridi Majidi R, **Ghanbari H. Development of electrically conductive hybrid nanofibers based on CNT-polyurethane nanocomposite for cardiac tissue engineering.** Microscopy Research and Technique: 2019. 82(3) DOI: 10.1002/jemt.23282
28. Nazeri N, Tajerian R, Arabpour Z, Hajighasem M, Gheibi N, Manouchehrabadi M, **Ghanbari H. Bio-inspired Immobilization of Carbon Nanotubes on Scaffolds for Nerve Regeneration.** February 2019 DOI: 10.1680/jbibn.18.00033
29. Samadi Pakchin P, **Ghanbari H**, Saber R, Omid Y. **Electrochemical immunosensor based on chitosan-gold nanoparticle/carbon nanotube as a platform and lactate oxidase as a label for detection of CA125 oncomarker.** Biosensors and Bioelectronics, 2018, 122, 68-74
30. Asadpour S, Yeganeh H, Ai J, Kargozar S, Rashtbar M, Seifalian A, **Ghanbari H. Polyurethane-Polycaprolactone Blend Patches: Scaffold Characterization and Cardiomyoblast Adhesion, Proliferation, and Function.** ACS Biomaterials Science & Engineering. 2018
31. Nazeri N, Derakhshan MA, Faridi-Majidi R, **Ghanbari H. Novel electro-conductive nanocomposites based on electrospun PLGA/CNT for biomedical applications.** Journal of Materials Science Materials in Medicine. 2018
32. Mirzaei-Parsa MJ, **Ghanbari H**, Alipoor B, Tavakoli A, Najafabadi MR, Faridi-Majidi R. **Nanofiber-acellular dermal matrix as a bilayer scaffold containing mesenchymal stem cell for healing of full-thickness skin wounds.** Cell and tissue research. 2018, 1-13
33. Mirzaei-Parsa MJ, **Ghanbari H**, Bahrami N, Hadadi-Abianeh S, Faridi-Majidi R. **The effects of cross-linked/uncross-linked electrospun fibrinogen/polycaprolactone nanofibers on the proliferation of normal human epidermal keratinocytes.** Journal of Polymer Engineering. 2018; 38(10), 945-953

34. Asadpour S, Yeganeh H, Ai J, **Ghanbari H. A novel polyurethane modified with biomacromolecules for small-diameter vascular graft applications.** Journal of Materials Science. 2018. 1-15
35. Rahvar M, Ahmadi Lakalayeh G, Haririan I, Marouf BT, **Ghanbari H. Efficacy and safety of micro/nanostructured polymeric coatings for drug eluting stents.** Journal of Contemporary Medical Sciences. 4 (3)
36. Boroumand S, Asadpour S, Akbarzadeh A, Faridi-Majidi R, **Ghanbari H. Heart valve tissue engineering: an overview of heart valve decellularization processes.** Regen Med. 2018 Jan;13(1):41-54. doi: 10.2217/rme-2017-0061. Epub 2018 Jan 23.
37. Asadpour S, Ai J, Davoudi P, Ghorbani M, Jalali M, **Ghanbari H. In-vitro physical and biological characterization of biodegradable elastic polyurethane containing ferulic acid for small-caliber vascular grafts.** Biomed Mater. 2018 Jan 18. doi: 10.1088/1748-605X/aaa8b6. [Epub ahead of print]
38. Ahmadi Lakalayeh G, Rahvar M, Haririan E, Karimi R, **Ghanbari H. Comparative study of different polymeric coatings for the next-generation magnesium-based biodegradable stents.** Artif Cells Nanomed Biotechnol. 2017 Aug 24:1-10. doi: 10.1080/21691401.2017.1369424.
39. Davoudi, P., Assadpour, S., Derakhshan, M.A., Ai, J., Solouk, A., **Ghanbari, H. Biomimetic modification of polyurethane-based nanofibrous vascular grafts: A promising approach towards stable endothelial lining** (2017) Materials Science and Engineering C, 80, pp. 213-221.
40. **Ghanbari H, Radenkovic D, Marashi SM, Parsno S, Roohpour N, Burriesci G, Seifalian AM. Novel heart valve prosthesis with self-endothelialization potential made of modified polyhedral oligomeric silsesquioxane-nanocomposite material.** Biointerphases (IF:3.374), 11, 029801 (2016); doi: 10.1116/1.4939036
41. Akbarzadeh M, Movassaghpour AK, **Ghanbari H, Kheirandish M, Fathi Maroufi N, Rahbarghazi R, NouriM, Samadi N. The potential therapeutic effect of melatonin on human ovarian cancer by inhibition of invasion and migration of cancer stem cells.** 2017, Scientific Reports 7(1) DOI10.1038/s41598-017-16940-y
42. Shakoori, Z., **Ghanbari, H.,** Omidi, Y., Pashaiasl, M., Akbarzadeh, A., Jomeh Farsangi, Z., Rezayat, S.M., Davaran, S. **Fluorescent multi-responsive cross-linked P(N-isopropylacrylamide)-based nanocomposites for cisplatin delivery** (2017) Drug Development and Industrial Pharmacy, 43 (8), pp. 1283-1291.
43. Pakchin, P.S., Nakhjavani, S.A., Saber, R., **Ghanbari, H.,** Omidi, Y. **Recent advances in simultaneous electrochemical multi-analyte sensing platforms** (2017) TrAC - Trends in Analytical Chemistry, 92, pp. 32-41.

44. Adabi, M., Naghibzadeh, M., Adabi, M., Zarrinfard, M.A., Esnaashari, S.S., Seifalian, A.M., Faridi-Majidi, R., Tanimowo Aiyelabegan, H., **Ghanbari, H. Biocompatibility and nanostructured materials: applications in nanomedicine** (2017) *Artificial Cells, Nanomedicine and Biotechnology*, 45 (4), pp. 833-842.
45. Shamosi A, Mehrabani D, Azami M, Ebrahimi-Barough S, Siavashi V, **Ghanbari H**, Sharifi E, Roozafzoon R, Ai J. **Differentiation of human endometrial stem cells into endothelial-like cells on gelatin/chitosan/ bioglass nanofibrous scaffolds**. *Artificial Cells, Nanomedicine, and Biotechnology* (IF: 1.015); 2016, doi: 10.3109/21691401.2016.1138493.
46. Firoozi, S., Derakhshan, MA., Karimi, R., Rashti, A., Negahdari, B., Faridi Majidi, R., Mashaghi, S., **Ghanbari, H., Fabrication and characterization of nanofibrous tricuspid valve scaffold based on polyurethane for heart valve tissue engineering.** (2017) *Nanomedicine Research Journal* 2(2):131-141
47. Amani, S., Faraji, G., Kazemi Mehrabadi, H., Abrinia, K., **Ghanbari, H. A combined method for producing high strength and ductility magnesium microtubes for biodegradable vascular stents application** (2017) *Journal of Alloys and Compounds* 723 . DOI: 10.1016/j.jallcom.2017.06.201
48. Rashti, A., Yahyaei, H., Firoozi, S., Ramezani, S., Rahiminejad, A., Karimi, R., Farzaneh, K., Mohseni, M., **Ghanbari, H. Development of novel biocompatible hybrid nanocomposites based on polyurethane-silica prepared by sol gel process** (2016) *Materials Science and Engineering C*, 69, pp. 1248-1255.
49. Mirzaei, E., Ai, J., Ebrahimi-Barough, S., Verdi, J., **Ghanbari, H., Faridi-Majidi, R. The Differentiation of Human Endometrial Stem Cells into Neuron-Like Cells on Electrospun PAN-Derived Carbon Nanofibers with Random and Aligned Topographies** (2016) *Molecular Neurobiology*, 53 (7), pp. 4798-4808.
50. Derakhshan, M.A., Pourmand, G., Ai, J., **Ghanbari, H., Dinarvand, R., Naji, M., Faridi-Majidi, R. Electrospun PLLA nanofiber scaffolds for bladder smooth muscle reconstruction** (2016) *International Urology and Nephrology*, 48 (7), pp. 1097-1104.
51. **Ghanbari, H., Radenkovic, D., Marashi, S.M., Parsno, S., Roohpour, N., Burriesci, G., Seifalian, A.M. Novel heart valve prosthesis with self-endothelialization potential made of modified polyhedral oligomeric silsesquioxane-nanocomposite material** (2016) *Biointerphases*, 11 (2), p. 029801.
52. Ebrahimi, A., Kardar, G.A., Teimoori-Toolabi, L., **Ghanbari, H., Sadroddiny, E. Corrigendum to "Inducible expression of indoleamine 2,3-dioxygenase attenuates acute rejection of tissue-engineered lung allografts in rats"** [Gene 576/1P3 (2015) 412-420] (2016) *Gene*, 582 (2), p. 178.

53. Yahyaei, H., Mohseni, M., **Ghanbari, H.**, Messori, M. **Synthesis and characterization of polyhedral oligomeric titanized silsesquioxane: A new biocompatible cage like molecule for biomedical application** (2016) *Materials Science and Engineering C*, 61, pp. 293-300.
54. Ebrahimi, A., Kardar, G.A., Toolabi, L., **Ghanbari, H.**, Sadroddiny, E. **Inducible expression of indoleamine 2,3-dioxygenase attenuates acute rejection of tissue-engineered lung allografts in rats** (2016) *Gene*, 576 (1), pp. 412-420.
55. Firoozi, S., Amani, A., Derakhshan, M.A., **Ghanbari, H.** **Artificial Neural Networks modeling of electrospun polyurethane nanofibers from chloroform/methanol solution** (2016) *Journal of Nano Research*, 41, pp. 18-30.
56. Nikfar, B., Riyahi Alam, N., Haghighi, S., Ghanaati, H., **Ghanbari, H.**, Khoobi, M., Rafiei, B., Gorji, E., Heydarnezhadi, S. **Correlation of Signal Intensity and ICP/OES-Related Concentration of Gadolinium-based Nanomagnetic Particles in Molecular MRI: In Vitro Study** (2016) *Applied Magnetic Resonance*, 47 (1), pp. 77-86.
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Conference presentations/ proceedings

1. **Hossein Ghanbari, Nanotechnology in Cardiovascular Regeneration: Restoring Heart.** *Nanotech Eurasia 2019*, 3-5 October 2019, Khazar University, Baku, Azerbaijan
2. **Hossein Ghanbari, Biocompatible Nanocomposites for Development of Next Generation Cardiovascular Implants** (invited talk), *International Congress on Biomedicine*, 18-21 December 2017, Tehran, Iran
3. Gholamreza Ahmadi, **Hossein Ghanbari. Drug loaded nanoparticle coated Mg alloy for new generation of biodegradable drug eluting stents.** *2nd Nanomedicine & Nanosafety Conference*, 29-30 November 2017, Tehran, Iran

4. **Hossein Ghanbari, Nanotechnology in cellular imaging**, 5th Congress on Novel and Innovative Laboratory Technologies, 25-27 October 2017, Tehran, Iran
5. Parisa Ahmadi, **Hossein Ghanbari, Preparation and characterization of polyurethane/chitosan nanofibrous scaffold for cardiac tissue engineering**. 2nd Nanomedicine & Nanosafety Conference, 29-30 November 2017, Tehran, Iran
6. **Hossein Ghanbari. Application of Nanotechnology and Stem Cell Technology in the Next Generation of Cardiovascular Implants** (invited talk). INN International Conference/Workshop on Nanotechnology and Nanomedicine, 2-3 May 2017, Karaj, Alborz, Iran
7. **Hossein Ghanbari, Advances in Cardiovascular Regenerative Medicine: The Role of Nanotechnology** (invited talk), 2nd International Congress on Stem Cells and Regenerative Medicine, 19-21 April 2017, Mashhad, Iran
8. **Hossein Ghanbari. Tissue Engineering in Cardiac Diseases** (invited talk), 8th international Razavi Cardiovascular Congress, 27-29 July 2016, Razavi Hospital, Mashhad, Iran
9. **Hossein Ghanbari. Development of novel heart valve based on stem cell technology & nanocomposite materials** (invited talk). 4th Iranian Cardiovascular Joint Congress. 1-4 March 2016, Rajaie Conference Center, Tehran. Iran
10. **Hossein Ghanbari. Nanotechnology in the next generation cardiovascular implants** (invited talk). 4th Iranian Cardiovascular Joint Congress. 1-4 March 2016, Rajaie Conference Center, Tehran. Iran
11. **Hossein Ghanbari. Next generation coronary stents: the role of advanced technologies** (invited talk). The Second Conference on Novel Approaches of Biomedical Engineering in Cardiovascular Diseases 4. Hossein Ghanbari. Biocompatibility and hemocompatibility of nanomaterials (invited talk). Asian NanoForum Conference. 8-11 March 2015, Kish Island, Iran
12. **Hossein Ghanbari. Biocompatibility and hemocompatibility of nanomaterials** (invited talk). Asian NanoForum Conference. 8-11 March 2015, Kish Island, Iran
13. Hadi Baharifar, Sepideh Arbabi Bidgoli, **Hossein Ghanbari, Mohammad Ali Faramarzi, Amir Amani. Preparation parameters' effects on size of chitosan/streptokinase nanoparticles**. Asian NanoForum Conference. 8-11 March 2015, Kish Island, Iran
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15. **Hossein Ghanbari. Nanomedicine; from laboratory to clinic, (invited talk)**. The 7th Laboratory & Clinic Conference, 12-14 February 2015, Razi Convention Center, Tehran, Iran
16. **Hossein Ghanbari. Development of next generation cardiovascular implants using nanotechnology and regenerative medicine (invited talk)**. The First Conference on Novel Approaches of Biomedical Engineering in Cardiovascular Diseases, 22-23 January 2015, Tehran, Iran
17. **Hossein Ghanbari. Nanotechnology in cardiac devices (invited talk)**. 5th Congress of Newest Research Achievements in Medical Science. 6-9 October 2015, Tehran, Iran
18. **Hossein Ghanbari, Khadijeh Farzaneh, Gaetano Burriesci, Alexander M. Seifalian. Bio-safety and hemocompatibility of a possible nanocomposite for cardiovascular application**. Iran NanoSafety Congress, 19-20 Feb 2014, Tehran, Iran

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24. Benyamin Rahmani, Spyros Tzamtzis, **Hossein Ghanbari**, Gaetano Burriesci, Alexander M Seifalian. **A New Generation of Aortic Valve Prosthesis: Design, Manufacture and Hydrodynamic Assessment.** The ASME Summer Bioengineering Conference, June 20-23, 2012, Fajardo, Puerto Rico.
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