

CURRICULUM VITÆ OF
HOSSEIN GHANBARI
(MD, PhD)

○ **PERSONAL DETAILS**

Full Name: **Hossein Ghanbari**
Current position: **Associate Professor of Nanotechnology & Regenerative Medicine,**
School of Advanced Medical Technologies, Tehran University of Medical Sciences (TUMS), Tehran, Iran
E-Mail: hghanbari@tums.ac.ir

○ **EDUCATION**

2007- 2011 *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**

- **Post-Doctoral Research Associate:** the RAFT (the Restoration of Appearance and Function Trust) Institute, London, UK, 2010– 2011.

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

- **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
- **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**
- **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
 - **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 **Iranian Society of Nanomedicine**, Tehran, Iran, since 2013
 - Member of **Institute of Nanotechnology**, Scotland, UK, from January 2008
 - Member of **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**
- **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, ...
- **PUBLICATIONS AND PRESENTATIONS**

Book Chapters:

1. **Ghanbari, H., Vakili-Ghartavol, R. Bone Regeneration: Current Status and Future Prospects.** In book: *Advanced Techniques in Bone Regeneration* (2016), In book: *Advanced Techniques in Bone Regeneration*. pp1-23 <http://dx.doi.org/10.5772/63912>
2. **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.
3. 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
4. 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. 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.
2. 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]
3. 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.

4. 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.
5. **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
6. 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
7. 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.
8. 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.
9. 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.
10. 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.
11. 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
12. 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
13. 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.
14. 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.
 15. 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.
 16. **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.
 17. 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.
 18. 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.
 19. 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.
 20. 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.
 21. Nikfar, B., Riyahi Alam, N., Haghgoo, 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.
 22. 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** (2016) *Artificial Cells, Nanomedicine and Biotechnology*, 45 (1), pp. 1-11.
 23. Baharifar, H., Tavosidana, G., Karimi, R., Bidgoli, S.A., **Ghanbari, H.**, Faramarzi, M.A., Amani, A. **Optimization of self-assembled chitosan/streptokinase nanoparticles and**

- evaluation of their cytotoxicity and thrombolytic activity** (2015) *Journal of Nanoscience and Nanotechnology*, 15 (12), pp. 10127-10133.
24. Mirzaei, E., Ai, J., Sorouri, M., **Ghanbari, H.**, Verdi, J., Faridi-Majidi, R. **Functionalization of PAN-Based Electrospun Carbon Nanofibers by Acid Oxidation: Study of structural,Electrical and Mechanical Properties** (2015) *Fullerenes Nanotubes and Carbon Nanostructures*, 23 (11), pp. 930-937.
25. Yahyaei, H., Mohseni, M., **Ghanbari, H.** **Physically Blended and Chemically Modified Polyurethane Hybrid Nanocoatings Using Polyhedral Oligomeric Silsesquioxane Nano Building Blocks: Surface Studies and Biocompatibility Evaluations** (2015) *Journal of Inorganic and Organometallic Polymers and Materials*, 25 (6), pp. 1305-1312.
26. Hosseinzadeh, S., Soleimani, M., Ebrahim, V.F., **Ghanbari, H.**, Arkan, E., Rezayat, S.M. **Detailed mechanism of aniline nucleation into more conductive nanofibers** (2015) *Synthetic Metals*, 209, pp. 91-98.
27. Salehi, M., Naseri Nosar, M., Amani, A., Azami, M., Tavakol, S., **Ghanbari, H.** **Preparation of pure PLLA, pure chitosan, and PLLA/chitosan blend porous tissue engineering scaffolds by thermally induced phase separation method and evaluation of the corresponding mechanical and biological properties** (2015) *International Journal of Polymeric Materials and Polymeric Biomaterials*, 64 (13), pp. 675-682.
28. Rahmani, B., **Ghanbari, H.**, Tzamtzis, S., Burriesci, G., Seifalian, A.M. **A new generation of aortic valve prosthesis: Design, manufacture and hydrodynamic assessment** (2012) *ASME 2012 Summer Bioengineering Conference, SBC 2012*, pp. 471-472.
29. Rippel, R.A., **Ghanbari, H.**, Seifalian, A.M. **Tissue-engineered heart valve: Future of cardiac surgery** (2012) *World Journal of Surgery*, 36 (7), pp. 1581-1591.
30. Rahmani, B., Tzamtzis, S., **Ghanbari, H.**, Burriesci, G., Seifalian, A.M. **Manufacturing and hydrodynamic assessment of a novel aortic valve made of a new nanocomposite polymer** (2012) *Journal of Biomechanics*, 45 (7), pp. 1205-1211.
31. Desai, M., Gurusamy, K.S., **Ghanbari, H.**, Hamilton, G., Seifalian, A.M. **Remote ischaemic preconditioning versus no remote ischaemic preconditioning for vascular and endovascular surgical procedures.** (2011) *Cochrane database of systematic reviews (Online)*, 12, pp. CD008472.
32. Ahmed, M., **Ghanbari, H.**, Cousins, B.G., Hamilton, G., Seifalian, A.M. **Small calibre polyhedral oligomeric silsesquioxane nanocomposite cardiovascular grafts: Influence of porosity on the structure, haemocompatibility and mechanical properties** (2011) *Acta Biomaterialia*, 7 (11), pp. 3857-3867.
33. **Ghanbari, H.**, de Mel, A., Seifalian, A.M. **Cardiovascular application of polyhedral oligomeric silsesquioxane nanomaterials: a glimpse into prospective horizons.** (2011) *International journal of nanomedicine*, 6, pp. 775-786.

34. **Ghanbari, H.,** Cousins, B.G., Seifalian, A.M. **A nanocage for nanomedicine: Polyhedral oligomeric silsesquioxane (POSS)** (2011) *Macromolecular Rapid Communications*, 32 (14), pp. 1032-1046.
35. **Ghanbari, H.,** Kidane, A.G., Burriesci, G., Ramesh, B., Darbyshire, A., Seifalian, A.M. **The anti-calcification potential of a silsesquioxane nanocomposite polymer under in vitro conditions: Potential material for synthetic leaflet heart valve** (2010) *Acta Biomaterialia*, 6 (11), pp. 4249-4260.
36. Kidane, A.G., Burriesci, G., Edirisinghe, M., **Ghanbari, H., Bonhoeffer, P.,** Seifalian, A.M. **A novel nanocomposite polymer for development of synthetic heart valve leaflets** (2009) *Acta Biomaterialia*, 5 (7), pp. 2409-2417.
37. **Ghanbari, H.,** Viatge, H., Kidane, A.G., Burriesci, G., Tavakoli, M., Seifalian, A.M. **Polymeric heart valves: new materials, emerging hopes** (2009) *Trends in Biotechnology*, 27 (6), pp. 359-367.
38. **Ghanbari, H.,** Kidane, A.G., Burriesci, G., Bonhoeffer, P., Seifalian, A.M. **Percutaneous Heart Valve Replacement: An Update** (2008) *Trends in Cardiovascular Medicine*, 18 (4), pp. 117-125.
39. Mohammad, K., Farahani, F.K.A., Mohammadi, M.R., Alikhani, S., Zare, M., Tehrani, F.R., Ramezankhani, A., Hasanzadeh, A., **Ghanbari, H. Sexual Risk-Taking Behaviors among Boys Aged 15-18 Years in Tehran** (2007) *Journal of Adolescent Health*, 41 (4), pp. 407-414.
40. Seifalin AM, de Mel A, **Ghanbari H,** Ahmed M, Chaloupka K, Darbyshire A. **Development of Cardiovascular Implants Using Nanocomposite Polymer and Stem Cell Technology: From Lab to Commercialisation.** *Advances in Science and Technology* 2010; (76): 207-213.
41. Kazemi Mehrabadi, H., Faraji, G., Amani, S., Karimpour, M., **Ghanbari, H., Fabrication of ultrafine-grained Mg micro tubes using a combined severe plastic deformation process for biomedical application** (2016) *Modares Mechanical Engineering*, Vol. 16, No. 12, pp. 605-611, 2016 (in Persian)
42. Mohammadi MR, Bagheri Yazdi SA, RahgozarM, Meskarpour B, Behnam B, Imani E, Hsanzadeh AR, **Ghanbari H,** Farzaneh K; **An Epidemiological Study of Psychiatric Disorders in Semnan Province in Year 2000,** *Journal of Semnan University of Medical Sciences (Koomesh)*, Vol. 5, 1-2, pp 7-17, 2003. in Persian)

Conference presentations/ proceedings

1. **Hossein Ghanbari, Biocompatible Nanocomposites for Development of Next Generation Cardiovascular Implants** (invited talk), **International Congress on Biomedicine**, 18-21 December 2017, Tehran, Iran
2. 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
3. **Hossein Ghanbari, Nanotechnology in cellular imaging**, 5th Congress on Novel and Innovative Laboratory Technologies, 25-27 October 2017, Tehran, Iran
4. 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
5. **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
6. **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
7. **Hossein Ghanbari. Tissue Engineering in Cardiac Diseases** (invited talk), 8th international Razavi Cardiovascular Congress, 27-29 July 2016, Razavi Hospital, Mashhad, Iran
8. **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
9. **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
10. **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
11. **Hossein Ghanbari. Biocompatibility and hemocompatibility of nanomaterials** (invited talk). Asian Nanoforum Conference. 8-11 March 2015, Kish Island, Iran
12. 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
13. Hadi Baharifar, Sepideh Arbabi Bidgoli, **Hossein Ghanbari, Mohammad Ali Faramarzi, Amir Amani. Effect of synthesis parameters on toxicity of chitosan/streptokinase nanoparticle.** 8-11 March 2015, Kish Island, Iran
14. **Hossein Ghanbari. Nanomedicine; from laboratory to clinic, (invited talk).** The 7th Laboratory & Clinic Conference, 12-14 February 2015, Razi Convention Center, Tehran, Iran
15. **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

16. **Hossein Ghanbari. Nanotechnology in cardiac devices (invited talk).** 5th Congress of Newest Research Achievements in Medical Science. 6-9 October 2015, Tehran, Iran
17. **Hossein Ghanbari, Khadijeh Farzaneh, Gaetano Burriesci, Alexander M. Seifalian. Bio-safety and hemocompatibility of a poss nanocomposite for cardiovascular application.** Iran NanoSafety Congress, 19-20 Feb 2014, Tehran, Iran
18. **Hossein Ghanbari. Tissue engineering heart vlave: current status & future propecsts.** Artificial Organs 2013, 37(7);A27-A50.
19. Hossein Yahyaei, Mohsen Mohseni, **Hossein Ghanbari. POSS Incorporated Organic-Inorganic Polyurethane Hybrid Coatings with High Biocompatibility.** 11th International Seminar on Polymer Science and Technology (ISPST 2014), 6-9 October 2014, Iran Polymer and Petrochemical Institute, Tehran, Iran.
20. **Hossein Ghanbari, Mohammad Ali Zarrinfard, Gaetano Burriesci, Alexander M. Seifalian. Nanotechnology in Cardiovascular Medicine: Advanced Materials for Innovative Implants.** ANM2014, 5th International Conference on Advanced Nanomaterials. 2-4 July 2014, Aveiro, Portugal.
21. **Hossein Ghanbari, Benyamin Rahmani, Gaetano Burriesci, Alexander M Seifalian. Development of a novel bioactive heart valve prosthesis based on an advanced surface modified nanocomposite material and circulating progenitor stem cells.** 4th Int'l Conf. on Nanostructures (ICNS4), 12-14 Mar 2012, Kish Island, Iran (*winner of the Top Nanotechnology Research Prize*).
22. **Hossein Ghanbari. Nanotechnology in Regenerative Medicine** (invited Talk). The First Symposium of Regenerative Medicine in Urology, 14-15 Oct 2013, Sina Hospital, Tehran, Iran
23. 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.
24. Benyamin Rahmani, Spyros Tzamtzis, **Hossein Ghanbari, Gaetano Burriesci, Alexander M Seifalian. A Novel Aortic Valve Prosthesis Made of a New Nanocomposite Polymer: Hydrodynamic Assessment.** Valves in the Heart of the Big Apple VII: Evaluation and Management of Valvular Heart Diseases 2012. Fourth Annual Joint Scientific Session of the Heart Valve Society of America and Society of Heart Valve Diseases, New York City, April 12–14, 2012. *Cardiology* 2012;121:87-148. DOI:10.1159/000337671
25. **Hossein Ghanbari, Benyamin Rahmani, Smitha Kandoth, Sayed Mahdi Marashi, Alamgir MN Kabir, Gaetano Burriesci, Alexander M Seifalian. In-situ tissue engineering heart valve: the role of nanotechnology and regenerative capacity of circulating progenitor stem cells.** Tissue Engineering and Regenerative Medicine International Society-EU Chapter Meeting (TERMIS-EU2011), 7 -10 June 2011, Granada, Spain.

26. Spyridon Tzamtzis, **Hossein Ghanbari**, Alexander M Seifalian, Gaetano Burriesci. A New Generation Aortic Valve Device for Transcatheter Implantation . *Cardiology* 2010; 115:292.
27. **Hossein Ghanbari** , Mahdi Marashi, Raheleh Bakhshi, Gaetano Burriesci, Alexander M. Seifalian. Self-endothelialisation potential of a novel nanocomposite material for development of cardiovascular implant: the role of progenitor stem cells (abstract). *Br J Surg* 2010; 97(S6): 1–6
28. **Hossein Ghanbari**, Arnold Darbyshire, Bala Ramesh, Gaetano Burriesci, Alexander M. Seifalian. POSS-PCU Nanocomposite biomaterial promotes proliferation and differentiation of circulating endothelial progenitor cells: toward in vivo tissue engineering heart valve. *Tissue Engineering and Regenerative Medicine International Society-EU Chapter Meeting (TERMIS-EU2010)*, 13 -17 June 2010, Galway, Ireland.
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