



## In the Name of God

### A- Personal Information

**Name:** Sameereh Hashemi-Najafabadi

**Nationality:** Iranian

**Date of Birth:** 05/05/1973

**Place of Birth:** Yazd, Iran

**Marital status:** Married

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### B- Education

Degree	Institution	Field	Date
B.Sc.	Amirkabir University, Iran	Chemical Eng. (Petrochemistry)	1996
M.Sc.	Tarbiat Modarres University, Iran	Chemical Eng. (Biotechnology)	2000
Ph.D.	Tarbiat Modarres University, Iran	Chemical Eng. (Biotechnology)	2006

**Title of Ph.D Thesis:** The effect of process variables on the surface treatment of cells by reactive PEGs.

## C- Academic Experience

Associate Professor, Biomedical Engineering Group, Faculty of Chemical Engineering, Tarbiat Modares University, Tehran, Iran.

## D- Research Interests

- Cell Therapy
- Tissue Engineering
- Recombinant Proteins

## E- Publications

- 1- S. A. Shojaosadati and S. Hashemi-Najafabadi, Bioremediation of hydrocarbon polluted soil, **International Journal of Engineering Science**, 2002, vol. 13, no. 4, pp. 11-20.
- 2- F. Sarvi, E. Vasheghani-Farahani, S. A. Shojaosadati, S. Hashemi-Najafabadi, M. Moin and Z. Pourpak, Surface treatment of red blood cells with monomethoxy (polyethylene glycol) activated by succinimidyl carbonate, **Iranian Polymer Journal**, 2006, vol. 15, no. 6, pp. 525-534.
- 3- S. Hashemi-Najafabadi, E. Vasheghani-Farahani, S. A. Shojaosadati, M. J. Rasaee, J. K. Armstrong, M. Moin and Z. Pourpak, A method to optimize PEG- coating of red blood cells, **Bioconjugate Chemistry**, 2006, vol. 17, pp. 1288-1293.
- 4- S. Hashemi-Najafabadi, E. Vasheghani-Farahani, S. A. Shojaosadati, M. J. Rasaee, M. Moin and Z. Pourpak, Factorial design optimization of red blood cell PEGylation with a low molecular weight polymer, **Iranian Polymer Journal**, 2006, vol. 15, no. 8, pp. 675-683.
- 5- F. Sarvi, S. Hashemi-Najafabadi, E. Vasheghani-Farahani and S. A. Shojaosadati, Surface coating of red blood cells with monomethoxy poly(ethylene glycol) activated with two different reagents, **Iranian Journal of Chemistry & Chemical Engineering**, 2008, vol. 27, no. 3.
- 6- A. Bagherzadeh-Namazi, S. A. Shojaosadati and S. Hashemi-Najafabadi, Biodegradation of used engine oil using mixed and isolated cultures, **International Journal of Environmental Research**, 2008, vol. 2, no. 4, pp. 431-440.
- 7- M. Tavakol, E. Vasheghani-Farahani, T. Dolatabadi-Farahani and S. Hashemi-Najafabadi, Sulfasalazine release from alginate-N,O-carboxymethyl chitosan gel beads coated by chitosan, **Carbohydrate Polymers**, 2009, vol. 77, pp. 326-330.

- 8- S. Esfandiar, S. Hashemi-Najafabadi, S. A. Shojaosadati, S. A. Sarrafzadeh and Z. Pourpak, Purification and refolding of Escherichia coli-expressed recombinant human interleukin-2, **Biotechnology and Applied Biochemistry**, 2010, vol. 55, pp. 209–214.
- 9- H. Aghajani Lazarjani, E. Vasheghani-Farahani, L. Barani, S. Hashemi-Najafabadi, S. A. Shojaosadati, S. Zahediasl, T. Tairahi and F. Atyabi, Effect of polymer concentration on camouflaging of pancreatic islets with mPEG-succinimidyl carbonate, **Artificial Cells, Blood Substitutes and Biotechnology**, 2010, vol. 38, pp. 250-258.
- 10- L. Barani, E. Vasheghani-Farahani, H. Aghajani Lazajani, S. Hashemi-Najafabadi and F. Atyabi, Effect of molecular mass of methoxypoly(ethylene glycol) activated with succinimidyl carbonate on camouflaging pancreatic islets, **Biotechnology Applied Biochemistry**, 2010, vol. 57, pp. 25-30.
- 11- H. Aghajani-Lazarjani, E. Vasheghani-Farahani, S. A. Shojaosadati, S. Hashemi-Najafabadi, S. Zahediasl, T. Tiraihi and F. Atyabi, The effect of two different polyethylene glycol (PEG) derivatives on the immunological response of PEG grafted pancreatic islets, **Journal of Artificial Organs**, 2010, vol. 13, pp. 218-224.
- 12- A. Dustgani, E. Vasheghani-Farahani, M. Soleimani and S. Hashemi-Najafabadi, Optimizing the mechanical properties of electrospun polycaprolactone and nanohydroxyapatite composite nanofibers, **Composites: part B**, 2012, vol.43, pp. 1830-1836.
- 13- A. Dustgani, E. Vasheghani-Farahani, M. Soleimani and S. Hashemi-Najafabadi, Preparation and characterization of aligned and random nanofibrous nanocomposite scaffolds of poly (vinyl alcohol), poly (caprolactone) and nanohydroxyapatite, **International Journal of Nanoscience and Nanotechnology**, 2011, vol. 7, n.3, pp. 128-133.
- 14- A. Abolhasani, S. Hashemi-Najafabadi, M. Khodabandeh- Shahraki and Z. A. Sadigh, Chemical modification of recombinant human interferon beta-1a using linear and branched mPEGs, **Current Trends in Biotechnology and Pharmacy**, 2012, vol.6, n.2, pp. 229-240.
- 15- F. Rezvani, S. Hashemi-Najafabadi, S. M. Mousavi, S. A. Shojaosadati and S. Saharkhis, Optimization of the removal of phenol by soybean seed coats using response surface methodology, **Water Science and Technology**, 2012, vol. 66, n. 10, pp. 2229-2236.
- 16- H. Aghajani-Lazarjani, E. Vasheghani-Farahani, S. Hashemi-Najafabadi, S. A. Shojaosadati, S. Zahediasl, T. Tiraihi and F. Atyabi, Optimization of monomethoxy poly(ethylene glycol) grafting on Langerhans islets capsule using response surface method, **Progress in Biomaterials**, 2013, vol. 2, n. 7.
- 17- M. Tavakol, E. Vasheghani-Farahani and S. Hashemi-Najafabadi, The effect of polymer and  $\text{CaCl}_2$  concentrations on the sulfasalazine release from alginate-N,O-carboxymethyl chitosan beads, **Progress in Biomaterials**, 2013, vol. 2, n. 10.
- 18- A. Dustgani, E. Vasheghani-Farahani, M. Soleimani and S. Hashemi-Najafabadi, Process optimization of electrospun polycaprolactone and nanohydroxyapatite composite nanofibers using response surface methodology, **Journal of Nanoscience and Nanotechnology**, 2013, vol. 13, n. 7, pp. 4708-4714.

- 19- M. Tavakol, E. Vasheghani-Farahani, M. Soleimani, M.A. Mohammadifar, S. Hashemi-Najafabadi, M. Hafizi, Synthesis and characterization of an enzyme mediated in situ forming hydrogel based on gum tragacanth for biomedical applications, **Iranian Journal of Biotechnology**, 2014, 12(1), pp. 1-8.
- 20- S. Hamedi, S.A. Shojaosadati, S. Shokrollahzadeh, S. Hashemi-Najafabadi, Extracellular biosynthesis of silver nanoparticles using a novel and non-pathogenic fungus, *Neurospora intermedia*: controlled synthesis and antibacterial activity, **World Journal of Microbiology and Biotechnology**, 2014, vol.30, pp. 693-704.
- 21- Z. Gholami, S. Hashemi-Najafabadi, M. Soleimani, Simultaneous camouflage of major and minor antigens on red blood cell surface with activated mPEGs, **Iranian Journal of Biotechnology**, 2014, 12(2): e17776.
- 22- S. Kheradmandnia, S. Hashemi-Najafabadi, S.A. Shojaosadati, S.M. Mousavi, K. Malek Khosravi, Development of parallel miniature bubble column bioreactors for fermentation process, **Journal of Chemical Technology and Biotechnology**, 2015, vol. 90, pp. 1051–1061.
- 23-M.M. Nabavimanesh, S. Hashemi-Najafabadi, E. Vasheghani-Farahani, Islets immunoisolation using encapsulation and PEGylation, simultaneously, as a novel design, **Journal of Bioscience and Bioengineering**, 2015, vol. 119, no. 4, pp. 486-491.
- 24- O. Jamialahmadi, A. Fazeli, S. Hashemi-Najafabadi, M.R. Fazeli, A novel clot lysis assay for recombinant plasminogen activator, **Biotechnology Letters**, 2015, 37, pp. 593–600.
- 25- F. Rezvani, H. Azargoshasb, O. Jamialahmadi, S. Hashemi-Najafabadi, S.M. Mousavi, S.A. Shojaosadati, Experimental study and CFD simulation of phenol removal by immobilization of soybean seed coat in a packed-bed bioreactor, **Biochemical Engineering Journal**, 2015, vol. 101, pp. 32-43.
- 26- M. Tavakol, E. Vasheghani-Farahani, M.A. Mohammadifar, M. Soleimani, S. Hashemi-Najafabadi, Synthesis and characterization of an in situ forming hydrogel using tyramine conjugated high methoxyl gum tragacanth, **Journal of Biomaterials Applications**, 2016, 30(7), pp.1016-1025.
- 27- M. Yaghoobi, S. Hashemi-Najafabadi, M. Soleimani, E. Vasheghani-Farahani, S.M. Mousavi, Osteogenic differentiation and mineralization on compact multilayer nHA-PCL electrospun scaffolds in a perfusion bioreactor, **Iranian Journal of Biotechnology**, 2016, 14(2):e1382, pp. 41-49.
- 28- S.A. Azadi, E. Vasheghani-Farahani, S. Hashemi-Najafabadi, A. Godini, Co-encapsulation of pancreatic islets and pentoxyfylline in alginate-based microcapsules with enhanced immunosuppressive effects, **Progress in Biomaterials**, 2016, 5, pp.101-109.
- 29- O. Jamialahmadi, E. Motamedian, S. Hashemi-Najafabadi, BiKEGG: a COBRA toolbox extension for bridging the BiGG and KEGG databases, **Molecular BioSystems**, 2016, 12, pp. 3459-3466.