Bibliography

Personal Information

Name: Ebrahim Vasheghani-Farahani **Date of Birth:** 23/08/1954

Marital Status: Married **Place of Birth:** Farahan

Education:

Degree	Institution	Field	Date
PhD	McGill University (Canada)	Chemical Engineering	1990
MSc	McGill University (Canada)	Chemical Engineering	1986
BSc	Iran University of Sci. Technol.	Chemical Engineering	1982

Academic Positions

Assistant Professor, Tarbiat Modares University, Tehran, Iran (1990-2002)

Associate Professor, Tarbiat Modares University, Tehran, Iran (2002-2006)

Professor, Tarbiat Modares University, Tehran, Iran (Since 2006)

Research Interests

1. Hydrogels

2. Cell Therapy and Tissue Engineering

3. Drug Delivery Systems

4. Education in Chemical/Biomedical Engineering

Selected Journal Publications (out of 168**)**

1- Ghapanvari, M.A., Ganji, F., Shaki, H., Jafarzadeh-Holagh, S., Vasheghani-Farahani, E. (2025), Bone-targeted and redox-responsive polymeric nanomicelles based on hyaluronic acid, *International Journal of Pharmaceutics,* 679, 125734
2- Adibhosseini, M.S., Vasheghani-Farahani, E., Hashemi-Najafabadi, S., Jafarzadeh-Holagh, S., Pouri, H. (2025), Composite cryogel of gelatin/nanofibrillated cellulose/partially demineralized chitin with potential for bone tissue engineering, *International Journal of Biological Macromolecules*, 307, 142019
3- Khodabandeh, A., Yousefi, A. A., Jafarzadeh-Holagh, S., **Vasheghani-Farahani, E**. (2025). Fabrication of 3D microfibrous composite polycaprolactone/hydroxyapatite scaffolds loaded with piezoelectric poly (lactic acid) nanofibers by sequential near-field and conventional electrospinning for bone tissue engineering, *Biomaterials Advances*, 166, 214053

4. Rafieyan, S., Ansari, E., **Vasheghani-Farahani, E**. (2024), A practical machine learning approach for predicting the quality of 3D (bio)printed scaffolds, ***Biofabrication***, **16,** 045014.

5. Sadeghi-Ghadikolaei, M., **Vasheghani-Farahani, E**., Bagheri, F., Khorrami Moghaddam, A., Mellati, A., Karimizade, A. (2024), Fabrication of 3D chitosan/polyvinyl alcohol/brushite nanofibrous scaffold for bone tissue engineering by electrospinning using a novel falling film collector, ***International Journal of Biological Macromolecules***, 272 (Part 1), 132874.

6. Vaziri, A. S., Alizadeh, M., **Vasheghani-Farahani, E.**, Karakaya, E., Detsch, R., Boccaccini, A. R. (2024), Polyethylenimine inclusion to develop Aqueous alginate-based core-shell capsules for biomedical applications, ***ACS Applied Materials & Interfaces***, 16(20), 25652–25664.

7. Vaziri, A. S., **Vasheghani-Farahani, E.**, Hosseinzadeh, S., Bagheri, F., Büchner, M., Schubert, D. W., Boccaccini, A. R. (2024), Genipin-cross-Linked silk fibroin/alginate dialdehyde hydrogel with tunable gelation kinetics, degradability, and mechanical properties: A potential candidate for tissue regeneration, ***Biomacromolecules***, *25*(4), 2323-2337.

8. Heidari, A., **Vasheghani-Farahani, E.**, Vafaie-Sefti, M. (2023), Modeling the swelling kinetics of preformed particle gels coated with a silicate layer, ***Chemical Engineering Science***, *281*, 119095.

9. Ghorbani, M., **Vasheghani-Farahani, E.**, Azarpira, N., Hashemi-Najafabadi, S., & Ghasemi, A. (2023), Dual-crosslinked in-situ forming alginate/silk fibroin hydrogel with potential for bone tissue engineering, ***Biomaterials Advances***, *153*, 213565.

10. Rafieyan, S., **Vasheghani-Farahani, E.**, Baheiraei, N., & Keshavarz, H. (2023), MLATE: Machine learning for predicting cell behavior on cardiac tissue engineering scaffolds, ***Computers in Biology and Medicine***, *158*, 106804.

11. Dehghan-Niri, M., **Vasheghani-Farahani, E**., Eslaminejad, M.B., Tavakol, M., Bagheri, F. (2023), Preparation of gum tragacanth/poly (vinyl alcohol)/halloysite hydrogel using electron beam irradiation with potential for bone tissue engineering, ***Carbohydrate Polymers***, 305, 120548.

12. Kazemi-Aghdam, F., Jahed, V., Dehghan-Niri, M., Ganji, F., **Vasheghani-Farahani, E**. (2021), Injectable chitosan hydrogel embedding modified halloysite nanotubes for bone tissue engineering, ***Carbohydrate Polymers*****,** 269, 118311.

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14. Jahed V., **Vasheghani-Farahani E.**, Bagheri F., Zarrabi A., Jensen H.H., and Larsen K.L. (2020), Quantum dots-βcyclodextrin-histidine labeled human adipose stem cells laden chitosan hydrogel for bone tissue engineering, ***Nanomedicine: Nanotechnology, Biology and Medicine***, 27, 102217.

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Books:

N. Naderpour, **E.Vasheghani Farahani**, A. Nejad Salim, and S. Eydivand, *Encyclopedia of Polymer Science and Technology*, Vols. 1-3, SBS Publishers & Distributors PVT. LTD, India, 2009.

Patents:

Hejazi P., Shojaosadatai S.A., Hamidi Z., and **Vasheghani-Farahani E.**, Solid State Fermentation in Modified Zymotis Packed Bed Bioreactor, Pub.No.: US 2010/0203626 A1, 2010.

Aalaie J., **Vasheghani-Farahani E.,** and Rahmatpour A., Modified Polyacrylamide Hydrogel, Pub.No.: US 2012/0101229 A1, 2012.

Nasrollahzadeh Abyazani M., Ganji F., Taghizadeh S. M., and **Vasheghani Farahani E.**, Transdermal patches of the drug-in-adhesive type, i.e., comprising drug in the skin-adhesive layer, Pub. No.: US 20180289629A1, (2018).

Academic Administration

1. Director General, Office of Academic Planning, Tarbiat Modares University (1991-1997)

2. Director General, Office of Universities' Boards of Trustees, Ministry of Sci. Res. Technol. (1998-2001)

3. Consultant to the Minister and Director-General, Ministerial Office, Ministry of Sci. Res. Technol. (2001-2005)

4. Head of Chemical Engineering Department, Tarbiat Modares University (2006-2008)

5- Vice President for Research and Technology, Islamic Azad University

(October 2013- May 2017)

Honors and Awards

Affiliated Member of the National Academy of Sciences of I. R. Iran (Chemical Engineering Branch), (2023 continued) and Biomedical Engineering (2025 continued)

Distinguished Professor of Chemical Engineering, selected by the National Academy of Sciences of Iran in 2021

Outstanding Professor in TMU (top among nearly 500 in all disciplines), 1995 and 2006

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