



In the name of god
CURRICULUM VITAE

Shaghayegh Doudi

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EDUCATION

Doctorate of Tissue Engineering (Ph.D) (2018-2024)

Medical Sciences and Healthcare Services of Shahroud, Shahroud, Iran

Thesis Title: Evaluation of the effect of gelatin-carboxymethyl cellulose hydrogel containing sphingosine 1 phosphate along with decellularized amniotic membrane to accelerate wound healing in an animal model.

Master of Science, Cellular and Molecular Biology (2013-2016)

National Institute of Genetic Engineering and Biotechnology, Tehran, Iran

Thesis Title: Investigating the effect of knockdown of the expression of lysine demethylase 5B enzyme (KDM5B) on acute myeloid leukemia cell line (HL60).

Bachelor of Science, General Biology (2008-2012)

Razi University, Kermanshah, Iran

Professional Experience

- **Professor, Urmia Faculty of Medicine, PhD students in Applied Cell Science**, Cell banking, advanced molecular and cell techniques, standardization principles, and stem cell principles courses. (2025- now)
- **Instructor:** Islamic Azad University, Shahroud, Iran, (March 2022- January 2023)

Lessons taught: Stem Cell Engineering (3 credits, master's course), Biomaterial 2 (3 credits, undergraduate course), Biocompatibility and Biological Tests (3 credits, undergraduate course), Laboratory of Biological Tests (1 practical unit, undergraduate course)

- **Research Assistant:** training and supervising the master's and PhD students with cellular/molecular and biomaterials techniques, Medical sciences, and healthcare services of Shahroud, Iran, 2021-2023
- **Teaching Assistant:** Medical sciences and healthcare services of Shahroud, Iran (October 2021- November 2021)
- **Workshop instructor:** Kermanshah University of Medical Sciences, Amnion decellularization and application in regenerative medicine, 2024.
- **Workshop instructor:** Razi University of Kermanshah, Application of synthetic polymers in regenerative medicine, 2025.

PUBLICATIONS

Published Manuscripts

1. **Investigating the osteoconductive effect of polycaprolactone scaffold treated with Zizyphusjujube on Adipose-derived Mesenchymal Stem Cells (ADMSCs)**, Niloofar Taghipour, Ehsan Saburi, **Shaghayegh Doudi**. Under submission, 2024
2. **Injectable Multifunctional Hydrogel Containing Sphingosine 1 phosphate and Human Acellular Amniotic Membrane for Skin Wound Healing** Iranian Journal of Basic Medical Science (2024); **Shaghayegh Doudi**, Mohammad Kamalabadi-Farahani, Amir Atashi, Jafar Ai, Danial Cheraghali, Sepehr Zamani, Majid Salehi.
3. **Upregulation of C-X-C Chemokine Receptor Type 4 (CXCR4) in Breast Cancer Stem Like Cells**. American Journal of Stem Cells (2023); Mohammad Kamalabadi-Farahani, Vahid Kia, **Shaghayegh Doodi**, Sadegh Dylami.

4. **Applications of Human Acellular Amniotic Membrane in Regenerative Medicine** Life science (2022); **Shaghayegh Doudi**, Mansoureh Barzegar, Elham Angouraj Taghavi, Mohammad Eini, Arian Ehterami, Karen Stokes, Jonathan S. Alexander, Majid Salehi.
5. **Targeting histone demethylases KDM5A and KDM5B in AML cancer cells: A comparative view** leukemia research (2018); **Gelareh Shokri, Shaghayegh Doudi**, Mehrnoosh Fathi-rodsari, Fatemeh Kouhkan, Mohammad-Hossein Sanati (**co-first author**).

ABSTRACTS AND POSTER PRESENTATIONS

Posters:

- 1- **The role of lysine demethylase JARID1B down-regulation in acute myeloid leukemia**, 1st International and 9th National Biotechnology Congress of Islamic Republic of Iran, Shahid Beheshti University, Tehran, Iran, May 2015
- 2- **The effect of epigenetic regulation on cancer therapy**, International Congress On Stem Cells and Regenerative Medicine, Mashhad, Iran, May 2015
- 3- **Investigation on the function of lysine demethylases in leukemogenesis**, International Congress On Blood; Diseases and Clinical Administrations (ICBDCA), Yasuj, Iran May 2015
- 4- **Investigation of lysine demethylase5A (KDM5A) function in acute myeloid leukemia**, International Congress On Stem Cells and Regenerative Medicine, Mashhad, Iran, May 2015
- 5- **JARID1A Regulates Epigenetic Modification in Leukemia**, 1st International and 9th National Biotechnology Congress of Islamic Republic of Iran, Shahid Beheshti University, Tehran, Iran, May 2015
- 6- **Comparison of Pentose Phosphate Metabolism Pathway Genes Expression in Aerobic and Anaerobic Conditions in Wild Strain and Alcohol Dehydrogenase Negative Escherichia coli**, 21th National & 9th International Congress on Biology, Semnan University, Iran, Feb 2021
- 7- **A review of new approaches to cancer treatment using nanoparticles and nanocarriers**, 2nd International Conference on Nanotechnology & Nanoscience University of Tehran, Iran, August 2021
- 8- **Review of Carboxymethyl cellulose and Gelatin as natural biomaterials in skin regeneration**, 1st International Congress of Pharmaceutical Biomaterials, Kermanshah, Iran, May 2024
- 9- **Investigating the treatment of burn wounds with acellularized amniotic membrane**, 12th National Burn Congress, Gilan, Iran, July 2024

Oral:

- The speaker of the smart dressing group idea at the startup of Shahroud University of Medical Sciences, Iran, 2022

Research Projects

- 1- Investigating the effect of chitosan hydrogel containing EDTA, povidone-iodine and N-acetylcysteine on the ability of *Staphylococcus aureus* and *Pseudomonas aeruginosa* biofilm formation in a rat model (in vivo and in vitro study), 2021- Present.
- 2- Comparative study of the regenerative effects of natural and synthetic polymers and cellular tissues for skin tissue engineering, 2022- Present.
- 3- Design and manufacture of carboxymethyl cellulose-gelatin hydrogel scaffold containing omega-3 for skin damage repair (in vivo and in vitro study), 2022- Present.
- 4- Fabrication and characterization of printed bilayers of polyether sulfone /curcumin on polyacrylonitrile /clay nanoparticles containing adipose-derived mesenchymal stem cells for the regeneration of osteochondral defects , 2023- Present.

Workshops and Seminars

- 1- **Pre-Congress of Stem Cell Training, Royan Institute**, Royan Research Institute, Tehran, Iran, 2009
- 2- **2-day workshop on exosome extraction and exosome therapy**, Royan Research Institute and Bahar Diagnostic Medicine Company; Tehran, Iran, 2018
- 3- **Second Stem Cell Symposium in Cartilage and Bone Diseases**, Current and Future Applications, Shafae Hayyan Research and Training Hospital; Tehran, Iran, 2019
- 4- **International E-Cell Plus College on New Technologies in Regenerative Medicine**, Tehran University of Medical Sciences, Medical University of Tehran; Iran, 2021
- 5- **Workshop on how to write articles and letters to the editor**, West Azerbaijan University of Medical Sciences; Urmia, Iran, 2022
- 6- **Teaching method and lesson plan workshop**, Shahroud University of Medical Sciences; Iran, 2022
- 7- **Working with bioprinter devices, microfluidics systems and familiarization with solid work software workshop**, Soba Knowledge Company; Shahroud, Iran, 2022
- 8- **Workshop on the principles of working with anesthetized animals**, Anesthesia Research Center of Shahid Beheshti University of Medical Sciences; Tehran, Iran, 2022
- 9- **Article Writing Workshop**, Neyshabur University of Medical Sciences, Iran, 2023

Books

- 1- **An introduction to tissue decellularization**, Royanpajoh Publications, authorship, 2023
- 2- **Principles of tissue engineering**, Langer Royanpajoh Publications, translation, 2023
- 3- **Principles of tissue engineering**, Langer; editor, 2023
- 4- **Vascular tissue engineering**, Royanpajoh Publications; translation, 2024
- 5- **Application of exosomes in tissue engineering**, Royanpajoh Publications; authorship, 2024

Activities

- 1- Biology Means Life, student magazine, Director, 2009-2011.
- 2- 1st International Congress of Pharmaceutical Biomaterials, Kermanshah University of Medical Sciences; reviewer, 2024.
- 3- Kermanshah University of Medical Sciences, Congress executive team, 2024.
- 4- Skin Research and Technology Journal, Reviewer, 2024.

Executive activities

1. **Research Deputy**, Department of Applied Cellular Sciences, Urmia School of Medicine (2025-now)
2. **Member of the Student Working Group EDO**, Urmia School of Medicine (2025-now)
3. **Medical examination supervisor**, Urmia School of Medicine (2025-now)

Honors/Awards/Others

- Winning first place in the startup of Shahroud University of Medical Sciences with the group idea of smart dressing, Shahroud, Iran, 2022
- Grade A of the doctorate course
- Obtaining the first rank in the comprehensive test.

Professional Membership

- Member of the Iranian Tissue Engineering and Repair Association
- Member of the Iran Bioinformatics Association
- Member of the Student Scientific Association of Shahid Beheshti University of Medical Sciences
- Membership in Shahrood Center for Growth and Technology of Medical Sciences

SKILLS

Laboratory

Cell culture (adherent, suspension), cell transfection, cell transduction, cell transformation, PCR, real-time RT-PCR, bacterial culture techniques, preliminary flow cytometry, gel techniques, cloning techniques, Construction of double strands, ligation, digestion, plasmid extraction, RNA extraction and cDNA synthesis, MTT assay, virus production, Lipofectamine 2000 technique, cell cycle assay techniques, fluorescent microscopy, apoptosis assay, tissue acellularization methods, hydrogel synthesis, familiarity with Biomaterials, DNA extraction, laboratory tests for hydrogel measurement (water absorption, weight loss, BCI, BC...), wound examination test, analysis of pathology results, preliminary electrospin.

Software

Microsoft Office (Word, Excel, PowerPoint, etc.), Design with Biorender, EndNote, Prism, Artificial intelligence (AI)

Language

Language diploma from Iran Language Institute

MHLE certificate