

Curriculum Vitae

Mahmood Rekabgardan, Ph.D.

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PROFESSIONAL HIGHLIGHTS

I have received my Ph.D. in Tissue Engineering/Regenerative Medicine with a focus on cardiovascular T.E. using electrospinning technique and mesenchymal stem cells.

EDUCATION

- **Ph.D. in Tissue Engineering** Cumulative GPA: 18.87/20
Shahid Beheshti University of Medical Sciences, Tehran, Iran. 2016/2 – 2021/5

Thesis Title: “Functionality of PGS- based fibrous scaffold in heart valve tissue engineering Applications”
- **M.Sc. in Veterinary Histology** Cumulative GPA: 18.21/20
Science and Research Branch, Islamic Azad University, Tehran, Iran. 2011/9 – 2013/9
Thesis Title: “Evaluation of a Te99Gemifloxacin as a radiopharmaceutical in Ecoli induced infection and its morphological impression in male mature mice muscle tissue”
- **B.Sc. in Veterinary Laboratory Sciences** Cumulative GPA: 15.19/20
Semnan University, Semnan, Iran. 2003/2 – 2005/2
- **Associate in Veterinary Medicine** Cumulative GPA:16.08/20
Karaj Branch, Islamic Azad University, Karaj, Iran. 1999/9 – 2002/9

FIELD OF EXPERTISE/ SKILLS

- Preparation of tissue/cell slides.
- Specific staining of tissue/cell slides.
- Tissue slides analysis.
- Fluorescent staining and imaging.
- Immunohistochemistry.
- Electrospinning.
- Stem cell culture, fibroblast culture and Biocompatibility assay.
- Polymeric scaffold characterizations.
- Manipulation and synthesis of polymer (Poly (Glycerol sebacate), PGS).
- Microfluidic device fabrication.
- Principles of laboratory quality control.
- HPLC analysis.
- qRT-PCR - ELISA.
- Electrophoresis & Immunofixation (Serum, urine, hemoglobin).
- Animal care and handling.
- Computer and software: MS word, Excel, Power point, Mendeley, SPSS, Prism , Imagej, Chem BioDraw and MestReNova

- Interpersonal Skills: Teamwork, Responsibility, Troubleshooting in Professional Working, Collaboration in the multidisciplinary group.

WORK HISTORY

- Assistant Professor
Shahid Beheshti University of Medical Sciences, Tehran, Iran. 2023/12 – Present
- Lab Technologist/Expert
Pathobiology Laboratory Center, Tehran, Iran. 2006 – 2023/12

Tasks: New test setup, Quality control, troubleshooting, teaching new lab staff, and performing lab techniques.

- Ph.D. Student/Graduate Researcher
Shahid Beheshti University of Medical Sciences, Tehran, Iran. 2016 – 2021

Tasks: Participation in design and develop ideas, proposal writing, grant writing, performing techniques, data analysis, and manuscript writing.

ATTENDED WORKSHOPS AND SYMPOSIA

- Theoretical and practical workshop of SPSS software and introduction to statistical analysis. Shahid Beheshti University of Medical Sciences, February 2019, Tehran, Iran.
- The first symposium of tissue engineering and regenerative medicine in trauma, Shahid Beheshti University of medical sciences, April 2018, Tehran, Iran.
- The 13th International Congress of Embryonic Stem Cells Biology & Technology, Royan Research Institute, August-September 2017, Tehran, Iran.
- The 12th International Congress of Embryonic Stem Cells Biology & Technology, Royan Research Institute, August-September 2016, Tehran, Iran.
- The Docking & Drug design workshop, Faculty of New Technologies, Shahid Beheshti University of Medical Sciences, September 2016, Tehran, Iran.
- Royan Cryobiology Symposium (17th Royan international Twin congress), August 2016, Tehran, Iran.
- The first national festival and international congress of stem cells and regenerative medicine, May 2016, Tehran, Iran.
- Methods of scaffold preparation in the tissue engineering workshop, Tehran university of medical sciences, School of advanced technology in medicine, November 2015, Tehran, Iran.
- The 11th International Congress of Embryonic Stem Cells Biology & Technology, Royan Research Institute, September 2011, Tehran, Iran.
- Polyclonal antibody production workshop, Royan Research Institute, August 2015, Tehran, Iran.
- Culture and maintenance of human embryonic stem cells workshop, Royan Research Institute, Juan 2015, Tehran, Iran.
- Cancer stem cell isolation and identification workshop, Royan Research Institute, August 2015, Tehran, Iran.
- In vitro fertilization of mice workshop, Royan Research Institute, December 2012, Tehran, Iran.

AWARDS AND HONORS

- 1st grade of Ph.D. Comprehensive exam in Tissue engineering, School of Advanced Technologies in Medicine of Shahid Beheshti University, Tehran, Iran. 2017
- 1st ranked student among Associate of Veterinary students, Karaj Branch, Islamic Azad University.2001

SCIENTIFIC PROJECTS AND ACTIVITIES (National - International)

- Reviewer in the “Stem Cell Reviews and Reports” Springer journal from 2022.
- Executive and review committee member at the 1st International Congress of Tissue Engineering and Regenerative Medicine (ITERM), July 2018, Tehran, Iran.
- Presented the results of a collaborative research, “Preparation of a broad-spectrum quinolone labeled with 99m Tc for infection imaging,” at the 18th Iranian Congress of Nuclear Medicine (ICNM2014), November 2014. Collaborators: Mostafa Erfani, Seyed Javad Khoramrouz, Seyed Pezhman Shirmardi, **Mahmood Rekabgardan**.

PEER-REVIEWED JOURNAL PUBLICATIONS AND BOOK CHAPTER

Manuscript

- Majidansari S, Vahedi N, **Rekabgardan M**, et al. Enhancing endothelial differentiation of human mesenchymal stem cells by culture on a nanofibrous polycaprolactone/(poly-glycerol sebacate)/gelatin scaffold. Polym Adv Technol. 2022;1-8. doi:10.1002/pat.5925
- **Rekabgardan M**, Parandakh A, Shahriari S, Koozpar ZK, Rahmani M, Ganjouri C, Sarbandi RR, Khani MM. An electrospun PGS/PU fibrous scaffold to support and promote endothelial differentiation of mesenchymal stem cells under dynamic culture condition. Journal of Drug Delivery Science and Technology. 2022 May 4:103383. doi:10.1016/j.jddst.2022.103383
- **Rekabgardan, Mahmood**; Rahmani, Mahya; Soleimani, Masoud; Hossein Zadeh, Simzar; Roozafzoon, Reza; Parandakh, Azim; Khani, Mohammad-Mehdi, "A Bilayered, Electrospun Poly(Glycerol-Sebacate)/Polyurethane-Polyurethane Scaffold for Engineering of Endothelial Basement Membrane," ASAIJ Journal: June 14, 2021 - Volume Online First - Issue - DOI: 10.1097/MAT.0000000000001423
- M. Erfani, **M. Rekabgardan**, P. Mortazavi & M. Shafiei, "Radiocomplexation and evaluation of the 99mTc-Gemifloxacin in artificially Escherichia coli infected mice," J Radioanal Nucl Chem DOI 10.1007/s10967-015-4515-5
- **Mahmood Rekabgardan**, Mostafa Erfani, and Mortazavi Pejman, "Radiopharmaceutical Evaluation of Gemifloxacin-Techetium 99m and its Histopathological Effects on Skeletal Muscle of Mice," J. Pure Appl. Microbiol., 2016; 10(1): 339-344.

Book chapter

- Golchin A., **Rekabgardan M.**, Taheri R.A., Nourani M.R. (2018) "Promotion of Cell-Based Therapy: Special Focus on the Cooperation of Mesenchymal Stem Cell Therapy and Gene Therapy for Clinical Trial Studies." In: Turksen K. (eds) Cell Biology and Translational Medicine, Volume 4. Advances in Experimental Medicine and Biology, vol 1119. Springer, Cham. https://doi.org/10.1007/5584_2018_256