

1. Personal details:

Dr. Mohammad-Mehdi Khani

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2. Education and qualifications:

- **Ph.D of biomedical engineering (Biomechanics), Amir-Kabir University of technology (2014)**
- **Master of biomedical engineering (Biomechanics), AmirKabir University of technology (2009)**

3. Achievements:

- **Member of Iran's National Elites Foundation (2009)**
- **Graduate as a Talented student of amir-kabr university of technology (MSC AND ph.D)**

4. Research Interests:

Cell mechanics, Mechanobiology, functional tissue engineering, Stem cell engineering and biomechanics.

5. Publications:

1. *Khani MM, et al., Mechanical characterization of human mesenchymal stem cells subjected to cyclic uniaxial strain and TGF- β 1, Journal of mechanical behavior of biomedical materials, 43: 18:25. 2015.*
2. *Motalleb zadeh, Tafazzoli-Shadpour M, khani MM , DYNAMIC STRESS DISTRIBUTION IN A MODEL OF IMPLANTED MANDIBLE: NUMERICAL ANALYSIS OF VISCOELASTIC BONE, Mechanics in medicine and biology, 15 (4), 2015.*
3. *Khani MM, Tafazzoli-Shadpour M, et al., Evaluation of Mechanical Properties of Human Mesenchymal Stem Cells During Differentiation to Smooth Muscle Cells, Annals of Biomedical Engineering, 42 (7), 1373-1380., 2014.*
4. *Khani MM, Katouzian H, et al. Nonlinear hyper elastic parameter estimation of human heel-pad: A finite element and evolutionary based algorithm, Mechanic in medicine and biology. 12(1):1-6, 2012.*
5. *Khani MM, Tafazzoli-Shadpour M, et al., Mechanical Vulnerability of lower second premolar utilizing viscoelastic dynamic stress analysis ,Journal of Computer Methods in Biomechanics and Biomedical Engineering.12(5):553-561,2009.*
6. *Jalili Saffar, M.R. Razfar, A.H. Salimi` M.M. Khani, Optimization of Machining Parameters to Minimize Tool Deflection in the End Milling Operation Using Genetic Algorithm, World Applied Sciences Journal 6 (1): 64-69, 2009.*
7. *Arab-Ghanbari, Khani MM, et al., Analysis of Blood Turbulent Flow in Carotid Artery Including the Effect of Mural Thrombosis Using Finite Element Modeling ,American Journal of Applied Sciences.6(2):337-344, 2009.*

8. Khani MM, Tafazzoli-Shadpour M, et al., *Dynamic Stress Analysis of the Arterial Wall Utilizing Physiological Pressure Waveforms. American Journal of Applied Sciences*, 5(10):1285-1290, 2008.
9. Ansari A, Tafazzoli-Shadpour M, et al., *A New System to Analyze Pulsatile Flow Characteristics in Elastic Tubes for Hemodynamic Applications. American Journal of Applied Sciences*, 5(12):1730-1736, 2008.
10. Khani MM, et al., *viscoelasticity of dentin reduces vulnerability of tooth to fracture, IJAPBS4(3) 128-130 (2015).*
11. Khani MM, et al, *dynamic stress analysis of upper central teeth using finite element method: effect of visco-elasticity, Iranian journal of biomedical engineering 5: 13-20 (2011).*
12. Rashidi N, Tafazzoli M, et al., *Effect of cyclic uniaxial strain on morphology of mesenchymal stem cells during differentiation to smooth muscle cells, KOOMESH 2016*
13. Khani MM and Tafazzoli M, *Effect of substrate stiffness on mechanical behavior of mesenchymal stem cells during differentiation to smooth muscle cells, KOOMESH 2015*

6. Conference paper:

1. Khani MM, Katouzian H, et al. *Nonlinear hyper elastic parameter estimation of human heel-pad: A finite element and evolutionary based algorithm. 8th international symposium on computer method in biomechanics and biomedical engineering, Porto, Portugal: 2008*
2. Khani MM, Tafazoli Shad-pour M, et al. *Dynamic stress analysis of lower premolar tooth: A finite element study 8th international symposium on computer method in biomechanics and biomedical engineering, Porto, Portugal: 2008*
3. Khani MM, Tafazoli Shad-pour M, et al. *A Finite Element Model for Dynamic stress analysis in Maxillary Central teeth: Sensitivity to Visco-Elastic Property, Proceeding of World Academy of Science, Engineering and Technology (WASET), Vol.30, Paris, France: July, 2008.*
4. Naderi P, Khani M, et al., *effect of viscoelasticity on dynamic stress distribution in maxillary central, 14th ICBME p.p.129 (2008).*
5. Khani MM, et al., *Effect of cyclic uniaxial strain on differentiation and morphology of mesenchymal stem cells. 3th national seminar on the role of medical basic sciences on health promotion p.p.139 (2015).*
6. Khani MM and Tafazzoli M, *Effect of substrate stiffness on mechanical behavior of mesenchymal stem cells in response to TGF-Beta. 3th national seminar on the role of medical basic sciences on health promotion p.p.157 (2015).*