

Mohammad Tafazzoli-Shadpour

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

1,907
citations

331538

21
h-index

289141

40
g-index

80
all docs

80
docs citations

80
times ranked

3113
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrically conductive gold nanoparticle-chitosan thermosensitive hydrogels for cardiac tissue engineering. <i>Materials Science and Engineering C</i> , 2016, 63, 131-141.	3.8	253
2	Quantification of Alterations in Structure and Function of Elastin in the Arterial Media. <i>Hypertension</i> , 1998, 32, 170-175.	1.3	207
3	Enhanced mechanical properties of thermosensitive chitosan hydrogel by silk fibers for cartilage tissue engineering. <i>Materials Science and Engineering C</i> , 2013, 33, 4786-4794.	3.8	197
4	Effects of cyclic stretch on proliferation of mesenchymal stem cells and their differentiation to smooth muscle cells. <i>Biochemical and Biophysical Research Communications</i> , 2009, 388, 601-605.	1.0	96
5	Atomic force microscope-based single cell force spectroscopy of breast cancer cell lines: An approach for evaluating cellular invasion. <i>Journal of Biomechanics</i> , 2014, 47, 3373-3379.	0.9	75
6	Mechanical Characterization and Constitutive Modeling of Human Trachea: Age and Gender Dependency. <i>Materials</i> , 2016, 9, 456.	1.3	66
7	Regulation of Endothelial Cell Adherence and Elastic Modulus by Substrate Stiffness. <i>Cell Communication and Adhesion</i> , 2015, 22, 79-89.	1.0	52
8	Quantification of effects of cancer on elastic properties of breast tissue by Atomic Force Microscopy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 60, 234-242.	1.5	42
9	Analysis of wall shear stress in stented coronary artery using 3D computational fluid dynamics modeling. <i>Journal of Materials Processing Technology</i> , 2008, 197, 174-181.	3.1	34
10	The effects of stenosis severity on the hemodynamic parameters—assessment of the correlation between stress phase angle and wall shear stress. <i>Journal of Biomechanics</i> , 2011, 44, 2614-2626.	0.9	33
11	Effects of Cyclic Stretch Waveform on Endothelial Cell Morphology Using Fractal Analysis. <i>Artificial Organs</i> , 2010, 34, 481-490.	1.0	32
12	Intermittent Hydrostatic Pressure Enhances Growth Factor-Induced Chondroinduction of Human Adipose-Derived Mesenchymal Stem Cells. <i>Artificial Organs</i> , 2012, 36, 1065-1071.	1.0	30
13	The Synergistic Effects of Shear Stress and Cyclic Hydrostatic Pressure Modulate Chondrogenic Induction of Human Mesenchymal Stem Cells. <i>International Journal of Artificial Organs</i> , 2015, 38, 557-564.	0.7	30
14	Substrate topography interacts with substrate stiffness and culture time to regulate mechanical properties and smooth muscle differentiation of mesenchymal stem cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 173, 194-201.	2.5	28
15	Effect of uniaxial stretch on morphology and cytoskeleton of human mesenchymal stem cells: static vs. dynamic loading. <i>Biomedizinische Technik</i> , 2011, 56, 259-265.	0.9	27
16	Progressive changes of elastic moduli of arterial wall and atherosclerotic plaque components during plaque development in human coronary arteries. <i>Medical and Biological Engineering and Computing</i> , 2019, 57, 731-740.	1.6	27
17	Evaluation of Mechanical Properties of Human Mesenchymal Stem Cells During Differentiation to Smooth Muscle Cells. <i>Annals of Biomedical Engineering</i> , 2014, 42, 1373-1380.	1.3	26
18	Mechanical characterization of human mesenchymal stem cells subjected to cyclic uniaxial strain and TGF- β 1. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 43, 18-25.	1.5	26

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19	Effects of Mechanical and Chemical Stimuli on Differentiation of Human Adipose-Derived Stem Cells into Endothelial Cells. <i>International Journal of Artificial Organs</i> , 2013, 36, 663-673.	0.7	25
20	Modulating cancer cell mechanics and actin cytoskeleton structure by chemical and mechanical stimulations. <i>Journal of Biomedical Materials Research - Part A</i> , 2019, 107, 1569-1581.	2.1	25
21	Fabrication of Chitosan Silk-based Tracheal Scaffold Using Freeze-Casting Method. <i>Iranian Biomedical Journal</i> , 2017, 21, 228-239.	0.4	24
22	Viscoelastic Properties of Human Tracheal Tissues. <i>Journal of Biomechanical Engineering</i> , 2017, 139, .	0.6	23
23	Cytoskeletal remodeling induced by substrate rigidity regulates rheological behaviors in endothelial cells. <i>Journal of Biomedical Materials Research - Part A</i> , 2019, 107, 71-80.	2.1	23
24	Evaluation of Biaxial Mechanical Properties of Aortic Media Based on the Lamellar Microstructure. <i>Materials</i> , 2015, 8, 302-316.	1.3	22
25	Alteration of human umbilical vein endothelial cell gene expression in different biomechanical environments. <i>Cell Biology International</i> , 2014, 38, 577-581.	1.4	20
26	Influence of Cyclic Stretch on Mechanical Properties of Endothelial Cells. <i>Experimental Mechanics</i> , 2013, 53, 1291-1298.	1.1	19
27	Verification of the mechanostat theory in mandible remodeling after tooth extraction: Animal study and numerical modeling. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 20, 354-362.	1.5	19
28	Behavioral remodeling of normal and cancerous epithelial cell lines with differing invasion potential induced by substrate elastic modulus. <i>Cell Adhesion and Migration</i> , 2018, 12, 1-17.	1.1	19
29	<p>An AFM-Based Nanomechanical Study of Ovarian Tissues with Pathological Conditions</p>. <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 4333-4350.	3.3	19
30	Coupling of shear"circumferential stress pulses investigation through stress phase angle in FSI models of stenotic artery using experimental data. <i>Medical and Biological Engineering and Computing</i> , 2017, 55, 1147-1162.	1.6	18
31	The functional cross talk between cancer cells and cancer associated fibroblasts from a cancer mechanics perspective. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2021, 1868, 119103.	1.9	17
32	Comparing the effect of equiaxial cyclic mechanical stimulation on GATA4 expression in adipose"derived and bone marrow"derived mesenchymal stem cells. <i>Cell Biology International</i> , 2014, 38, 219-227.	1.4	16
33	Characterizing the effect of substrate stiffness on the extravasation potential of breast cancer cells using a 3D microfluidic model. <i>Biotechnology and Bioengineering</i> , 2021, 118, 823-835.	1.7	16
34	Characterization of mechanical properties of lamellar structure of the aortic wall: Effect of aging. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 65, 20-28.	1.5	15
35	Model of cholera dissemination using geographic information systems and fuzzy clustering means: Case study, Chabahar, Iran. <i>Public Health</i> , 2012, 126, 881-887.	1.4	14
36	Analysis of arterial wall remodeling in hypertension based on lamellar modeling. <i>Journal of the American Society of Hypertension</i> , 2015, 9, 735-744.	2.3	14

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37	Mechanical Characterization of the Lamellar Structure of Human Abdominal Aorta in the Development of Atherosclerosis: An Atomic Force Microscopy Study. <i>Cardiovascular Engineering and Technology</i> , 2019, 10, 181-192.	0.7	14
38	Finite element simulation of human trachea: Normal vs. surgically treated and scaffold implanted cases. <i>International Journal of Solids and Structures</i> , 2020, 190, 35-46.	1.3	13
39	Investigation of the Mechanical Properties of the Human Tracheal Cartilage. <i>Tanaffos</i> , 2017, 16, 107-114.	0.5	13
40	Radiation therapy affects the mechanical behavior of human umbilical vein endothelial cells. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 85, 188-193.	1.5	12
41	Cyclic Stretch Effects on Adipose-Derived Stem Cell Stiffness, Morphology and Smooth Muscle Cell Gene Expression. <i>Tissue Engineering and Regenerative Medicine</i> , 2017, 14, 279-286.	1.6	11
42	Contribution of atherosclerotic plaque location and severity to the near-wall hemodynamics of the carotid bifurcation: an experimental study and FSI modeling. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021, 20, 1069-1085.	1.4	11
43	Time dependency of morphological remodeling of endothelial cells in response to substrate stiffness. <i>BioImpacts</i> , 2017, 7, 41-47.	0.7	11
44	EFFECTS OF SHORT-TERM CYCLIC HYDROSTATIC PRESSURE ON INITIATING AND ENHANCING THE EXPRESSION OF CHONDROGENIC GENES IN HUMAN ADIPOSE-DERIVED MESENCHYMAL STEM CELLS. <i>Journal of Mechanics in Medicine and Biology</i> , 2014, 14, 1450054.	0.3	10
45	Epidermal growth factor receptor targeting alters gene expression and restores the adhesion function of cancerous cells as measured by single cell force spectroscopy. <i>Molecular and Cellular Biochemistry</i> , 2016, 423, 129-139.	1.4	10
46	Stepwise morphological changes and cytoskeletal reorganization of human mesenchymal stem cells treated by short-time cyclic uniaxial stretch. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2017, 53, 547-553.	0.7	10
47	Morphology and contractile gene expression of adipose-derived mesenchymal stem cells in response to short-term cyclic uniaxial strain and TGF- β 1. <i>Biomedizinische Technik</i> , 2018, 63, 317-326.	0.9	10
48	Correlation of the cell mechanical behavior and quantified cytoskeletal parameters in normal and cancerous breast cell lines. <i>Biorheology</i> , 2019, 56, 207-219.	1.2	10
49	Topological remodeling of cultured endothelial cells by characterized cyclic strains. <i>MCB Molecular and Cellular Biomechanics</i> , 2007, 4, 189-99.	0.3	10
50	BIOMECHANICAL ANALYSIS OF WALL REMODELING IN ELASTIC ARTERIES WITH APPLICATION OF FLUID-SOLID INTERACTION METHODS. <i>Journal of Mechanics in Medicine and Biology</i> , 2007, 07, 433-447.	0.3	8
51	Residual stress distribution in a lamellar model of the arterial wall. <i>Journal of Medical Engineering and Technology</i> , 2010, 34, 422-428.	0.8	8
52	Effects of uniaxial cyclic stretch loading on morphology of adipose derived stem cells. <i>Tissue Engineering and Regenerative Medicine</i> , 2016, 13, 396-402.	1.6	8
53	Stress phase angle regulates differentiation of human adipose-derived stem cells toward endothelial phenotype. <i>Progress in Biomaterials</i> , 2018, 7, 121-131.	1.8	8
54	Mechanics of actin filaments in cancer onset and progress. <i>International Review of Cell and Molecular Biology</i> , 2020, 355, 205-243.	1.6	8

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55	A comparison of Newtonian and non-Newtonian pulsatile blood rheology in carotid bifurcation through fluid–solid interaction hemodynamic assessment based on experimental data. <i>Physics of Fluids</i> , 2022, 34, .	1.6	8
56	Mechanical vulnerability of lower second premolar utilising visco-elastic dynamic stress analysis. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2009, 12, 553-561.	0.9	7
57	Quantifying effects of cyclic stretch on cell–collagen substrate adhesiveness of vascular endothelial cells. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2018, 232, 531-541.	1.0	7
58	Effects of substrate mechanics on angiogenic capacity and nitric oxide release in human endothelial cells. <i>Annals of the New York Academy of Sciences</i> , 2020, 1470, 31-43.	1.8	7
59	Comparative analysis of effects of cyclic uniaxial and equiaxial stretches on gene expression of human umbilical vein endothelial cells. <i>Cell Biology International</i> , 2015, 39, 741-749.	1.4	6
60	Altered mechanical properties of actin fibers due to breast cancer invasion: parameter identification based on micropipette aspiration and multiscale tensegrity modeling. <i>Medical and Biological Engineering and Computing</i> , 2021, 59, 547-560.	1.6	6
61	The microenvironment and cytoskeletal remodeling in tumor cell invasion. <i>International Review of Cell and Molecular Biology</i> , 2020, 356, 257-289.	1.6	6
62	Coupled fluid-wall modelling of steady flow in stenotic carotid arteries. <i>Journal of Medical Engineering and Technology</i> , 2009, 33, 544-550.	0.8	5
63	DYNAMIC STRESS DISTRIBUTION IN A MODEL OF IMPLANTED MANDIBLE: NUMERICAL ANALYSIS OF VISCOELASTIC BONE. <i>Journal of Mechanics in Medicine and Biology</i> , 2015, 15, 1550050.	0.3	5
64	Stress analysis of fracture of atherosclerotic plaques: crack propagation modeling. <i>Medical and Biological Engineering and Computing</i> , 2017, 55, 1389-1400.	1.6	5
65	Chemical inhibitor anticancer drugs regulate mechanical properties and cytoskeletal structure of non-invasive and invasive breast cancer cell lines: Study of effects of Letrozole, Exemestane, and Everolimus. <i>Biochemical and Biophysical Research Communications</i> , 2021, 565, 14-20.	1.0	5
66	Effects of chemically EGFR targeting on non-targeted physical cell behaviors in 2D and 3D microfluidic cultures of invasive and non-invasive breast cancer cell lines. <i>Biochemical and Biophysical Research Communications</i> , 2022, 622, 1-7.	1.0	5
67	Evaluation of elastic properties of breast cancer stem-like/tumor initiating cells using Atomic Force Microscopy. , 2014, , .		4
68	The effects of short-term uniaxial strain on the mechanical properties of mesenchymal stem cells upon TGF- β 1 stimulation. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2018, 54, 677-686.	0.7	4
69	Nonlinear viscoelastic properties of human dentin under uniaxial tension. <i>Dental Materials</i> , 2021, 37, e59-e68.	1.6	4
70	The Influence of Cyclic and Uniform Shear Stresses Concurrent with Cyclic Stretch on the Gene Expression of Human Umbilical Vein Endothelial Cells. <i>Journal of Biomaterials and Tissue Engineering</i> , 2013, 3, 673-678.	0.0	3
71	Morphological Changes of Mesenchymal Stem Cells by Cyclic Stretch. , 2008, , .		2
72	Structurally Motivated Models of the Arterial Wall Tissue. <i>Journal of Multiscale Modeling</i> , 2013, 05, 1330002.	1.0	1

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73	Cancer Mutation Alters Mechanical Stiffness of Epithelial Cadherin Domains: A Molecular Dynamics Study. Journal of Computational and Theoretical Nanoscience, 2014, 11, 2228-2236.	0.4	1
74	EFFECTS OF SUBSTRATE DEFORMABILITY ON CELL BEHAVIORS: ELASTIC MODULUS VERSUS THICKNESS. Journal of Mechanics in Medicine and Biology, 2017, 17, 1750088.	0.3	1
75	Effect of equiaxial cyclic strain on cardiomyogenic induction in mesenchymal stem cells. Progress in Biomaterials, 2018, 7, 279-288.	1.8	1
76	Restoring elastic properties of breast cancer cells by EGFR targeting: Atomic force microscopy measurement. , 2016, , .		0
77	Viscoelastic behavior of human tracheal cartilage. , 2016, , .		0
78	Design and fabrication of a new chitosan based wound dressing in combination with carboxylated Polyethylene glycol. , 2018, , .		0
79	Effect of Cyclic Stretch on the Visco-Elastic Deformation of Endothelial Cells in Micropipette Aspiration Experiment. IFMBE Proceedings, 2010, , 1087-1090.	0.2	0
80	Effect of Tensile Strain and Shear Stress on the Differentiation of Human Mesenchymal Stem Cells into Endothelial Cells. , 2012, , .		0