Jennifer H Shin

List of Publications by Year
in descending order

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Version: 2024-02-01

		257357	149623
93	3,379	24	56
papers	citations	h-index	g-index

94	94	94	4991
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Elastic Behavior of Cross-Linked and Bundled Actin Networks. Science, 2004, 304, 1301-1305.	6.0	1,090
2	Colloid Surface Chemistry Critically Affects Multiple Particle Tracking Measurements of Biomaterials. Biophysical Journal, 2004, 86, 4004-4014.	0.2	233
3	Relating microstructure to rheology of a bundled and cross-linked F-actin network in vitro. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9636-9641.	3.3	178
4	Scaling of F-Actin Network Rheology to Probe Single Filament Elasticity and Dynamics. Physical Review Letters, 2004, 93, 188102.	2.9	155
5	Cellular Contraction and Polarization Drive Collective Cellular Motion. Biophysical Journal, 2016, 110, 2729-2738.	0.2	135
6	Interleukin-17A inhibits adipocyte differentiation in human mesenchymal stem cells and regulates pro-inflammatory responses in adipocytes. Biochemical Pharmacology, 2009, 77, 1835-1844.	2.0	116
7	Acoustothermal heating of polydimethylsiloxane microfluidic system. Scientific Reports, 2015, 5, 11851.	1.6	73
8	Islet-like organoids derived from human pluripotent stem cells efficiently function in the glucose responsiveness in vitro and in vivo. Scientific Reports, 2016, 6, 35145.	1.6	73
9	Nanowire-integrated microfluidic devices for facile and reagent-free mechanical cell lysis. Lab on A Chip, 2012, 12, 2914.	3.1	70
10	Shape memory alloy-based small crawling robots inspired by C. elegans. Bioinspiration and Biomimetics, 2011, 6, 046002.	1.5	67
11	Differential responses of human liver cancer and normal cells to atmospheric pressure plasma. Applied Physics Letters, 2011, 99, .	1.5	66
12	Three-Dimensional Network Photonic Crystals via Cyclic Size Reduction/ Infiltration of Sea Urchin Exoskeleton. Advanced Materials, 2004, 16, 1091-1094.	11.1	62
13	Bending Stiffness of a Crystalline Actin Bundle. Journal of Molecular Biology, 2004, 337, 255-261.	2.0	57
14	A sorting strategy for C. elegans based on size-dependent motility and electrotaxis in a micro-structured channel. Lab on A Chip, 2012, 12, 4128.	3.1	50
15	ROCK suppression promotes differentiation and expansion of endothelial cells from embryonic stem cellâ€“derived Flk1+ mesodermal precursor cells. Blood, 2012, 120, 2733-2744.	0.6	49
16	Heparan Sulfate Regrowth Profiles Under Laminar Shear Flow Following Enzymatic Degradation. Cellular and Molecular Bioengineering, 2013, 6, 160-174.	1.0	46
17	Electric fieldâ€“induced migration and intercellular stress alignment in a collective epithelial monolayer. Molecular Biology of the Cell, 2018, 29, 2292-2302.	0.9	39
18	Plasma effects on subcellular structures. Applied Physics Letters, 2010, 96, .	1.5	38

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19	Focal Adhesion Assembly Induces Phenotypic Changes and Dedifferentiation in Chondrocytes. Journal of Cellular Physiology, 2016, 231, 1822-1831.	2.0	33
20	Non-thermal gas plasma-induced endoplasmic reticulum stress mediates apoptosis in human colon cancer cells. Oncology Reports, 2016, 36, 2268-2274.	1.2	33
21	Physicochemically Tuned Myofibroblasts for Wound Healing Strategy. Scientific Reports, 2019, 9, 16070.	1.6	33
22	Collaborative effects of electric field and fluid shear stress on fibroblast migration. Lab on A Chip, 2013, 13, 1602.	3.1	32
23	A novel microfluidic co-culture system for investigation of bacterial cancer targeting. Lab on A Chip, 2013, 13, 3033.	3.1	32
24	Human endothelial colony forming cells from adult peripheral blood have enhanced sprouting angiogenic potential through up-regulating VEGFR2 signaling. International Journal of Cardiology, 2015, 197, 33-43.	0.8	32
25	Super-Resolution Three-Dimensional Imaging of Actin Filaments in Cultured Cells and the Brain via Expansion Microscopy. ACS Nano, 2020, 14, 14999-15010.	7.3	30
26	Vimentin intermediate filaments and filamentous actin form unexpected interpenetrating networks that redefine the cell cortex. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2115217119.	3.3	28
27	Sphingosylphosphorylcholine down-regulates filaggrin gene transcription through NOX5-based NADPH oxidase and cyclooxygenase-2 in human keratinocytes. Biochemical Pharmacology, 2010, 80, 95-103.	2.0	25
28	Promotion of Myogenic Maturation by Timely Application of Electric Field Along the Topographical Alignment. Tissue Engineering - Part A, 2018, 24, 752-760.	1.6	25
29	Stretchable ECM Patch Enhances Stem Cell Delivery for Postâ€MI Cardiovascular Repair. Advanced Healthcare Materials, 2019, 8, e1900593.	3.9	24
30	Stored elastic energy powers the 60-Î¼m extension of the Limulus polyphemus sperm actin bundle. Journal of Cell Biology, 2003, 162, 1183-1188.	2.3	23
31	The shallow turn of a worm. Journal of Experimental Biology, 2011, 214, 1554-1559.	0.8	21
32	Non-thermal dielectric-barrier discharge plasma damages human keratinocytes by inducing oxidative stress. International Journal of Molecular Medicine, 2016, 37, 29-38.	1.8	21
33	Force of an Actin Spring. Biophysical Journal, 2007, 92, 3729-3733.	0.2	20
34	Homogenizing cellular tension by hepatocyte growth factor in expanding epithelial monolayer. Scientific Reports, 2017, 7, 45844.	1.6	20
35	Suppression of angiogenesis by atmospheric pressure plasma in human aortic endothelial cells. Applied Physics Letters, 2014, 104, .	1.5	19
36	RF plasma based selective modification of hydrophilic regions on super hydrophobic surface. Applied Surface Science, 2017, 394, 543-553.	3.1	18

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37	Efficient nematode swimming in a shear thinning colloidal suspension. Soft Matter, 2016, 12, 1892-1897.	1.2	17
38	Characterization of cellular elastic modulus using structure based double layer model. Medical and Biological Engineering and Computing, 2011, 49, 453-462.	1.6	16
39	The nesprin-cytoskeleton interface probed directly on single nuclei is a mechanically rich system. Nucleus, 2017, 8, 534-547.	0.6	16
40	Hierarchical multilayer assembly of an ordered nanofibrous scaffold via thermal fusion bonding. Biofabrication, 2014, 6, 024107.	3.7	15
41	Tensile stimuli increase nerve growth factor in human dermal fibroblasts independent of tension-induced TGFÎ² production. Experimental Dermatology, 2013, 22, 72-74.	1.4	14
42	Matrix stiffness induces epithelial mesenchymal transition phenotypes of human epidermal keratinocytes on collagen coated two dimensional cell culture. Biomedical Engineering Letters, 2015, 5, 194-202.	2.1	13
43	Inhibition of Rho-Associated Protein Kinase Increases the Angiogenic Potential of Mesenchymal Stem Cell Aggregates via Paracrine Effects. Tissue Engineering - Part A, 2016, 22, 233-243.	1.6	13
44	Regulation of pigmentation by substrate elasticity in normal human melanocytes and melanotic MNT1 human melanoma cells. Experimental Dermatology, 2014, 23, 172-177.	1.4	12
45	Recent advances in biological uses of traction force microscopy. International Journal of Precision Engineering and Manufacturing, 2016, 17, 1401-1412.	1.1	12
46	Photo-protective effect of americanin B against ultraviolet B-induced damage in cultured human keratinocytes. Environmental Toxicology and Pharmacology, 2014, 38, 891-900.	2.0	11
47	Traction microscopy with integrated microfluidics: responses of the multi-cellular island to gradients of HGF. Lab on A Chip, 2019, 19, 1579-1588.	3.1	11
48	Enriching neural stem cell and antiâ€inflammatory glial phenotypes with electrical stimulation after traumatic brain injury in male rats. Journal of Neuroscience Research, 2021, 99, 1864-1884.	1.3	11
49	Comparative study on the differential mechanical properties of human liver cancer and normal cells. Animal Cells and Systems, 2013, 17, 170-178.	0.8	10
50	Engineering 3D Cortical Spheroids for an In Vitro Ischemic Stroke Model. ACS Biomaterials Science and Engineering, 2021, 7, 3845-3860.	2.6	10
51	Three-Dimensional Spheroid Culture on Polymer-Coated Surface Potentiate Stem Cell Functions via Enhanced Cellâ€“Extracellular Matrix Interactions. ACS Biomaterials Science and Engineering, 2020, 6, 2240-2250.	2.6	9
52	Ultrasound-mediated intracellular delivery of fluorescent dyes and DNA into microalgal cells. Algal Research, 2016, 15, 210-216.	2.4	8
53	Surface Hydrophobicity Modulates the Key Characteristics of Cancer Spheroids through the Interaction with the Adsorbed Proteins. Advanced Functional Materials, 2021, 31, 2100775.	7.8	8
54	Isorhamnetin Protects Human Keratinocytes against Ultraviolet B-Induced Cell Damage. Biomolecules and Therapeutics, 2015, 23, 357-366.	1.1	8

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55	Design and control of thermal SMA based small crawling robot mimicking C. elegans. , 2010, , .		7
56	Aging Donor-Derived Human Mesenchymal Stem Cells Exhibit Reduced Reactive Oxygen Species Loads and Increased Differentiation Potential Following Serial Expansion on a PEG-PCL Copolymer Substrate. International Journal of Molecular Sciences, 2018, 19, 359.	1.8	7
57	Effect of Keratinocytes on Myofibroblasts in Hypertrophic Scars. Aesthetic Plastic Surgery, 2019, 43, 1371-1380.	0.5	7
58	Turning mechanism of a smooth body by amplitude and period control in curvature. , 2008, , .		6
59	Calcium Regulation of an Actin Spring. Biophysical Journal, 2009, 97, 1125-1129.	0.2	6
60	Special issue on mechanobiology and diseases. Biomedical Engineering Letters, 2015, 5, 159-161.	2.1	6
61	Therapeutic Uses of Atmospheric Pressure Plasma: Cancer and Wound. Biosystems and Biorobotics, 2016, , 357-385.	0.2	6
62	Upstream mechanotaxis behavior of endothelial cells. , 2009, 2009, 2106-10.		5
63	Structural Dynamics of an Actin Spring. Biophysical Journal, 2011, 100, 839-844.	0.2	5
64	Exposure of keratinocytes to non-thermal dielectric barrier discharge plasma increases the level of 8-oxoguanine via inhibition of its repair enzyme. Molecular Medicine Reports, 2017, 16, 6870-6875.	1.1	5
65	In situ viscoelastic properties of insoluble and porous polysaccharide biopolymer dextran produced by Leuconostoc mesenteroides using particle-tracking microrheology. Geomechanics and Engineering, 2017, 12, 849-862.	0.9	5
66	Pillar-Based Mechanical Induction of an Aggressive Tumorigenic Lung Cancer Cell Model. ACS Applied Materials & Interfaces, 2022, 14, 20-31.	4.0	5
67	Effects of minimal exposures to atmospheric pressure plasma on the activity of Salmonella Typhimurium: Deactivation of bacterial motility and suppression of host-cell invasion. Archives of Biochemistry and Biophysics, 2016, 605, 67-75.	1.4	4
68	Remodeling of Adhesion Network within Cancer Spheroids via Cellâ€“Polymer Interaction. ACS Biomaterials Science and Engineering, 2020, 6, 5632-5644.	2.6	4
69	Electrospun Microvasculature for Rapid Vascular Network Restoration. Tissue Engineering and Regenerative Medicine, 2021, 18, 89-97.	1.6	4
70	Role of atmospheric pressure plasma (APP) in wound healing: APP-induced antifibrotic process in human dermal fibroblasts. Experimental Dermatology, 2016, 25, 159-161.	1.4	3
71	Suppression of Breast Cancer Cell Migration and Epithelial-Mesenchymal Transition by Atmospheric Pressure Plasma. Frontiers in Physics, 2021, 9, .	1.0	3
72	Physical analysis reveals distinct responses of human bronchial epithelial cells to guanidine and isothiazolinone biocides. Toxicology and Applied Pharmacology, 2021, 424, 115589.	1.3	3

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73	Reversible Thermal Gradient Device to Control Biased Thermotactic Response of C. elegans. Analytical Sciences, 2019, 35, 1367-1373.	0.8	2
74	Effects of atmospheric pressure plasma on microorganisms and human cells. , 2012, , .		1
75	Traction Microscopy Integrated with Microfluidics for Chemotactic Collective Migration. Journal of Visualized Experiments, 2019, , .	0.2	1
76	Development of a Tensile Cell Stimulator to Study the Effects of Uniaxial Tensile Stress on Osteogenic Differentiation of Bone Marrow Mesenchymal Stem Cells. Transactions of the Korean Society of Mechanical Engineers, A, 2009, 33, 629-636.	0.1	1
77	Wettabilityâ€Based Cell Sorting: Exploring Labelâ€Free Isolation Strategy for Mixed Primary Glial Cell Population. Advanced Materials Interfaces, 2022, 9, .	1.9	1
78	Actin-Based Spring in Horseshoe Crab Sperm. Key Engineering Materials, 2006, 326-328, 815-818.	0.4	0
79	Feasibility study of atmospheric pressure plasma treatments of HEPG-2 and SK-HEP-1 cancer cells. , 2008, , .		0
80	Design and Fabrication of a Lorentz Force Driven Micro Indenter. Journal of Biomechanical Science and Engineering, 2011, 6, 183-190.	0.1	0
81	Quantitative analysis of bacterial preference for cancer secreting proteins. , 2013, , .		0
82	Characterization of Different Dynamic Modes of a Crawling Caenorhabditis Elegans by Direct Measurement of Traction Force. Biophysical Journal, 2014, 106, 243a.	0.2	0
83	Development of a Microfluidic Platform to Study Effects of Physical Stresses on Microglial Activation. Biophysical Journal, 2015, 108, 454a.	0.2	0
84	Development of 3D printed biomimetic scaffold for tissue engineering. , 2015, , .		0
85	DYNAMIC STUDY OF CELLULAR INDENTATION USING ELECTROMAGNETIC MEMS DEVICE(1A2 Micro &) Tj ETQq1 1 0.784314 rgBT Science and Technology in Biomechanics, 2007, 2007.3, S12.	0.0	0
86	EFFECTS OF UNIFORM SHEAR STRESS ON THE DYNAMIC RESPONSES OF VASCULAR ENDOTHELIAL CELL(1D2) Tj ETQq0 0 0 rgBT /Overl Emerging Science and Technology in Biomechanics, 2007, 2007.3, S64.	0.0	0
87	Effects of Mechanically Different Environments on the Crawling Waveform of Caenorhabditis Elegans. Transactions of the Korean Society of Mechanical Engineers, B, 2012, 36, 125-130.	0.0	0
88	Characterization of Dynamic Behavior of C. elegans in Different Physical Environments. Journal of the Korean Society of Visualization, 2014, 12, 18-22.	0.1	0
89	GS2-10 Focal adhesion assembly regulates phenotypic changes and dedifferentiation in chondrocytes(GS2: Orthopaedic Biomechanics II). The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics, 2015, 2015.8, 153.	0.0	0
90	GS1-19 Characterization of kinematics and forces within a scattering monolayer(GS1: Cell and Tissue) Tj ETQq0 0 0 rgBT /Overlock 10 T and Technology in Biomechanics, 2015, 2015.8, 132.	0.0	0

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91	PS2-19 Control of fibrosis by atmospheric pressure plasma(PS2: Poster Short Presentation II,Poster) Tj ETQq1 1 0.784314 rgBT /Overl Technology in Biomechanics, 2015, 2015.8, 261.	0.0	0
92	PS2-18 Regulation of microglial phenotype by flow induced cytoskeletal alterations(PS2: Poster Short) Tj ETQq0 0 0 rgBT /Overlock 10 T Emerging Science and Technology in Biomechanics, 2015, 2015.8, 260.	0.0	0
93	Effects of Mechanical Stimulus on Cells Via Multi-Cellular Indentation Device. IFMBE Proceedings, 2009, , 1949-1951.	0.2	0