Jennifer H Shin

List of Publications by Citations

81 papers	2,712 citations	23 h-index	51 g-index
94 ext. papers	3,090 ext. citations	4.9 avg, IF	4.7 L-index

#	Paper	IF	Citations
81	Elastic behavior of cross-linked and bundled actin networks. *Science*, **2004**, 304, 1301-5	33.3	933
80	Colloid surface chemistry critically affects multiple particle tracking measurements of biomaterials. *Biophysical Journal*, **2004**, 86, 4004-14	2.9	208
79	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, 9636-41	11.5	169
78	Scaling of F-actin network rheology to probe single filament elasticity and dynamics. *Physical Review Letters*, **2004**, 93, 188102	7.4	140
77	Interleukin-17A inhibits adipocyte differentiation in human mesenchymal stem cells and regulates pro-inflammatory responses in adipocytes. *Biochemical Pharmacology*, **2009**, 77, 1835-44	6	102
76	Cellular Contraction and Polarization Drive Collective Cellular Motion. *Biophysical Journal*, **2016**, 110, 2729-2738	2.9	95
75	Nanowire-integrated microfluidic devices for facile and reagent-free mechanical cell lysis. *Lab on A Chip*, **2012**, 12, 2914-21	7.2	60
74	Differential responses of human liver cancer and normal cells to atmospheric pressure plasma. *Applied Physics Letters*, **2011**, 99, 063701	3.4	60
73	Three-Dimensional Network Photonic Crystals via Cyclic Size Reduction/ Infiltration of Sea Urchin Exoskeleton. *Advanced Materials*, **2004**, 16, 1091-1094	24	56
72	Acoustothermal heating of polydimethylsiloxane microfluidic system. *Scientific Reports*, **2015**, 5, 11851	4.9	54
71	Bending stiffness of a crystalline actin bundle. *Journal of Molecular Biology*, **2004**, 337, 255-61	6.5	53
70	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	4.9	51
69	A sorting strategy for C. elegans based on size-dependent motility and electrotaxis in a micro-structured channel. *Lab on A Chip*, **2012**, 12, 4128-34	7.2	43
68	Shape memory alloy-based small crawling robots inspired by C. elegans. *Bioinspiration and Biomimetics*, **2011**, 6, 046002	2.6	43
67	Heparan Sulfate Regrowth Profiles Under Laminar Shear Flow Following Enzymatic Degradation. *Cellular and Molecular Bioengineering*, **2013**, 6, 160-174	3.9	40
66	Plasma effects on subcellular structures. *Applied Physics Letters*, **2010**, 96, 101501	3.4	34
65	ROCK suppression promotes differentiation and expansion of endothelial cells from embryonic stem cell-derived Flk1(+) mesodermal precursor cells. *Blood*, **2012**, 120, 2733-44	2.2	32

64	Collaborative effects of electric field and fluid shear stress on fibroblast migration. *Lab on A Chip*, **2013**, 13, 1602-11	7.2	27
63	A novel microfluidic co-culture system for investigation of bacterial cancer targeting. *Lab on A Chip*, **2013**, 13, 3033-40	7.2	26
62	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	3.2	25
61	Electric field-induced migration and intercellular stress alignment in a collective epithelial monolayer. *Molecular Biology of the Cell*, **2018**, 29, 2292-2302	3.5	24
60	Sphingosylphosphorylcholine down-regulates filaggrin gene transcription through NOX5-based NADPH oxidase and cyclooxygenase-2 in human keratinocytes. *Biochemical Pharmacology*, **2010**, 80, 95-103	6	24
59	Non-thermal gas plasma-induced endoplasmic reticulum stress mediates apoptosis in human colon cancer cells. *Oncology Reports*, **2016**, 36, 2268-74	3.5	24
58	The shallow turn of a worm. *Journal of Experimental Biology*, **2011**, 214, 1554-9	3	20
57	Stored elastic energy powers the 60-microm extension of the Limulus polyphemus sperm actin bundle. *Journal of Cell Biology*, **2003**, 162, 1183-8	7.3	20
56	Promotion of Myogenic Maturation by Timely Application of Electric Field Along the Topographical Alignment. *Tissue Engineering - Part A*, **2018**, 24, 752-760	3.9	19
55	Force of an actin spring. *Biophysical Journal*, **2007**, 92, 3729-33	2.9	19
54	Focal Adhesion Assembly Induces Phenotypic Changes and Dedifferentiation in Chondrocytes. *Journal of Cellular Physiology*, **2016**, 231, 1822-31	7	19
53	Characterization of cellular elastic modulus using structure based double layer model. *Medical and Biological Engineering and Computing*, **2011**, 49, 453-62	3.1	16
52	Non-thermal dielectric-barrier discharge plasma damages human keratinocytes by inducing oxidative stress. *International Journal of Molecular Medicine*, **2016**, 37, 29-38	4.4	15
51	RF plasma based selective modification of hydrophilic regions on super hydrophobic surface. *Applied Surface Science*, **2017**, 394, 543-553	6.7	15
50	Efficient nematode swimming in a shear thinning colloidal suspension. *Soft Matter*, **2016**, 12, 1892-7	3.6	14
49	Stretchable ECM Patch Enhances Stem Cell Delivery for Post-MI Cardiovascular Repair. *Advanced Healthcare Materials*, **2019**, 8, e1900593	10.1	14
48	Suppression of angiogenesis by atmospheric pressure plasma in human aortic endothelial cells. *Applied Physics Letters*, **2014**, 104, 133701	3.4	14
47	Physicochemically Tuned Myofibroblasts for Wound Healing Strategy. *Scientific Reports*, **2019**, 9, 16070	4.9	14

46	Tensile stimuli increase nerve growth factor in human dermal fibroblasts independent of tension-induced TGF production. *Experimental Dermatology*, **2013**, 22, 72-4	4	12
45	Super-Resolution Three-Dimensional Imaging of Actin Filaments in Cultured Cells and the Brain Expansion Microscopy. *ACS Nano*, **2020**, 14, 14999-15010	16.7	11
44	Inhibition of Rho-Associated Protein Kinase Increases the Angiogenic Potential of Mesenchymal Stem Cell Aggregates via Paracrine Effects. *Tissue Engineering - Part A*, **2016**, 22, 233-43	3.9	10
43	Regulation of pigmentation by substrate elasticity in normal human melanocytes and melanotic MNT1 human melanoma cells. *Experimental Dermatology*, **2014**, 23, 172-7	4	10
42	The nesprin-cytoskeleton interface probed directly on single nuclei is a mechanically rich system. *Nucleus*, **2017**, 8, 534-547	3.9	10
41	Homogenizing cellular tension by hepatocyte growth factor in expanding epithelial monolayer. *Scientific Reports*, **2017**, 8, 45844	4.9	10
40	Recent advances in biological uses of traction force microscopy. *International Journal of Precision Engineering and Manufacturing*, **2016**, 17, 1401-1412	1.7	9
39	Photo-protective effect of americanin B against ultraviolet B-induced damage in cultured human keratinocytes. *Environmental Toxicology and Pharmacology*, **2014**, 38, 891-900	5.8	9
38	Hierarchical multilayer assembly of an ordered nanofibrous scaffold via thermal fusion bonding. *Biofabrication*, **2014**, 6, 024107	10.5	9
37	Ultrasound-mediated intracellular delivery of fluorescent dyes and DNA into microalgal cells. *Algal Research*, **2016**, 15, 210-216	5	8
36	Comparative study on the differential mechanical properties of human liver cancer and normal cells. *Animal Cells and Systems*, **2013**, 17, 170-178	2.3	7
35	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	3.6	7
34	Calcium regulation of an actin spring. *Biophysical Journal*, **2009**, 97, 1125-9	2.9	6
33	Isorhamnetin Protects Human Keratinocytes against Ultraviolet B-Induced Cell Damage. *Biomolecules and Therapeutics*, **2015**, 23, 357-66	4.2	6
32	Therapeutic Uses of Atmospheric Pressure Plasma: Cancer and Wound. *Biosystems and Biorobotics*, **2016**, 357-385	0.2	5
31	Traction microscopy with integrated microfluidics: responses of the multi-cellular island to gradients of HGF. *Lab on A Chip*, **2019**, 19, 1579-1588	7.2	5
30	Three-Dimensional Spheroid Culture on Polymer-Coated Surface Potentiate Stem Cell Functions via Enhanced Cell-Extracellular Matrix Interactions. *ACS Biomaterials Science and Engineering*, **2020**, 6, 2240-2250	5.5	5
29	Upstream mechanotaxis behavior of endothelial cells. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 2106-10	0.9	5

28	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	11.5	5
27	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	2.9	4
26	Structural dynamics of an actin spring. *Biophysical Journal*, **2011**, 100, 839-44	2.9	4
25	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		4
24	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,	6.3	3
23	Effect of Keratinocytes on Myofibroblasts in Hypertrophic Scars. *Aesthetic Plastic Surgery*, **2019**, 43, 1371-1380		3
22	Remodeling of Adhesion Network within Cancer Spheroids via Cell-Polymer Interaction. *ACS Biomaterials Science and Engineering*, **2020**, 6, 5632-5644	5.5	3
21	Role of atmospheric pressure plasma (APP) in wound healing: APP-induced antifibrotic process in human dermal fibroblasts. *Experimental Dermatology*, **2016**, 25, 159-61	4	2
20	Enriching neural stem cell and anti-inflammatory glial phenotypes with electrical stimulation after traumatic brain injury in male rats. *Journal of Neuroscience Research*, **2021**, 99, 1864-1884	4.4	2
19	Surface Hydrophobicity Modulates the Key Characteristics of Cancer Spheroids through the Interaction with the Adsorbed Proteins. *Advanced Functional Materials*, **2021**, 31, 2100775	15.6	2
18	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	4.1	2
17	Electrospun Microvasculature for Rapid Vascular Network Restoration. *Tissue Engineering and Regenerative Medicine*, **2021**, 18, 89-97	4.5	2
16	Physical analysis reveals distinct responses of human bronchial epithelial cells to guanidine and isothiazolinone biocides. *Toxicology and Applied Pharmacology*, **2021**, 424, 115589	4.6	2
15	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	1	1
14	Reversible Thermal Gradient Device to Control Biased Thermotactic Response of C. elegans. *Analytical Sciences*, **2019**, 35, 1367-1373	1.7	1
13	Engineering 3D Cortical Spheroids for an Ischemic Stroke Model. *ACS Biomaterials Science and Engineering*, **2021**, 7, 3845-3860	5.5	1
12	Pillar-Based Mechanical Induction of an Aggressive Tumorigenic Lung Cancer Cell Model.. *ACS Applied Materials & Interfaces*, **2021**,	9.5	1
11	Design and Fabrication of a Lorentz Force Driven Micro Indenter. *Journal of Biomechanical Science and Engineering*, **2011**, 6, 183-190	0.8	

10	Actin-Based Spring in Horseshoe Crab Sperm. *Key Engineering Materials*, **2006**, 326-328, 815-818	0.4
9	Effects of Mechanical Stimulus on Cells Via Multi-Cellular Indentation Device. *IFMBE Proceedings*, **2009**, 1949-1951	0.2
8	DYNAMIC STUDY OF CELLULAR INDENTATION USING ELECTROMAGNETIC MEMS DEVICE(1A2 Micro & Nano Biomechanics II). *The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics*, **2007**, 2007.3, S12	
7	EFFECTS OF UNIFORM SHEAR STRESS ON THE DYNAMIC RESPONSES OF VASCULAR ENDOTHELIAL CELL(1D2 Cardiovascular Mechanics II). *The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics*, **2007**, 2007.3, S64	
6	Characterization of Dynamic Behavior of C. elegans in Different Physical Environments. *Journal of the Korean Society of Visualization*, **2014**, 12, 18-22	
5	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	
4	GS1-19 Characterization of kinematics and forces within a scattering monolayer(GS1: Cell and Tissue Biomechanics IV). *The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics*, **2015**, 2015.8, 132	
3	PS2-19 Control of fibrosis by atmospheric pressure plasma(PS2: Poster Short Presentation II,Poster Session). *The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics*, **2015**, 2015.8, 261	
2	PS2-18 Regulation of microglial phenotype by flow induced cytoskeletal alterations(PS2: Poster Short Presentation II,Poster Session). *The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics*, **2015**, 2015.8, 260	
1	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	0.5