

Ning Wang

List of Publications by Year in descending order

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86
papers

9,741
citations

76196

40
h-index

58464

82
g-index

88
all docs

88
docs citations

88
times ranked

10986
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanotransduction at a distance: mechanically coupling the extracellular matrix with the nucleus. <i>Nature Reviews Molecular Cell Biology</i> , 2009, 10, 75-82.	16.1	1,538
2	Cell prestress. I. Stiffness and prestress are closely associated in adherent contractile cells. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 282, C606-C616.	2.1	591
3	Vinculin potentiates E-cadherin mechanosensing and is recruited to actin-anchored sites within adherens junctions in a myosin II-dependent manner. <i>Journal of Cell Biology</i> , 2010, 189, 1107-1115.	2.3	569
4	Material properties of the cell dictate stress-induced spreading and differentiation in embryonic stem cells. <i>Nature Materials</i> , 2010, 9, 82-88.	13.3	506
5	Transcription upregulation via force-induced direct stretching of chromatin. <i>Nature Materials</i> , 2016, 15, 1287-1296.	13.3	458
6	A comparison of methods to assess cell mechanical properties. <i>Nature Methods</i> , 2018, 15, 491-498.	9.0	448
7	Soft fibrin gels promote selection and growth of tumorigenic cells. <i>Nature Materials</i> , 2012, 11, 734-741.	13.3	384
8	Rapid signal transduction in living cells is a unique feature of mechanotransduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 6626-6631.	3.3	383
9	Cell Mechanics: Mechanical Response, Cell Adhesion, and Molecular Deformation. <i>Annual Review of Biomedical Engineering</i> , 2000, 2, 189-226.	5.7	365
10	Soft Substrates Promote Homogeneous Self-Renewal of Embryonic Stem Cells via Downregulating Cell-Matrix Traction. <i>PLoS ONE</i> , 2010, 5, e15655.	1.1	286
11	Contribution of intermediate filaments to cell stiffness, stiffening, and growth. <i>American Journal of Physiology - Cell Physiology</i> , 2000, 279, C188-C194.	2.1	261
12	Micropatterning tractional forces in living cells. <i>Cytoskeleton</i> , 2002, 52, 97-106.	4.4	248
13	Intracellular stress tomography reveals stress focusing and structural anisotropy in cytoskeleton of living cells. <i>American Journal of Physiology - Cell Physiology</i> , 2003, 285, C1082-C1090.	2.1	225
14	Probing transmembrane mechanical coupling and cytomechanics using magnetic twisting cytometry. <i>Biochemistry and Cell Biology</i> , 1995, 73, 327-335.	0.9	213
15	Cell prestress. II. Contribution of microtubules. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 282, C617-C624.	2.1	190
16	Reversing drug resistance of soft tumor-repopulating cells by tumor cell-derived chemotherapeutic microparticles. <i>Cell Research</i> , 2016, 26, 713-727.	5.7	183
17	Twisting integrin receptors increases endothelin-1 gene expression in endothelial cells. <i>American Journal of Physiology - Cell Physiology</i> , 2001, 280, C1475-C1484.	2.1	178
18	Matrix softness regulates plasticity of tumour-repopulating cells via H3K9 demethylation and Sox2 expression. <i>Nature Communications</i> , 2014, 5, 4619.	5.8	162

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19	Mechanics of vimentin intermediate filaments. <i>Journal of Muscle Research and Cell Motility</i> , 2002, 23, 535-540.	0.9	142
20	Prestress mediates force propagation into the nucleus. <i>Biochemical and Biophysical Research Communications</i> , 2005, 329, 423-428.	1.0	134
21	Mechanical anisotropy of adherent cells probed by a three-dimensional magnetic twisting device. <i>American Journal of Physiology - Cell Physiology</i> , 2004, 287, C1184-C1191.	2.1	125
22	Dynamic force-induced direct dissociation of protein complexes in a nuclear body in living cells. <i>Nature Communications</i> , 2012, 3, 866.	5.8	124
23	Mechanochemical Delivery and Dynamic Tracking of Fluorescent Quantum Dots in the Cytoplasm and Nucleus of Living Cells. <i>Nano Letters</i> , 2009, 9, 2193-2198.	4.5	119
24	Generation of organized germ layers from a single mouse embryonic stem cell. <i>Nature Communications</i> , 2014, 5, 4000.	5.8	104
25	Review of cellular mechanotransduction. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 233002.	1.3	104
26	Long-distance propagation of forces in a cell. <i>Biochemical and Biophysical Research Communications</i> , 2005, 328, 1133-1138.	1.0	103
27	Quantifying compressive forces between living cell layers and within tissues using elastic round microgels. <i>Nature Communications</i> , 2018, 9, 1878.	5.8	91
28	Distinct mechanisms regulating mechanical force-induced Ca ²⁺ signals at the plasma membrane and the ER in human MSCs. <i>ELife</i> , 2015, 4, e04876.	2.8	90
29	Invited Review: Engineering approaches to cytoskeletal mechanics. <i>Journal of Applied Physiology</i> , 2000, 89, 2085-2090.	1.2	89
30	Cell softness regulates tumorigenicity and stemness of cancer cells. <i>EMBO Journal</i> , 2021, 40, e106123.	3.5	77
31	Fibrin Stiffness Mediates Dormancy of Tumor-Repopulating Cells via a Cdc42-Driven Tet2 Epigenetic Program. <i>Cancer Research</i> , 2018, 78, 3926-3937.	0.4	74
32	Rapid Activation of Rac GTPase in Living Cells by Force Is Independent of Src. <i>PLoS ONE</i> , 2009, 4, e7886.	1.1	73
33	Upregulation of Cytosolic Phosphoenolpyruvate Carboxykinase Is a Critical Metabolic Event in Melanoma Cells That Repopulate Tumors. <i>Cancer Research</i> , 2015, 75, 1191-1196.	0.4	69
34	Overexpression of chemerin was associated with tumor angiogenesis and poor clinical outcome in squamous cell carcinoma of the oral tongue. <i>Clinical Oral Investigations</i> , 2014, 18, 997-1004.	1.4	56
35	Cell Softness Prevents Cytolytic T-cell Killing of Tumor-Repopulating Cells. <i>Cancer Research</i> , 2021, 81, 476-488.	0.4	54
36	Force-induced gene up-regulation does not follow the weak power law but depends on H3K9 demethylation. <i>Science Advances</i> , 2020, 6, eaay9095.	4.7	47

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37	Efficient extravasation of tumor-repopulating cells depends on cell deformability. <i>Scientific Reports</i> , 2016, 6, 19304.	1.6	46
38	Plectin contributes to mechanical properties of living cells. <i>American Journal of Physiology - Cell Physiology</i> , 2009, 296, C868-C877.	2.1	45
39	Embryonic Stem Cells Do Not Stiffen on Rigid Substrates. <i>Biophysical Journal</i> , 2010, 99, L19-L21.	0.2	43
40	Interfacing 3D magnetic twisting cytometry with confocal fluorescence microscopy to image force responses in living cells. <i>Nature Protocols</i> , 2017, 12, 1437-1450.	5.5	42
41	Inhibition of cancer stem cell like cells by a synthetic retinoid. <i>Nature Communications</i> , 2018, 9, 1406.	5.8	40
42	Stress fiber anisotropy contributes to force-mode dependent chromatin stretching and gene upregulation in living cells. <i>Nature Communications</i> , 2020, 11, 4902.	5.8	36
43	Visualization of perforin/gasdermin/complement-formed pores in real cell membranes using atomic force microscopy. <i>Cellular and Molecular Immunology</i> , 2019, 16, 611-620.	4.8	35
44	Force via integrins but not E-cadherin decreases Oct3/4 expression in embryonic stem cells. <i>Biochemical and Biophysical Research Communications</i> , 2011, 415, 396-400.	1.0	34
45	Regulatory networks in mechanotransduction reveal key genes in promoting cancer cell stemness and proliferation. <i>Oncogene</i> , 2019, 38, 6818-6834.	2.6	34
46	An aerodynamic valve in the avian primary bronchus. <i>The Journal of Experimental Zoology</i> , 1992, 262, 441-445.	1.4	33
47	Foxp3 gene polymorphisms and haplotypes associate with susceptibility of Graves' disease in Chinese Han population. <i>International Immunopharmacology</i> , 2015, 25, 425-431.	1.7	33
48	Colorectal Cancer Metastases to Brain or Bone and the Relationship to Primary Tumor Location: a Population-Based Study. <i>Journal of Gastrointestinal Surgery</i> , 2020, 24, 1833-1842.	0.9	32
49	Is Cell Rheology Governed by Nonequilibrium-to-Equilibrium Transition of Noncovalent Bonds?. <i>Biophysical Journal</i> , 2008, 95, 5719-5727.	0.2	30
50	Cytoskeletal prestress: The cellular hallmark in mechanobiology and mechanomedicine. <i>Cytoskeleton</i> , 2021, 78, 249-276.	1.0	28
51	Resveratrol attenuates excessive ethanol exposure induced insulin resistance in rats via improving NAD ⁺ /NADH ratio. <i>Molecular Nutrition and Food Research</i> , 2017, 61, 1700087.	1.5	23
52	Combined blockade of Tim-3 and MEK inhibitor enhances the efficacy against melanoma. <i>Biochemical and Biophysical Research Communications</i> , 2017, 484, 378-384.	1.0	21
53	Resveratrol protects against ethanol-induced impairment of insulin secretion in INS-1 cells through SIRT1-UCP2 axis. <i>Toxicology in Vitro</i> , 2020, 65, 104808.	1.1	20
54	Tissue cell differentiation and multicellular evolution via cytoskeletal stiffening in mechanically stressed microenvironments. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2019, 35, 270-274.	1.5	18

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55	Electrochemically Controlled Deconjugation and Delivery of Single Quantum Dots into the Nucleus of Living Cells. <i>Small</i> , 2010, 6, 2109-2113.	5.2	17
56	Instant integrin mechanosensing. <i>Nature Materials</i> , 2017, 16, 1173-1174.	13.3	17
57	Effects of forces on chromatin. <i>APL Bioengineering</i> , 2021, 5, 041503.	3.3	17
58	Oxalate-Degrading Enzyme Recombined Lactic Acid Bacteria Strains Reduce Hyperoxaluria. <i>Urology</i> , 2018, 113, 253.e1-253.e7.	0.5	16
59	Auxetic nuclei. <i>Nature Materials</i> , 2014, 13, 540-542.	13.3	15
60	Resveratrol attenuates excessive ethanol exposure-induced β -cell senescence in rats: A critical role for the NAD ⁺ /SIRT1-p38MAPK/p16 pathway. <i>Journal of Nutritional Biochemistry</i> , 2021, 89, 108568.	1.9	15
61	Lutein attenuates excessive lipid accumulation in differentiated 3T3-L1 cells and abdominal adipose tissue of rats by the SIRT1-mediated pathway. <i>International Journal of Biochemistry and Cell Biology</i> , 2021, 133, 105932.	1.2	15
62	LncRNA-targeting bio-scaffold mediates triple immune effects for postoperative colorectal cancer immunotherapy. <i>Biomaterials</i> , 2022, 284, 121485.	5.7	15
63	Comparison of the efficacy and feasibility of laser enucleation of bladder tumor versus transurethral resection of bladder tumor: a meta-analysis. <i>Lasers in Medical Science</i> , 2017, 32, 2005-2012.	1.0	14
64	Efficacy of Hydroxy-L-proline (HYP) analogs in the treatment of primary hyperoxaluria in <i>Drosophila Melanogaster</i> . <i>BMC Nephrology</i> , 2018, 19, 167.	0.8	13
65	1 α ,25-Dihydroxyvitamin D ₃ prevents renal oxidative damage via the PARP1/SIRT1/NOX4 pathway in Zucker diabetic fatty rats. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2020, 318, E343-E356.	1.8	13
66	Soft matrices downregulate FAK activity to promote growth of tumor-repopulating cells. <i>Biochemical and Biophysical Research Communications</i> , 2017, 483, 456-462.	1.0	11
67	Microtissue Geometry and Cell-Generated Forces Drive Patterning of Liver Progenitor Cell Differentiation in 3D. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100223.	3.9	11
68	A Novel Anticancer Stem Cell Compound Derived from Pleuromutilin Induced Necroptosis of Melanoma Cells. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 15825-15845.	2.9	11
69	Imaging Stress Propagation in the Cytoplasm of a Living Cell. <i>Methods in Cell Biology</i> , 2007, 83, 179-198.	0.5	10
70	TNF- β promoter single nucleotide polymorphisms and haplotypes associate with susceptibility of immune thrombocytopenia in Chinese adults. <i>Human Immunology</i> , 2014, 75, 980-985.	1.2	10
71	Genome-Wide DNA Methylation Enhances Stemness in the Mechanical Selection of Tumor-Repopulating Cells. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 88.	2.0	10
72	Cdc42-dependent modulation of rigidity sensing and cell spreading in tumor repopulating cells. <i>Biochemical and Biophysical Research Communications</i> , 2018, 500, 557-563.	1.0	9

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73	LAP2 ¹² transmits force to upregulate genes via chromatin domain stretching but not compression. <i>Acta Biomaterialia</i> , 2023, 163, 326-338.	4.1	8
74	Effects of lutein supplementation on inflammatory biomarkers and metabolic risk factors in adults with central obesity: study protocol for a randomised controlled study. <i>Trials</i> , 2020, 21, 32.	0.7	6
75	Germline Mutation of PLCD1 Contributes to Human Multiple Pilomatricomas through Protein Kinase D/Extracellular Signal-Regulated Kinase1/2 Cascade and TRPV6. <i>Journal of Investigative Dermatology</i> , 2021, 141, 533-544.	0.3	5
76	Rapid Polymerization of Aromatic Vinyl Monomers to Porous Organic Polymers via Acid Catalysis at Mild Condition. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1900168.	2.0	4
77	Forces in stem cells and cancer stem cells. <i>Cells and Development</i> , 2022, 170, 203776.	0.7	4
78	Cellular and Molecular Bioengineering: A Tipping Point. <i>Cellular and Molecular Bioengineering</i> , 2012, 5, 239-253.	1.0	3
79	Stem Cells Go Soft: Pliant Substrate Surfaces Enhance Motor Neuron Differentiation. <i>Cell Stem Cell</i> , 2014, 14, 701-703.	5.2	3
80	Regulation of immune-related diseases by multiple factors of chromatin, exosomes, microparticles, vaccines, oxidative stress, dormancy, protein quality control, inflammation and microenvironment: a meeting report of 2017 International Workshop of the Chinese Academy of Medical Sciences (CAMS) Initiative for Innovative Medicine on Tumor Immunology. <i>Acta Pharmaceutica Sinica B</i> , 2017, 7, 532-540.	5.7	3
81	Interactive effects of serum ferritin and high sensitivity C-reactive protein on diabetes in hypertensive patients. <i>Journal of Trace Elements in Medicine and Biology</i> , 2021, 68, 126824.	1.5	3
82	Structural basis of stress concentration in the cytoskeleton. <i>MCB Molecular and Cellular Biomechanics</i> , 2010, 7, 33-44.	0.3	3
83	Performance Analysis of the IEEE 802.11p EDCA for Vehicular Networks in Imperfect Channels. , 2021, , .		3
84	Displacement field of the cytoskeleton in response to a local load. , 0, , .		0
85	Cell Softness Prevents Cytolytic T Cell Killing of Tumor-Repopulating Cells. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
86	Prescribed Performance Tracking Control of Nonlinear Systems with Unknown Control Directions. , 2021, , .		0