

Jan Lammerding

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

104
papers

10,794
citations

49
h-index

103
g-index

150
ext. papers

12,828
ext. citations

10
avg, IF

6.68
L-index

#	Paper	IF	Citations
104	Mechanotransduction gone awry. <i>Nature Reviews Molecular Cell Biology</i> , 2009 , 10, 63-73	48.7	901
103	Lamin A/C deficiency causes defective nuclear mechanics and mechanotransduction. <i>Journal of Clinical Investigation</i> , 2004 , 113, 370-378	15.9	712
102	Nuclear envelope rupture and repair during cancer cell migration. <i>Science</i> , 2016 , 352, 353-8	33.3	710
101	Chromosomal instability drives metastasis through a cytosolic DNA response. <i>Nature</i> , 2018 , 553, 467-472	50.4	536
100	Nuclear shape, mechanics, and mechanotransduction. <i>Circulation Research</i> , 2008 , 102, 1307-18	15.7	498
99	Lamins A and C but not lamin B1 regulate nuclear mechanics. <i>Journal of Biological Chemistry</i> , 2006 , 281, 25768-80	5.4	448
98	Lamin A/C deficiency causes defective nuclear mechanics and mechanotransduction. <i>Journal of Clinical Investigation</i> , 2004 , 113, 370-8	15.9	436
97	The interaction between nesprins and sun proteins at the nuclear envelope is critical for force transmission between the nucleus and cytoskeleton. <i>Journal of Biological Chemistry</i> , 2011 , 286, 26743-53	5.4	340
96	Nuclear mechanics during cell migration. <i>Current Opinion in Cell Biology</i> , 2011 , 23, 55-64	9	329
95	Lamin A/C and emerin regulate MKL1-SRF activity by modulating actin dynamics. <i>Nature</i> , 2013 , 497, 507-514	30.4	315
94	Abnormal nuclear shape and impaired mechanotransduction in emerin-deficient cells. <i>Journal of Cell Biology</i> , 2005 , 170, 781-91	7.3	279
93	Emerging views of the nucleus as a cellular mechanosensor. <i>Nature Cell Biology</i> , 2018 , 20, 373-381	23.4	252
92	Nuclear mechanics and mechanotransduction in health and disease. <i>Current Biology</i> , 2013 , 23, R1113-21	6.3	251
91	Nuclear envelope composition determines the ability of neutrophil-type cells to passage through micron-scale constrictions. <i>Journal of Biological Chemistry</i> , 2013 , 288, 8610-8618	5.4	216
90	Broken nuclei--lamins, nuclear mechanics, and disease. <i>Trends in Cell Biology</i> , 2014 , 24, 247-56	18.3	193
89	Nuclear deformability constitutes a rate-limiting step during cell migration in 3-D environments. <i>Cellular and Molecular Bioengineering</i> , 2014 , 7, 293-306	3.9	184
88	Mechanical properties of the cell nucleus and the effect of emerin deficiency. <i>Biophysical Journal</i> , 2006 , 91, 4649-64	2.9	175

87	Prelamin A and lamin A appear to be dispensable in the nuclear lamina. <i>Journal of Clinical Investigation</i> , 2006 , 116, 743-52	15.9	175
86	Cell-surface sensors for real-time probing of cellular environments. <i>Nature Nanotechnology</i> , 2011 , 6, 524-31	28.7	167
85	A three-dimensional viscoelastic model for cell deformation with experimental verification. <i>Biophysical Journal</i> , 2003 , 85, 3336-49	2.9	157
84	Mechanotransduction in cardiac myocytes. <i>Annals of the New York Academy of Sciences</i> , 2004 , 1015, 53-70.5		153
83	Increased mechanosensitivity and nuclear stiffness in Hutchinson-Gilford progeria cells: effects of farnesyltransferase inhibitors. <i>Aging Cell</i> , 2008 , 7, 383-93	9.9	151
82	Lamins at a glance. <i>Journal of Cell Science</i> , 2012 , 125, 2087-93	5.3	142
81	Tetraspanin CD151 regulates alpha6beta1 integrin adhesion strengthening. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 7616-21	11.5	140
80	Thioredoxin-independent regulation of metabolism by the alpha-arrestin proteins. <i>Journal of Biological Chemistry</i> , 2009 , 284, 24996-5003	5.4	136
79	Myopathic lamin mutations impair nuclear stability in cells and tissue and disrupt nucleo-cytoskeletal coupling. <i>Human Molecular Genetics</i> , 2013 , 22, 2335-49	5.6	124
78	Cellular mechanosensing: getting to the nucleus of it all. <i>Progress in Biophysics and Molecular Biology</i> , 2014 , 115, 76-92	4.7	120
77	Squish and squeeze-the nucleus as a physical barrier during migration in confined environments. <i>Current Opinion in Cell Biology</i> , 2016 , 40, 32-40	9	119
76	Mechanics of the nucleus. <i>Comprehensive Physiology</i> , 2011 , 1, 783-807	7.7	100
75	Nuclear mechanics in disease. <i>Annual Review of Biomedical Engineering</i> , 2011 , 13, 397-428	12	97
74	Towards an integrated understanding of the structure and mechanics of the cell nucleus. <i>BioEssays</i> , 2008 , 30, 226-36	4.1	95
73	Keeping the LINC: the importance of nucleocytoskeletal coupling in intracellular force transmission and cellular function. <i>Biochemical Society Transactions</i> , 2011 , 39, 1729-34	5.1	91
72	Nuclear mechanics in cancer. <i>Advances in Experimental Medicine and Biology</i> , 2014 , 773, 435-70	3.6	89
71	Non-muscle myosin IIB is critical for nuclear translocation during 3D invasion. <i>Journal of Cell Biology</i> , 2015 , 210, 583-94	7.3	85
70	Integrin-mediated traction force enhances paxillin molecular associations and adhesion dynamics that increase the invasiveness of tumor cells into a three-dimensional extracellular matrix. <i>Molecular Biology of the Cell</i> , 2017 , 28, 1467-1488	3.5	84

69	Design of a microfluidic device to quantify dynamic intra-nuclear deformation during cell migration through confining environments. <i>Integrative Biology (United Kingdom)</i> , 2015 , 7, 1534-46	3.7	83
68	A Chemomechanical Model for Nuclear Morphology and Stresses during Cell Transendothelial Migration. <i>Biophysical Journal</i> , 2016 , 111, 1541-1552	2.9	82
67	The Driving Force: Nuclear Mechanotransduction in Cellular Function, Fate, and Disease. <i>Annual Review of Biomedical Engineering</i> , 2019 , 21, 443-468	12	81
66	Mutant lamins cause nuclear envelope rupture and DNA damage in skeletal muscle cells. <i>Nature Materials</i> , 2020 , 19, 464-473	27	76
65	An accumulation of non-farnesylated prelamin A causes cardiomyopathy but not progeria. <i>Human Molecular Genetics</i> , 2010 , 19, 2682-94	5.6	72
64	Cell nuclei spin in the absence of lamin b1. <i>Journal of Biological Chemistry</i> , 2007 , 282, 20015-26	5.4	72
63	Bursting the Bubble - Nuclear Envelope Rupture as a Path to Genomic Instability?. <i>Trends in Cell Biology</i> , 2017 , 27, 546-555	18.3	66
62	Lamin A/C deficiency reduces circulating tumor cell resistance to fluid shear stress. <i>American Journal of Physiology - Cell Physiology</i> , 2015 , 309, C736-46	5.4	61
61	Focal adhesion kinase signaling regulates cardiogenesis of embryonic stem cells. <i>Journal of Biological Chemistry</i> , 2005 , 280, 39534-44	5.4	61
60	Causes and consequences of nuclear envelope alterations in tumour progression. <i>European Journal of Cell Biology</i> , 2016 , 95, 449-464	6.1	60
59	Myopathic lamin mutations cause reductive stress and activate the nrf2/keap-1 pathway. <i>PLoS Genetics</i> , 2015 , 11, e1005231	6	59
58	Direct synthesis of lamin A, bypassing prelamin a processing, causes misshapen nuclei in fibroblasts but no detectable pathology in mice. <i>Journal of Biological Chemistry</i> , 2010 , 285, 20818-26	5.4	59
57	Protein farnesylation inhibitors cause donut-shaped cell nuclei attributable to a centrosome separation defect. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 4997-5002	11.5	58
56	Nonlinear microrheology of an aging, yield stress fluid using magnetic tweezers. <i>Soft Matter</i> , 2011 , 7, 9933	3.6	49
55	Attenuated hypertrophic response to pressure overload in a lamin A/C haploinsufficiency mouse. <i>Journal of Molecular and Cellular Cardiology</i> , 2010 , 48, 1290-7	5.8	48
54	Nuclear mechanics and methods. <i>Methods in Cell Biology</i> , 2007 , 83, 269-94	1.8	45
53	Biochemical and mechanical dysfunction in a mouse model of desmin-related myopathy. <i>Circulation Research</i> , 2009 , 104, 1021-8	15.7	42
52	Cellular and molecular remodelling of a host cell for vertical transmission of bacterial symbionts. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016 , 283,	4.4	40

51	Nuclear envelope rupture: Actin fibers are putting the squeeze on the nucleus. <i>Journal of Cell Biology</i> , 2016 , 215, 5-8	7.3	37
50	Consequences of a tight squeeze: Nuclear envelope rupture and repair. <i>Nucleus</i> , 2017 , 8, 268-274	3.9	36
49	Nuclear Deformation Causes DNA Damage by Increasing Replication Stress. <i>Current Biology</i> , 2021 , 31, 753-765.e6	6.3	35
48	Cell migration through three-dimensional confining pores: speed accelerations by deformation and recoil of the nucleus. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019 , 374, 20180225	5.8	32
47	Local, transient tensile stress on the nuclear membrane causes membrane rupture. <i>Molecular Biology of the Cell</i> , 2019 , 30, 899-906	3.5	31
46	Altering lamina assembly reveals lamina-dependent and -independent functions for A-type lamins. <i>Journal of Cell Science</i> , 2015 , 128, 3607-20	5.3	29
45	Confinement hinders motility by inducing RhoA-mediated nuclear influx, volume expansion, and blebbing. <i>Journal of Cell Biology</i> , 2019 , 218, 4093-4111	7.3	29
44	High-throughput microfluidic micropipette aspiration device to probe time-scale dependent nuclear mechanics in intact cells. <i>Lab on A Chip</i> , 2019 , 19, 3652-3663	7.2	27
43	Myosin IIA suppresses glioblastoma development in a mechanically sensitive manner. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 15550-15559	11.5	26
42	Aberrant Compartment Formation by HSPB2 Mislocalizes Lamin A and Compromises Nuclear Integrity and Function. <i>Cell Reports</i> , 2017 , 20, 2100-2115	10.6	25
41	The Nuclear Membrane and Mechanotransduction: Impaired Nuclear Mechanics and Mechanotransduction in Lamin A/C Deficient Cells. <i>Novartis Foundation Symposium</i> , 2008 , 264-278		24
40	Frontline Science: Elevated nuclear lamin A is permissive for granulocyte transendothelial migration but not for motility through collagen I barriers. <i>Journal of Leukocyte Biology</i> , 2018 , 104, 239-251	6.5	22
39	The cellular mastermind(?) -mechanotransduction and the nucleus. <i>Progress in Molecular Biology and Translational Science</i> , 2014 , 126, 157-203	4	20
38	Beyond Tissue Stiffness and Bioadhesivity: Advanced Biomaterials to Model Tumor Microenvironments and Drug Resistance. <i>Trends in Cancer</i> , 2018 , 4, 281-291	12.5	19
37	Altered mechanical properties of the nucleus in disease. <i>Methods in Cell Biology</i> , 2010 , 98, 121-41	1.8	19
36	Experimental techniques for study of chromatin mechanics in intact nuclei and living cells. <i>Chromosome Research</i> , 2008 , 16, 499-510	4.4	19
35	The nuclear membrane and mechanotransduction: impaired nuclear mechanics and mechanotransduction in lamin A/C deficient cells. <i>Novartis Foundation Symposium</i> , 2005 , 264, 264-73; discussion 273-8		18
34	Automated analysis of cell migration and nuclear envelope rupture in confined environments. <i>PLoS ONE</i> , 2018 , 13, e0195664	3.7	17

33	Mechanical properties of interphase nuclei probed by cellular strain application. <i>Methods in Molecular Biology</i> , 2009 , 464, 13-26	1.4	16
32	Biophysical assays to probe the mechanical properties of the interphase cell nucleus: substrate strain application and microneedle manipulation. <i>Journal of Visualized Experiments</i> , 2011 ,	1.6	14
31	Assays to measure nuclear mechanics in interphase cells. <i>Current Protocols in Cell Biology</i> , 2012 , Chapter 22, Unit22.16	2.3	14
30	Torn apart: membrane rupture in muscular dystrophies and associated cardiomyopathies. <i>Journal of Clinical Investigation</i> , 2007 , 117, 1749-52	15.9	14
29	Cell Mechanical and Physiological Behavior in the Regime of Rapid Mechanical Compressions that Lead to Cell Volume Change. <i>Small</i> , 2020 , 16, e1903857	11	13
28	Hydroxyapatite mineral enhances malignant potential in a tissue-engineered model of ductal carcinoma in situ (DCIS). <i>Biomaterials</i> , 2019 , 224, 119489	15.6	12
27	Cellular Nanomechanics 2010 , 1171-1200		12
26	Quantitative measurements of active and passive mechanical properties of adult cardiac myocytes. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2003 , 22, 124-7		10
25	Cell mechanotransduction: Stretch to express. <i>Nature Materials</i> , 2016 , 15, 1227-1229	27	9
24	Novel insights into the disease etiology of laminopathies. <i>Rare Diseases (Austin, Tex)</i> , 2013 , 1, e27002		9
23	Engineering approaches to studying cancer cell migration in three-dimensional environments. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019 , 374, 20180219	5.8	8
22	Cell Microharpooning to Study Nucleo-Cytoskeletal Coupling. <i>Methods in Molecular Biology</i> , 2016 , 1411, 241-54	1.4	8
21	Three-dimensional cardiac architecture determined by two-photon microtomy. <i>Journal of Biomedical Optics</i> , 2009 , 14, 044029	3.5	7
20	Lamin B2 follows lamin A/C- mediated nuclear mechanics and cancer cell invasion efficacy		7
19	Connecting the plasma membrane to the nucleus by intermediate filaments. <i>Molecular Biology of the Cell</i> , 2017 , 28, 695-696	3.5	6
18	Assembly and Use of a Microfluidic Device to Study Cell Migration in Confined Environments. <i>Methods in Molecular Biology</i> , 2018 , 1840, 101-118	1.4	6
17	Signaling pathways that influence extracellular remodeling. <i>Journal of Cardiac Failure</i> , 2002 , 8, S339-43	3.3	5
16	Nuclear deformation causes DNA damage by increasing replication stress		5

15	Genetically engineered and enucleated human mesenchymal stromal cells for the targeted delivery of therapeutics to diseased tissue.. <i>Nature Biomedical Engineering</i> , 2021 ,	19	4
14	Mechanics and functional consequences of nuclear deformations.. <i>Nature Reviews Molecular Cell Biology</i> , 2022 ,	48.7	4
13	Mutant lamins cause nuclear envelope rupture and DNA damage in skeletal muscle cells		3
12	Confined Migration Induces Heterochromatin Formation and Alters Chromatin Accessibility		3
11	Nuclear Deformation Lets Cells Gauge Their Physical Confinement. <i>Developmental Cell</i> , 2021 , 56, 156-158	10.2	3
10	Cellular Nanomechanics. <i>Springer Handbooks</i> , 2017 , 1069-1100	1.3	2
9	Tunable 3D Hydrogel Microchannel Networks to Study Confined Mammalian Cell Migration. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2100625	10.1	2
8	PP2A inhibitor PME-1 suppresses anoikis, and is associated with therapy relapse of PTEN-deficient prostate cancers		2
7	Low lamin A levels enhance confined cell migration and metastatic capacity in breast cancer		2
6	Another broken heart: loss of lamina-associated polypeptide 2alpha causes systolic dysfunction. <i>Circulation Research</i> , 2010 , 106, 234-7	15.7	1
5	High-throughput microfluidic micropipette aspiration device to probe time-scale dependent nuclear mechanics in intact cells		1
4	Feeling Stressed? Piezo1-Mediated Loss of Heterochromatin Buys Time for Long-Term Adaptation. <i>Cell</i> , 2020 , 181, 760-762	56.2	1
3	Chemical-Genetic Interrogation of Nuclear Size Control Reveals Cancer-Specific Effects on Cell Migration and Invasion		1
2	Quantifying force transmission through fibroblasts: changes of traction forces under external shearing. <i>European Biophysics Journal</i> , 2021 , 1	1.9	0
1	Assembly and Use of a Microfluidic Device to Study Nuclear Mechanobiology During Confined Migration.. <i>Methods in Molecular Biology</i> , 2022 , 2502, 329-349	1.4	