

Jeffrey J Fredberg

List of Publications by Year in descending order

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173
papers

17,906
citations

14655

66
h-index

14759

127
g-index

195
all docs

195
docs citations

195
times ranked

12178
citing authors

#	ARTICLE	IF	CITATIONS
1	Scaling the Microrheology of Living Cells. <i>Physical Review Letters</i> , 2001, 87, 148102.	7.8	1,056
2	Physical forces during collective cell migration. <i>Nature Physics</i> , 2009, 5, 426-430.	16.7	989
3	Traction fields, moments, and strain energy that cells exert on their surroundings. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 282, C595-C605.	4.6	886
4	Collective cell guidance by cooperative intercellular forces. <i>Nature Materials</i> , 2011, 10, 469-475.	27.5	781
5	Universal physical responses to stretch in the living cell. <i>Nature</i> , 2007, 447, 592-595.	27.8	626
6	Glass-like dynamics of collective cell migration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 4714-4719.	7.1	593
7	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.	4.6	591
8	Unjamming and cell shape in the asthmatic airway epithelium. <i>Nature Materials</i> , 2015, 14, 1040-1048.	27.5	484
9	Cytoskeletal remodelling and slow dynamics in the living cell. <i>Nature Materials</i> , 2005, 4, 557-561.	27.5	434
10	Mechanical waves during tissue expansion. <i>Nature Physics</i> , 2012, 8, 628-634.	16.7	418
11	Cell volume change through water efflux impacts cell stiffness and stem cell fate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8618-E8627.	7.1	362
12	Time scale and other invariants of integrative mechanical behavior in living cells. <i>Physical Review E</i> , 2003, 68, 041914.	2.1	317
13	Normal and Cystic Fibrosis Airway Surface Liquid Homeostasis. <i>Journal of Biological Chemistry</i> , 2005, 280, 35751-35759.	3.4	298
14	Fast and slow dynamics of the cytoskeleton. <i>Nature Materials</i> , 2006, 5, 636-640.	27.5	279
15	Cell Migration Driven by Cooperative Substrate Deformation Patterns. <i>Physical Review Letters</i> , 2010, 104, 168104.	7.8	247
16	Reinforcement versus Fluidization in Cytoskeletal Mechanoresponsiveness. <i>PLoS ONE</i> , 2009, 4, e5486.	2.5	232
17	The Use and Misuse of Penh in Animal Models of Lung Disease. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2004, 31, 373-374.	2.9	228
18	The Role of Vimentin Intermediate Filaments in Cortical and Cytoplasmic Mechanics. <i>Biophysical Journal</i> , 2013, 105, 1562-1568.	0.5	225

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19	Cell Elasticity Determines Macrophage Function. PLoS ONE, 2012, 7, e41024.	2.5	220
20	A Microstructural Approach to Cytoskeletal Mechanics based on Tensegrity. Journal of Theoretical Biology, 1996, 181, 125-136.	1.7	212
21	Plithotaxis and emergent dynamics in collective cellular migration. Trends in Cell Biology, 2011, 21, 638-646.	7.9	211
22	Friction in airway smooth muscle: mechanism, latch, and implications in asthma. Journal of Applied Physiology, 1996, 81, 2703-2703.	2.5	208
23	Substrate stiffening promotes endothelial monolayer disruption through enhanced physical forces. American Journal of Physiology - Cell Physiology, 2011, 300, C146-C154.	4.6	205
24	Obesity, smooth muscle, and airway hyperresponsiveness. Journal of Allergy and Clinical Immunology, 2005, 115, 925-927.	2.9	203
25	Collective migration and cell jamming. Differentiation, 2013, 86, 121-125.	1.9	202
26	Geometric constraints during epithelial jamming. Nature Physics, 2018, 14, 613-620.	16.7	196
27	A finite element model of cell deformation during magnetic bead twisting. Journal of Applied Physiology, 2002, 93, 1429-1436.	2.5	185
28	Cell swelling, softening and invasion in a three-dimensional breast cancer model. Nature Physics, 2020, 16, 101-108.	16.7	176
29	Biomechanics: Cell Research and Applications for the Next Decade. Annals of Biomedical Engineering, 2009, 37, 847-859.	2.5	169
30	Selected Contribution: Time course and heterogeneity of contractile responses in cultured human airway smooth muscle cells. Journal of Applied Physiology, 2001, 91, 986-994.	2.5	167
31	Propulsion and navigation within the advancing monolayer sheet. Nature Materials, 2013, 12, 856-863.	27.5	161
32	Fractional Derivatives Embody Essential Features of Cell Rheological Behavior. Annals of Biomedical Engineering, 2003, 31, 692-699.	2.5	157
33	Monolayer Stress Microscopy: Limitations, Artifacts, and Accuracy of Recovered Intercellular Stresses. PLoS ONE, 2013, 8, e55172.	2.5	156
34	Stiffness changes in cultured airway smooth muscle cells. American Journal of Physiology - Cell Physiology, 2002, 283, C792-C801.	4.6	153
35	Mechanical properties of cultured human airway smooth muscle cells from 0.05 to 0.4 Hz. Journal of Applied Physiology, 2000, 89, 1619-1632.	2.5	146
36	Altered mechanobiology of Schlemm's canal endothelial cells in glaucoma. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13876-13881.	7.1	144

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37	Measurement of cell microrheology by magnetic twisting cytometry with frequency domain demodulation. <i>Journal of Applied Physiology</i> , 2001, 91, 1152-1159.	2.5	136
38	Cellular Contraction and Polarization Drive Collective Cellular Motion. <i>Biophysical Journal</i> , 2016, 110, 2729-2738.	0.5	135
39	Biomechanics of Schlemm's canal endothelium and intraocular pressure reduction. <i>Progress in Retinal and Eye Research</i> , 2015, 44, 86-98.	15.5	133
40	Perhaps Airway Smooth Muscle Dysfunction Contributes to Asthmatic Bronchial Hyperresponsiveness After All. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 1997, 17, 144-146.	2.9	129
41	Rheology of airway smooth muscle cells is associated with cytoskeletal contractile stress. <i>Journal of Applied Physiology</i> , 2004, 96, 1600-1605.	2.5	128
42	Collective migration and cell jamming in asthma, cancer and development. <i>Journal of Cell Science</i> , 2016, 129, 3375-83.	2.0	126
43	Perturbed Equilibria of Myosin Binding in Airway Smooth Muscle: Bond-Length Distributions, Mechanics, and ATP Metabolism. <i>Biophysical Journal</i> , 2000, 79, 2667-2681.	0.5	123
44	Airway Hyperresponsiveness, Remodeling, and Smooth Muscle Mass. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2007, 37, 264-272.	2.9	122
45	The first three minutes: smooth muscle contraction, cytoskeletal events, and soft glasses. <i>Journal of Applied Physiology</i> , 2003, 95, 413-425.	2.5	121
46	Universality in cell mechanics. <i>Soft Matter</i> , 2008, 4, 1750.	2.7	116
47	Linearity and time-scale invariance of the creep function in living cells. <i>Journal of the Royal Society Interface</i> , 2004, 1, 91-97.	3.4	115
48	Do Biophysical Properties of the Airway Smooth Muscle in Culture Predict Airway Hyperresponsiveness?. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2006, 35, 55-64.	2.9	115
49	Defining the role of syndecan-4 in mechanotransduction using surface-modification approaches. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 22102-22107.	7.1	109
50	Cytoskeletal stiffness, friction, and fluidity of cancer cell lines with different metastatic potential. <i>Clinical and Experimental Metastasis</i> , 2013, 30, 237-250.	3.3	107
51	In primary airway epithelial cells, the unjamming transition is distinct from the epithelial-to-mesenchymal transition. <i>Nature Communications</i> , 2020, 11, 5053.	12.8	107
52	STRESS TRANSMISSION IN THE LUNG: Pathways from Organ to Molecule. <i>Annual Review of Physiology</i> , 2006, 68, 507-541.	18.1	104
53	Relaxation of activated airway smooth muscle: relative potency of isoproterenol vs. tidal stretch. <i>Journal of Applied Physiology</i> , 2001, 90, 2306-2310.	2.5	103
54	Fluid shear, intercellular stress, and endothelial cell alignment. <i>American Journal of Physiology - Cell Physiology</i> , 2015, 308, C657-C664.	4.6	100

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55	Understanding the pressure cost of ventilation: Why does high-frequency ventilation work?. Critical Care Medicine, 1994, 22, S49-S57.	0.9	97
56	Fluidization and Resolidification of the Human Bladder Smooth Muscle Cell in Response to Transient Stretch. PLoS ONE, 2010, 5, e12035.	2.5	94
57	Pulmonary Surfactant as a Vehicle for Intratracheal Delivery of Technetium Sulfur Colloid and Pentamidine in Hamster Lungs. The American Review of Respiratory Disease, 1991, 144, 909-913.	2.9	93
58	Cytoskeleton dynamics: Fluctuations within the network. Biochemical and Biophysical Research Communications, 2007, 355, 324-330.	2.1	90
59	Dilatation of the Constricted Human Airway by Tidal Expansion of Lung Parenchyma. American Journal of Respiratory and Critical Care Medicine, 2012, 186, 225-232.	5.6	90
60	Frozen objects: Small airways, big breaths, and asthma. Journal of Allergy and Clinical Immunology, 2000, 106, 615-624.	2.9	88
61	Role of heat shock protein 27 in cytoskeletal remodeling of the airway smooth muscle cell. Journal of Applied Physiology, 2004, 96, 1701-1713.	2.5	83
62	On the terminology for describing the length-force relationship and its changes in airway smooth muscle. Journal of Applied Physiology, 2004, 97, 2029-2034.	2.5	81
63	Mechanism of Inspiratory and Expiratory Crackles. Chest, 2009, 135, 156-164.	0.8	79
64	Implications of heterogeneous bead behavior on cell mechanical properties measured with magnetic twisting cytometry. Journal of Magnetism and Magnetic Materials, 1999, 194, 120-125.	2.3	77
65	Low intensity ultrasound perturbs cytoskeleton dynamics. Soft Matter, 2012, 8, 2438.	2.7	73
66	Dynamic equilibration of airway smooth muscle contraction during physiological loading. Journal of Applied Physiology, 2002, 92, 771-779.	2.5	71
67	Cell stiffness, contractile stress and the role of extracellular matrix. Biochemical and Biophysical Research Communications, 2009, 382, 697-703.	2.1	67
68	Remodeling of the airway smooth muscle cell: are we built of glass?. Respiratory Physiology and Neurobiology, 2003, 137, 109-124.	1.6	66
69	Mapping the cytoskeletal prestress. American Journal of Physiology - Cell Physiology, 2010, 298, C1245-C1252.	4.6	66
70	Long-lived force patterns and deformation waves at repulsive epithelial boundaries. Nature Materials, 2017, 16, 1029-1037.	27.5	65
71	High-throughput screening for modulators of cellular contractile force. Integrative Biology (United Kingdom), 2017, 9, 115-124.	1.3	60
72	Bronchospasm and its biophysical basis in airway smooth muscle. Respiratory Research, 2004, 5, 2.	3.6	59

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73	Inspiratory valving in avian bronchi: aerodynamic considerations. <i>Respiration Physiology</i> , 1988, 72, 241-255.	2.7	58
74	Mechanosensing of substrate thickness. <i>Physical Review E</i> , 2010, 82, 041918.	2.1	58
75	Fluidization, resolidification, and reorientation of the endothelial cell in response to slow tidal stretches. <i>American Journal of Physiology - Cell Physiology</i> , 2012, 303, C368-C375.	4.6	54
76	Bird lung models show that convective inertia effects inspiratory aerodynamic valving. <i>Respiration Physiology</i> , 1988, 73, 111-124.	2.7	53
77	Discrete lung sounds: Crackles (rales) as stress-relaxation quadrupoles. <i>Journal of the Acoustical Society of America</i> , 1983, 73, 1036-1046.	1.1	51
78	Airway smooth muscle and bronchospasm: Fluctuating, fluidizing, freezing. <i>Respiratory Physiology and Neurobiology</i> , 2008, 163, 17-24.	1.6	49
79	Origin and character of vascular murmurs: Model studies. <i>Journal of the Acoustical Society of America</i> , 1977, 61, 1077-1085.	1.1	47
80	Force heterogeneity in a two-dimensional network model of lung tissue elasticity. <i>Journal of Applied Physiology</i> , 1998, 85, 1223-1229.	2.5	46
81	Probe Sensitivity to Cortical versus Intracellular Cytoskeletal Network Stiffness. <i>Biophysical Journal</i> , 2019, 116, 518-529.	0.5	46
82	Interleukin-1β and tumor necrosis factor-α increase stiffness and impair contractile function of articular chondrocytes. <i>Acta Biochimica Et Biophysica Sinica</i> , 2015, 47, 121-129.	2.0	43
83	A novel jamming phase diagram links tumor invasion to non-equilibrium phase separation. <i>IScience</i> , 2021, 24, 103252.	4.1	43
84	Unjamming and collective migration in MCF10A breast cancer cell lines. <i>Biochemical and Biophysical Research Communications</i> , 2020, 521, 706-715.	2.1	42
85	Inhibition of the p38 MAP kinase pathway destabilizes smooth muscle length during physiological loading. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2002, 282, L1117-L1121.	2.9	40
86	Mush rather than machine. <i>Nature Materials</i> , 2013, 12, 184-185.	27.5	40
87	Airway Contractility in the Precision-Cut Lung Slice after Cryopreservation. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2014, 50, 876-881.	2.9	40
88	Pressure profiles show features essential to aerodynamic valving in geese. <i>Respiration Physiology</i> , 1991, 84, 295-309.	2.7	39
89	Class-like dynamics in the cell and in cellular collectives. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2014, 6, 137-149.	6.6	39
90	Stretch magnitude and frequency-dependent actin cytoskeleton remodeling in alveolar epithelia. <i>American Journal of Physiology - Cell Physiology</i> , 2010, 299, C345-C353.	4.6	38

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91	Airway smooth muscle tone modulates mechanically induced cytoskeletal stiffening and remodeling. <i>Journal of Applied Physiology</i> , 2005, 99, 634-641.	2.5	37
92	Filamin-A and Rheological Properties of Cultured Melanoma Cells. <i>Biophysical Journal</i> , 2006, 90, 2199-2205.	0.5	36
93	A novel method to make viscoelastic polyacrylamide gels for cell culture and traction force microscopy. <i>APL Bioengineering</i> , 2020, 4, 036104.	6.2	36
94	Tidal volume amplitude affects the degree of induced bronchoconstriction in dogs. <i>Journal of Applied Physiology</i> , 1999, 87, 1674-1677.	2.5	35
95	Modulation of host cell mechanics by <i>Trypanosoma cruzi</i> . <i>Journal of Cellular Physiology</i> , 2009, 218, 315-322.	4.1	34
96	Mechanical forces induce an asthma gene signature in healthy airway epithelial cells. <i>Scientific Reports</i> , 2020, 10, 966.	3.3	34
97	Nuclear lamin isoforms differentially contribute to LINC complex-dependent nucleocytoskeletal coupling and whole-cell mechanics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2121816119.	7.1	33
98	Problems in biology with many scales of length: Cell-cell adhesion and cell jamming in collective cellular migration. <i>Experimental Cell Research</i> , 2016, 343, 54-59.	2.6	32
99	Epithelial layer unjamming shifts energy metabolism toward glycolysis. <i>Scientific Reports</i> , 2020, 10, 18302.	3.3	30
100	Are cell jamming and unjamming essential in tissue development?. <i>Cells and Development</i> , 2021, 168, 203727.	1.5	30
101	Putting the Squeeze on Airway Epithelia. <i>Physiology</i> , 2015, 30, 293-303.	3.1	29
102	Deformability, dynamics, and remodeling of cytoskeleton of the adherent living cell. <i>Biorheology</i> , 2006, 43, 1-30.	0.4	29
103	Oscillatory magnetic tweezers based on ferromagnetic beads and simple coaxial coils. <i>Review of Scientific Instruments</i> , 2003, 74, 4012-4020.	1.3	28
104	Vimentin intermediate filaments and filamentous actin form unexpected interpenetrating networks that redefine the cell cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2115217119.	7.1	28
105	Axial dispersion of inert species in alveolated channels. <i>Chemical Engineering Science</i> , 1991, 46, 1419-1426.	3.8	25
106	Airway obstruction in asthma: does the response to a deep inspiration matter?. <i>Respiratory Research</i> , 2001, 2, 273.	3.6	25
107	Biophysical basis for airway hyperresponsiveness This article is one of a selection of papers published in the Special Issue on Recent Advances in Asthma Research.. <i>Canadian Journal of Physiology and Pharmacology</i> , 2007, 85, 700-714.	1.4	25
108	The actin regulator zyxin reinforces airway smooth muscle and accumulates in airways of fatal asthmatics. <i>PLoS ONE</i> , 2017, 12, e0171728.	2.5	25

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109	A theoretical model of collective cell polarization and alignment. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 137, 103860.	4.8	25
110	Remodeling of Integrated Contractile Tissues and Its Dependence on Strain-Rate Amplitude. <i>Physical Review Letters</i> , 2010, 105, 158102.	7.8	24
111	Transient stretch induces cytoskeletal fluidization through the severing action of cofilin. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2018, 314, L799-L807.	2.9	24
112	Length adaptation of airway smooth muscle: a stochastic model of cytoskeletal dynamics. <i>Journal of Applied Physiology</i> , 2005, 99, 2087-2098.	2.5	23
113	Glassy Dynamics, Cell Mechanics, and Endothelial Permeability. <i>Journal of Physical Chemistry B</i> , 2013, 117, 12850-12856.	2.6	23
114	Directional memory and caged dynamics in cytoskeletal remodelling. <i>Biochemical and Biophysical Research Communications</i> , 2007, 360, 797-801.	2.1	22
115	Acoustic determinants of respiratory system properties. <i>Annals of Biomedical Engineering</i> , 1981, 9, 463-473.	2.5	21
116	Power Steering, Power Brakes, and Jamming: Evolution of Collective Cell-Cell Interactions. <i>Physiology</i> , 2014, 29, 218-219.	3.1	21
117	Airway and Parenchymal Strains during Bronchoconstriction in the Precision Cut Lung Slice. <i>Frontiers in Physiology</i> , 2016, 7, 309.	2.8	21
118	Tidal breathing pattern differentially antagonizes bronchoconstriction in C57BL/6J vs. A/J mice. <i>Journal of Applied Physiology</i> , 2006, 101, 249-255.	2.5	20
119	COUNTERPOINT: AIRWAY SMOOTH MUSCLE IS NOT USEFUL. <i>Journal of Applied Physiology</i> , 2007, 102, 1709-1710.	2.5	20
120	Homogenizing cellular tension by hepatocyte growth factor in expanding epithelial monolayer. <i>Scientific Reports</i> , 2017, 7, 45844.	3.3	20
121	Tumorigenic mesenchymal clusters are less sensitive to moderate osmotic stresses due to low amounts of junctional E-cadherin. <i>Scientific Reports</i> , 2021, 11, 16279.	3.3	19
122	A modal perspective of lung response. <i>Journal of the Acoustical Society of America</i> , 1978, 63, 962-966.	1.1	18
123	Hidden in the mist no more: physical force in cell biology. <i>Nature Methods</i> , 2016, 13, 124-125.	19.0	18
124	Non-equilibrium cytoquake dynamics in cytoskeletal remodeling and stabilization. <i>Soft Matter</i> , 2016, 12, 8506-8511.	2.7	17
125	Smooth muscle length adaptation and actin filament length: a network model of the cytoskeletal dysregulation. <i>Canadian Journal of Physiology and Pharmacology</i> , 2005, 83, 923-931.	1.4	16
126	Long-range stress transmission guides endothelial gap formation. <i>Biochemical and Biophysical Research Communications</i> , 2018, 495, 749-754.	2.1	16

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127	Mechanotransduction, asthma and airway smooth muscle. <i>Drug Discovery Today: Disease Models</i> , 2007, 4, 131-137.	1.2	15
128	Emergence of airway smooth muscle functions related to structural malleability. <i>Journal of Applied Physiology</i> , 2011, 110, 1130-1135.	2.5	15
129	Anti-fibrotic effects of tannic acid through regulation of a sustained TGF-beta receptor signaling. <i>Respiratory Research</i> , 2019, 20, 168.	3.6	15
130	Hypercompliant Apical Membranes of Bladder Umbrella Cells. <i>Biophysical Journal</i> , 2014, 107, 1273-1279.	0.5	14
131	Genomic signatures of the unjamming transition in compressed human bronchial epithelial cells. <i>Science Advances</i> , 2021, 7, .	10.3	14
132	Cell Jamming in the Airway Epithelium. <i>Annals of the American Thoracic Society</i> , 2016, 13, S64-S67.	3.2	14
133	Airway smooth muscle proliferation and mechanics: effects of AMP kinase agonists. <i>MCB Molecular and Cellular Biomechanics</i> , 2007, 4, 143-57.	0.7	14
134	Smooth muscle in human bronchi is disposed to resist airway distension. <i>Respiratory Physiology and Neurobiology</i> , 2016, 229, 51-58.	1.6	13
135	Contribution of rostral fluid shift to intrathoracic airway narrowing in asthma. <i>Journal of Applied Physiology</i> , 2017, 122, 809-816.	2.5	12
136	The tumor suppressor p53 can promote collective cellular migration. <i>PLoS ONE</i> , 2019, 14, e0202065.	2.5	12
137	And I hope you like jamming too. <i>New Journal of Physics</i> , 2015, 17, 091001.	2.9	11
138	Reduced Baseline Airway Caliber Relates to Larger Airway Sensitivity to Rostral Fluid Shift in Asthma. <i>Frontiers in Physiology</i> , 2017, 8, 1012.	2.8	11
139	Contact guidance and collective migration in the advancing epithelial monolayer. <i>Connective Tissue Research</i> , 2018, 59, 309-315.	2.3	11
140	Traction microscopy with integrated microfluidics: responses of the multi-cellular island to gradients of HGF. <i>Lab on A Chip</i> , 2019, 19, 1579-1588.	6.0	11
141	Strange Dynamics of a Dynamic Cytoskeleton. <i>Proceedings of the American Thoracic Society</i> , 2008, 5, 58-61.	3.5	9
142	Percolation in a network with long-range connections: Implications for cytoskeletal structure and function. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2009, 388, 1521-1526.	2.6	8
143	Mechanical signaling in a pulmonary microvascular endothelial cell monolayer. <i>Biochemical and Biophysical Research Communications</i> , 2019, 519, 337-343.	2.1	8
144	Airway smooth muscle tone increases actin filamentogenesis and contractile capacity. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2020, 318, L442-L451.	2.9	8

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145	On the origins of order. <i>Soft Matter</i> , 2022, 18, 2346-2353.	2.7	8
146	Nanomechanics of lung epithelial cells. <i>International Journal of Nanotechnology</i> , 2005, 2, 180.	0.2	7
147	Epithelial Cells Induce a Cyclo-Oxygenase-1-Dependent Endogenous Reduction in Airway Smooth Muscle Contractile Phenotype. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2017, 57, 683-691.	2.9	7
148	Extraction and reconstitution of calponin and consequent contractile ability in permeabilized smooth muscle fibers. <i>Analytical Biochemistry</i> , 2003, 321, 8-21.	2.4	6
149	Validation of a Novel Compact System for the Measurement of Lung Volumes. <i>Chest</i> , 2021, 159, 2356-2365.	0.8	6
150	Mechanical Compression of Human Airway Epithelial Cells Induces Release of Extracellular Vesicles Containing Tenascin C. <i>Cells</i> , 2022, 11, 256.	4.1	6
151	Pulling it together in three dimensions. <i>Nature Methods</i> , 2010, 7, 963-965.	19.0	5
152	Illuminating human health through cell mechanics. <i>Swiss Medical Weekly</i> , 2013, 143, w13766.	1.6	4
153	Continuum scaling for spreading drops. <i>Nature</i> , 1989, 340, 24-24.	27.8	3
154	Aerosol deposition in the pulmonary acinus. <i>Journal of Aerosol Science</i> , 1992, 23, 461-464.	3.8	3
155	Collective cell guidance by cooperative intercellular forces. <i>Nature Precedings</i> , 2010, , .	0.1	3
156	Comment on "Intracellular stresses in patterned cell assemblies" by M. Moussus et al., <i>Soft Matter</i> , 2014, 10, 7681-7682.	2.7	3
157	Relationship between velocities, tractions, and intercellular stresses in the migrating epithelial monolayer. <i>Physical Review E</i> , 2020, 101, 062405.	2.1	2
158	Clinical measurement of airway area profile by a new acoustic reflection method. <i>Journal of Biomechanics</i> , 1994, 27, 859.	2.1	1
159	In Bronchospasm, Fluctuations Come to Life. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2011, 184, 1321-1322.	5.6	1
160	Real estate of monolayer permeability: location location location. <i>Laboratory Investigation</i> , 2013, 93, 148-150.	3.7	1
161	Emergent Behaviors in Cell Mechanics. , 2016, , 41-55.		1
162	Scaling Physiologic Function from Cell to Tissue in Asthma, Cancer, and Development. <i>Annals of the American Thoracic Society</i> , 2018, 15, S35-S37.	3.2	1

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163	Traction Microscopy Integrated with Microfluidics for Chemotactic Collective Migration. Journal of Visualized Experiments, 2019, , .	0.3	1
164	Airway Smooth Muscle Mechanics, Remodeling and Proliferation: Effects of Aicar and Metformin. , 2006, , .		0
165	Biophysical Basis of Airway Smooth Muscle Contraction and Hyperresponsiveness in Asthma. , 0, , 1-30.		0
166	<i>Physiology</i>'s Impact: Applying Mathematics and Advanced Technologies. Physiology, 2013, 28, 363-365.	3.1	0
167	Jeffrey Fredberg: Flow under pressure. Journal of Cell Biology, 2015, 210, 868-869.	5.2	0
168	Viscoelasticity of the human red blood cell. FASEB Journal, 2006, 20, A280.	0.5	0
169	Cytoskeletal Fluidization and Resolidification are Required for Reorientation of Endothelial Cells. , 2012, , .		0
170	Airway smooth muscle resolidification after stretch, but not static contractile force, is dependent on zyxin. FASEB Journal, 2013, 27, 723.2.	0.5	0
171	Monolayer Stress Microscopy: limitations, artifacts, and accuracy of recovered intercellular stresses. FASEB Journal, 2013, 27, 1217.5.	0.5	0
172	Bioâ€Mechanical Properties of the Mammalian Urothelium. FASEB Journal, 2013, 27, 1217.6.	0.5	0
173	Navigation within the cellular monolayer. FASEB Journal, 2013, 27, 1217.18.	0.5	0