Michael P Sheetz

List of Publications by Year
in descending order

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50	11,673	126907	206112
papers	citations	33 h-index	48 g-index

58	58	58	10518
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Local contractions regulate E-cadherin rigidity sensing. Science Advances, 2022, 8, eabk0387.	10.3	11
2	Rapid recruitment of p53 to DNA damage sites directs DNA repair choice and integrity. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2113233119.	7.1	39
3	Application of piconewton forces to individual filopodia reveals mechanosensory role of L-type Ca2+ channels. Biomaterials, 2022, 284, 121477.	11.4	15
4	Competition for shared downstream signaling molecules establishes indirect negative feedback between EGFR and EphA2. Biophysical Journal, 2022, 121, 1897-1908.	0.5	3
5	When PIP2 Meets p53: Nuclear Phosphoinositide Signaling in the DNA Damage Response. Frontiers in Cell and Developmental Biology, 2022, 10, .	3.7	6
6	Î±-Catenin links integrin adhesions to F-actin to regulate ECM mechanosensing and rigidity dependence. Journal of Cell Biology, 2022, 221, .	5.2	2
7	Enhanced tumor cell killing by ultrasound after microtubule depolymerization. Bioengineering and Translational Medicine, 2021, 6, e10233.	7.1	16
8	Mechanobiology in cardiac mechanics. Biophysical Reviews, 2021, 13, 583-585.	3.2	7
9	Selective killing of transformed cells by mechanical stretch. Biomaterials, 2021, 275, 120866.	11.4	25
10	Adaptive mechanoproperties mediated by the formin FMN1 characterize glioblastoma fitness for invasion. Developmental Cell, 2021, 56, 2841-2855.e8.	7.0	12
11	EML webinar overview: Mechanical stresses kill tumor cells. Extreme Mechanics Letters, 2021, 49, 101461.	4.1	0
12	Stopping transformed cancer cell growth by rigidity sensing. Nature Materials, 2020, 19, 239-250.	27.5	81
13	Micro-stepping Extended Focus reduces photobleaching and preserves structured illumination super-resolution features. Journal of Cell Science, 2020, 133, .	2.0	4
14	Cell response to substrate rigidity is regulated by active and passive cytoskeletal stress. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12817-12825.	7.1	122
15	A Tale of Two States: Normal and Transformed, With and Without Rigidity Sensing. Annual Review of Cell and Developmental Biology, 2019, 35, 169-190.	9.4	28
16	Integrin nanoclusters can bridge thin matrix fibres to form cellâ€“matrix adhesions. Nature Materials, 2019, 18, 1366-1375.	27.5	95
17	Large and reversible myosin-dependent forces in rigidity sensing. Nature Physics, 2019, 15, 689-695.	16.7	31
18	Steps in Mechanotransduction Pathways that Control Cell Morphology. Annual Review of Physiology, 2019, 81, 585-605.	13.1	169

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19	Cardiomyocytes Sense Matrix Rigidity through a Combination of Muscle and Non-muscle Myosin Contractions. Developmental Cell, 2018, 44, 326-336.e3.	7.0	101
20	EGFR family and Src family kinase interactions: mechanics matters?. Current Opinion in Cell Biology, 2018, 51, 97-102.	5.4	64
21	EGFR and HER2 activate rigidity sensing only on rigid matrices. Nature Materials, 2017, 16, 775-781.	27.5	68
22	Force-Induced Calpain Cleavage of Talin Is Critical for Growth, Adhesion Development, and Rigidity Sensing. Nano Letters, 2017, 17, 7242-7251.	9.1	44
23	DNA damage causes rapid accumulation of phosphoinositides for ATRÂsignaling. Nature Communications, 2017, 8, 2118.	12.8	66
24	mDia1 senses both force and torque during F-actin filament polymerization. Nature Communications, 2017, 8, 1650.	12.8	83
25	Mechanical confinement triggers glioma linear migration dependent on formin FHOD3. Molecular Biology of the Cell, 2016, 27, 1246-1261.	2.1	51
26	Nuclear transport of paxillin depends on focal adhesion dynamics and FAT domains. Journal of Cell Science, 2016, 129, 1981-8.	2.0	22
27	Mechanosensing Controlled Directly by Tyrosine Kinases. Nano Letters, 2016, 16, 5951-5961.	9.1	74
28	Matrix mechanics controls FHL2 movement to the nucleus to activate p21 expression. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E6813-E6822.	7.1	57
29	The mechanical response of talin. Nature Communications, 2016, 7, 11966.	12.8	304
30	Î±-Actinin links extracellular matrix rigidity-sensing contractile units with periodic cell-edge retractions. Molecular Biology of the Cell, 2016, 27, 3471-3479.	2.1	68
31	Fâ€actin waves, actin cortex disassembly and focal exocytosis driven by actinâ€phosphoinositide positive feedback. Cytoskeleton, 2016, 73, 180-196.	2.0	32
32	Tropomyosin controls sarcomere-like contractions for rigidity sensing and suppressing growth on softÂmatrices. Nature Cell Biology, 2016, 18, 33-42.	10.3	168
33	Nascent Integrin Adhesions Form on All Matrix Rigidities after Integrin Activation. Developmental Cell, 2015, 35, 614-621.	7.0	142
34	Talin Dependent Mechanosensitivity of Cell Focal Adhesions. Cellular and Molecular Bioengineering, 2015, 8, 151-159.	2.1	84
35	Appreciating force and shape â€" the rise of mechanotransduction in cell biology. Nature Reviews Molecular Cell Biology, 2014, 15, 825-833.	37.0	634
36	FHOD1 Is Needed for Directed Forces and Adhesion Maturation during Cell Spreading and Migration. Developmental Cell, 2013, 27, 545-559.	7.0	107

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37	Integrin-dependent force transmission to the extracellular matrix by Î±-actinin triggers adhesion maturation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1361-70.	7.1	240
38	Cells test substrate rigidity by local contractions on submicrometer pillars. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5328-5333.	7.1	227
39	Stretchy Proteins on Stretchy Substrates: The Important Elements of Integrin-Mediated Rigidity Sensing. Developmental Cell, 2010, 19, 194-206.	7.0	364
40	Stretching Single Talin Rod Molecules Activates Vinculin Binding. Science, 2009, 323, 638-641.	12.6	1,297
41	Cell fate regulation by coupling mechanical cycles to biochemical signaling pathways. Current Opinion in Cell Biology, 2009, 21, 38-46.	5.4	248
42	Talin depletion reveals independence of initial cell spreading from integrin activation and traction. Nature Cell Biology, 2008, 10, 1062-1068.	10.3	396
43	Rigidity Sensing at the Leading Edge through Î±vÎ²3 Integrins and RPTPÎ±. Biophysical Journal, 2006, 90, 1804-1809.	0.5	210
44	Force Sensing by Mechanical Extension of the Src Family Kinase Substrate p130Cas. Cell, 2006, 127, 1015-1026.	28.9	845
45	Local force and geometry sensing regulate cell functions. Nature Reviews Molecular Cell Biology, 2006, 7, 265-275.	37.0	2,034
46	Periodic Lamellipodial Contractions Correlate with Rearward Actin Waves. Cell, 2004, 116, 431-443.	28.9	536
47	Two-piconewton slip bond between fibronectin and the cytoskeleton depends on talin. Nature, 2003, 424, 334-337.	27.8	408
48	The relationship between force and focal complex development. Journal of Cell Biology, 2002, 159, 695-705.	5.2	812
49	Extracellular Matrix Rigidity Causes Strengthening of Integrinâ€“Cytoskeleton Linkages. Cell, 1997, 88, 39-48.	28.9	1,166
50	Tumor Suppressor DAPK1 Catalyzes Adhesion Assembly on Rigid but Anoikis on Soft Matrices. Frontiers in Cell and Developmental Biology, 0, 10, .	3.7	7