

Douglas N Robinson

List of Publications by Year in descending order

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Version: 2024-02-01

94
papers

4,200
citations

117625

34
h-index

128289

60
g-index

97
all docs

97
docs citations

97
times ranked

4333
citing authors

#	ARTICLE	IF	CITATIONS
1	Pancreatic Ductal Adenocarcinoma Cortical Mechanics and Clinical Implications. <i>Frontiers in Oncology</i> , 2022, 12, 809179.	2.8	2
2	Cancer as a biophysical disease: Targeting the mechanical-adaptability program. <i>Biophysical Journal</i> , 2022, 121, 3573-3585.	0.5	11
3	Why new biology must be uncovered to advance therapeutic strategies for chronic obstructive pulmonary disease. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2021, 320, L1-L11.	2.9	12
4	The mechanobiome: a goldmine for cancer therapeutics. <i>American Journal of Physiology - Cell Physiology</i> , 2021, 320, C306-C323.	4.6	11
5	Tools for computational analysis of moving boundary problems in cellular mechanobiology. <i>WIREs Mechanisms of Disease</i> , 2021, 13, e1514.	3.3	3
6	Cell Division Cytokinesis. , 2021, , 42-48.		0
7	Adenine nucleotide translocase regulates airway epithelial metabolism, surface hydration and ciliary function. <i>Journal of Cell Science</i> , 2021, 134, .	2.0	18
8	A mesoscale mechanical model of cellular interactions. <i>Biophysical Journal</i> , 2021, 120, 4905-4917.	0.5	5
9	4-Hydroxyacetophenone modulates the actomyosin cytoskeleton to reduce metastasis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 22423-22429.	7.1	24
10	TRPV4 disrupts mitochondrial transport and causes axonal degeneration via a CaMKII-dependent elevation of intracellular Ca ²⁺ . <i>Nature Communications</i> , 2020, 11, 2679.	12.8	45
11	The Unusual Suspects in Cytokinesis: Fitting the Pieces Together. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 441.	3.7	14
12	Helping Scholars Overcome Socioeconomic Barriers to Medical and Biomedical Careers: Creating a Pipeline Initiative. <i>Teaching and Learning in Medicine</i> , 2020, 32, 422-433.	2.1	19
13	Contractility kits promote assembly of the mechanoresponsive cytoskeletal network. <i>Journal of Cell Science</i> , 2019, 132, .	2.0	14
14	Meddling with myosin's mechanobiology in cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 15322-15323.	7.1	7
15	Targeting Mechanoresponsive Proteins in Pancreatic Cancer: 4-Hydroxyacetophenone Blocks Dissemination and Invasion by Activating MYH14. <i>Cancer Research</i> , 2019, 79, 4665-4678.	0.9	44
16	How the mechanobiome drives cell behavior, viewed through the lens of control theory. <i>Journal of Cell Science</i> , 2019, 132, .	2.0	23
17	The Role of CLP36 in Pancreatic Cancer Cells during Migration and in Cell Shape Morphology. <i>Biophysical Journal</i> , 2019, 116, 547a.	0.5	0
18	Myosin IIB assembly state determines its mechanosensitive dynamics. <i>Journal of Cell Biology</i> , 2019, 218, 895-908.	5.2	20

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19	14-3-3 proteins tune non-muscle myosin II assembly. <i>Journal of Biological Chemistry</i> , 2018, 293, 6751-6761.	3.4	19
20	Spectrin is a mechanoresponsive protein shaping fusogenic synapse architecture during myoblast fusion. <i>Nature Cell Biology</i> , 2018, 20, 688-698.	10.3	43
21	Micropipette Aspiration of Oocytes to Assess Cortical Tension. <i>Methods in Molecular Biology</i> , 2018, 1818, 163-171.	0.9	4
22	Recent advances in cytokinesis: understanding the molecular underpinnings. <i>F1000Research</i> , 2018, 7, 1849.	1.6	8
23	Mechanochemical Signaling Directs Cell-Shape Change. <i>Biophysical Journal</i> , 2017, 112, 207-214.	0.5	32
24	Parallel Compression Is a Fast Low-Cost Assay for the High-Throughput Screening of Mechanosensory Cytoskeletal Proteins in Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 28168-28179.	8.0	3
25	Cigarette smoke disrupts monolayer integrity by altering epithelial cell-cell adhesion and cortical tension. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2017, 313, L581-L591.	2.9	63
26	Entosis Is Induced by Glucose Starvation. <i>Cell Reports</i> , 2017, 20, 201-210.	6.4	130
27	Cytokinesis from nanometers to micrometers and microseconds to minutes. <i>Methods in Cell Biology</i> , 2017, 137, 307-322.	1.1	5
28	The fifth sense: Mechanosensory regulation of alpha-actinin-4 and its relevance for cancer metastasis. <i>Seminars in Cell and Developmental Biology</i> , 2017, 71, 68-74.	5.0	26
29	Effects of Ubiquitin C-Terminal Hydrolase L1 (UCH-L1) inhibition on sperm incorporation and cortical tension in mouse eggs. <i>Molecular Reproduction and Development</i> , 2016, 83, 188-189.	2.0	1
30	Mechanoaccumulative Elements of the Mammalian Actin Cytoskeleton. <i>Current Biology</i> , 2016, 26, 1473-1479.	3.9	87
31	An RNA-binding protein, RNP-1, protects microtubules from nocodazole and localizes to the leading edge during cytokinesis and cell migration in <i>Dictyostelium</i> cells. <i>Acta Pharmacologica Sinica</i> , 2016, 37, 1449-1457.	6.1	9
32	Yes-associated protein impacts adherens junction assembly through regulating actin cytoskeleton organization. <i>American Journal of Physiology - Renal Physiology</i> , 2016, 311, G396-G411.	3.4	31
33	Cortical mechanics and myosin-II abnormalities associated with post-ovulatory aging: implications for functional defects in aged eggs. <i>Molecular Human Reproduction</i> , 2016, 22, 397-409.	2.8	22
34	Cytokinesis: Robust cell shape regulation. <i>Seminars in Cell and Developmental Biology</i> , 2016, 53, 39-44.	5.0	29
35	Cell Blebbing in Confined Microfluidic Environments. <i>PLoS ONE</i> , 2016, 11, e0163866.	2.5	28
36	Mechanical Tension Drives Cell Membrane Fusion. <i>Developmental Cell</i> , 2015, 32, 561-573.	7.0	136

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37	Pharmacological activation of myosin II paralogs to correct cell mechanics defects. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1428-1433.	7.1	54
38	Mechanical Stress and Network Structure Drive Protein Dynamics during Cytokinesis. Current Biology, 2015, 25, 663-670.	3.9	49
39	MAPK3/1 (ERK1/2) and Myosin Light Chain Kinase in Mammalian Eggs Affect Myosin-II Function and Regulate the Metaphase II State in a Calcium- and Zinc-Dependent Manner ¹ . Biology of Reproduction, 2015, 92, 146.	2.7	15
40	Cell shape regulation through mechanosensory feedback control. Journal of the Royal Society Interface, 2015, 12, 20150512.	3.4	17
41	Kinetic Monte Carlo simulations of the assembly of filamentous biomacromolecules by the dimer addition mechanism. RSC Advances, 2015, 5, 3922-3929.	3.6	5
42	Mimicking the mechanical properties of the cell cortex by the self-assembly of an actin cortex in vesicles. Applied Physics Letters, 2014, 104, 153701.	3.3	18
43	Genetic suppression of a phosphomimic myosin II identifies system-level factors that promote myosin II cleavage furrow accumulation. Molecular Biology of the Cell, 2014, 25, 4150-4165.	2.1	12
44	Competition between human cells by entosis. Cell Research, 2014, 24, 1299-1310.	12.0	180
45	Molecular mechanisms of cellular mechanosensing. Nature Materials, 2013, 12, 1064-1071.	27.5	231
46	Micropipette Aspiration for Studying Cellular Mechanosensory Responses and Mechanics. Methods in Molecular Biology, 2013, 983, 367-382.	0.9	27
47	Prophase I Mouse Oocytes Are Deficient in the Ability to Respond to Fertilization by Decreasing Membrane Receptivity to Sperm and Establishing a Membrane Block to Polyspermy ¹ . Biology of Reproduction, 2013, 89, 44.	2.7	16
48	A Summer Academic Research Experience for Disadvantaged Youth. CBE Life Sciences Education, 2013, 12, 410-418.	2.3	11
49	Deconvolution of the Cellular Force-Generating Subsystems that Govern Cytokinesis Furrow Ingression. PLoS Computational Biology, 2012, 8, e1002467.	3.2	55
50	A mechanosensory system governs myosin II accumulation in dividing cells. Molecular Biology of the Cell, 2012, 23, 1510-1523.	2.1	57
51	Bringing the physical sciences into your cell biology research. Molecular Biology of the Cell, 2012, 23, 4167-4170.	2.1	1
52	Understanding the Cooperative Interaction between Myosin II and Actin Cross-Linkers Mediated by Actin Filaments during Mechanosensation. Biophysical Journal, 2012, 102, 238-247.	0.5	82
53	Î±-Catenin and IQGAP Regulate Myosin Localization to Control Epithelial Tube Morphogenesis in Dictyostelium. Developmental Cell, 2012, 23, 533-546.	7.0	29
54	Cytokinesis mechanics and mechanosensing. Cytoskeleton, 2012, 69, 700-709.	2.0	19

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55	Separation anxiety: Stress, tension and cytokinesis. <i>Experimental Cell Research</i> , 2012, 318, 1428-1434.	2.6	14
56	A Novel Role for Aquaporin-5 in Enhancing Microtubule Organization and Stability. <i>PLoS ONE</i> , 2012, 7, e38717.	2.5	25
57	Cytokinesis Through Biochemical-Mechanical Feedback Loops. <i>Biophysical Journal</i> , 2011, 100, 180a.	0.5	1
58	The spatial and mechanical challenges of female meiosis. <i>Molecular Reproduction and Development</i> , 2011, 78, 769-777.	2.0	27
59	<i>Dictyostelium</i> huntingtin controls chemotaxis and cytokinesis through the regulation of myosin II phosphorylation. <i>Molecular Biology of the Cell</i> , 2011, 22, 2270-2281.	2.1	37
60	14-3-3 Coordinates Microtubules, Rac, and Myosin II to Control Cell Mechanics and Cytokinesis. <i>Current Biology</i> , 2010, 20, 1881-1889.	3.9	72
61	Automated characterization of cell shape changes during amoeboid motility by skeletonization. <i>BMC Systems Biology</i> , 2010, 4, 33.	3.0	35
62	Cortical Mechanics and Meiosis II Completion in Mammalian Oocytes Are Mediated by Myosin-II and Ezrin-Radixin-Moesin (ERM) Proteins. <i>Molecular Biology of the Cell</i> , 2010, 21, 3182-3192.	2.1	110
63	14-3-3, an integrator of cell mechanics and cytokinesis. <i>Small GTPases</i> , 2010, 1, 165-169.	1.6	11
64	Involvement of the Cytoskeleton in Controlling Leading-Edge Function during Chemotaxis. <i>Molecular Biology of the Cell</i> , 2010, 21, 1810-1824.	2.1	45
65	Cytokinesis through biochemical mechanical feedback loops. <i>Seminars in Cell and Developmental Biology</i> , 2010, 21, 866-873.	5.0	30
66	The Role of the Actin Cytoskeleton in Mechanosensation. , 2010, , 25-65.		2
67	Cooperative Interactions between Myosin II and Cortexillin I Mediated by Actin Filaments during Cellular Deformation. <i>IFMBE Proceedings</i> , 2010, , 74-76.	0.3	0
68	Microtubule-Nucleus Interactions in <i>Dictyostelium discoideum</i> Mediated by Central Motor Kinesins. <i>Eukaryotic Cell</i> , 2009, 8, 723-731.	3.4	20
69	Mechanosensing through Cooperative Interactions between Myosin II and the Actin Crosslinker Cortexillin I. <i>Current Biology</i> , 2009, 19, 1421-1428.	3.9	142
70	Modeling cellular deformations using the level set formalism. <i>BMC Systems Biology</i> , 2008, 2, 68.	3.0	73
71	Interactions between Myosin and Actin Crosslinkers Control Cytokinesis Contractility Dynamics and Mechanics. <i>Current Biology</i> , 2008, 18, 471-480.	3.9	173
72	Motor Proteins: Myosin Mechanosensors. <i>Current Biology</i> , 2008, 18, R860-R862.	3.9	24

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73	A Mechanosensory System Controls Cell Shape Changes During Mitosis. <i>Cell Cycle</i> , 2007, 6, 30-35.	2.6	27
74	Putting the Brakes on Cytokinesis with $\hat{\pm}$ -Actinin. <i>Developmental Cell</i> , 2007, 13, 460-462.	7.0	12
75	Using Lessons from Cellular and Molecular Structures for Future Materials. <i>Advanced Materials</i> , 2007, 19, 3761-3770.	21.0	43
76	Dynacortin facilitates polarization of chemotaxing cells. <i>BMC Biology</i> , 2007, 5, 53.	3.8	16
77	Mitosis-Specific Mechanosensing and Contractile-Protein Redistribution Control Cell Shape. <i>Current Biology</i> , 2006, 16, 1962-1967.	3.9	123
78	Dictyostelium myosin II mechanochemistry promotes active behavior of the cortex on long time scales. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 2103-2108.	7.1	44
79	Enlazin, a Natural Fusion of Two Classes of Canonical Cytoskeletal Proteins, Contributes to Cytokinesis Dynamics. <i>Molecular Biology of the Cell</i> , 2006, 17, 5275-5286.	2.1	27
80	The stress and strain of cytokinesis. <i>Trends in Cell Biology</i> , 2005, 15, 200-206.	7.9	53
81	Balance of actively generated contractile and resistive forces controls cytokinesis dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 7186-7191.	7.1	127
82	Dynacortin contributes to cortical viscoelasticity and helps define the shape changes of cytokinesis. <i>EMBO Journal</i> , 2004, 23, 1536-1546.	7.8	82
83	Mechanics and regulation of cytokinesis. <i>Current Opinion in Cell Biology</i> , 2004, 16, 182-188.	5.4	95
84	Dynacortin Is a Novel Actin Bundling Protein That Localizes to Dynamic Actin Structures. <i>Journal of Biological Chemistry</i> , 2002, 277, 9088-9095.	3.4	25
85	Quantitation of the distribution and flux of myosin-II during cytokinesis. <i>BMC Cell Biology</i> , 2002, 3, 4.	3.0	75
86	Dictyostelium cytokinesis: from molecules to mechanics. <i>Journal of Muscle Research and Cell Motility</i> , 2002, 23, 719-727.	2.0	18
87	Cell division: Biochemically controlled mechanics. <i>Current Biology</i> , 2001, 11, R737-R740.	3.9	19
88	Towards a molecular understanding of cytokinesis. <i>Trends in Cell Biology</i> , 2000, 10, 228-237.	7.9	165
89	Dynacortin, a Genetic Link between Equatorial Contractility and Global Shape Control Discovered by Library Complementation of a Dictyostelium discoideum Cytokinesis Mutant. <i>Journal of Cell Biology</i> , 2000, 150, 823-838.	5.2	100
90	Drosophila Kelch Is an Oligomeric Ring Canal Actin Organizer. <i>Journal of Cell Biology</i> , 1997, 138, 799-810.	5.2	159

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91	GENETIC ANALYSIS OF THE ACTIN CYTOSKELETON IN THE DROSOPHILA OVARY. Annual Review of Cell and Developmental Biology, 1997, 13, 147-170.	9.4	115
92	Formation of the Drosophila Ovarian Ring Canal Inner Rim Depends on <i>cheerio</i> . Genetics, 1997, 145, 1063-1072.	2.9	70
93	Stable intercellular bridges in development: the cytoskeleton lining the tunnel. Trends in Cell Biology, 1996, 6, 474-479.	7.9	134
94	Regulating Cell Shape During Cytokinesis. , 0, , 203-224.		2