James R Sellers

List of Publications by Year
in descending order

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126 papers	13,060 citations	30070 54 h-index	24982 109 g-index
143 all docs	143 docs citations	143 times ranked	9943 citing authors

#	Article	IF	Citations
1	The ATPase mechanism of myosin 15, the molecular motor mutated in DFNB3 human deafness. Journal of Biological Chemistry, 2021, 296, 100243.	3.4	12
2	Myosin-Specific Adaptations of In vitro Fluorescence Microscopy-Based Motility Assays. Journal of Visualized Experiments, 2021, , .	0.3	2
3	The formin inhibitor SMIFH2 inhibits members of the myosin superfamily. Journal of Cell Science, 2021, 134, .	2.0	54
4	Discovery of Selective Inhibitors for In Vitro and In Vivo Interrogation of Skeletal Myosin II. ACS Chemical Biology, 2021, 16, 2164-2173.	3.4	2
5	A binding protein regulates myosin-7a dimerization and actin bundle assembly. Nature Communications, 2021, 12, 563.	12.8	18
6	Tyrosine Phosphorylation of the Myosin Regulatory Light Chain Controls Non-muscle Myosin II Assembly and Function in Migrating Cells. Current Biology, 2020, 30, 2446-2458.e6.	3.9	18
7	How Myosin 5 Walks Deduced from Single-Molecule Biophysical Approaches. Advances in Experimental Medicine and Biology, 2020, 1239, 153-181.	1.6	3
8	Megakaryocyte migration defects due to nonmuscle myosin IIA mutations underlie thrombocytopenia in MYH9-related disease. Blood, 2020, 135, 1887-1898.	1.4	26
9	Competition between kinesin-1 and myosin-V defines Drosophila posterior determination. ELife, 2020, 9, .	6.0	36
10	A Semi-High-Throughput Adaptation of the NADH-Coupled ATPase Assay for Screening Small Molecule Inhibitors. Journal of Visualized Experiments, 2019, , .	0.3	6
11	Perfringolysin O-Induced Plasma Membrane Pores Trigger Actomyosin Remodeling and Endoplasmic Reticulum Redistribution. Toxins, 2019, 11, 419.	3.4	6
12	Affimer proteins for F-actin: novel affinity reagents that label F-actin in live and fixed cells. Scientific Reports, 2018, 8, 6572.	3.3	38
13	Quantitative mass imaging of single biological macromolecules. Science, 2018, 360, 423-427.	12.6	453
14	Bipolar filaments of human nonmuscle myosin 2-A and 2-B have distinct motile and mechanical properties. ELife, 2018, 7, .	6.0	54
15	Dissecting myosin-5B mechanosensitivity and calcium regulation at the single molecule level. Nature Communications, 2018, 9, 2844.	12.8	28
16	Multiple S100 protein isoforms and C-terminal phosphorylation contribute to the paralog-selective regulation of nonmuscle myosin 2 filaments. Journal of Biological Chemistry, 2018, 293, 14850-14867.	3.4	11
17	Local pulsatile contractions are an intrinsic property of the myosin 2A motor in the cortical cytoskeleton of adherent cells. Molecular Biology of the Cell, 2017, 28, 240-251.	2.1	48
18	<scp>R</scp>eâ€evaluating the roles of myosin 18Aî± and Fâ€actin in determining Golgi morphology. Cytoskeleton, 2017, 74, 205-218.	2.0	23

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19	Kinetic signatures of myosin-5B, the motor involved in microvillus inclusion disease. Journal of Biological Chemistry, 2017, 292, 18372-18385.	3.4	18
20	Cover Image, Volume 74, Issue 5. Cytoskeleton, 2017, 74, C1-C1.	2.0	0
21	Cover Image, Volume 74, Issue 5. Cytoskeleton, 2017, 74, C4-C4.	2.0	0
22	Effect of ATP and regulatory light-chain phosphorylation on the polymerization of mammalian nonmuscle myosin II. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6516-E6525.	7.1	26
23	Mechanistic insights into the active site and allosteric communication pathways in human nonmuscle myosin-2C. ELife, 2017, 6, .	6.0	22
24	Kinetic Adaptations of Myosins for Their Diverse Cellular Functions. Traffic, 2016, 17, 839-859.	2.7	83
25	Self-organization of actin networks by a monomeric myosin. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8387-E8395.	7.1	14
26	Mechanisms and Functional Diversity of Macromolecular Remodeling by ATP-Dependent Motors. Journal of Molecular Biology, 2016, 428, 1819-1821.	4.2	0
27	Mammalian Nonmuscle Myosin II Binds to Anionic Phospholipids with Concomitant Dissociation of the Regulatory Light Chain. Journal of Biological Chemistry, 2016, 291, 24828-24837.	3.4	30
28	Various Themes of Myosin Regulation. Journal of Molecular Biology, 2016, 428, 1927-1946.	4.2	112
29	Drosophila non-muscle myosin II motor activity determines the rate of tissue folding. ELife, 2016, 5, .	6.0	50
30	Kinetic characterization of the sole nonmuscle myosinâ€2 from the model organism Drosophila melanogaster. FASEB Journal, 2015, 29, 1456-1466.	0.5	26
31	Four things to know about myosin light chains as reporters for nonâ€muscle myosinâ€2 dynamics in live cells. Cytoskeleton, 2015, 72, 65-70.	2.0	18
32	Ankyrin domain of myosin 16 influences motor function and decreases protein phosphatase catalytic activity. European Biophysics Journal, 2015, 44, 207-218.	2.2	16
33	Myosin 18A Coassembles with Nonmuscle Myosin 2 to Form Mixed Bipolar Filaments. Current Biology, 2015, 25, 942-948.	3.9	83
34	Structural dynamics of myosin 5 during processive motion revealed by interferometric scattering microscopy. ELife, 2015, 4, .	6.0	80
35	To understand muscle you must take it apart. Frontiers in Physiology, 2014, 5, 90.	2.8	31
36	Myosin light chains: Teaching old dogs new tricks. Bioarchitecture, 2014, 4, 169-188.	1.5	113

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37	Myosin-10 produces its power-stroke in two phases and moves processively along a single actin filament under low load. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1833-42.	7.1	45
38	Chaperone-enhanced purification of unconventional myosin 15, a molecular motor specialized for stereocilia protein trafficking. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12390-12395.	7.1	69
39	Regulation of Nonmuscle Myosin II by Tropomyosin. Biochemistry, 2014, 53, 4015-4024.	2.5	43
40	Use of Fluorescent Techniques to Study the In Vitro Movement of Myosins. Exs, 2014, 105, 193-210.	1.4	4
41	Characterization of Three Full-length Human Nonmuscle Myosin II Paralogs. Journal of Biological Chemistry, 2013, 288, 33398-33410.	3.4	167
42	Mammalian Myosin-18A, a Highly Divergent Myosin. Journal of Biological Chemistry, 2013, 288, 9532-9548.	3.4	65
43	Kinetic Characterization of the ATPase and Actin-activated ATPase Activities of Acanthamoeba castellanii Myosin-2. Journal of Biological Chemistry, 2013, 288, 26709-26720.	3.4	8
44	Myosin Regulatory Light Chain (RLC) Phosphorylation Change as a Modulator of Cardiac Muscle Contraction in Disease. Journal of Biological Chemistry, 2013, 288, 13446-13454.	3.4	63
45	Kinetic Characterization of Nonmuscle Myosin IIB at the Single Molecule Level. Journal of Biological Chemistry, 2013, 288, 709-722.	3.4	65
46	Actin Structure-Dependent Stepping of Myosin 5a and 10 during Processive Movement. PLoS ONE, 2013, 8, e74936.	2.5	17
47	Walking to work: roles for class V myosins as cargo transporters. Nature Reviews Molecular Cell Biology, 2012, 13, 13-26.	37.0	266
48	Regulation of myosin 5a and myosin 7a. Biochemical Society Transactions, 2011, 39, 1136-1141.	3.4	3
49	Dynein struts its stuff. Nature Structural and Molecular Biology, 2011, 18, 635-636.	8.2	2
50	The Kinetic Mechanism of Mouse Myosin VIIA. Journal of Biological Chemistry, 2011, 286, 8819-8828.	3.4	21
51	Drosophila melanogaster Myosin-18 Represents a Highly Divergent Motor with Actin Tethering Properties. Journal of Biological Chemistry, 2011, 286, 21755-21766.	3.4	28
52	Nonmuscle myosin IIA with a GFP fused to the N-terminus of the regulatory light chain is regulated normally. Journal of Muscle Research and Cell Motility, 2010, 31, 163-170.	2.0	24
53	Direct observation of the myosin-Va power stroke and its reversal. Nature Structural and Molecular Biology, 2010, 17, 590-595.	8.2	81
54	Influence of lever structure on myosin 5a walking. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2509-2514.	7.1	42

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55	Functional adaptation of the switchâ€2 nucleotide sensor enables rapid processive translocation by myosinâ€5. FASEB Journal, 2010, 24, 4480-4490.	0.5	12
56	Actin-Bundling Protein TRIOBP Forms Resilient Rootlets of Hair Cell Stereocilia Essential for Hearing. Cell, 2010, 141, 786-798.	28.9	167
57	The SAH domain extends the functional length of the myosin lever. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22193-22198.	7.1	70
58	Switch 1 Mutation S217A Converts Myosin V into a Low Duty Ratio Motor. Journal of Biological Chemistry, 2009, 284, 2138-2149.	3.4	40
59	An Alternatively Spliced Isoform of Non-muscle Myosin II-C Is Not Regulated by Myosin Light Chain Phosphorylation. Journal of Biological Chemistry, 2009, 284, 11563-11571.	3.4	31
60	A FERM domain autoregulates Drosophila myosin 7a activity. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4189-4194.	7.1	92
61	Extensibility of the Extended Tail Domain of Processive and Nonprocessive Myosin V Molecules. Biophysical Journal, 2009, 97, 3123-3131.	0.5	9
62	Myosin V. , 2008, , 289-323.		7
63	Direct observation of the mechanochemical coupling in myosin Va during processive movement. Nature, 2008, 455, 128-132.	27.8	133
64	The B2 alternatively spliced isoform of nonmuscle myosin II-B lacks actin-activated MgATPase activity and in vitro motility. Biochemical and Biophysical Research Communications, 2008, 369, 124-134.	2.1	22
65	Calcium and cargoes as regulators of myosin 5a activity. Biochemical and Biophysical Research Communications, 2008, 369, 176-181.	2.1	30
66	Kinetics of ADP Dissociation from the Trail and Lead Heads of Actomyosin V following the Power Stroke. Journal of Biological Chemistry, 2008, 283, 766-773.	3.4	50
67	Human Myosin Vc Is a Low Duty Ratio, Nonprocessive Molecular Motor. Journal of Biological Chemistry, 2008, 283, 8527-8537.	3.4	44
68	Load-dependent mechanism of nonmuscle myosin 2. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9994-9999.	7.1	196
69	Folding and regulation in myosins II and V. Journal of Muscle Research and Cell Motility, 2007, 28, 363-370.	2.0	37
70	Kinetic Mechanism of MyosinV-S1 Using a New Fluorescent ATP Analogueâ€. Biochemistry, 2006, 45, 13035-13045.	2.5	27
71	In vitro reconstitution of a transport complex containing Rab27a, melanophilin and myosin Va. FEBS Letters, 2006, 580, 5863-5868.	2.8	51
72	The cargo-binding domain regulates structure and activity of myosinâ€‰5. Nature, 2006, 442, 212-215.	27.8	159

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73	Walking with myosin V. Current Opinion in Cell Biology, 2006, 18, 68-73.	5.4	143
74	Dimerized Drosophila myosin VIIa: A processive motor. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5746-5751.	7.1	60
75	Myosin-XVa is required for tip localization of whirlin and differential elongation of hair-cell stereocilia. Nature Cell Biology, 2005, 7, 148-156.	10.3	313
76	Load-dependent kinetics of myosin-V can explain its high processivity. Nature Cell Biology, 2005, 7, 861-869.	10.3	247
77	Absolute Stereochemical Assignment and Fluorescence Tuning of the Small Molecule Tool, (-)-Blebbistatin. European Journal of Organic Chemistry, 2005, 2005, 1736-1740.	2.4	45
78	Disease-associated Mutations and Alternative Splicing Alter the Enzymatic and Motile Activity of Nonmuscle Myosins II-B and II-C. Journal of Biological Chemistry, 2005, 280, 22769-22775.	3.4	114
79	Myosin V from Drosophila Reveals Diversity of Motor Mechanisms within the Myosin V Family. Journal of Biological Chemistry, 2005, 280, 30594-30603.	3.4	46
80	Mechanism of Action of Myosin X, a Membrane-associated Molecular Motor. Journal of Biological Chemistry, 2005, 280, 15071-15083.	3.4	40
81	The Predicted Coiled-coil Domain of Myosin 10 Forms a Novel Elongated Domain That Lengthens the Head. Journal of Biological Chemistry, 2005, 280, 34702-34708.	3.4	139
82	Step-Size Is Determined by Neck Length in Myosin Vâ€. Biochemistry, 2005, 44, 16203-16210.	2.5	91
83	Regulated Conformation of Myosin V. Journal of Biological Chemistry, 2004, 279, 2333-2336.	3.4	150
84	Identification and Characterization of Nonmuscle Myosin II-C, a New Member of the Myosin II Family. Journal of Biological Chemistry, 2004, 279, 2800-2808.	3.4	286
85	Mechanism of Blebbistatin Inhibition of Myosin II. Journal of Biological Chemistry, 2004, 279, 35557-35563.	3.4	839
86	Fifty years of contractility research post sliding filament hypothesis. Journal of Muscle Research and Cell Motility, 2004, 25, 475-482.	2.0	17
87	Specificity of blebbistatin, an inhibitor of myosin II. Journal of Muscle Research and Cell Motility, 2004, 25, 337-341.	2.0	342
88	Nanometer Localization of Single Green Fluorescent Proteins: Evidence that Myosin V Walks Hand-Over-Hand via Telemark Configuration. Biophysical Journal, 2004, 87, 1776-1783.	0.5	96
89	Trifluoperazine inhibits the MgATPase activity and in vitro motility of conventional and unconventional myosins. Journal of Muscle Research and Cell Motility, 2003, 24, 579-585.	2.0	12
90	Dissecting Temporal and Spatial Control of Cytokinesis with a Myosin II Inhibitor. Science, 2003, 299, 1743-1747.	12.6	1,259

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91	Functional Divergence of Human Cytoplasmic Myosin II. Journal of Biological Chemistry, 2003, 278, 38132-38140.	3.4	221
92	Neck Length and Processivity of Myosin V. Journal of Biological Chemistry, 2003, 278, 29201-29207.	3.4	139
93	Kinetic Mechanism of Non-muscle Myosin IIB. Journal of Biological Chemistry, 2003, 278, 27439-27448.	3.4	223
94	Rab27a Is an Essential Component of Melanosome Receptor for Myosin Va. Molecular Biology of the Cell, 2002, 13, 1735-1749.	2.1	153
95	The prepower stroke conformation of myosin V. Journal of Cell Biology, 2002, 159, 983-991.	5.2	123
96	The gated gait of the processive molecular motor, myosin V. Nature Cell Biology, 2002, 4, 59-65.	10.3	360
97	Identification of an organelle receptor for myosin-Va. Nature Cell Biology, 2002, 4, 271-278.	10.3	419
98	Human myosin XVBP is a transcribed pseudogene. Journal of Muscle Research and Cell Motility, 2001, 22, 477-483.	2.0	21
99	Myosin-I nomenclature. Journal of Cell Biology, 2001, 155, 703-704.	5.2	71
100	Phosphorylation-dependent Regulation Is Absent in a Nonmuscle Heavy Meromyosin Construct with One Complete Head and One Head Lacking the Motor Domain. Journal of Biological Chemistry, 2001, 276, 41465-41472.	3.4	35
101	Two-headed binding of a processive myosin to F-actin. Nature, 2000, 405, 804-807.	27.8	295
102	Effect of ADP and Ionic Strength on the Kinetic and Motile Properties of Recombinant Mouse Myosin V. Journal of Biological Chemistry, 2000, 275, 4329-4335.	3.4	132
103	Myosins: a diverse superfamily. Biochimica Et Biophysica Acta - Molecular Cell Research, 2000, 1496, 3-22.	4.1	676
104	A Conserved Negatively Charged Amino Acid Modulates Function in Human Nonmuscle Myosin IIA. Biochemistry, 2000, 39, 5555-5560.	2.5	64
105	Unconventional myosins and the genetics of hearing loss. , 1999, 89, 147-157.		105
106	Unique sequence of a high molecular weight myosin light chain kinase is involved in interaction with actin cytoskeleton. FEBS Letters, 1999, 463, 67-71.	2.8	35
107	Characterization of the Human and Mouse Unconventional Myosin XV Genes Responsible for Hereditary Deafness DFNB3 and Shaker 2. Genomics, 1999, 61, 243-258.	2.9	153
108	In Vitro Motility Assay to Study Translocation of Actin by Myosin. Current Protocols in Cell Biology, 1998, 00, Unit 13.2.	2.3	10

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109	Kinetic Tuning of Myosin via a Flexible Loop Adjacent to the Nucleotide Binding Pocket. Journal of Biological Chemistry, 1998, 273, 6262-6270.	3.4	228
110	A Myosin III fromLimulusEyes Is a Clock-Regulated Phosphoprotein. Journal of Neuroscience, 1998, 18, 4548-4559.	3.6	46
111	Effect of Mts1 on the Structure and Activity of Nonmuscle Myosin II. Biochemistry, 1997, 36, 16321-16327.	2.5	81
112	The in vitro motility activity of beta-cardiac myosin depends on the nature of the beta-myosin heavy chain gene mutation in hypertrophic cardiomyopathy. Journal of Muscle Research and Cell Motility, 1997, 18, 275-283.	2.0	125
113	The amino acid sequence of the light chain of Acanthamoeba myosin IC. Journal of Muscle Research and Cell Motility, 1997, 18, 395-398.	2.0	29
114	Kinesin and NCD, two structural cousins of myosin. Journal of Muscle Research and Cell Motility, 1996, 17, 173-175.	2.0	5
115	Mutations in either the essential or regulatory light chains of myosin are associated with a rare myopathy in human heart and skeletal muscle. Nature Genetics, 1996, 13, 63-69.	21.4	559
116	Baculovirus Expression of Chicken Nonmuscle Heavy Meromyosin II-B. Journal of Biological Chemistry, 1996, 271, 2689-2695.	3.4	68
117	In vitro functional characterization of bacterially expressed human fibroblast tropomyosin isoforms and their chimeric mutants. Cytoskeleton, 1993, 26, 248-261.	4.4	68
118	Chapter 2 Myosin-Specific Adaptations of the Motility Assay. Methods in Cell Biology, 1993, 39, 23-49.	1.1	75
119	Actin-binding proteins regulate the work performed by myosin II motors on single actin filaments. Cytoskeleton, 1992, 22, 274-280.	4.4	46
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121	Catalytic fragment of protein kinase C exhibits altered substrate specificity toward smooth muscle myosin light chain. FEBS Letters, 1991, 294, 144-148.	2.8	33
122	The use of native thick filaments in in vitro motility assays. Journal of Cell Science, 1991, 1991, 67-71.	2.0	9
123	Preparation and characterization of heavy meromyosin and subfragment 1 from vertebrate cytoplasmic myosins. Biochemistry, 1988, 27, 6977-6982.	2.5	27
124	The Mechanism of Regulation of Smooth Muscle Myosin by Phosphorylation. Current Topics in Cellular Regulation, 1985, 27, 51-62.	9.6	25
125	Binding of gizzard smooth muscle myosin subfragment-1 to actin in the presence and absence of adenosine 5'-triphosphate. Biochemistry, 1983, 22, 530-535.	2.5	104
126	Hybrid formation between scallop myofibrils and foreign regulatory light-chains. Journal of Molecular Biology, 1980, 144, 223-245.	4.2	95