Robert S Adelstein

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Non-muscle myosin II takes centre stage in cell adhesion and migration. Nature Reviews Molecular Cell Biology, 2009, 10, 778-790.	37.0	1,634
2	Myosin IIA regulates cell motility and actomyosin–microtubule crosstalk. Nature Cell Biology, 2007, 9, 299-309.	10.3	435
3	Phosphorylation of platelet myosin increases actin-activated myosin ATPase activity. Nature, 1975, 256, 597-598.	27.8	427
4	Nonmuscle myosin II moves in new directions. Journal of Cell Science, 2008, 121, 11-18.	2.0	310
5	Identification of Neuronal Nuclei (NeuN) as Fox-3, a New Member of the Fox-1 Gene Family of Splicing Factors. Journal of Biological Chemistry, 2009, 284, 31052-31061.	3.4	310
6	Defects in Cell Adhesion and the Visceral Endoderm following Ablation of Nonmuscle Myosin Heavy Chain II-A in Mice. Journal of Biological Chemistry, 2004, 279, 41263-41266.	3.4	297
7	Myosin II isoforms identify distinct functional modules that support integrity of the epithelial zonula adherens. Nature Cell Biology, 2010, 12, 696-702.	10.3	296
8	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
9	Phorbol ester-induced activation of human platelets is associated with protein kinase C phosphorylation of myosin light chains. Nature, 1983, 306, 490-492.	27.8	270
10	Basic mechanism of three-dimensional collagen fibre transport by fibroblasts. Nature Cell Biology, 2005, 7, 157-164.	10.3	263
11	Confinement-optimized three-dimensional T cell amoeboid motility is modulated via myosin IIA–regulated adhesions. Nature Immunology, 2010, 11, 953-961.	14.5	214
12	Nonmuscle Myosin IIB Is Involved in the Guidance of Fibroblast Migration. Molecular Biology of the Cell, 2004, 15, 982-989.	2.1	211
13	Myosin IIB Is Required for Growth Cone Motility. Journal of Neuroscience, 2001, 21, 6159-6169.	3.6	193
14	MYH9: Structure, functions and role of non-muscle myosin IIA in human disease. Gene, 2018, 664, 152-167.	2.2	187
15	Local Cortical Tension by Myosin II Guides 3D Endothelial Cell Branching. Current Biology, 2009, 19, 260-265.	3.9	172
16	Characterization of Three Full-length Human Nonmuscle Myosin II Paralogs. Journal of Biological Chemistry, 2013, 288, 33398-33410.	3.4	167
17	Conditional Expression of a Truncated Fragment of Nonmuscle Myosin II-A Alters Cell Shape but Not Cytokinesis in HeLa Cells. Molecular Biology of the Cell, 2000, 11, 3617-3627.	2.1	166
18	The May-Hegglin anomaly gene MYH9 is a negative regulator of platelet biogenesis modulated by the Rho-ROCK pathway. Blood, 2007, 110, 171-179.	1.4	154

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19	Mouse models of MYH9-related disease: mutations in nonmuscle myosin II-A. Blood, 2012, 119, 238-250.	1.4	151
20	NMII Forms a Contractile Transcellular Sarcomeric Network to Regulate Apical Cell Junctions and Tissue Geometry. Current Biology, 2013, 23, 731-736.	3.9	150
21	A dynein-like protein associated with neurotubules. FEBS Letters, 1974, 40, 281-286.	2.8	149
22	Cell migration and antigen capture are antagonistic processes coupled by myosin II in dendritic cells. Nature Communications, 2015, 6, 7526.	12.8	143
23	A Unique Role for Nonmuscle Myosin Heavy Chain IIA in Regulation of Epithelial Apical Junctions. PLoS ONE, 2007, 2, e658.	2.5	142
24	Muscle-specific activation of a methylated chimeric actin gene. Cell, 1986, 46, 409-416.	28.9	138
25	Role of calcium and cyclic adenosine 3′:5′ monophosphate in regulating smooth muscle contraction. American Journal of Cardiology, 1979, 44, 783-787.	1.6	134
26	Nonmuscle myosin II exerts tension but does not translocate actin in vertebrate cytokinesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4509-4514.	7.1	119
27	Thrombin-Stimulated Myosin Phosphorylation in Intact Platelets and its Possible Involvement Secretion. Thrombosis and Haemostasis, 1977, 38, 0984-0989.	3.4	115
28	Isolation and properties of platelet myosin light chain kinase. Biochemistry, 1976, 15, 2370-2377.	2.5	114
29	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
30	Structural abnormalities develop in the brain after ablation of the gene encoding nonmuscle myosin Ilâ€B heavy chain. Journal of Comparative Neurology, 2001, 433, 62-74.	1.6	112
31	Cloning of the cDNA encoding human nonmuscle myosin heavy chain-B and analysis of human tissues with isoform-specific antibodies. Journal of Muscle Research and Cell Motility, 1995, 16, 379-389.	2.0	109
32	Myosin II controls cellular branching morphogenesis and migration in three dimensions by minimizing cell-surfaceÂcurvature. Nature Cell Biology, 2015, 17, 137-147.	10.3	109
33	Microenvironmental control of cell migration: Myosin IIA is required for efficient migration in fibrillar environments through control of cell adhesion dynamics. Journal of Cell Science, 2012, 125, 2244-56.	2.0	105
34	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
35	Vertebrate Nonmuscle Myosin II Isoforms Rescue Small Interfering RNA-induced Defects in COS-7 Cell Cytokinesis. Journal of Biological Chemistry, 2005, 280, 19594-19599.	3.4	103
36	Ablation of Nonmuscle Myosin II-B and II-C Reveals a Role for Nonmuscle Myosin II in Cardiac Myocyte Karyokinesis. Molecular Biology of the Cell, 2010, 21, 3952-3962.	2.1	102

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37	Loss of Cell Adhesion Causes Hydrocephalus in Nonmuscle Myosin II-B–ablated and Mutated Mice. Molecular Biology of the Cell, 2007, 18, 2305-2312.	2.1	98
38	Myosin II regulates extension, growth and patterning in the mammalian cochlear duct. Development (Cambridge), 2009, 136, 1977-1986.	2.5	98
39	The absence of 3-methylhistidine in red, cardiac and fetal myosins. Biochemical and Biophysical Research Communications, 1970, 39, 956-964.	2.1	97
40	Actin dynamics and competition for myosin monomer govern the sequential amplification of myosin filaments. Nature Cell Biology, 2017, 19, 85-93.	10.3	96
41	A Point Mutation in the Motor Domain of Nonmuscle Myosin II-B Impairs Migration of Distinct Groups of Neurons. Molecular Biology of the Cell, 2004, 15, 2568-2579.	2.1	94
42	Identification of Ϊμ-N-monomethyllysine and Ϊμ-N-trimethyllysine in rabbit skeletal myosin. Biochemical and Biophysical Research Communications, 1969, 37, 59-65.	2.1	90
43	The role of vertebrate nonmuscle Myosin II in development and human disease. Bioarchitecture, 2014, 4, 88-102.	1.5	88
44	A Rho-dependent signaling pathway operating through myosin localizes β-actin mRNA in fibroblasts. Current Biology, 2001, 11, 1010-1016.	3.9	87
45	The Protein Phosphatases Invloved in Cellular Regulation. 4. Classification of Two Homogeneous Myosin Light Chain Phosphatases from Smoth Muscle as Protein Phosphatase-2A1 and 2C, and a Homogeneous Protein Phosphatase from Reticulocytes Active on Protein Synthesis Initiation Factor elF-2 as Protein Phosphatase-2A2. FEBS Journal, 1983, 132, 283-287.	0.2	82
46	Replacement of Nonmuscle Myosin II-B with II-A Rescues Brain but Not Cardiac Defects in Mice. Journal of Biological Chemistry, 2007, 282, 22102-22111.	3.4	82
47	Ablation and Mutation of Nonmuscle Myosin Heavy Chain II-B Results in a Defect in Cardiac Myocyte Cytokinesis. Circulation Research, 2003, 93, 330-337.	4.5	81
48	Convergence and Extrusion Are Required for Normal Fusion of the Mammalian Secondary Palate. PLoS Biology, 2015, 13, e1002122.	5.6	80
49	Non-muscle myosin II regulates survival threshold of pluripotent stem cells. Nature Communications, 2010, 1, 71.	12.8	78
50	Nonmuscle myosin II localizes to the Z-lines and intercalated discs of cardiac muscle and to the Z-lines of skeletal muscle. Cytoskeleton, 2000, 46, 59-68.	4.4	77
51	Mechanism of regulation of cardiac actin-myosin subfragment 1 by troponin-tropomyosin. Biochemistry, 1986, 25, 798-802.	2.5	76
52	Fox-3 and PSF interact to activate neural cell-specific alternative splicing. Nucleic Acids Research, 2011, 39, 3064-3078.	14.5	76
53	13 Regulation of Contractile Activity. The Enzymes, 1987, 18, 381-418.	1.7	73
54	Neuronal Cell Expression of Inserted Isoforms of Vertebrate Nonmuscle Myosin Heavy Chain II-B. Journal of Biological Chemistry, 1995, 270, 14533-14540.	3.4	72

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55	Nonmuscle myosin II isoform and domain specificity during early mouse development. Proceedings of the United States of America, 2010, 107, 14645-14650.	7.1	71
56	Identification of the serine residue phosphorylated by protein kinase C in vertebrate nonmuscle myosin heavy chains. Biochemistry, 1991, 30, 966-970.	2.5	70
57	Phosphorylation of vertebrate nonmuscle and smooth muscle myosin heavy chains and light chains. Molecular and Cellular Biochemistry, 1993, 127-128, 219-227.	3.1	70
58	Baculovirus Expression of Chicken Nonmuscle Heavy Meromyosin II-B. Journal of Biological Chemistry, 1996, 271, 2689-2695.	3.4	68
59	Nonmuscle Myosin IIA Regulates Intestinal Epithelial Barrier in vivo and Plays a Protective Role During Experimental Colitis. Scientific Reports, 2016, 6, 24161.	3.3	67
60	Identification of the chimeric protein product of the <i>CBFBâ€MYH11</i> fusion gene in inv(16) leukemia cells. Genes Chromosomes and Cancer, 1996, 16, 77-87.	2.8	61
61	Pitx2a Expression Alters Actin-Myosin Cytoskeleton and Migration of HeLa Cells through Rho GTPase Signaling. Molecular Biology of the Cell, 2002, 13, 683-697.	2.1	60
62	Conditional Ablation of Nonmuscle Myosin II-B Delineates Heart Defects in Adult Mice. Circulation Research, 2009, 105, 1102-1109.	4.5	60
63	Distinct and redundant roles of the non-muscle myosin II isoforms and functional domains. Biochemical Society Transactions, 2011, 39, 1131-1135.	3.4	58
64	A Specific Isoform of Nonmuscle Myosin II-C Is Required for Cytokinesis in a Tumor Cell Line. Journal of Biological Chemistry, 2006, 281, 24662-24670.	3.4	54
65	Nonmuscle Myosin IIB Links Cytoskeleton to IRE1α Signaling during ER Stress. Developmental Cell, 2012, 23, 1141-1152.	7.0	54
66	Folliculin (Flcn) inactivation leads to murine cardiac hypertrophy through mTORC1 deregulation. Human Molecular Genetics, 2014, 23, 5706-5719.	2.9	54
67	[27] Purification of smooth muscle myosin light-chain kinase. Methods in Enzymology, 1982, 85 Pt B, 298-308.	1.0	52
68	Myosin phosphorylation, agonist concentration and contraction of tracheal smooth muscle. Nature, 1982, 298, 871-872.	27.8	52
69	Effects of calcium on vascular smooth muscle contraction. American Journal of Cardiology, 1987, 59, B4-B10.	1.6	52
70	N-Cadherin Sustains Motility and Polarity of Future Cortical Interneurons during Tangential Migration. Journal of Neuroscience, 2013, 33, 18149-18160.	3.6	52
71	Concerted actions of distinct nonmuscle myosin II isoforms drive intracellular membrane remodeling in live animals. Journal of Cell Biology, 2017, 216, 1925-1936.	5.2	52
72	Myosin phosphorylation, cell motility and smooth muscle contraction. Trends in Biochemical Sciences, 1978, 3, 27-30.	7.5	48

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73	Non-Muscle Myosin IIA Differentially Regulates Intestinal Epithelial Cell Restitution and Matrix Invasion. American Journal of Pathology, 2009, 174, 436-448.	3.8	48
74	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
75	LPA ₁ â€induced migration requires nonmuscle myosin II light chain phosphorylation in breast cancer cells. Journal of Cellular Physiology, 2011, 226, 2881-2893.	4.1	47
76	Rbfox3 controls the biogenesis of a subset of microRNAs. Nature Structural and Molecular Biology, 2014, 21, 901-910.	8.2	47
77	Conditional deletion of nonmuscle myosin II-A in mouse tongue epithelium results in squamous cell carcinoma. Scientific Reports, 2015, 5, 14068.	3.3	45
78	Myoblast myosin phosphorylation is a prerequisite for actin-activation. Nature, 1977, 268, 558-560.	27.8	43
79	Nonmuscle Myosin <scp>II</scp> Is a Critical Regulator ofÂClathrinâ€Mediated Endocytosis. Traffic, 2014, 15, 418-432.	2.7	43
80	Menin, a tumor suppressor, associates with nonmuscle myosin II-A heavy chain. Oncogene, 2003, 22, 6347-6358.	5.9	42
81	Function of the Neuron-specific Alternatively Spliced Isoforms of Nonmuscle Myosin II-B during Mouse Brain Development. Molecular Biology of the Cell, 2006, 17, 2138-2149.	2.1	42
82	Gene dosage affects the cardiac and brain phenotype in nonmuscle myosin II-B–depleted mice. Journal of Clinical Investigation, 2000, 105, 663-671.	8.2	42
83	A Novel Guanine Nucleotide Exchange Factor, MYOGEF, is Required for Cytokinesis. Cell Cycle, 2006, 5, 1234-1239.	2.6	41
84	A Point Mutation in <i>Myh10</i> Causes Major Defects in Heart Development and Body Wall Closure. Circulation: Cardiovascular Genetics, 2014, 7, 257-265.	5.1	39
85	Non-muscle myosin IIB is essential for cytokinesis during male meiotic cell divisions. Developmental Biology, 2012, 369, 356-361.	2.0	37
86	Cloning of the cDNA encoding rat myosin heavy chain-A and evidence for the absence of myosin heavy chain-B in cultured rat mast (RBL-2H3) cells. Journal of Muscle Research and Cell Motility, 1996, 17, 69-77.	2.0	32
87	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
88	Inhibition of Turkey gizzard myosin light chain. Biochemical Pharmacology, 1984, 33, 3759-3764.	4.4	28
89	Rap1 Activation in Collagen Phagocytosis Is Dependent on Nonmuscle Myosin II-A. Molecular Biology of the Cell, 2008, 19, 5032-5046.	2.1	28
90	Nonmuscle Myosin II Is Required for Internalization of the Epidermal Growth Factor Receptor and Modulation of Downstream Signaling. Journal of Biological Chemistry, 2012, 287, 27345-27358.	3.4	27

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91	Stress Granules Contain Rbfox2 with Cell Cycle-related mRNAs. Scientific Reports, 2017, 7, 11211.	3.3	27
92	Myh10 deficiency leads to defective extracellular matrix remodeling and pulmonary disease. Nature Communications, 2018, 9, 4600.	12.8	27
93	A Xenopus Nonmuscle Myosin Heavy Chain Isoform Is Phosphorylated by Cyclin-p34cdc2 Kinase during Meiosis. Journal of Biological Chemistry, 1995, 270, 1395-1401.	3.4	26
94	PKC412 normalizes mutationâ€related keratin filament disruption and hepatic injury in mice by promoting keratin–myosin binding. Hepatology, 2015, 62, 1858-1869.	7.3	26
95	Nonmuscle Myosin II Regulates the Morphogenesis of Metanephric Mesenchyme–Derived Immature Nephrons. Journal of the American Society of Nephrology: JASN, 2015, 26, 1081-1091.	6.1	26
96	The Role of Myosin Phosphorylation in Regulating Actin-Myosin Interaction in Human Blood Platelets. Thrombosis and Haemostasis, 1978, 40, 241-244.	3.4	25
97	Stimulation of canine cardiac sarcoplasmic reticulum Ca2+ uptake by dihydropyridine Ca2+ antagonists. Biochemical Pharmacology, 1985, 34, 195-201.	4.4	24
98	In vivo studies on nonmuscle myosin II expression and function in heart development. Frontiers in Bioscience - Landmark, 2012, 17, 545.	3.0	24
99	Induction of Nonmuscle Myosin Heavy Chain II-C by Butyrate in RAW 264.7 Mouse Macrophages. Journal of Biological Chemistry, 2003, 278, 15449-15455.	3.4	23
100	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
101	Calcium-dependent Threonine Phosphorylation of Nonmuscle Myosin in Stimulated RBL-2H3 Mast Cells. Journal of Biological Chemistry, 2000, 275, 34772-34779.	3.4	18
102	Keratin 5-Cre-driven excision of nonmuscle myosin IIA in early embryo trophectoderm leads to placenta defects and embryonic lethality. Developmental Biology, 2013, 382, 136-148.	2.0	18
103	Limb body wall complex, amniotic band sequence, or new syndrome caused by mutation in <i>IQ Motif containing K</i> (<i>IQCK</i>)?. Molecular Genetics & amp; Genomic Medicine, 2015, 3, 424-432.	1.2	17
104	Differential expression of non-muscle myosin heavy chain genes during Xenopus embryogenesis. Mechanisms of Development, 1998, 78, 33-36.	1.7	15
105	Parallel assembly of actin and tropomyosin but not myosin II during <i>de novo</i> actin filament formation in live mice. Journal of Cell Science, 2018, 131, .	2.0	15
106	Mesenchymal actomyosin contractility is required for androgen-driven urethral masculinization in mice. Communications Biology, 2019, 2, 95.	4.4	15
107	Immunological properties of myosin light-chain kinases. BBA - Proteins and Proteomics, 1987, 914, 74-82.	2.1	14
108	Inhibition of turkey gizzard myosin light chain kinase activity by BAY K 8644. European Journal of Pharmacology, 1984, 103, 161-163.	3.5	13

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109	Non-muscle myosin II deletion in the developing kidney causes ureter-bladder misconnection and apical extrusion of the nephric duct lineage epithelia. Developmental Biology, 2017, 427, 121-130.	2.0	13
110	Smooth Muscle Myosin Light Chain Kinase. , 1980, , 167-182.		11
111	[28] Purification of smooth muscle phosphatases. Methods in Enzymology, 1982, 85 Pt B, 308-315.	1.0	10
112	Isoform-specific proteasomal degradation of Rbfox3 during chicken embryonic development. Biochemical and Biophysical Research Communications, 2014, 450, 1662-1667.	2.1	10
113	Nonmuscle myosin 2 regulates cortical stability during sprouting angiogenesis. Molecular Biology of the Cell, 2020, 31, 1974-1987.	2.1	10
114	Actin and myosin in non-muscle cells: Secretion, motility and cell division. Nature, 1975, 255, 106-107.	27.8	9
115	Non-Muscle Myosin II. , 2008, , 223-264.		8
116	Nonmuscle myosin II moves in new directions. Journal of Cell Science, 2008, 121, 404-404.	2.0	8
117	Nonmuscle myosin II-B regulates epicardial integrity and epicardial derived mesenchymal cell maturation. Journal of Cell Science, 2017, 130, 2696-2706.	2.0	6
118	Replacing nonmuscle myosin 2A with myosin 2C1 permits gastrulation but not placenta vascular development in mice. Molecular Biology of the Cell, 2018, 29, 2326-2335.	2.1	6
119	Identification and characterization of MYH9 locus for high efficient gene knock-in and stable expression in mouse embryonic stem cells. PLoS ONE, 2018, 13, e0192641.	2.5	6
120	The role of nonmuscle myosin 2A and 2B in the regulation of mesenchymal cell contact guidance. Molecular Biology of the Cell, 2019, 30, 1961-1973.	2.1	5
121	Calcium and calmodulin in Kyoto. Nature, 1981, 294, 693-694.	27.8	3
122	Mutations in non-muscle myosin 2A disrupt the actomyosin cytoskeleton in Sertoli cells and cause male infertility. Developmental Biology, 2021, 470, 49-61.	2.0	3
123	PHOSPHORYLATON OF SMOOTH MUSCLE MYOSIN LIGHT CHAIN KINASE BY THE CATALYTIC SUBUNIT OF ADENOSINE 3â€2:5â€2-MONOPHOSPHATE DEPENDENT PROTEIN KINASE. , 1979, , 992-994.		3
124	In Situ Phosphorylation of Human Platelet and Rat Basophilic Leukemia Cell (RBL-2H3) Myosin Heavy Chain and Light Chain. Advances in Experimental Medicine and Biology, 1989, 255, 289-297.	1.6	2
125	Soviet dissidents (2): Keeping the flame alight. Nature, 1976, 263, 363-364.	27.8	1
126	The Interaction of Platelet Actin, Myosin and Myosin Light Chain Kinase. Novartis Foundation Symposium, 1975, 35, 101-119.	1.1	1

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127	Investigation of the molecular biology underlying the pronounced high gene targeting frequency at the Myh9 gene locus in mouse embryonic stem cells. PLoS ONE, 2020, 15, e0230126.	2.5	0
128	Loss of Non-Muscle Myosin Heavy Chain IIA Function Does Not Restrict Megakaryocyte Maturation or Spontaneous Platelet Release and Likely Affects Non-Cell-Autonomous Aspects of Thrombopoiesis Blood, 2006, 108, 701-701.	1.4	0
129	A unique role for the nonmuscle myosin IIA in regulation of epithelial apical junctions. FASEB Journal, 2007, 21, A763.	0.5	0
130	Purification and characterization of Ca2+phospholipid dependent protein kinase (C kinase) from human platelets Blood & Vessel, 1985, 16, 614-617.	0.0	0
131	Phosphorylation of vertebrate nonmuscle and smooth muscle myosin heavy chains and light chains. , 1993, , 219-227.		0