Matthew D Welch

List of Publications by Year
in descending order

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79	8,928	66315	76872
papers	citations	42 h-index	74 g-index

167	167	167	10050
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The ARP2/3 complex: an actin nucleator comes of age. Nature Reviews Molecular Cell Biology, 2006, 7, 713-726.	16.1	879
2	A nucleator arms race: cellular control of actin assembly. Nature Reviews Molecular Cell Biology, 2010, 11, 237-251.	16.1	826
3	Actin polymerization is induced by Arp 2/3 protein complex at the surface of Listeria monocytogenes. Nature, 1997, 385, 265-269.	13.7	567
4	The Human Arp2/3 Complex Is Composed of Evolutionarily Conserved Subunits and Is Localized to Cellular Regions of Dynamic Actin Filament Assembly. Journal of Cell Biology, 1997, 138, 375-384.	2.3	457
5	Cellular Control of Actin Nucleation. Annual Review of Cell and Developmental Biology, 2002, 18, 247-288.	4.0	434
6	Actin-based motility of intracellular pathogens. Current Opinion in Microbiology, 2005, 8, 35-45.	2.3	332
7	Mycobacterium marinum Escapes from Phagosomes and Is Propelled by Actin-based Motility. Journal of Experimental Medicine, 2003, 198, 1361-1368.	4.2	262
8	WHAMM Is an Arp2/3 Complex Activator That Binds Microtubules and Functions in ER to Golgi Transport. Cell, 2008, 134, 148-161.	13.5	249
9	Spatial control of actin polymerization during neutrophil chemotaxis. Nature Cell Biology, 1999, 1, 75-81.	4.6	247
10	The Wiskottâ€“Aldrich syndrome protein directs actin-based motility by stimulating actin nucleation with the Arp2/3 complex. Current Biology, 1999, 9, 555-S1.	1.8	241
11	Formation of filopodia-like bundles in vitro from a dendritic network. Journal of Cell Biology, 2003, 160, 951-962.	2.3	236
12	Arp2/3-Mediated Actin-Based Motility: A Tail of Pathogen Abuse. Cell Host and Microbe, 2013, 14, 242-255.	5.1	188
13	New mechanisms and functions of actin nucleation. Current Opinion in Cell Biology, 2011, 23, 4-13.	2.6	183
14	Pathogens and polymers: Microbeâ€“host interactions illuminate the cytoskeleton. Journal of Cell Biology, 2011, 195, 7-17.	2.3	181
15	Three Regions within Acta Promote Arp2/3 Complex-Mediated Actin Nucleation and Listeria monocytogenes Motility. Journal of Cell Biology, 2000, 150, 527-538.	2.3	178
16	Actin-based motility drives baculovirus transit to the nucleus and cell surface. Journal of Cell Biology, 2010, 190, 187-195.	2.3	175
17	Identification of a bacterial factor required for actin-based motility of Burkholderia pseudomallei. Molecular Microbiology, 2005, 56, 40-53.	1.2	174
18	Visualization and Molecular Analysis of Actin Assembly in Living Cells. Journal of Cell Biology, 1998, 143, 1919-1930.	2.3	161

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19	Reconstitution of Human Arp2/3 Complex Reveals Critical Roles of Individual Subunits in Complex Structure and Activity. Molecular Cell, 2001, 8, 1041-1052.	4.5	157
20	Dynamic Nuclear Actin Assembly by Arp2/3 Complex and a Baculovirus WASP-Like Protein. Science, 2006, 314, 464-467.	6.0	157
21	The world according to Arp: regulation of actin nucleation by the Arp2/3 complex. Trends in Cell Biology, 1999, 9, 423-427.	3.6	154
22	Rickettsia Sca2 is a bacterial formin-like mediator of actin-based motility. Nature Cell Biology, 2010, 12, 1057-1063.	4.6	141
23	Salmonella effectors translocated across the vacuolar membrane interact with the actin cytoskeleton. Molecular Microbiology, 2003, 48, 401-415.	1.2	137
24	A Rickettsia WASP-like protein activates the Arp2/3 complex and mediates actin-based motility. Cellular Microbiology, 2004, 6, 761-769.	1.1	137
25	Pivotal role of VASP in Arp2/3 complexâ€“mediated actin nucleation, actin branch-formation, and Listeria monocytogenes motility. Journal of Cell Biology, 2001, 155, 89-100.	2.3	126
26	The yeast actin cytoskeleton. Current Opinion in Cell Biology, 1994, 6, 110-119.	2.6	116
27	Critical Conformational Changes in the Arp2/3 Complex Are Induced by Nucleotide and Nucleation Promoting Factor. Molecular Cell, 2004, 16, 269-279.	4.5	111
28	Antibacterial autophagy occurs at PI(3)P-enriched domains of the endoplasmic reticulum and requires Rab1 GTPase. Autophagy, 2011, 7, 17-26.	4.3	102
29	Rickettsia Actin-Based Motility Occurs in Distinct Phases Mediated by Different Actin Nucleators. Current Biology, 2014, 24, 98-103.	1.8	101
30	Rickettsia Sca4 Reduces Vinculin-Mediated Intercellular Tension to Promote Spread. Cell, 2016, 167, 670-683.e10.	13.5	101
31	Actin-based motility and cell-to-cell spread of bacterial pathogens. Current Opinion in Microbiology, 2017, 35, 48-57.	2.3	100
32	Cytoskeleton: Actin and endocytosis â€” no longer the weakest link. Current Biology, 2001, 11, R691-R694.	1.8	92
33	Virulent Burkholderia Species Mimic Host Actin Polymerases to Drive Actin-Based Motility. Cell, 2015, 161, 348-360.	13.5	89
34	Arp2/3 ATP hydrolysis-catalysed branch dissociation is critical for endocytic force generation. Nature Cell Biology, 2006, 8, 826-833.	4.6	81
35	Effects of Arp2 and Arp3 nucleotide-binding pocket mutations on Arp2/3 complex function. Journal of Cell Biology, 2005, 168, 315-328.	2.3	73
36	An actin-filament-binding interface on the Arp2/3 complex is critical for nucleation and branch stability. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8159-8164.	3.3	62

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37	Evasion of autophagy mediated by Rickettsia surface protein OmpB is critical for virulence. Nature Microbiology, 2019, 4, 2538-2551.	5.9	60
38	Inflammasome-mediated antagonism of type I interferon enhances Rickettsia pathogenesis. Nature Microbiology, 2020, 5, 688-696.	5.9	59
39	Defining a Core Set of Actin Cytoskeletal Proteins Critical for Actin-Based Motility of Rickettsia. Cell Host and Microbe, 2010, 7, 388-398.	5.1	58
40	Electron Tomography and Simulation of Baculovirus Actin Comet Tails Support a Tethered Filament Model of Pathogen Propulsion. PLoS Biology, 2014, 12, e1001765.	2.6	51
41	Rickettsia parkeri invasion of diverse host cells involves an Arp2/3 complex, WAVE complex and Rho-family GTPase-dependent pathway. Cellular Microbiology, 2012, 14, 529-545.	1.1	50
42	Baculovirus Actin-Based Motility Drives Nuclear Envelope Disruption and Nuclear Egress. Current Biology, 2018, 28, 2153-2159.e4.	1.8	50
43	Repetitive N-WASPâ€“Binding Elements of the Enterohemorrhagic Escherichia coli Effector EspFU Synergistically Activate Actin Assembly. PLoS Pathogens, 2008, 4, e1000191.	2.1	47
44	Lysine methylation shields an intracellular pathogen from ubiquitylation and autophagy. Science Advances, 2021, 7, .	4.7	34
45	Systematic mutational analysis of the amino-terminal domain of the Listeria monocytogenes ActA protein reveals novel functions in actin-based motility. Molecular Microbiology, 2002, 42, 1163-1177.	1.2	33
46	RECON-Dependent Inflammation in Hepatocytes Enhances Listeria monocytogenes Cell-to-Cell Spread. MBio, 2018, 9, .	1.8	32
47	Structural insights into WHAMM-mediated cytoskeletal coordination during membrane remodeling. Journal of Cell Biology, 2012, 199, 111-124.	2.3	31
48	Rab1 recruits WHAMM during membrane remodeling but limits actin nucleation. Molecular Biology of the Cell, 2016, 27, 967-978.	0.9	30
49	Cell Migration, Freshly Squeezed. Cell, 2015, 160, 581-582.	13.5	29
50	Actin-based motility of bacterial pathogens: mechanistic diversity and its impact on virulence. Pathogens and Disease, 2016, 74, ftw099.	0.8	29
51	A streamlined method for transposon mutagenesis of Rickettsia parkeri yields numerous mutations that impact infection. PLoS ONE, 2018, 13, e0197012.	1.1	29
52	Mechanical competition triggered by innate immune signaling drives the collective extrusion of bacterially infected epithelial cells. Developmental Cell, 2021, 56, 443-460.e11.	3.1	27
53	Novel use of a chimpanzee pseudogene for chromosomal mapping of human cytochrome oxidase subunitIV. Gene, 1990, 86, 209-216.	1.0	25
54	[6] Purification and Assay of the Platelet Arp2 / 3 Complex Arp2/3 complex. Methods in Enzymology, 1998, 298, 52-61.	0.4	25

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55	Why should cell biologists study microbial pathogens?. Molecular Biology of the Cell, 2015, 26, 4295-4301.	0.9	23
56	A 2-Pyridone-Amide Inhibitor Targets the Glucose Metabolism Pathway of Chlamydia trachomatis. MBio, 2015, 6, e02304-14.	1.8	22
57	Role of Sca2 and RickA in the Dissemination of Rickettsia parkeri in Amblyomma maculatum. Infection and Immunity, 2018, 86, .	1.0	21
58	Nuclear localization of actin requires AC102 in Autographa californica multiple nucleopolyhedrovirus-infected cells. Journal of General Virology, 2012, 93, 1795-1803.	1.3	20
59	Baculovirus AC102 Is a Nucleocapsid Protein That Is Crucial for Nuclear Actin Polymerization and Nucleocapsid Morphogenesis. Journal of Virology, 2018, 92, .	1.5	17
60	A patatin-like phospholipase mediates Rickettsia parkeri escape from host membranes. Nature Communications, 2022, 13, .	5.8	17
61	Expression of an Epitope-Tagged Virulence Protein in Rickettsia parkeri Using Transposon Insertion. PLoS ONE, 2012, 7, e37310.	1.1	16
62	Membrane-deforming Proteins Play Distinct Roles in Actin Pedestal Biogenesis by Enterohemorrhagic Escherichia coli. Journal of Biological Chemistry, 2012, 287, 20613-20624.	1.6	14
63	Interferon receptor-deficient mice are susceptible to eschar-associated rickettsiosis. ELife, 2021, 10, .	2.8	14
64	A Metabolic Dependency for Host Isoprenoids in the Obligate Intracellular Pathogen Rickettsia parkeri Underlies a Sensitivity to the Statin Class of Host-Targeted Therapeutics. MSphere, 2019, 4, .	1.3	8
65	Trypanosomes have divergent kinesin-2 proteins that function differentially in flagellum biosynthesis and cell viability. Journal of Cell Science, 2020, 133, .	1.2	8
66	Turning on the Arp2/3 Complex at Atomic Resolution. Structure, 2002, 10, 131-135.	1.6	7
67	Establishing Intracellular Infection: Escape from the Phagosome and Intracellular Colonization (Rickettsiaceae). , 0, , 154-174.		5
68	A glycine-rich PE_PGRS protein governs mycobacterial actin-based motility. Nature Communications, 2022, 13, .	5.8	4
69	MBoC: community, communication, and innovation. Molecular Biology of the Cell, 2020, 31, 1-2.	0.9	3
70	Baculovirus actin-rearrangement-inducing factor ARIF-1 induces the formation of dynamic invadosome clusters. Molecular Biology of the Cell, 2021, 32, 1433-1445.	0.9	3
71	Introducing MBoC Voices. Molecular Biology of the Cell, 2020, 31, 2157-2157.	0.9	2
72	Plasma membrane protrusions mediate host cellâ€“cell fusion induced by Burkholderia thailandensis. Molecular Biology of the Cell, 2022, 33, mbcE22020056.	0.9	2

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73	New editors bring new energy to MBoC. Molecular Biology of the Cell, 2021, 32, 1331-1332.	0.9	1
74	Introducing MBoC Preprint Highlights. Molecular Biology of the Cell, 2022, 33, ed1.	0.9	1
75	Matthew Welch: The many branches of actin regulation. Journal of Cell Biology, 2011, 192, 206-207.	2.3	0
76	Editorial overview: Cell architecture: Cellular organization and function. Current Opinion in Cell Biology, 2014, 26, v-vii.	2.6	0
77	Lessons from the enemy: what pathogens have taught us about the control of cytoskeletal dynamics. FASEB Journal, 2007, 21, A37.	0.2	0
78	Exploitation of cytoplasmic and nuclear actin by baculoviruses. FASEB Journal, 2008, 22, 530.3.	0.2	0
79	Mobilization of the actin cytoskeleton by microbial pathogens. FASEB Journal, 2013, 27, 76.2.	0.2	0