R Dyche Mullins

List of Publications by Year in descending order

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47 papers

7,970 citations

172457 29 h-index 43 g-index

78 all docs 78 docs citations

78 times ranked 10889 citing authors

#	Article	IF	CITATIONS
1	Lattice light-sheet microscopy: Imaging molecules to embryos at high spatiotemporal resolution. Science, 2014, 346, 1257998.	12.6	1,567
2	Molecular Mechanisms Controlling Actin Filament Dynamics in Nonmuscle Cells. Annual Review of Biophysics and Biomolecular Structure, 2000, 29, 545-576.	18.3	1,319
3	The Global Phosphorylation Landscape of SARS-CoV-2 Infection. Cell, 2020, 182, 685-712.e19.	28.9	825
4	Cellular Control of Actin Nucleation. Annual Review of Cell and Developmental Biology, 2002, 18, 247-288.	9.4	434
5	SuperPlots: Communicating reproducibility and variability in cell biology. Journal of Cell Biology, 2020, 219, .	5.2	418
6	Drosophila Spire is an actin nucleation factor. Nature, 2005, 433, 382-388.	27.8	303
7	VASP is a processive actin polymerase that requires monomeric actin for barbed end association. Journal of Cell Biology, 2010, 191, 571-584.	5.2	241
8	Capping Protein Increases the Rate of Actin-Based Motility by Promoting Filament Nucleation by the Arp2/3 Complex. Cell, 2008, 133, 841-851.	28.9	228
9	Force Feedback Controls Motor Activity and Mechanical Properties of Self-Assembling Branched Actin Networks. Cell, 2016, 164, 115-127.	28.9	223
10	p53-cofactor JMY is a multifunctional actin nucleation factor. Nature Cell Biology, 2009, 11, 451-459.	10.3	220
11	Spatial and Temporal Relationships between Actin-Filament Nucleation, Capping, and Disassembly. Current Biology, 2007, 17, 395-406.	3.9	197
12	DNA damage induces nuclear actin filament assembly by Formin-2 and Spire-1/2 that promotes efficient DNA repair. ELife, 2015, 4, e07735.	6.0	168
13	Regulatory interactions between two actin nucleators, Spire and Cappuccino. Journal of Cell Biology, 2007, 179, 117-128.	5.2	162
14	Comparative analysis of tools for live cell imaging of actin network architecture. Bioarchitecture, 2014, 4, 189-202.	1.5	138
15	Differential Remodeling of Actin Cytoskeleton Architecture by Profilin Isoforms Leads to Distinct Effects on Cell Migration and Invasion. Cancer Cell, 2012, 22, 615-630.	16.8	131
16	Actomyosin dynamics drive local membrane component organization in an in vitro active composite layer. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1645-54.	7.1	131
17	Epi-illumination SPIM for volumetric imaging with high spatial-temporal resolution. Nature Methods, 2019, 16, 501-504.	19.0	125
18	Activation of the Arp2/3 Complex by the Listeria ActA Protein. Journal of Biological Chemistry, 2001, 276, 3468-3475.	3.4	119

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19	Actin-based protrusions of migrating neutrophils are intrinsically lamellar and facilitate direction changes. ELife, 2017, 6, .	6.0	107
20	WASP and SCAR are evolutionarily conserved in actin-filled pseudopod-based motility. Journal of Cell Biology, 2017, 216, 1673-1688.	5.2	91
21	WH2 and prolineâ€rich domains of WASPâ€family proteins collaborate to accelerate actin filament elongation. EMBO Journal, 2018, 37, 102-121.	7.8	77
22	Activation of Arp2/3 Complex: Addition of the First Subunit of the New Filament by a WASP Protein Triggers Rapid ATP Hydrolysis on Arp2. PLoS Biology, 2004, 2, e91.	5.6	77
23	Actin Binding to the Central Domain of WASP/Scar Proteins Plays a Critical Role in the Activation of the Arp2/3 Complex. Journal of Biological Chemistry, 2006, 281, 10589-10597.	3.4	71
24	Lamellipodin promotes actin assembly by clustering Ena/VASP proteins and tethering them to actin filaments. ELife, 2015, 4, .	6.0	67
25	Cytoskeletal Mechanisms for Breaking Cellular Symmetry. Cold Spring Harbor Perspectives in Biology, 2010, 2, a003392-a003392.	5.5	63
26	In Silico Reconstitution of Actin-Based Symmetry Breaking and Motility. PLoS Biology, 2009, 7, e1000201.	5.6	61
27	Arp2/3 Complex and Cofilin Modulate Binding of Tropomyosin to Branched Actin Networks. Current Biology, 2015, 25, 1573-1582.	3.9	51
28	In vitro studies of actin filament and network dynamics. Current Opinion in Cell Biology, 2013, 25, 6-13.	5.4	45
29	From solution to surface to filament: actin flux into branched networks. Biophysical Reviews, 2018, 10, 1537-1551.	3.2	42
30	LC3 and STRAP regulate actin filament assembly by JMY during autophagosome formation. Journal of Cell Biology, 2019, 218, 251-266.	5.2	42
31	Cytoplasmic Actin: Purification and Single Molecule Assembly Assays. Methods in Molecular Biology, 2013, 1046, 145-170.	0.9	35
32	Initiation and disassembly of filopodia tip complexes containing VASP and lamellipodin. Molecular Biology of the Cell, 2020, 31, 2021-2034.	2.1	34
33	The surfaceome of multiple myeloma cells suggests potential immunotherapeutic strategies and protein markers of drug resistance. Nature Communications, 2022, 13, .	12.8	26
34	A novel tropomyosin isoform functions at the mitotic spindle and Golgi in <i>Drosophila</i> Molecular Biology of the Cell, 2015, 26, 2491-2504.	2.1	22
35	The molecular mechanism of load adaptation by branched actin networks. ELife, 0, 11 , .	6.0	16
36	High-Temperature Live-Cell Imaging of Cytokinesis, Cell Motility, and Cell-Cell Interactions in the Thermoacidophilic Crenarchaeon Sulfolobus acidocaldarius. Frontiers in Microbiology, 2021, 12, 707124.	3.5	15

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37	Concise Language Promotes Clear Thinking about Cell Shape and Locomotion. BioEssays, 2018, 40, e1700225.	2.5	13
38	Our evolving view of cell motility. Cell Cycle, 2017, 16, 1735-1736.	2.6	12
39	Bacterial Tubulins A and B Exhibit Polarized Growth, Mixed-Polarity Bundling, and Destabilization by GTP Hydrolysis. Journal of Bacteriology, 2017, 199, .	2.2	10
40	Micropattern-Guided Assembly of Overlapping Pairs of Dynamic Microtubules. Methods in Enzymology, 2014, 540, 339-360.	1.0	8
41	Cryo-EM structure of the bacterial actin AlfA reveals unique assembly and ATP-binding interactions and the absence of a conserved subdomain. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3356-3361.	7.1	7
42	Protomer alignment modulates specificity of RNA substrate recognition by Ire1. ELife, 2021, 10, .	6.0	7
43	Bacterial Actin-Like Proteins. Methods in Enzymology, 2014, 540, 19-34.	1.0	5
44	The instability of stabilization. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10743-10744.	7.1	3
45	For actin wonks*everywhere. Journal of Cell Science, 2002, 115, 677-678.	2.0	O
46	Reconstitution of plasmid DNA segregation from purified components. FASEB Journal, 2007, 21, A208.	0.5	0
47	Bacterial Chromosome Segregation. Annual Review of Cell and Developmental Biology, 2009, , .	9.4	O