Pekka Lappalainen

List of Publications by Year
in descending order

137	14,287	18482 62	21540 114
papers	citations	h-index	g-index

157	157	157	14481
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A myosin chaperone, UNCâ€45A, is a novel regulator of intestinal epithelial barrier integrity and repair. FASEB Journal, 2022, 36, e22290.	0.5	8
2	Mechanism of Borrelia immune evasion by FhbA-related proteins. PLoS Pathogens, 2022, 18, e1010338.	4.7	1
3	Myosin chaperone, UNCâ€45A, is a novel regulator of intestinal epithelial barrier integrity and repair. FASEB Journal, 2022, 36, .	0.5	0
4	Structural basis of rapid actin dynamics in the evolutionarily divergent Leishmania parasite. Nature Communications, 2022, 13, .	12.8	8
5	Liposome Co-sedimentation and Co-flotation Assays to Study Lipidâ€“Protein Interactions. Methods in Molecular Biology, 2021, 2251, 195-204.	0.9	8
6	A functional family of fluorescent nucleotide analogues to investigate actin dynamics and energetics. Nature Communications, 2021, 12, 548.	12.8	8
7	Generation of stress fibers through myosin-driven reorganization of the actin cortex. ELife, 2021, 10, .	6.0	60
8	Twinfilin uncaps filament barbed ends to promote turnover of lamellipodial actin networks. Nature Cell Biology, 2021, 23, 147-159.	10.3	47
9	Editorial: Architectural cell elements as multimodal sensors, transducers, and actuators. Current Opinion in Cell Biology, 2021, 68, iii-v.	5.4	0
10	Full assembly of HIV-1 particles requires assistance of the membrane curvature factor IRSp53. ELife, 2021, 10, .	6.0	23
11	An<scp>ARHGAP25</scp>variant links aberrant<scp>Rac1</scp>function to earlyâ€onset skeletal fragility. JBMR Plus, 2021, 5, e10509.	2.7	4
12	SHANK3 conformation regulates direct actin binding and crosstalk with Rap1 signaling. Current Biology, 2021, 31, 4956-4970.e9.	3.9	14
13	Actin/microtubule crosstalk during platelet biogenesis in mice is critically regulated by Twinfilin1 and Cofilin1. Blood Advances, 2020, 4, 2124-2134.	5.2	18
14	Assembly of Peripheral Actomyosin Bundles in Epithelial Cells Is Dependent on the CaMKK2/AMPK Pathway. Cell Reports, 2020, 30, 4266-4280.e4.	6.4	17
15	Tropomodulins Control the Balance between Protrusive and Contractile Structures by Stabilizing Actin-Tropomyosin Filaments. Current Biology, 2020, 30, 767-778.e5.	3.9	29
16	Mechanism of synergistic actin filament pointed end depolymerization by cyclase-associated protein and cofilin. Nature Communications, 2019, 10, 5320.	12.8	76
17	Regulation of actin dynamics by PI(4,5)P2 in cell migration and endocytosis. Current Opinion in Cell Biology, 2019, 56, 7-13.	5.4	77
18	Myosin-18B Promotes the Assembly of Myosin II Stacks for Maturation of Contractile Actomyosin Bundles. Current Biology, 2019, 29, 81-92.e5.	3.9	43

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19	Protein modification fine-tunes the cellâ€™s force producers. Nature, 2019, 565, 297-298.	27.8	4
20	Molecular mechanism for inhibition of twinfilin by phosphoinositides. Journal of Biological Chemistry, 2018, 293, 4818-4829.	3.4	15
21	Calponin-3 is critical for coordinated contractility of actin stress fibers. Scientific Reports, 2018, 8, 17670.	3.3	22
22	Structural basis of actin monomer re-charging by cyclase-associated protein. Nature Communications, 2018, 9, 1892.	12.8	60
23	CaMKK2 Regulates Mechanosensitive Assembly of Contractile Actin Stress Fibers. Cell Reports, 2018, 24, 11-19.	6.4	28
24	Ezrin enrichment on curved membranes requires a specific conformation or interaction with a curvature-sensitive partner. ELife, 2018, 7, .	6.0	51
25	Vimentin intermediate filaments control actin stress fiber assembly through GEF-H1 and RhoA. Journal of Cell Science, 2017, 130, 892-902.	2.0	131
26	Tropomyosin Isoforms Specify Functionally Distinct Actin Filament Populations InÂVitro. Current Biology, 2017, 27, 705-713.	3.9	127
27	ADF/Cofilin Accelerates Actin Dynamics by Severing Filaments and Promoting Their Depolymerization at Both Ends. Current Biology, 2017, 27, 1956-1967.e7.	3.9	179
28	Role for formin-like 1-dependent acto-myosin assembly in lipid droplet dynamics and lipid storage. Nature Communications, 2017, 8, 14858.	12.8	48
29	Mechanistic principles underlying regulation of the actin cytoskeleton by phosphoinositides. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8977-E8986.	7.1	106
30	UNC-45a promotes myosin folding and stress fiber assembly. Journal of Cell Biology, 2017, 216, 4053-4072.	5.2	40
31	The Sharpin interactome reveals a role for Sharpin in lamellipodium formation via the Arp2/3 complex. Journal of Cell Science, 2017, 130, 3094-3107.	2.0	15
32	Ezrin enhances line tension along transcellular tunnel edges via NMIIa driven actomyosin cable formation. Nature Communications, 2017, 8, 15839.	12.8	24
33	Twinfilin 2a regulates platelet reactivity and turnover in mice. Blood, 2017, 130, 1746-1756.	1.4	33
34	Actin Filament Structures in Migrating Cells. Handbook of Experimental Pharmacology, 2016, 235, 123-152.	1.8	49
35	Actin-binding proteins: the long road to understanding the dynamic landscape of cellular actin networks. Molecular Biology of the Cell, 2016, 27, 2519-2522.	2.1	49
36	IRSp53 senses negative membrane curvature and phase separates along membrane tubules. Nature Communications, 2015, 6, 8529.	12.8	180

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37	How Leiomodin and Tropomodulin use a common fold for different actin assembly functions. Nature Communications, 2015, 6, 8314.	12.8	40
38	Generation of contractile actomyosin bundles depends on mechanosensitive actin filament assembly and disassembly. ELife, 2015, 4, e06126.	6.0	118
39	MIM-Induced Membrane Bending Promotes Dendritic Spine Initiation. Developmental Cell, 2015, 33, 644-659.	7.0	84
40	Bidirectional Interplay between Vimentin Intermediate Filaments and Contractile Actin Stress Fibers. Cell Reports, 2015, 11, 1511-1518.	6.4	157
41	Tropomyosin â€“ master regulator of actin filament function in the cytoskeleton. Journal of Cell Science, 2015, 128, 2965-74.	2.0	215
42	Palladin promotes assembly of non-contractile dorsal stress fibers through VASP recruitment. Journal of Cell Science, 2014, 127, 1887-98.	2.0	32
43	The inverse BAR-domain protein IBARa drives membrane remodelling to control osmoregulation, phagocytosis and cytokinesis. Journal of Cell Science, 2014, 127, 1279-92.	2.0	30
44	Evidence for a role of MRCK in mediating HeLa cell elongation induced by the C1 domain ligand HMI-1a3. European Journal of Pharmaceutical Sciences, 2014, 55, 46-57.	4.0	10
45	GMF Promotes Leading-Edge Dynamics and Collective Cell Migration InÂVivo. Current Biology, 2014, 24, 2533-2540.	3.9	38
46	Direct interaction of actin filaments with <scp>F</scp>â€<scp>BAR</scp> protein pacsin2. EMBO Reports, 2014, 15, 1154-1162.	4.5	56
47	Cofilin-2 Controls Actin Filament Length in Muscle Sarcomeres. Developmental Cell, 2014, 31, 215-226.	7.0	66
48	MTSS1 is a metastasis driver in a subset of human melanomas. Nature Communications, 2014, 5, 3465.	12.8	52
49	Membrane-Sculpting BAR Domains Generate Stable Lipid Microdomains. Cell Reports, 2013, 4, 1213-1223.	6.4	134
50	LDL Cholesterol Recycles to the Plasma Membrane via a Rab8a-Myosin5b-Actin-Dependent Membrane Transport Route. Developmental Cell, 2013, 27, 249-262.	7.0	92
51	Mammalian and Malaria Parasite Cyclase-associated Proteins Catalyze Nucleotide Exchange on G-actin through a Conserved Mechanism. Journal of Biological Chemistry, 2013, 288, 984-994.	3.4	53
52	Effects of Actin-Binding Proteins on the Thermal Stability of Monomeric Actin. Biochemistry, 2013, 52, 152-160.	2.5	10
53	A conserved regulatory mode in exocytic membrane fusion revealed by Mso1p membrane interactions. Molecular Biology of the Cell, 2013, 24, 331-341.	2.1	6
54	Identification of new surfaces of Cofilin that link mitochondrial function to the control of multi-drug resistance. Journal of Cell Science, 2012, 125, 2288-99.	2.0	24

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55	A simple guide to biochemical approaches for analyzing proteinâ€“lipid interactions. Molecular Biology of the Cell, 2012, 23, 2823-2830.	2.1	92
56	Actin stress fibers â€“ assembly, dynamics and biological roles. Journal of Cell Science, 2012, 125, 1855-64.	2.0	668
57	Segregation of a Missense Variant in Enteric Smooth Muscle Actin Î³-2 With Autosomal Dominant Familial Visceral Myopathy. Gastroenterology, 2012, 143, 1482-1491.e3.	1.3	89
58	Pinkbar is an epithelial-specific BAR domain protein that generates planar membrane structures. Nature Structural and Molecular Biology, 2011, 18, 902-907.	8.2	84
59	cAMP Signaling by Anthrax Edema Toxin Induces Transendothelial Cell Tunnels, which Are Resealed by MIM via Arp2/3-Driven Actin Polymerization. Cell Host and Microbe, 2011, 10, 464-474.	11.0	62
60	A Molecular Pathway for Myosin II Recruitment to Stress Fibers. Current Biology, 2011, 21, 539-550.	3.9	235
61	I-BAR domain proteins: linking actin and plasma membrane dynamics. Current Opinion in Cell Biology, 2011, 23, 14-21.	5.4	168
62	Actinâ€depolymerizing factor homology domain: A conserved fold performing diverse roles in cytoskeletal dynamics. Cytoskeleton, 2011, 68, 471-490.	2.0	124
63	Missing-in-metastasis MIM/MTSS1 promotes actin assembly at intercellular junctions and is required for integrity of kidney epithelia. Journal of Cell Science, 2011, 124, 1245-1255.	2.0	74
64	Twinfilin-2a Is Dispensable for Mouse Development. PLoS ONE, 2011, 6, e22894.	2.5	7
65	Phospholipids regulate localization and activity of mDia1 formin. European Journal of Cell Biology, 2010, 89, 723-732.	3.6	63
66	GMF Is a Cofilin Homolog that Binds Arp2/3 Complex to Stimulate Filament Debranching and Inhibit Actin Nucleation. Current Biology, 2010, 20, 861-867.	3.9	99
67	Different Localizations and Cellular Behaviors of Leiomodin and Tropomodulin in Mature Cardiomyocyte Sarcomeres. Molecular Biology of the Cell, 2010, 21, 3352-3361.	2.1	42
68	Attenuation of microRNA-1 derepresses the cytoskeleton regulatory protein twinfilin-1 to provoke cardiac hypertrophy. Journal of Cell Science, 2010, 123, 2444-2452.	2.0	135
69	Attenuation of microRNA-1 derepresses the cytoskeleton regulatory protein twinfilin-1 to provoke cardiac hypertrophy. Journal of Cell Science, 2010, 123, 2680-2680.	2.0	6
70	Functional Characterization of Wiskott-Aldrich Syndrome Protein and Scar Homolog (WASH), a Bi-modular Nucleation-promoting Factor Able to Interact with Biogenesis of Lysosome-related Organelle Subunit 2 (BLOS2) and Î³-Tubulin. Journal of Biological Chemistry, 2010, 285, 16951-16957.	3.4	41
71	Regulation of the Actin Cytoskeleton-Plasma Membrane Interplay by Phosphoinositides. Physiological Reviews, 2010, 90, 259-289.	28.8	424
72	ADF/Cofilin Binds Phosphoinositides in a Multivalent Manner to Act as a PIP2-Density Sensor. Biophysical Journal, 2010, 98, 2327-2336.	0.5	73

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73	Regulation of the Cytoplasmic Actin Monomer Pool in Actin-based Motility. , 2010, , 213-235.		0
74	Reconstitution and Dissection of the 600-kDa Srv2/CAP Complex. Journal of Biological Chemistry, 2009, 284, 10923-10934.	3.4	61
75	Tropomyosin Isoform Expression Regulates the Transition of Adhesions To Determine Cell Speed and Direction. Molecular and Cellular Biology, 2009, 29, 1506-1514.	2.3	67
76	Defining mechanisms of actin polymerization and depolymerization during dendritic spine morphogenesis. Journal of Cell Biology, 2009, 185, 323-339.	5.2	305
77	Contractility-dependent actin dynamics in cardiomyocyte sarcomeres. Journal of Cell Science, 2009, 122, 2119-2126.	2.0	98
78	Molecular Mechanisms of Membrane Deformation by I-BAR Domain Proteins. Current Biology, 2009, 19, 95-107.	3.9	273
79	The Effects of ADF/Cofilin and Profilin on the Conformation of the ATP-Binding Cleft of Monomeric Actin. Biophysical Journal, 2009, 96, 2335-2343.	0.5	27
80	Two biochemically distinct and tissue-specific twinfilin isoforms are generated from the mouse Twf2 gene by alternative promoter usage. Biochemical Journal, 2009, 417, 593-600.	3.7	33
81	MyosinVIIa Interacts with Twinfilin-2 at the Tips of Mechanosensory Stereocilia in the Inner Ear. PLoS ONE, 2009, 4, e7097.	2.5	55
82	Filopodia: molecular architecture and cellular functions. Nature Reviews Molecular Cell Biology, 2008, 9, 446-454.	37.0	1,443
83	Mechanisms of actin stress fibre assembly. Journal of Microscopy, 2008, 231, 446-454.	1.8	195
84	Tropomyosin isoforms define distinct microfilament populations with different drug susceptibility. European Journal of Cell Biology, 2008, 87, 709-720.	3.6	34
85	IRSp53: crossing the road of membrane and actin dynamics in the formation of membrane protrusions. Trends in Cell Biology, 2008, 18, 52-60.	7.9	233
86	Structure of the actin-depolymerizing factor homology domain in complex with actin. Journal of Cell Biology, 2008, 182, 51-59.	5.2	143
87	Leiomodin Is an Actin Filament Nucleator in Muscle Cells. Science, 2008, 320, 239-243.	12.6	207
88	ABBA regulates plasma-membrane and actin dynamics to promote radial glia extension. Journal of Cell Science, 2008, 121, 1444-1454.	2.0	56
89	Missing-in-metastasis and IRSp53 deform PI(4,5)P2-rich membranes by an inverse BAR domainâ€“like mechanism. Journal of Cell Biology, 2007, 176, 953-964.	5.2	349
90	Mechanism and biological role of profilin-Srv2/CAP interaction. Journal of Cell Science, 2007, 120, 1225-1234.	2.0	61

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91	Twinfilin Family of Actin Monomer-Binding Proteins. , 2007, , 53-60.		2
92	Structural basis and evolutionary origin of actin filament capping by twinfilin. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3113-3118.	7.1	67
93	Regulation of the Actin Cytoskeleton by Phospholipids. Advances in Molecular and Cell Biology, 2006, 37, 201-219.	0.1	0
94	Mammalian twinfilin sequesters ADP-G-actin and caps filament barbed ends: implications in motility. EMBO Journal, 2006, 25, 1184-1195.	7.8	84
95	NMR assignment of the C-terminal ADF-H domain of an actin monomer binding protein, twinfilin. Journal of Biomolecular NMR, 2006, 36, 66-66.	2.8	1
96	Formins Regulate Actin Filament Flexibility through Long Range Allosteric Interactions. Journal of Biological Chemistry, 2006, 281, 10727-10736.	3.4	58
97	Stress fibers are generated by two distinct actin assembly mechanisms in motile cells. Journal of Cell Biology, 2006, 173, 383-394.	5.2	784
98	Actin-depolymerizing Factor and Cofilin-1 Play Overlapping Roles in Promoting Rapid F-Actin Depolymerization in Mammalian Nonmuscle Cells. Molecular Biology of the Cell, 2005, 16, 649-664.	2.1	338
99	Cyclase-associated Protein 1 (CAP1) Promotes Cofilin-induced Actin Dynamics in Mammalian Nonmuscle Cells. Molecular Biology of the Cell, 2004, 15, 2324-2334.	2.1	189
100	A High-affinity Interaction with ADP-Actin Monomers Underlies the Mechanism and In Vivo Function of Srv2/cyclase-associated Protein. Molecular Biology of the Cell, 2004, 15, 5158-5171.	2.1	100
101	Biological role and structural mechanism of twinfilinâ€“capping protein interaction. EMBO Journal, 2004, 23, 3010-3019.	7.8	71
102	Regulation of cytoskeletal dynamics by actin-monomer-binding proteins. Trends in Cell Biology, 2004, 14, 386-394.	7.9	217
103	Letter to the editor: 1H, 13C and 15N resonance assignments of coactosin, a cytoskeletal regulatory protein. Journal of Biomolecular NMR, 2004, 30, 365-366.	2.8	1
104	Reply to: Are Î²-thymosins WH2 domains?. FEBS Letters, 2004, 573, 233-233.	2.8	2
105	Solution structure of coactosin reveals structural homology to ADF/cofilin family proteins. FEBS Letters, 2004, 576, 91-96.	2.8	21
106	Myotilin, the limb-girdle muscular dystrophy 1A (LGMD1A) protein, cross-links actin filaments and controls sarcomere assembly. Human Molecular Genetics, 2003, 12, 189-203.	2.9	142
107	Mouse MIM, a Tissue-specific Regulator of Cytoskeletal Dynamics, Interacts with ATP-Actin Monomers through Its C-terminal WH2 Domain. Journal of Biological Chemistry, 2003, 278, 8452-8459.	3.4	149
108	Mammals Have Two Twinfilin Isoforms Whose Subcellular Localizations and Tissue Distributions Are Differentially Regulated. Journal of Biological Chemistry, 2003, 278, 34347-34355.	3.4	75

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109	Structural Conservation between the Actin Monomer-binding Sites of Twinfilin and Actin-depolymerizing Factor (ADF)/Cofilin. Journal of Biological Chemistry, 2002, 277, 43089-43095.	3.4	44
110	The Two ADF-H Domains of Twinfilin Play Functionally Distinct Roles in Interactions with Actin Monomers. Molecular Biology of the Cell, 2002, 13, 3811-3821.	2.1	75
111	The Three Mouse Actin-depolymerizing Factor/Cofilins Evolved to Fulfill Cell-Typeâ€"specific Requirements for Actin Dynamics. Molecular Biology of the Cell, 2002, 13, 183-194.	2.1	207
112	WH2 domain: a small, versatile adapter for actin monomers. FEBS Letters, 2002, 513, 92-97.	2.8	188
113	Endogenous plasma membrane t-SNARE syntaxin 4 is present in rab11 positive endosomal membranes and associates with cortical actin cytoskeleton. FEBS Letters, 2002, 531, 513-519.	2.8	41
114	Twinfilin, a molecular mailman for actin monomers. Journal of Cell Science, 2002, 115, 881-886.	2.0	73
115	Twinfilin, a molecular mailman for actin monomers. Journal of Cell Science, 2002, 115, 881-6.	2.0	59
116	Identification of Yeast Cofilin Residues Specific for Actin Monomer and PIP2 Binding. Biochemistry, 2001, 40, 15562-15569.	2.5	77
117	Twinfilin is required for actin-dependent developmental processes in Drosophila . Journal of Cell Biology, 2001, 155, 787-796.	5.2	61
118	Interactions with PIP2, ADP-actin monomers, and capping protein regulate the activity and localization of yeast twinfilin. Journal of Cell Biology, 2001, 155, 251-260.	5.2	156
119	Mouse A6/Twinfilin Is an Actin Monomer-Binding Protein That Localizes to the Regions of Rapid Actin Dynamics. Molecular and Cellular Biology, 2000, 20, 1772-1783.	2.3	76
120	Aip1p Interacts with Cofilin to Disassemble Actin Filaments. Journal of Cell Biology, 1999, 145, 1251-1264.	5.2	193
121	The ADF Homology (ADF-H) Domain: A Highly Exploited Actin-binding Module. Molecular Biology of the Cell, 1998, 9, 1951-1959.	2.1	195
122	Regulation of the Cortical Actin Cytoskeleton in Budding Yeast by Twinfilin, a Ubiquitous Actin Monomer-sequestering Protein. Journal of Cell Biology, 1998, 142, 723-733.	5.2	115
123	Cofilin promotes rapid actin filament turnover in vivo. Nature, 1997, 389, 211-211.	27.8	3
124	Cofilin promotes rapid actin filament turnover in vivo. Nature, 1997, 388, 78-82.	27.8	413
125	Essential functions and actin-binding surfaces of yeast cofilin revealed by systematic mutagenesis. EMBO Journal, 1997, 16, 5520-5530.	7.8	235
126	Identification and Description of Copper-Thiolate Vibrations in the Dinuclear CuASite of CytochromecOxidase. Journal of the American Chemical Society, 1996, 118, 10436-10445.	13.7	60

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127	The Electronic Structure of CuA:â€‰ A Novel Mixed-Valence Dinuclear Copper Electron-Transfer Center. Journal of the American Chemical Society, 1996, 118, 11501-11514.	13.7	177
128	Far-Red Resonance Raman Study of Copper A in Subunit II of CytochromecOxidase. Journal of the American Chemical Society, 1996, 118, 3986-3987.	13.7	51
129	Crystal structure of the membrane-exposed domain from a respiratory quinol oxidase complex with an engineered dinuclear copper center.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 11955-11959.	7.1	197
130	Spectroscopic and Mutagenesis Studies on the CuA Centre from The Cytochrome-c Oxidase Complex of Paracoccus Denitrificans. FEBS Journal, 1995, 232, 294-303.	0.2	71
131	Engineered Cupredoxins and Bacterial Cytochrome c Oxidases Have Similar CuA Sites: Evidence from Resonance Raman Spectroscopy. Journal of the American Chemical Society, 1995, 117, 10759-10760.	13.7	34
132	Electron Transfer between Cytochrome c and the Isolated CuA Domain: Identification of Substrate-Binding Residues in Cytochrome c Oxidase. Biochemistry, 1995, 34, 5824-5830.	2.5	86
133	Detection of mosquito salivaâ€“specific IgE and IgG4 antibodies by immunoblotting. Journal of Allergy and Clinical Immunology, 1994, 93, 551-555.	2.9	84
134	The binuclear CuA centre of cytochrome oxidase. Biochimica Et Biophysica Acta - Bioenergetics, 1994, 1187, 222-225.	1.0	44
135	Immunization of Rabbits with Mosquito Bites: Immunoblot Analysis of IgG Antimosquito Antibodies in Rabbit and Man. International Archives of Allergy and Immunology, 1990, 93, 14-18.	2.1	15
136	Twinfilin-1. The AFCS-nature Molecule Pages, 0, , .	0.2	0
137	Twinfilin-2. The AFCS-nature Molecule Pages, 0, , .	0.2	0