Erika L F Holzbaur

List of Publications by Citations

108 papers	9,308 citations	51 h-index	96 g-index
125 ext. papers	11,496 ext. citations	11.7 avg, IF	7 L-index

#	Paper	IF	Citations
108	Mutant dynactin in motor neuron disease. *Nature Genetics*, **2003**, 33, 455-6	36.3	779
107	Differential regulation of dynein and kinesin motor proteins by tau. *Science*, **2008**, 319, 1086-9	33.3	696
106	Optineurin is an autophagy receptor for damaged mitochondria in parkin-mediated mitophagy that is disrupted by an ALS-linked mutation. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E4439-48	11.5	506
105	Autophagosomes initiate distally and mature during transport toward the cell soma in primary neurons. *Journal of Cell Biology*, **2012**, 196, 407-17	7.3	429
104	Axonal transport: cargo-specific mechanisms of motility and regulation. *Neuron*, **2014**, 84, 292-309	13.9	402
103	Motor coordination via a tug-of-war mechanism drives bidirectional vesicle transport. *Current Biology*, **2010**, 20, 697-702	6.3	313
102	The regulation of autophagosome dynamics by huntingtin and HAP1 is disrupted by expression of mutant huntingtin, leading to defective cargo degradation. *Journal of Neuroscience*, **2014**, 34, 1293-305	6.6	256
101	Processive bidirectional motion of dynein-dynactin complexes in vitro. *Nature Cell Biology*, **2006**, 8, 562-70	23.4	238
100	Huntingtin facilitates dynein/dynactin-mediated vesicle transport. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 10045-50	11.5	221
99	Autophagosome biogenesis in primary neurons follows an ordered and spatially regulated pathway. *Developmental Cell*, **2014**, 30, 71-85	10.2	217
98	Huntingtin as an essential integrator of intracellular vesicular trafficking. *Trends in Cell Biology*, **2009**, 19, 147-55	18.3	194
97	Dynamic recruitment and activation of ALS-associated TBK1 with its target optineurin are required for efficient mitophagy. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E3349-58	11.5	183
96	Integrated regulation of motor-driven organelle transport by scaffolding proteins. *Trends in Cell Biology*, **2014**, 24, 564-74	18.3	182
95	JIP1 regulates the directionality of APP axonal transport by coordinating kinesin and dynein motors. *Journal of Cell Biology*, **2013**, 202, 495-508	7.3	171
94	Compartment-Specific Regulation of Autophagy in Primary Neurons. *Journal of Neuroscience*, **2016**, 36, 5933-45	6.6	168
93	Microtubule plus-end tracking by CLIP-170 requires EB1. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 492-7	11.5	157
92	Cytoplasmic dynein nomenclature. *Journal of Cell Biology*, **2005**, 171, 411-3	7.3	154

91	A motor neuron disease-associated mutation in p150Glued perturbs dynactin function and induces protein aggregation. *Journal of Cell Biology*, **2006**, 172, 733-45	7.3	152
90	The microtubule plus-end proteins EB1 and dynactin have differential effects on microtubule polymerization. *Molecular Biology of the Cell*, **2003**, 14, 1405-17	3.5	152
89	A switch in retrograde signaling from survival to stress in rapid-onset neurodegeneration. *Journal of Neuroscience*, **2009**, 29, 9903-17	6.6	147
88	LC3 binding to the scaffolding protein JIP1 regulates processive dynein-driven transport of autophagosomes. *Developmental Cell*, **2014**, 29, 577-590	10.2	140
87	Dynactin is required for transport initiation from the distal axon. *Neuron*, **2012**, 74, 331-43	13.9	135
86	Force measurements on cargoes in living cells reveal collective dynamics of microtubule motors. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 18447-52	11.5	134
85	Amyotrophic lateral sclerosis-linked mutations increase the viscosity of liquid-like TDP-43 RNP granules in neurons. *Proceedings of the National Academy of Sciences of the United States of America* , **2017**, 114, E2466-E2475	11.5	133
84	Ordered recruitment of dynactin to the microtubule plus-end is required for efficient initiation of retrograde axonal transport. *Journal of Neuroscience*, **2013**, 33, 13190-203	6.6	122
83	Tubulin Tyrosination and CLIP-170 Phosphorylation Regulate the Initiation of Dynein-Driven Transport in Neurons. *Cell Reports*, **2016**, 14, 2637-52	10.6	113
82	Dynamic actin cycling through mitochondrial subpopulations locally regulates the fission-fusion balance within mitochondrial networks. *Nature Communications*, **2016**, 7, 12886	17.4	111
81	Nesprins anchor kinesin-1 motors to the nucleus to drive nuclear distribution in muscle cells. *Development (Cambridge)*, **2015**, 142, 218-28	6.6	106
80	Coordination of molecular motors: from in vitro assays to intracellular dynamics. *Current Opinion in Cell Biology*, **2010**, 22, 4-13	9	99
79	Autophagosome dynamics in neurodegeneration at a glance. *Journal of Cell Science*, **2015**, 128, 1259-67	5.3	97
78	Axonal transport: Driving synaptic function. *Science*, **2019**, 366,	33.3	92
77	Local cytoskeletal and organelle interactions impact molecular-motor- driven early endosomal trafficking. *Current Biology*, **2013**, 23, 1173-80	6.3	90
76	Adeno-associated virus serotypes 1, 8, and 9 share conserved mechanisms for anterograde and retrograde axonal transport. *Human Gene Therapy*, **2014**, 25, 705-20	4.8	89
75	Dynein activators and adaptors at a glance. *Journal of Cell Science*, **2019**, 132,	5.3	86
74	Huntingtin coordinates the dynein-mediated dynamic positioning of endosomes and lysosomes. *Molecular Biology of the Cell*, **2011**, 22, 478-92	3.5	83

73	Autophagy and mitophagy in ALS. *Neurobiology of Disease*, **2019**, 122, 35-40	7.5	78
72	WHAMM Directs the Arp2/3 Complex to the ER for Autophagosome Biogenesis through an Actin Comet Tail Mechanism. *Current Biology*, **2015**, 25, 1791-7	6.3	77
71	The ADP/ATP translocase drives mitophagy independent of nucleotide exchange. *Nature*, **2019**, 575, 375-379	50.4	77
70	Hook Adaptors Induce Unidirectional Processive Motility by Enhancing the Dynein-Dynactin Interaction. *Journal of Biological Chemistry*, **2016**, 291, 18239-51	5.4	75
69	Autophagy in Neurons. *Annual Review of Cell and Developmental Biology*, **2019**, 35, 477-500	12.6	69
68	Dynactin functions as both a dynamic tether and brake during dynein-driven motility. *Nature Communications*, **2014**, 5, 4807	17.4	69
67	Lysosomal proliferation and distal degeneration in motor neurons expressing the G59S mutation in the p150Glued subunit of dynactin. *Human Molecular Genetics*, **2008**, 17, 1946-55	5.6	68
66	The Dynamic Localization of Cytoplasmic Dynein in Neurons Is Driven by Kinesin-1. *Neuron*, **2016**, 90, 1000-15	13.9	67
65	Temporal dynamics of PARK2/parkin and OPTN/optineurin recruitment during the mitophagy of damaged mitochondria. *Autophagy*, **2015**, 11, 422-4	10.2	66
64	Kinesin-3 Responds to Local Microtubule Dynamics to Target Synaptic Cargo Delivery to the Presynapse. *Current Biology*, **2019**, 29, 268-282.e8	6.3	65
63	Force-dependent detachment of kinesin-2 biases track switching at cytoskeletal filament intersections. *Biophysical Journal*, **2012**, 103, 48-58	2.9	61
62	Optogenetic control of organelle transport using a photocaged chemical inducer of dimerization. *Current Biology*, **2015**, 25, R407-R408	6.3	59
61	Trim58 degrades Dynein and regulates terminal erythropoiesis. *Developmental Cell*, **2014**, 30, 688-700	10.2	58
60	Long-distance axonal transport of AAV9 is driven by dynein and kinesin-2 and is trafficked in a highly motile Rab7-positive compartment. *Molecular Therapy*, **2014**, 22, 554-566	11.7	57
59	The impact of cytoskeletal organization on the local regulation of neuronal transport. *Nature Reviews Neuroscience*, **2017**, 18, 585-597	13.5	55
58	Autophagosome assembly and cargo capture in the distal axon. *Autophagy*, **2012**, 8, 858-60	10.2	52
57	The Kinesin KIF21B Regulates Microtubule Dynamics and Is Essential for Neuronal Morphology, Synapse Function, and Learning and Memory. *Cell Reports*, **2016**, 15, 968-977	10.6	51
56	Stress-Induced CDK5 Activation Disrupts Axonal Transport via Lis1/Ndel1/Dynein. *Cell Reports*, **2015**, 12, 462-73	10.6	47

55	A conserved interaction of the dynein light intermediate chain with dynein-dynactin effectors necessary for processivity. *Nature Communications*, **2018**, 9, 986	17.4	43
54	Dynein activator Hook1 is required for trafficking of BDNF-signaling endosomes in neurons. *Journal of Cell Biology*, **2019**, 218, 220-233	7.3	43
53	Degradation of engulfed mitochondria is rate-limiting in Optineurin-mediated mitophagy in neurons. *ELife*, **2020**, 9,	8.9	41
52	Activity-Dependent Regulation of Distinct Transport and Cytoskeletal Remodeling Functions of the Dendritic Kinesin KIF21B. *Neuron*, **2016**, 92, 857-872	13.9	39
51	Microtubule binding proteins CLIP-170, EB1, and p150Glued form distinct plus-end complexes. *FEBS Letters*, **2006**, 580, 1327-32	3.8	37
50	Axonal autophagy: Mini-review for autophagy in the CNS. *Neuroscience Letters*, **2019**, 697, 17-23	3.3	35
49	Mitochondrial-cytoskeletal interactions: dynamic associations that facilitate network function and remodeling. *Current Opinion in Physiology*, **2018**, 3, 94-100	2.6	33
48	Quality Control in Neurons: Mitophagy and Other Selective Autophagy Mechanisms. *Journal of Molecular Biology*, **2020**, 432, 240-260	6.5	33
47	Expression of WIPI2B counteracts age-related decline in autophagosome biogenesis in neurons. *ELife*, **2019**, 8,	8.9	32
46	Dynein interacts with the neural cell adhesion molecule (NCAM180) to tether dynamic microtubules and maintain synaptic density in cortical neurons. *Journal of Biological Chemistry*, **2013**, 288, 27812-24	5.4	31
45	CDK5-dependent activation of dynein in the axon initial segment regulates polarized cargo transport in neurons. *Traffic*, **2017**, 18, 808-824	5.7	29
44	Increased LRRK2 kinase activity alters neuronal autophagy by disrupting the axonal transport of autophagosomes. *Current Biology*, **2021**, 31, 2140-2154.e6	6.3	29
43	Mitochondrial dynamics: Shaping and remodeling an organelle network. *Current Opinion in Cell Biology*, **2021**, 68, 28-36	9	26
42	Control of the initiation and termination of kinesin-1-driven transport by myosin-Ic and nonmuscle tropomyosin. *Current Biology*, **2015**, 25, 523-9	6.3	24
41	Spatiotemporal dynamics of autophagy receptors in selective mitophagy. *Autophagy*, **2016**, 12, 1956-1957	10.2	24
40	Dynein efficiently navigates the dendritic cytoskeleton to drive the retrograde trafficking of BDNF/TrkB signaling endosomes. *Molecular Biology of the Cell*, **2017**, 28, 2543-2554	3.5	23
39	Actin cables and comet tails organize mitochondrial networks in mitosis. *Nature*, **2021**, 591, 659-664	50.4	23
38	Angular measurements of the dynein ring reveal a stepping mechanism dependent on a flexible stalk. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E4564-E4573	11.5	22

37	Sequential dynein effectors regulate axonal autophagosome motility in a maturation-dependent pathway. *Journal of Cell Biology*, **2021**, 220,	7.3	21
36	The adaptor proteins HAP1a and GRIP1 collaborate to activate the kinesin-1 isoform KIF5C. *Journal of Cell Science*, **2019**, 132,	5.3	20
35	A tunable LIC1-adaptor interaction modulates dynein activity in a cargo-specific manner. *Nature Communications*, **2020**, 11, 5695	17.4	17
34	ToolBox: Live Imaging of intracellular organelle transport in induced pluripotent stem cell-derived neurons. *Traffic*, **2020**, 21, 138-155	5.7	15
33	ALS- and FTD-associated missense mutations in TBK1 differentially disrupt mitophagy. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	14
32	Mitochondrial adaptor TRAK2 activates and functionally links opposing kinesin and dynein motors. *Nature Communications*, **2021**, 12, 4578	17.4	14
31	Opposing Kinesin and Myosin-I Motors Drive Membrane Deformation and Tubulation along Engineered Cytoskeletal Networks. *Current Biology*, **2018**, 28, 236-248.e5	6.3	12
30	Walking Forward with Kinesin. *Trends in Neurosciences*, **2018**, 41, 555-556	13.3	12
29	SnapShot: axonal transport. *Cell*, **2012**, 149, 950-950.e1	56.2	12
28	Lysosomal degradation of depolarized mitochondria is rate-limiting in OPTN-dependent neuronal mitophagy. *Autophagy*, **2020**, 16, 962-964	10.2	10
27	Synaptic vesicle distribution by conveyor belt. *Cell*, **2012**, 148, 849-51	56.2	10
26	Vesicular degradation pathways in neurons: at the crossroads of autophagy and endo-lysosomal degradation. *Current Opinion in Neurobiology*, **2019**, 57, 94-101	7.6	10
25	NIX initiates mitochondrial fragmentation via DRP1 to drive epidermal differentiation. *Cell Reports*, **2021**, 34, 108689	10.6	10
24	Structural basis for membrane recruitment of ATG16L1 by WIPI2 in autophagy. *ELife*, **2021**, 10,	8.9	9
23	Neuronal autophagy declines substantially with age and is rescued by overexpression of WIPI2. *Autophagy*, **2020**, 16, 371-372	10.2	8
22	Cytoskeletal regulation guides neuronal trafficking to effectively supply the synapse. *Current Biology*, **2021**, 31, R633-R650	6.3	8
21	mutations result in both glial and neuronal degeneration in an H-ABC leukodystrophy mouse model. *ELife*, **2020**, 9,	8.9	7
20	Brain-derived autophagosome profiling reveals the engulfment of nucleoid-enriched mitochondrial fragments by basal autophagy in neurons.. *Neuron*, **2022**,	13.9	5

19	Cytoplasmic dynein dysfunction and neurodegenerative disease **2018**, 286-315		4
18	Axonal transport: CDKs as traffic signals for motor-ists along the axon?. *Current Biology*, **2010**, 20, R641-R	8.3	4
17	ALS-associated KIF5A mutations abolish autoinhibition resulting in a toxic gain of function.. *Cell Reports*, **2022**, 39, 110598	10.6	4
16	Cega: a single particle segmentation algorithm to identify moving particles in a noisy system. *Molecular Biology of the Cell*, **2021**, 32, 931-941	3.5	3
15	Selective motor activation in organelle transport along axons. *Nature Reviews Molecular Cell Biology*,	48.7	3
14	Sequential dynein effectors regulate axonal autophagosome motility in a maturation-dependent pathway		2
13	Hyperactive LRRK2 kinase impairs the trafficking of axonal autophagosomes. *Autophagy*, **2021**, 17, 2043-2045	16.1	2
12	Methods for Assessing Nuclear Rotation and Nuclear Positioning in Developing Skeletal Muscle Cells. *Methods in Molecular Biology*, **2016**, 1411, 269-90	1.4	2
11	Microtubule dynamics influence the retrograde biased motility of kinesin-4 motor teams in neuronal dendrites. *Molecular Biology of the Cell*, **2021**, mbcE21100480	3.5	1
10	Kinesin-4 Motor Teams Effectively Navigate Dendritic Microtubule Arrays Through Track Switching and Regulation of Microtubule Dynamics		1
9	ALS and FTD-associated missense mutations in TBK1 differentially disrupt mitophagy		1
8	What Doesn't Kill You Makes You Stronger. *Developmental Cell*, **2018**, 47, 402-403	10.2	1
7	Spatiotemporal analysis of axonal autophagosome-lysosome dynamics reveals limited fusion events trigger two-step maturation		1
6	Presynaptic Homeostatic Plasticity Staves off Neurodegenerative Pathophysiology up to a Tipping Point. *Neuron*, **2020**, 107, 6-8	13.9	
5	3SA1-03 Modeling Cytoskeletal and Motor Dynamics In Vitro : Insights into Motor Function in a Complex Cellular Environment(3SA1 From protein motors to cell motility : regulation, coordination and integration,The 47th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2009**, 49, S17	0	
4	Mentoring in the time of Coronavirus. *Molecular Biology of the Cell*, **2020**, 31, 2761-2762	3.5	
3	Imaging the Dynamics of Mitophagy in Live Cells. *Methods in Molecular Biology*, **2019**, 1880, 601-610	1.4	
2	Live Imaging of Autophagosome Biogenesis and Maturation in Primary Neurons. *Neuromethods*, **2022**, 23-40	0.4	

1 Proteomic profiling shows mitochondrial nucleoids are autophagy cargo in neurons: implications for neuron maintenance and neurodegenerative disease.. *Autophagy*, **2022**, 1-3 10.2