Jonathon Howard

List of Publications by Citations

178 papers	18,865 citations	76 h-index	136 g-index
222 ext. papers	21,579 ext. citations	12.2 avg, IF	6.86 L-index

#	Paper	IF	Citations
178	Flexural rigidity of microtubules and actin filaments measured from thermal fluctuations in shape. *Journal of Cell Biology*, **1993**, 120, 923-34	7.3	1379
177	Movement of microtubules by single kinesin molecules. *Nature*, **1989**, 342, 154-8	50.4	771
176	Dynamics and mechanics of the microtubule plus end. *Nature*, **2003**, 422, 753-8	50.4	586
175	A standardized kinesin nomenclature. *Journal of Cell Biology*, **2004**, 167, 19-22	7.3	570
174	Compliance of the hair bundle associated with gating of mechanoelectrical transduction channels in the bullfrog's saccular hair cell. *Neuron*, **1988**, 1, 189-99	13.9	509
173	Molecular motors: structural adaptations to cellular functions. *Nature*, **1997**, 389, 561-7	50.4	426
172	A self-organized vortex array of hydrodynamically entrained sperm cells. *Science*, **2005**, 309, 300-3	33.3	390
171	XMAP215 is a processive microtubule polymerase. *Cell*, **2008**, 132, 79-88	56.2	385
170	The depolymerizing kinesin MCAK uses lattice diffusion to rapidly target microtubule ends. *Nature*, **2006**, 441, 115-9	50.4	357
169	Yeast kinesin-8 depolymerizes microtubules in a length-dependent manner. *Nature Cell Biology*, **2006**, 8, 957-62	23.4	340
168	Mechanical relaxation of the hair bundle mediates adaptation in mechanoelectrical transduction by the bullfrog's saccular hair cell. *Proceedings of the National Academy of Sciences of the United States of America*, **1987**, 84, 3064-8	11.5	312
167	Kinesin follows the microtubule's protofilament axis. *Journal of Cell Biology*, **1993**, 121, 1083-93	7.3	303
166	The force exerted by a single kinesin molecule against a viscous load. *Biophysical Journal*, **1994**, 67, 766-81	4.9	293
165	The distribution of active force generators controls mitotic spindle position. *Science*, **2003**, 301, 518-21	33.3	292
164	The kinesin-related protein MCAK is a microtubule depolymerase that forms an ATP-hydrolyzing complex at microtubule ends. *Molecular Cell*, **2003**, 11, 445-57	17.6	290
163	Light-Controlled Molecular Shuttles Made from Motor Proteins Carrying Cargo on Engineered Surfaces. *Nano Letters*, **2001**, 1, 235-239	11.5	289
162	Rigidity of microtubules is increased by stabilizing agents. *Journal of Cell Biology*, **1995**, 130, 909-17	7.3	271

161	Kinesin takes one 8-nm step for each ATP that it hydrolyzes. *Journal of Biological Chemistry*, **1999**, 274, 3667-71	5.4	262
160	Processivity of the motor protein kinesin requires two heads. *Journal of Cell Biology*, **1998**, 140, 1395-405	7.3	239
159	Mechanoelectrical transduction by hair cells. *Annual Review of Biophysics and Biophysical Chemistry*, **1988**, 17, 99-124		235
158	Calibration of optical tweezers with positional detection in the back focal plane. *Review of Scientific Instruments*, **2006**, 77, 103101	1.7	234
157	Kinesinís tail domain is an inhibitory regulator of the motor domain. *Nature Cell Biology*, **1999**, 1, 288-92	23.4	234
156	Microtubule polymerases and depolymerases. *Current Opinion in Cell Biology*, **2007**, 19, 31-5	9	230
155	How molecular motors shape the flagellar beat. *HFSP Journal*, **2007**, 1, 192-208		227
154	Kinesin-8 motors act cooperatively to mediate length-dependent microtubule depolymerization. *Cell*, **2009**, 138, 1174-83	56.2	212
153	The movement of kinesin along microtubules. *Annual Review of Physiology*, **1996**, 58, 703-29	23.1	203
152	Turingís next steps: the mechanochemical basis of morphogenesis. *Nature Reviews Molecular Cell Biology*, **2011**, 12, 392-8	48.7	195
151	Assembly of collagen into microribbons: effects of pH and electrolytes. *Journal of Structural Biology* , **2004**, 148, 268-78	3.4	191
150	High-precision tracking of sperm swimming fine structure provides strong test of resistive force theory. *Journal of Experimental Biology*, **2010**, 213, 1226-34	3	190
149	Differentiation of cytoplasmic and meiotic spindle assembly MCAK functions by Aurora B-dependent phosphorylation. *Molecular Biology of the Cell*, **2004**, 15, 2895-906	3.5	189
148	Kinesinís processivity results from mechanical and chemical coordination between the ATP hydrolysis cycles of the two motor domains. *Proceedings of the National Academy of Sciences of the United States of America*, **1999**, 96, 13147-52	11.5	185
147	The force generated by a single kinesin molecule against an elastic load. *Proceedings of the National Academy of Sciences of the United States of America*, **1995**, 92, 574-8	11.5	183
146	Surface forces and drag coefficients of microspheres near a plane surface measured with optical tweezers. *Langmuir*, **2007**, 23, 3654-65	4	176
145	Hypothesis: a helix of ankyrin repeats of the NOMPC-TRP ion channel is the gating spring of mechanoreceptors. *Current Biology*, **2004**, 14, R224-6	6.3	168
144	Microtubule dynamics reconstituted in vitro and imaged by single-molecule fluorescence microscopy. *Methods in Cell Biology*, **2010**, 95, 221-45	1.8	164

143	Protein friction limits diffusive and directed movements of kinesin motors on microtubules. *Science*, **2009**, 325, 870-3	33.3	159
142	Rapid microtubule self-assembly kinetics. *Cell*, **2011**, 146, 582-92	56.2	154
141	Depolymerizing kinesins Kip3 and MCAK shape cellular microtubule architecture by differential control of catastrophe. *Cell*, **2011**, 147, 1092-103	56.2	150
140	Broken detailed balance at mesoscopic scales in active biological systems. *Science*, **2016**, 352, 604-7	33.3	150
139	Drosophila auditory organ genes and genetic hearing defects. *Cell*, **2012**, 150, 1042-54	56.2	148
138	Straight GDP-tubulin protofilaments form in the presence of taxol. *Current Biology*, **2007**, 17, 1765-70	6.3	147
137	Hair cells: transduction, tuning, and transmission in the inner ear. *Annual Review of Cell Biology*, **1988**, 4, 63-92		146
136	Molecular crowding creates traffic jams of kinesin motors on microtubules. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 6100-5	11.5	145
135	Spindle oscillations during asymmetric cell division require a threshold number of active cortical force generators. *Current Biology*, **2006**, 16, 2111-22	6.3	143
134	Stretching and Transporting DNA Molecules Using Motor Proteins. *Nano Letters*, **2003**, 3, 1251-1254	11.5	141
133	Growth, fluctuation and switching at microtubule plus ends. *Nature Reviews Molecular Cell Biology*, **2009**, 10, 569-74	48.7	135
132	Molecular profiling reveals synaptic release machinery in Merkel cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 14503-8	11.5	132
131	Slow local movements of collagen fibers by fibroblasts drive the rapid global self-organization of collagen gels. *Journal of Cell Biology*, **2002**, 157, 1083-91	7.3	130
130	Stiffness of sensory hair bundles in the sacculus of the frog. *Hearing Research*, **1986**, 23, 93-104	3.9	126
129	Splicing of Nascent RNA Coincides with Intron Exit from RNA Polymerase II. *Cell*, **2016**, 165, 372-381	56.2	124
128	Molecular shuttles: directed motion of microtubules along nanoscale kinesin tracks. *Nanotechnology*, **1999**, 10, 232-236	3.4	124
127	Directional loading of the kinesin motor molecule as it buckles a microtubule. *Biophysical Journal*, **1996**, 70, 418-29	2.9	121
126	EB1 recognizes the nucleotide state of tubulin in the microtubule lattice. *PLoS ONE*, **2009**, 4, e7585	3.7	119

125	Detection of fractional steps in cargo movement by the collective operation of kinesin-1 motors. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 10847-52	11.5	116
124	Microtubule catastrophe and rescue. *Current Opinion in Cell Biology*, **2013**, 25, 14-22	9	113
123	XMAP215 polymerase activity is built by combining multiple tubulin-binding TOG domains and a basic lattice-binding region. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 2741-6	11.5	111
122	Microtubule dynamic instability: a new model with coupled GTP hydrolysis and multistep catastrophe. *BioEssays*, **2013**, 35, 452-61	4.1	109
121	Synergy between XMAP215 and EB1 increases microtubule growth rates to physiological levels. *Nature Cell Biology*, **2013**, 15, 688-93	23.4	107
120	Molecular-scale topographic cues induce the orientation and directional movement of fibroblasts on two-dimensional collagen surfaces. *Journal of Molecular Biology*, **2005**, 349, 380-6	6.5	106
119	Measurement of the membrane curvature preference of phospholipids reveals only weak coupling between lipid shape and leaflet curvature. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 22245-50	11.5	105
118	Conformational changes during kinesin motility. *Current Opinion in Cell Biology*, **2001**, 13, 19-28	9	104
117	The distance that kinesin-1 holds its cargo from the microtubule surface measured by fluorescence interference contrast microscopy. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 15812-7	11.5	103
116	Synaptic limitations to contrast coding in the retina of the blowfly Calliphora. *Proceedings of the Royal Society of London Series B, Containing Papers of A Biological Character*, **1987**, 231, 437-67		103
115	Analysis of Microtubule Guidance in Open Microfabricated Channels Coated with the Motor Protein Kinesin *Langmuir*, **2003**, 19, 1738-1744	4	99
114	One-step purification of assembly-competent tubulin from diverse eukaryotic sources. *Molecular Biology of the Cell*, **2012**, 23, 4393-401	3.5	91
113	Dynamic curvature regulation accounts for the symmetric and asymmetric beats of Chlamydomonas flagella. *ELife*, **2016**, 5,	8.9	91
112	Assay of microtubule movement driven by single kinesin molecules. *Methods in Cell Biology*, **1993**, 39, 137-47	1.8	90
111	Kinesin swivels to permit microtubule movement in any direction. *Proceedings of the National Academy of Sciences of the United States of America*, **1993**, 90, 11653-7	11.5	89
110	XMAP215 activity sets spindle length by controlling the total mass of spindle microtubules. *Nature Cell Biology*, **2013**, 15, 1116-22	23.4	87
109	Inhibition of kinesin motility by ADP and phosphate supports a hand-over-hand mechanism. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 1183-8	11.5	87
108	A force-generating machinery maintains the spindle at the cell center during mitosis. *Science*, **2016**, 352, 1124-7	33.3	87

107	Surface Imaging by Self-Propelled Nanoscale Probes. *Nano Letters*, **2002**, 2, 113-116	11.5	86
106	Cell-body rocking is a dominant mechanism for flagellar synchronization in a swimming alga. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 18058-63	11.5	85
105	The intracellular pupil mechanism and photoreceptor signal: noise ratios in the fly Lucilia cuprina. *Proceedings of the Royal Society of London Series B, Containing Papers of A Biological Character*, **1987**, 231, 415-35		85
104	The dynamics of phototransduction in insects. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **1984**, 154, 707-718	2.3	81
103	A Piconewton Forcemeter Assembled from Microtubules and Kinesins. *Nano Letters*, **2002**, 2, 1113-1115	11.5	80
102	Reconstitution and characterization of budding yeast gamma-tubulin complex. *Molecular Biology of the Cell*, **2002**, 13, 1144-57	3.5	74
101	Mechanical signaling in networks of motor and cytoskeletal proteins. *Annual Review of Biophysics*, **2009**, 38, 217-34	21.1	73
100	Shapes of Red Blood Cells: Comparison of 3D Confocal Images with the Bilayer-Couple Model. *Cellular and Molecular Bioengineering*, **2010**, 1, 173-181	3.9	71
99	Drawing an elephant with four complex parameters. *American Journal of Physics*, **2010**, 78, 648-649	0.7	69
98	A NOMPC-dependent membrane-microtubule connector is a candidate for the gating spring in fly mechanoreceptors. *Current Biology*, **2013**, 23, 755-63	6.3	68
97	Optical trapping of coated microspheres. *Optics Express*, **2008**, 16, 13831-44	3.3	68
96	Elastic and damping forces generated by confined arrays of dynamic microtubules. *Physical Biology*, **2006**, 3, 54-66	3	67
95	Response of an insect photoreceptor: a simple log-normal model. *Nature*, **1981**, 290, 415-416	50.4	67
94	Membrane invaginations reveal cortical sites that pull on mitotic spindles in one-cell C. elegans embryos. *PLoS ONE*, **2010**, 5, e12301	3.7	67
93	Preparation of marked microtubules for the assay of the polarity of microtubule-based motors by fluorescence microscopy. *Methods in Cell Biology*, **1993**, 39, 105-13	1.8	63
92	NOMPC, a member of the TRP channel family, localizes to the tubular body and distal cilium of Drosophila campaniform and chordotonal receptor cells. *Cytoskeleton*, **2011**, 68, 1-7	2.4	61
91	Mechanism of microtubule lumen entry for the α-tubulin acetyltransferase enzyme αTAT1. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E7176-E7184	11.5	59
90	A non-motor microtubule binding site is essential for the high processivity and mitotic function of kinesin-8 Kif18A. *PLoS ONE*, **2011**, 6, e27471	3.7	59

89	Regulation of Microtubule Growth and Catastrophe: Unifying Theory and Experiment. *Trends in Cell Biology*, **2015**, 25, 769-779	18.3	58
88	Parallel manipulation of bifunctional DNA molecules on structured surfaces using kinesin-driven microtubules. *Small*, **2006**, 2, 1090-8	11	58
87	The kinesin-13 MCAK has an unconventional ATPase cycle adapted for microtubule depolymerization. *EMBO Journal*, **2011**, 30, 3928-39	13	55
86	Optics of the butterfly eye. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **1988**, 162, 341-366	2.3	54
85	Purification of tubulin from porcine brain. *Methods in Molecular Biology*, **2011**, 777, 15-28	1.4	52
84	Microtubules: 50 years on from the discovery of tubulin. *Nature Reviews Molecular Cell Biology*, **2016**, 17, 322-8	48.7	50
83	The motility of axonemal dynein is regulated by the tubulin code. *Biophysical Journal*, **2014**, 107, 2872-2880	3.9	49
82	Protein power strokes. *Current Biology*, **2006**, 16, R517-9	6.3	47
81	Functional and spatial regulation of mitotic centromere-associated kinesin by cyclin-dependent kinase 1. *Molecular and Cellular Biology*, **2010**, 30, 2594-607	4.8	44
80	A doublecortin containing microtubule-associated protein is implicated in mechanotransduction in Drosophila sensory cilia. *Nature Communications*, **2010**, 1, 11	17.4	44
79	The highly processive kinesin-8, Kip3, switches microtubule protofilaments with a bias toward the left. *Biophysical Journal*, **2012**, 103, L4-6	2.9	42
78	Kinesin-8 is a low-force motor protein with a weakly bound slip state. *Biophysical Journal*, **2013**, 104, 2456-64	2.9	41
77	The cell-end marker TeaA and the microtubule polymerase AlpA contribute to microtubule guidance at the hyphal tip cortex of Aspergillus nidulans to provide polarity maintenance. *Journal of Cell Science*, **2013**, 126, 5400-11	5.3	40
76	Studying kinesin motors by optical 3D-nanometry in gliding motility assays. *Methods in Cell Biology*, **2010**, 95, 247-71	1.8	40
75	LED illumination for video-enhanced DIC imaging of single microtubules. *Journal of Microscopy*, **2007**, 226, 1-5	1.9	40
74	Stu2, the budding yeast XMAP215/Dis1 homolog, promotes assembly of yeast microtubules by increasing growth rate and decreasing catastrophe frequency. *Journal of Biological Chemistry*, **2014**, 289, 28087-93	5.4	38
73	Label-free high-speed wide-field imaging of single microtubules using interference reflection microscopy. *Journal of Microscopy*, **2018**, 272, 60-66	1.9	36
72	Creating nanoscopic collagen matrices using atomic force microscopy. *Microscopy Research and Technique*, **2004**, 64, 435-40	2.8	36

71	Spastin is a dual-function enzyme that severs microtubules and promotes their regrowth to increase the number and mass of microtubules. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 5533-5541	11.5	35
70	Afocal apposition optics in butterfly eyes. *Nature*, **1984**, 312, 561-563	50.4	35
69	Minimum-energy vesicle and cell shapes calculated using spherical harmonics parameterization. *Soft Matter*, **2011**, 7, 2138	3.6	34
68	Organelle transport and sorting in axons. *Current Opinion in Neurobiology*, **1994**, 4, 662-7	7.6	33
67	The dynamic and structural properties of axonemal tubulins support the high length stability of cilia. *Nature Communications*, **2019**, 10, 1838	17.4	31
66	Heat Oscillations Driven by the Embryonic Cell Cycle Reveal the Energetic Costs of Signaling. *Developmental Cell*, **2019**, 48, 646-658.e6	10.2	30
65	Islands containing slowly hydrolyzable GTP analogs promote microtubule rescues. *PLoS ONE*, **2012**, 7, e30103	3.7	29
64	Force Generated by Two Kinesin Motors Depends on the Load Direction and Intermolecular Coupling. *Physical Review Letters*, **2019**, 122, 188101	7.4	28
63	The growth speed of microtubules with XMAP215-coated beads coupled to their ends is increased by tensile force. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 14670-5	11.5	27
62	Transduction as a limitation on compound eye function and design. *Proceedings of the Royal Society of London Series B, Containing Papers of A Biological Character*, **1983**, 217, 287-307		27
61	Independent Control of the Static and Dynamic Components of the Chlamydomonas Flagellar Beat. *Current Biology*, **2016**, 26, 1098-103	6.3	27
60	Temporal resolving power of the photoreceptors ofLocusta migratoria. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **1981**, 144, 61-66	2.3	25
59	Physical Limits on the Precision of Mitotic Spindle Positioning by Microtubule Pushing forces: Mechanics of mitotic spindle positioning. *BioEssays*, **2017**, 39, 1700122	4.1	24
58	Kinesin Kip2 enhances microtubule growth in vitro through length-dependent feedback on polymerization and catastrophe. *ELife*, **2015**, 4,	8.9	24
57	Automatic optimal filament segmentation with sub-pixel accuracy using generalized linear models and B-spline level-sets. *Medical Image Analysis*, **2016**, 32, 157-72	15.4	23
56	Motor regulation results in distal forces that bend partially disintegrated Chlamydomonas axonemes into circular arcs. *Biophysical Journal*, **2014**, 106, 2434-42	2.9	21
55	Spherical harmonics-based parametric deconvolution of 3D surface images using bending energy minimization. *Medical Image Analysis*, **2008**, 12, 217-27	15.4	21
54	Secondary structure and compliance of a predicted flexible domain in kinesin-1 necessary for cooperation of motors. *Biophysical Journal*, **2008**, 95, 5216-27	2.9	20

53	Structural Biology: Piezo Senses Tension through Curvature. *Current Biology*, **2018**, 28, R357-R359	6.3	19
52	Curvature regulation of the ciliary beat through axonemal twist. *Physical Review E*, **2016**, 94, 042426	2.4	19
51	Quantitative cell biology: the essential role of theory. *Molecular Biology of the Cell*, **2014**, 25, 3438-40	3.5	19
50	Coupling of kinesin ATP turnover to translocation and microtubule regulation: one engine, many machines. *Journal of Muscle Research and Cell Motility*, **2012**, 33, 377-83	3.5	17
49	Reconstitution of flagellar sliding. *Methods in Enzymology*, **2013**, 524, 343-69	1.7	17
48	How molecular motors work in muscle. *Nature*, **1998**, 391, 239-240	50.4	17
47	Variations in the voltage response to single quanta of light in the photoreceptors of Locusta Migratoria. *Biophysics of Structure and Mechanism*, **1983**, 9, 341-348		17
46	Cellular motors for molecular manufacturing. *Anatomical Record*, **2007**, 290, 1203-12	2.1	16
45	Molecular Mechanics of Cells and Tissues. *Cellular and Molecular Bioengineering*, **2008**, 1, 24-32	3.9	16
44	Molecular dissection of the fibroblast-traction machinery. *Cytoskeleton*, **2004**, 58, 175-85		16
43	Displacement-weighted velocity analysis of gliding assays reveals that Chlamydomonas axonemal dynein preferentially moves conspecific microtubules. *Biophysical Journal*, **2013**, 104, 1989-98	2.9	15
42	Models for ion channel gating with compliant states. *Biophysical Journal*, **1994**, 66, 1254-7	2.9	15
41	Versatile microsphere attachment of GFP-labeled motors and other tagged proteins with preserved functionality. *Journal of Biological Methods*, **2015**, 2, e30	1.4	15
40	The Mitotic Spindle in the One-Cell C. elegans Embryo Is Positioned with High Precision and Stability. *Biophysical Journal*, **2016**, 111, 1773-1784	2.9	14
39	The microtubule-based cytoskeleton is a component of a mechanical signaling pathway in fly campaniform receptors. *Biophysical Journal*, **2014**, 107, 2767-2774	2.9	13
38	Hearing mechanics: a fly in your ear. *Current Biology*, **2008**, 18, R869-70	6.3	13
37	Kinesin does not support the motility of zinc-macrotubes. *Cytoskeleton*, **1995**, 30, 146-52		13
36	Ndel1-derived peptides modulate bidirectional transport of injected beads in the squid giant axon. *Biology Open*, **2012**, 1, 220-31	2.2	12

35	Kinesin ATPase. *Nature*, **1993**, 364, 396	50.4	11
34	Cutting, Amplifying, and Aligning Microtubules with Severing Enzymes. *Trends in Cell Biology*, **2021**, 31, 50-61	18.3	11
33	The extrarhabdomeral cytoskeleton in photoreceptors of Diptera. I. Labile components in the cytoplasm. *Proceedings of the Royal Society of London Series B, Containing Papers of A Biological Character*, **1984**, 220, 339-352		10
32	Structures of outer-arm dynein array on microtubule doublet reveal a motor coordination mechanism. *Nature Structural and Molecular Biology*, **2021**, 28, 799-810	17.6	10
31	Intensity and polarization of the eyeshine in butterflies. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **1989**, 166, 51	2.3	9
30	Motor Proteins as Nanomachines: The Roles of Thermal Fluctuations in Generating Force and Motion **2011**, 47-59		9
29	Models of hair cell mechanotransduction. *Current Topics in Membranes*, **2007**, 59, 399-424	2.2	8
28	Three Beads Are Better Than One. *Biophysical Journal*, **2020**, 118, 1-3	2.9	8
27	Implementation of Interference Reflection Microscopy for Label-free, High-speed Imaging of Microtubules. *Journal of Visualized Experiments*, **2019**,	1.6	6
26	Contribution of increasing plasma membrane to the energetic cost of early zebrafish embryogenesis. *Molecular Biology of the Cell*, **2020**, 31, 520-526	3.5	6
25	Analysing the ATP turnover cycle of microtubule motors. *Methods in Molecular Biology*, **2011**, 777, 177-92	1.4	6
24	Coated microspheres as enhanced probes for optical trapping **2008**,		5
23	The narrowing of dendrite branches across nodes follows a well-defined scaling law. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	5
22	Biomolecular Motors Operating in Engineered Environments **2005**, 185-199		4
21	Molecular motors: single-molecule recordings made easy. *Current Biology*, **2002**, 12, R203-5	6.3	4
20	Physical bioenergetics: Energy fluxes, budgets, and constraints in cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	3
19	Predicted Effects of Severing Enzymes on the Length Distribution and Total Mass of Microtubules. *Biophysical Journal*, **2019**, 117, 2066-2078	2.9	2
18	ScientistsUbath?. *Nature*, **1984**, 312, 96	50.4	2

List of Publications

17	Breaking of bonds between a kinesin motor and microtubules causes protein friction **2010**,		1
16	Surface Imaging by Self-propelled Nanoscale Probes. *Microscopy and Microanalysis*, **2002**, 8, 1092-1093	0.5	1
15	Biomolecular Motors Operating in Engineered Environments185		1
14	Focal laser stimulation of fly nociceptors activates distinct axonal and dendritic Ca signals. *Biophysical Journal*, **2021**, 120, 3222-3233	2.9	1
13	Purification of Ciliary Tubulin from Chlamydomonas reinhardtii. *Current Protocols in Protein Science*, **2020**, 100, e107	3.1	0
12	Computational modeling of dynein activity and the generation of flagellar beating waveforms **2018** , 192-212		0
11	In Vitro Reconstitution of Microtubule Dynamics and Severing Imaged by Label-Free Interference-Reflection Microscopy.. *Methods in Molecular Biology*, **2022**, 2430, 73-91	1.4	0
10	The Kinetics of Nucleotide Binding to Isolated Chlamydomonas Axonemes Using UV-TIRF Microscopy. *Biophysical Journal*, **2019**, 117, 679-687	2.9	
9	Nicotinamide adenine dinucleotides and their precursor NMN have no direct effect on microtubule dynamics in purified brain tubulin. *PLoS ONE*, **2019**, 14, e0220794	3.7	
8	A brief scientific biography of Prof. Alan J. Hunt. *Cellular and Molecular Bioengineering*, **2013**, 6, 356-360	3.9	
7	Statistical Constraints on Dendritic Branching Morphology in Drosophila Class IV Sensory Neurons. *Biophysical Journal*, **2014**, 106, 794a	2.9	
6	The Complexity of Larval Class IV Sensory Neurons in Drosophila is Accounted for by a Set of Statistical Branching Rules. *Biophysical Journal*, **2014**, 106, 793a-794a	2.9	
5	Hybrid four-headed myosin motor engineered with antagonistic motor domains. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 15663-4	11.5	
4	Bundling, sliding, and pulling microtubules in cells and in silico. *HFSP Journal*, **2007**, 1, 11-4		
3	Kinesins: Processivity and Chemomechanical Coupling243-269		
2	Functional surface attachment in a sandwich geometry of GFP-labeled motor proteins. *Methods in Molecular Biology*, **2011**, 778, 11-8	1.4	
1	Counting fluorescently labeled proteins in tissues in the spinning disk microscope using single-molecule calibrations.. *Molecular Biology of the Cell*, **2022**, mbcE21120618	3.5	