Wallace F Marshall

List of Publications by Year
in descending order

151 papers	12,988 citations	38660 50 h-index	26548 107 g-index
176 all docs	176 docs citations	176 times ranked	13445 citing authors

#	Article	IF	Citations
1	The <i>Chlamydomonas</i> Genome Reveals the Evolution of Key Animal and Plant Functions. Science, 2007, 318, 245-250.	6.0	2,354
2	Ciliogenesis: building the cell's antenna. Nature Reviews Molecular Cell Biology, 2011, 12, 222-234.	16.1	849
3	Perturbation of Nuclear Architecture by Long-Distance Chromosome Interactions. Cell, 1996, 85, 745-759.	13.5	444
4	Intraflagellar transport balances continuous turnover of outer doublet microtubules. Journal of Cell Biology, 2001, 155, 405-414.	2.3	387
5	Mitosis in Living Budding Yeast: Anaphase A But No Metaphase Plate. Science, 1997, 277, 574-578.	6.0	357
6	Versatile protein tagging in cells with split fluorescent protein. Nature Communications, 2016, 7, 11046.	5.8	331
7	Proteomic Analysis of Isolated Chlamydomonas Centrioles Reveals Orthologs of Ciliary-Disease Genes. Current Biology, 2005, 15, 1090-1098.	1.8	307
8	Telomeres Cluster De Novo before the Initiation of Synapsis: A Three-dimensional Spatial Analysis of Telomere Positions before and during Meiotic Prophase. Journal of Cell Biology, 1997, 137, 5-18.	2.3	292
9	De Novo Formation of Leftâ€"Right Asymmetry by Posterior Tilt of Nodal Cilia. PLoS Biology, 2005, 3, e268.	2.6	273
10	Cilia: Tuning in to the Cell's Antenna. Current Biology, 2006, 16, R604-R614.	1.8	243
11	Proteomic Analysis of Mammalian Primary Cilia. Current Biology, 2012, 22, 414-419.	1.8	235
12	Flagellar Length Control System: Testing a Simple Model Based on Intraflagellar Transport and Turnover. Molecular Biology of the Cell, 2005, 16, 270-278.	0.9	216
13	Genome-wide transcriptional analysis of flagellar regeneration in Chlamydomonas reinhardtii identifies orthologs of ciliary disease genes. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3703-3707.	3.3	203
14	What determines cell size?. BMC Biology, 2012, 10, 101.	1.7	196
15	Homologous Chromosome Pairing in Drosophila melanogaster Proceeds through Multiple Independent Initiations. Journal of Cell Biology, 1998, 141, 5-20.	2.3	195
16	Intraflagellar transport particle size scales inversely with flagellar length: revisiting the balance-point length control model. Journal of Cell Biology, 2009, 187, 81-89.	2.3	194
17	Stages of ciliogenesis and regulation of ciliary length. Differentiation, 2012, 83, S30-S42.	1.0	189
18	Building the Centriole. Current Biology, 2010, 20, R816-R825.	1.8	188

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19	Intraflagellar Transport and Ciliary Dynamics. Cold Spring Harbor Perspectives in Biology, 2017, 9, a021998.	2.3	183
20	Non-model model organisms. BMC Biology, 2017, 15, 55.	1.7	164
21	Control of Mitotic Spindle Angle by the RAS-Regulated ERK1/2 Pathway Determines Lung Tube Shape. Science, 2011, 333, 342-345.	6.0	158
22	Mitochondrial Network Size Scaling in Budding Yeast. Science, 2012, 338, 822-824.	6.0	158
23	Centrosome Loss in the Evolution of Planarians. Science, 2012, 335, 461-463.	6.0	154
24	Axon Guidance by Diffusible Chemoattractants: A Gradient of Netrin Protein in the Developing Spinal Cord. Journal of Neuroscience, 2006, 26, 8866-8874.	1.7	149
25	The cell biological basis of ciliary disease. Journal of Cell Biology, 2008, 180, 17-21.	2.3	133
26	Scaling properties of cell and organelle size. Organogenesis, 2010, 6, 88-96.	0.4	133
27	Kinetics and regulation of de novo centriole assembly. Current Biology, 2001, 11, 308-317.	1.8	130
28	Three-dimensional structure of basal body triplet revealed by electron cryo-tomography. EMBO Journal, 2012, 31, 552-562.	3.5	125
29	Molecular Architecture of the Centriole Proteome: The Conserved WD40 Domain Protein POC1 Is Required for Centriole Duplication and Length Control. Molecular Biology of the Cell, 2009, 20, 1150-1166.	0.9	120
30	Quantitative Modeling in Cell Biology: What Is It Good for?. Developmental Cell, 2006, 11, 279-287.	3.1	117
31	Chapter 1 Basal Bodies. Current Topics in Developmental Biology, 2008, 85, 1-22.	1.0	116
32	Cilia orientation and the fluid mechanics of development. Current Opinion in Cell Biology, 2008, 20, 48-52.	2.6	112
33	Order and Disorder in the Nucleus. Current Biology, 2002, 12, R185-R192.	1.8	111
34	Avalanche-like behavior in ciliary import. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3925-3930.	3.3	110
35	Chromosome elasticity and mitotic polar ejection force measured in living Drosophila embryos by four-dimensional microscopy-based motion analysis. Current Biology, 2001, 11, 569-578.	1.8	107
36	How Cells Know the Size of Their Organelles. Science, 2012, 337, 1186-1189.	6.0	106

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37	The Macronuclear Genome of Stentor coeruleus Reveals Tiny Introns in a Giant Cell. Current Biology, 2017, 27, 569-575.	1.8	105
38	The role of retrograde intraflagellar transport in flagellar assembly, maintenance, and function. Journal of Cell Biology, 2012, 199, 151-167.	2.3	103
39	Centrosome positioning in vertebrate development. Journal of Cell Science, 2012, 125, 4951-4961.	1.2	103
40	Building the cell: design principles of cellular architecture. Nature Reviews Molecular Cell Biology, 2008, 9, 593-602.	16.1	102
41	Deconstructing the nucleus: global architecture from local interactions. Current Opinion in Genetics and Development, 1997, 7, 259-263.	1.5	100
42	Self-repairing cells: How single cells heal membrane ruptures and restore lost structures. Science, 2017, 356, 1022-1025.	6.0	91
43	Intraflagellar transport drives flagellar surface motility. ELife, 2013, 2, e00744.	2.8	85
44	FAP20 is an inner junction protein of doublet microtubules essential for both the planar asymmetrical waveform and stability of flagella in<i>Chlamydomonas</i>. Molecular Biology of the Cell, 2014, 25, 1472-1483.	0.9	76
45	Mechanical Forces Program the Orientation of Cell Division during Airway Tube Morphogenesis. Developmental Cell, 2018, 44, 313-325.e5.	3.1	70
46	TTC26/DYF13 is an intraflagellar transport protein required for transport of motility-related proteins into flagella. ELife, 2014, 3, e01566.	2.8	69
47	Actin Is Required for IFT Regulation in Chlamydomonas reinhardtii. Current Biology, 2014, 24, 2025-2032.	1.8	66
48	Cell Geometry: How Cells Count and Measure Size. Annual Review of Biophysics, 2016, 45, 49-64.	4.5	62
49	The Mother Centriole Plays an Instructive Role in Defining Cell Geometry. PLoS Biology, 2007, 5, e149.	2.6	61
50	Centriole evolution. Current Opinion in Cell Biology, 2009, 21, 14-19.	2.6	59
51	Aging induces aberrant state transition kinetics in murine muscle stem cells. Development (Cambridge), 2020, 147, .	1.2	58
52	A Systematic Comparison of Mathematical Models for Inherent Measurement of Ciliary Length: How a Cell Can Measure Length and Volume. Biophysical Journal, 2015, 108, 1361-1379.	0.2	57
53	Diffusion as a Ruler: Modeling Kinesin Diffusion asÂaÂLength Sensor for Intraflagellar Transport. Biophysical Journal, 2018, 114, 663-674.	0.2	57
54	The Kinase Regulator Mob1 Acts as a Patterning Protein for Stentor Morphogenesis. PLoS Biology, 2014, 12, e1001861.	2.6	55

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55	Organelle Size Scaling of the Budding Yeast Vacuole Is Tuned by Membrane Trafficking Rates. Biophysical Journal, 2014, 106, 1986-1996.	0.2	55
56	CELLULAR LENGTH CONTROL SYSTEMS. Annual Review of Cell and Developmental Biology, 2004, 20, 677-693.	4.0	54
57	Flagellar Length Control in Chlamydomonasâ€"A Paradigm for Organelle Size Regulation. International Review of Cytology, 2007, 260, 175-212.	6.2	52
58	Multi-scale spatial heterogeneity enhances particle clearance in airway ciliary arrays. Nature Physics, 2020, 16, 958-964.	6.5	52
59	Katanin Knockdown Supports a Role for Microtubule Severing in Release of Basal Bodies before Mitosis in<i>Chlamydomonas</i>. Molecular Biology of the Cell, 2009, 20, 379-388.	0.9	50
60	Inferring cell state by quantitative motility analysis reveals a dynamic state system and broken detailed balance. PLoS Computational Biology, 2018, 14, e1005927.	1.5	49
61	Origins of cellular geometry. BMC Biology, 2011, 9, 57.	1.7	45
62	How centrioles work: lessons from green yeast. Current Opinion in Cell Biology, 2000, 12, 119-125.	2.6	44
63	Total Internal Reflection Fluorescence (TIRF) Microscopy of Chlamydomonas Flagella. Methods in Cell Biology, 2009, 93, 157-177.	0.5	43
64	Analysis of Ciliary Assembly and Function in Planaria. Methods in Enzymology, 2013, 525, 245-264.	0.4	41
65	Organelles â€" understanding noise and heterogeneity in cell biology at an intermediate scale. Journal of Cell Science, 2017, 130, 819-826.	1.2	40
66	Organelle Size Equalization by a Constitutive Process. Current Biology, 2012, 22, 2173-2179.	1.8	39
67	A Chemical Screen Identifies Class A G-Protein Coupled Receptors As Regulators of Cilia. ACS Chemical Biology, 2012, 7, 911-919.	1.6	38
68	Organelle size control systems: From cell geometry to organelleâ€directed medicine. BioEssays, 2012, 34, 721-724.	1.2	37
69	Size control in dynamic organelles. Trends in Cell Biology, 2002, 12, 414-419.	3.6	35
70	CLUMPED CHLOROPLASTS 1 is required for plastid separation in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18530-18535.	3.3	35
71	How Cells Measure Length on Subcellular Scales. Trends in Cell Biology, 2015, 25, 760-768.	3.6	35
72	What is the function of centrioles?. Journal of Cellular Biochemistry, 2007, 100, 916-922.	1.2	34

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73	ASQ2 Encodes a TBCC-like Protein Required for Mother-Daughter Centriole Linkage and Mitotic Spindle Orientation. Current Biology, 2009, 19, 1238-1243.	1.8	34
74	Stability and Robustness of an Organelle Number Control System: Modeling and Measuring Homeostatic Regulation of Centriole Abundance. Biophysical Journal, 2007, 93, 1818-1833.	0.2	32
75	PCR-based assay for mating type and diploidy in <i>Chlamydomonas</i>. BioTechniques, 2004, 37, 534-536.	0.8	31
76	Cell learning. Current Biology, 2018, 28, R1180-R1184.	1.8	30
77	Subcellular Size. Cold Spring Harbor Perspectives in Biology, 2015, 7, a019059.	2.3	29
78	Scaling of Subcellular Structures. Annual Review of Cell and Developmental Biology, 2020, 36, 219-236.	4.0	29
79	Flagellar Motility: All Pull Together. Current Biology, 2004, 14, R992-R993.	1.8	28
80	Testing the time-of-flight model for flagellar length sensing. Molecular Biology of the Cell, 2017, 28, 3447-3456.	0.9	28
81	Cell division: The renaissance of the centriole. Current Biology, 1999, 9, R218-R220.	1.8	27
82	Microfluidic guillotine for single-cell wound repair studies. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7283-7288.	3.3	27
83	Modeling meiotic chromosome pairing: nuclear envelope attachment, telomere-led active random motion, and anomalous diffusion. Physical Biology, 2016, 13, 026003.	0.8	26
84	Reorganization of complex ciliary flows around regenerating<i>Stentor coeruleus</i>. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190167.	1.8	26
85	Gene expression and nuclear architecture during development and differentiation. Mechanisms of Development, 2003, 120, 1217-1230.	1.7	25
86	Stentor coeruleus. Current Biology, 2014, 24, R783-R784.	1.8	25
87	Electron cryo-tomography provides insight into procentriole architecture and assembly mechanism. ELife, 2019, 8, .	2.8	25
88	A cellâ€based screen for inhibitors of flagellaâ€driven motility in <i>Chlamydomonas</i> reveals a novel modulator of ciliary length and retrograde actin flow. Cytoskeleton, 2011, 68, 188-203.	1.0	24
89	Quantitative analysis and modeling of katanin function in flagellar length control. Molecular Biology of the Cell, 2014, 25, 3686-3698.	0.9	24
90	Organelle Size Scaling of the Budding Yeast Vacuole by Relative Growth and Inheritance. Current Biology, 2016, 26, 1221-1228.	1.8	21

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91	Testing the role of intraflagellar transport in flagellar length control using length-altering mutants of<i>Chlamydomonas</i>. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190159.	1.8	21
92	Deep Convolutional and Recurrent Neural Networks for Cell Motility Discrimination and Prediction. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 562-574.	1.9	21
93	Dynamics of living cells in a cytomorphological state space. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21556-21562.	3.3	20
94	Analysis of biological noise in the flagellar length control system. IScience, 2021, 24, 102354.	1.9	19
95	Human cilia proteome contains homolog of zebrafish polycystic kidney disease gene qilin. Current Biology, 2004, 14, R913-R914.	1.8	18
96	Centriole asymmetry determines algal cell geometry. Current Opinion in Plant Biology, 2012, 15, 632-637.	3.5	18
97	Ciliary Secretion: Switching the Cellular Antenna to â€˜Transmitâ€™. Current Biology, 2013, 23, R471-R473.	1.8	18
98	Cilia self-organize in response to planar cell polarity and flow. Nature Cell Biology, 2010, 12, 314-315.	4.6	16
99	Efficient live fluorescence imaging of intraflagellar transport in mammalian primary cilia. Methods in Cell Biology, 2015, 127, 189-201.	0.5	16
100	Differential Geometry Meets the Cell. Cell, 2013, 154, 265-266.	13.5	14
101	Engineering design principles for organelle size control systems. Seminars in Cell and Developmental Biology, 2008, 19, 520-524.	2.3	13
102	Quantitative High-Throughput Assays for Flagella-Based Motility in Chlamydomonas Using Plate-Well Image Analysis and Transmission Correlation Spectroscopy. Journal of Biomolecular Screening, 2009, 14, 133-141.	2.6	13
103	Isolation of Mammalian Primary Cilia. Methods in Enzymology, 2013, 525, 311-325.	0.4	13
104	Will biologists become computer scientists?. EMBO Reports, 2018, 19, .	2.0	13
105	Pattern Formation and Complexity in Single Cells. Current Biology, 2020, 30, R544-R552.	1.8	13
106	Microfluidic guillotine reveals multiple timescales and mechanical modes of wound response in Stentor coeruleus. BMC Biology, 2021, 19, 63.	1.7	13
107	Regeneration in Stentor coeruleus. Frontiers in Cell and Developmental Biology, 2021, 9, 753625.	1.8	13
108	A simple method to generate human airway epithelial organoids with externally orientated apical membranes. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2022, 322, L420-L437.	1.3	13

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109	Tubulin Superfamily: Giving Birth to Triplets. Current Biology, 2003, 13, R55-R56.	1.8	12
110	Modeling Recursive RNA Interference. PLoS Computational Biology, 2008, 4, e1000183.	1.5	12
111	Methods for the Study of Regeneration in Stentor. Journal of Visualized Experiments, 2018, , .	0.2	12
112	Visualizing Cytoplasmic Flow During Single-cell Wound Healing in Stentor coeruleus. Journal of Visualized Experiments, 2013, , e50848.	0.2	11
113	Modeling meiotic chromosome pairing: a tug of war between telomere forces and a pairing-based Brownian ratchet leads to increased pairing fidelity. Physical Biology, 2019, 16, 046005.	0.8	11
114	Cellular Cognition: Sequential Logic in a Giant Protist. Current Biology, 2019, 29, R1303-R1305.	1.8	11
115	Mechanobiology of Ciliogenesis. BioScience, 2014, 64, 1084-1091.	2.2	9
116	Simple Rules Determine Distinct Patterns of Branching Morphogenesis. Cell Systems, 2019, 9, 221-227.	2.9	9
117	Ciliary Regulation: Disassembly Takes the Spotlight. Current Biology, 2013, 23, R1001-R1003.	1.8	8
118	Statistical method for comparing the level of intracellular organization between cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1006-15.	3.3	8
119	Microtubules are necessary for proper Reticulon localization during mitosis. PLoS ONE, 2019, 14, e0226327.	1.1	8
120	The short flagella 1 (SHF1) gene in <i>Chlamydomonas</i> encodes a Crescerin TOG-domain protein required for late stages of flagellar growth. Molecular Biology of the Cell, 2022, 33, mbcE21090472.	0.9	8
121	Centriole Assembly: The Origin of Nine-ness. Current Biology, 2007, 17, R1057-R1059.	1.8	7
122	Speed and Diffusion of Kinesin-2 Are Competing Limiting Factors in Flagellar Length-Control Model. Biophysical Journal, 2020, 118, 2790-2800.	0.2	6
123	Centrosome Size: Scaling Without Measuring. Current Biology, 2011, 21, R594-R596.	1.8	5
124	Modeling cell biological features of meiotic chromosome pairing to study interlock resolution. PLoS Computational Biology, 2022, 18, e1010252.	1.5	5
125	No centriole, no centrosome. Trends in Cell Biology, 1999, 9, 94.	3.6	4
126	Sidereus Nuncius it ain't. Journal of Cell Science, 2002, 115, 3717-3717.	1.2	4

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127	Donâ€™t Blink: Observing the Ultra-Fast Contraction of Spasmonemes. Biophysical Journal, 2008, 94, 4-5.	0.2	4
128	Towards computer-aided design of cellular structure. Physical Biology, 2020, 17, 023001.	0.8	4
129	Determining protein polarization proteome-wide using physical dissection of individual Stentor coeruleus cells. Current Biology, 2022, , .	1.8	4
130	Stay tuned for some importin news about spindle assembly. Trends in Cell Biology, 2001, 11, 148.	3.6	2
131	Use of Transcriptomic Data to Support Organelle Proteomic Analysis. Methods in Molecular Biology, 2008, 432, 403-414.	0.4	2
132	Biosynthesis of Linear Protein Nanoarrays Using the Flagellar Axoneme. ACS Synthetic Biology, 2022, 11, 1454-1465.	1.9	2
133	Kendrin: a missing link between centrioles and spindle pole bodies. Trends in Cell Biology, 2000, 10, 313.	3.6	1
134	A nucleolar protein at the center of centrosome duplication. Trends in Cell Biology, 2001, 11, 57.	3.6	1
135	Centrioles: Bad to Be Bald?. Current Biology, 2004, 14, R659-R660.	1.8	1
136	Controlling size within cells. Seminars in Cell and Developmental Biology, 2008, 19, 479-479.	2.3	1
137	Cell Biology 2.0. Trends in Cell Biology, 2012, 22, 611-612.	3.6	1
138	Preface. Methods in Cell Biology, 2015, 127, xxi-xxii.	0.5	1
139	Diffusion as a Ruler: Modeling Kinesin Diffusion as a Lenth Sensor for Intraflagellar Transport. Biophysical Journal, 2018, 114, 335a-336a.	0.2	1
140	Axopodia and the cellular â€œarmsâ€•race. Cytoskeleton, 2020, 77, 483-484.	1.0	1
141	Fried green centrosomes. Trends in Cell Biology, 2000, 10, 180.	3.6	0
142	Mixed Greens. Trends in Cell Biology, 2000, 10, 303.	3.6	0
143	Chemical Screening Methods for Flagellar Phenotypes in Chlamydomonas. Methods in Enzymology, 2013, 525, 351-369.	0.4	0
144	Preface. Methods in Enzymology, 2013, 524, xv-xvii.	0.4	0

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145	The Golgi Is a Measuring Cup. Developmental Cell, 2014, 29, 259-260.	3.1	0
146	Intrinsic and Extrinsic Noise in the Flagellar Length Control System. Biophysical Journal, 2014, 106, 637a.	0.2	0
147	An inordinate fondness for protists. Current Biology, 2018, 28, R92-R95.	1.8	0
148	A Dilution Model for Embryonic Scaling. Developmental Cell, 2018, 46, 529-530.	3.1	0
149	Drosophila Embryo Preparation and Microinjection for Live Cell Microscopy Performed using an Automated High Content Analyzer. Journal of Visualized Experiments, 2021, , .	0.2	0
150	Analysis of Motility Patterns of Stentor During and After Oral Apparatus Regeneration using Cell Tracking. Journal of Visualized Experiments, 2021, , .	0.2	0
151	Discriminating Between Models of Flagellar Length Control. FASEB Journal, 2006, 20, A954.	0.2	0