J Richard Mcintosh

List of Publications by Year
in descending order

94 papers	9,413 citations	46918 47 h-index	46693 89 g-index
98 all docs	98 docs citations	98 times ranked	6801 citing authors

#	Article	IF	Citations
1	Brownian dynamics simulation of protofilament relaxation during rapid freezing. PLoS ONE, 2021, 16, e0247022.	1.1	3
2	Regulation of microtubule dynamics, mechanics and function through the growing tip. Nature Reviews Molecular Cell Biology, 2021, 22, 777-795.	16.1	119
3	Anaphase A. Seminars in Cell and Developmental Biology, 2021, 117, 118-126.	2.3	5
4	Electron tomography reveals aspects of spindle structure important for mechanical stability at metaphase. Molecular Biology of the Cell, 2020, 31, 184-195.	0.9	57
5	Mechanisms of microtubule dynamics and force generation examined with computational modeling and electron cryotomography. Nature Communications, 2020, 11, 3765.	5.8	47
6	Ultrastructural Analysis of Microtubule Ends. Methods in Molecular Biology, 2020, 2101, 191-209.	0.4	4
7	Mechanisms of chromosome biorientation and bipolar spindle assembly analyzed by computational modeling. ELife, 2020, 9, .	2.8	40
8	Richard McIntosh. Current Biology, 2019, 29, R777-R779.	1.8	0
9	Large-Scale Electron Tomography of Cells Using SerialEM and IMOD. Biological and Medical Physics Series, 2018, , 95-116.	0.3	9
10	Microtubules grow by the addition of bent guanosine triphosphate tubulin to the tips of curved protofilaments. Journal of Cell Biology, 2018, 217, 2691-2708.	2.3	142
11	Preparing Fission Yeast for Electron Microscopy. Cold Spring Harbor Protocols, 2017, 2017, pdb.prot091314.	0.2	10
12	Physical determinants of bipolar mitotic spindle assembly and stability in fission yeast. Science Advances, 2017, 3, e1601603.	4.7	56
13	Electron Microscopy of Fission Yeast. Cold Spring Harbor Protocols, 2017, 2017, pdb.top079822.	0.2	4
14	Assessing the Contributions of Motor Enzymes and Microtubule Dynamics to Mitotic Chromosome Motions. Annual Review of Cell and Developmental Biology, 2017, 33, 1-22.	4.0	18
15	Three-Dimensional Structure of the Ultraoligotrophic Marine Bacterium â€œCandidatus Pelagibacter ubiqueâ€. Applied and Environmental Microbiology, 2017, 83, .	1.4	47
16	Contributions of Microtubule Dynamic Instability and Rotational Diffusion to Kinetochore Capture. Biophysical Journal, 2017, 112, 552-563.	0.2	42
17	Regulation of Mitotic Microtubule Dynamic Instability in Monopolar Spindles by Bundling and Kinetochore Attachment. FASEB Journal, 2017, 31, 932.6.	0.2	0
18	A Brief History of Research on Mitotic Mechanisms. Biology, 2016, 5, 55.	1.3	27

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19	Kinesin-8 effects on mitotic microtubule dynamics contribute to spindle function in fission yeast. Molecular Biology of the Cell, 2016, 27, 3490-3514.	0.9	37
20	Mitosis. Cold Spring Harbor Perspectives in Biology, 2016, 8, a023218.	2.3	92
21	Centromere protein F includes two sites that couple efficiently to depolymerizing microtubules. Journal of Cell Biology, 2015, 209, 813-828.	2.3	46
22	Regulation of Chromosome Speeds in Mitosis. Cellular and Molecular Bioengineering, 2013, 6, 418-430.	1.0	7
23	A Brief Scientific Biography of Prof. Alan J. Hunt. Cellular and Molecular Bioengineering, 2013, 6, 356-360.	1.0	0
24	Conserved and divergent features of kinetochores and spindle microtubule ends from five species. Journal of Cell Biology, 2013, 200, 459-474.	2.3	81
25	Augmin-dependent microtubule nucleation at microtubule walls in the spindle. Journal of Cell Biology, 2013, 202, 25-33.	2.3	105
26	Long tethers provide high-force coupling of the Dam1 ring to shortening microtubules. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7708-7713.	3.3	64
27	Motors or dynamics: What really moves chromosomes?. Nature Cell Biology, 2012, 14, 1234-1234.	4.6	3
28	Biophysics of mitosis. Quarterly Reviews of Biophysics, 2012, 45, 147-207.	2.4	122
29	Cryo-electron tomography and 3-D analysis of the intact flagellum in Trypanosoma brucei. Journal of Structural Biology, 2012, 178, 189-198.	1.3	56
30	Electron tomography reveals a flared morphology on growing microtubule ends. Journal of Cell Science, 2011, 124, 693-698.	1.2	49
31	Mitosis futures: the past is prologue. Molecular Biology of the Cell, 2011, 22, 3933-3935.	0.9	1
32	Tubulin depolymerization may be an ancient biological motor. Journal of Cell Science, 2010, 123, 3425-3434.	1.2	83
33	Kinesin-8 from Fission Yeast: A Heterodimeric, Plus-Endâ€“directed Motor that Can Couple Microtubule Depolymerization to Cargo Movement. Molecular Biology of the Cell, 2009, 20, 963-972.	0.9	77
34	Probing the macromolecular organization of cells by electron tomography. Current Opinion in Cell Biology, 2009, 21, 89-96.	2.6	75
35	Lattice Structure of Cytoplasmic Microtubules in a Cultured Mammalian Cell. Journal of Molecular Biology, 2009, 394, 177-182.	2.0	50
36	Novel interactions of fission yeast kinesin 8 revealed through in vivo expression of truncation alleles. Cytoskeleton, 2008, 65, 626-640.	4.4	11

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37	FcRn-mediated antibody transport across epithelial cells revealed by electron tomography. Nature, 2008, 455, 542-546.	13.7	150
38	Silver enhancement of Nanogold particles during freeze substitution for electron microscopy. Journal of Microscopy, 2008, 230, 263-267.	0.8	17
39	Fibrils Connect Microtubule Tips with Kinetochores: A Mechanism to Couple Tubulin Dynamics to Chromosome Motion. Cell, 2008, 135, 322-333.	13.5	186
40	The Dam1 ring binds microtubules strongly enough to be a processive as well as energy-efficient coupler for chromosome motion. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15423-15428.	3.3	87
41	In search of an optimal ring to couple microtubule depolymerization to processive chromosome motions. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19017-19022.	3.3	71
42	Mitotic Chromosome Biorientation in Fission Yeast Is Enhanced by Dynein and a Minus-endâ€“directed, Kinesin-like Protein. Molecular Biology of the Cell, 2007, 18, 2216-2225.	0.9	39
43	Organization of Interphase Microtubules in Fission Yeast Analyzed by Electron Tomography. Developmental Cell, 2007, 12, 349-361.	3.1	158
44	A freeze substitution fixation-based gold enlarging technique for EM studies of endocytosed Nanogold-labeled molecules. Journal of Structural Biology, 2007, 160, 103-113.	1.3	31
45	Cryoâ€fluorescence microscopy facilitates correlations between light and cryoâ€electron microscopy and reduces the rate of photobleaching. Journal of Microscopy, 2007, 227, 98-109.	0.8	203
46	The Molecular Architecture of Axonemes Revealed by Cryoelectron Tomography. Science, 2006, 313, 944-948.	6.0	831
47	Vitreous cryo-sectioning of cells facilitated by a micromanipulator. Journal of Microscopy, 2006, 224, 129-134.	0.8	46
48	Microtubule depolymerization can drive poleward chromosome motion in fission yeast. EMBO Journal, 2006, 25, 4888-4896.	3.5	108
49	Chromosome segregation in fission yeast with mutations in the tubulin folding cofactor D. Current Genetics, 2006, 50, 281-294.	0.8	12
50	Rings around kinetochore microtubules in yeast. Nature Structural and Molecular Biology, 2005, 12, 210-212.	3.6	25
51	Force production by disassembling microtubules. Nature, 2005, 438, 384-388.	13.7	252
52	New views of cells in 3D: an introduction to electron tomography. Trends in Cell Biology, 2005, 15, 43-51.	3.6	378
53	A Molecular-Mechanical Model of the Microtubule. Biophysical Journal, 2005, 88, 3167-3179.	0.2	104
54	A standardized kinesin nomenclature. Journal of Cell Biology, 2004, 167, 19-22.	2.3	662

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55	Single-strand DNA Aptamers as Probes for Protein Localization in Cells. Journal of Histochemistry and Cytochemistry, 2003, 51, 797-808.	1.3	34
56	Morphologically distinct microtubule ends in the mitotic centrosome of Caenorhabditis elegans. Journal of Cell Biology, 2003, 163, 451-456.	2.3	144
57	Three-dimensional Organization of Basal Bodies from Wild-Type and Î´-Tubulin Deletion Strains ofChlamydomonas reinhardtii. Molecular Biology of the Cell, 2003, 14, 2999-3012.	0.9	145
58	Structure of the Golgi and Distribution of Reporter Molecules at 20Â°C Reveals the Complexity of the Exit Compartments. Molecular Biology of the Cell, 2002, 13, 2810-2825.	0.9	124
59	Crystal morphology of MV-1 magnetite. American Mineralogist, 2002, 87, 1727-1730.	0.9	50
60	Electron tomography of yeast cells. Methods in Enzymology, 2002, 351, 81-96.	0.4	47
61	Chromosome-Microtubule Interactions During Mitosis. Annual Review of Cell and Developmental Biology, 2002, 18, 193-219.	4.0	223
62	Unstable Kinetochore-Microtubule Capture and Chromosomal Instability Following Deletion of CENP-E. Developmental Cell, 2002, 3, 351-365.	3.1	295
63	Kinesins<i>klp5</i>+ and<i>klp6</i>+ are required for normal chromosome movement in mitosis. Journal of Cell Science, 2002, 115, 931-940.	1.2	129
64	Kinesins klp5(+) and klp6(+) are required for normal chromosome movement in mitosis. Journal of Cell Science, 2002, 115, 931-40.	1.2	116
65	Two Related Kinesins,<i>klp5</i>⁺and<i>klp6</i>⁺, Foster Microtubule Disassembly and Are Required for Meiosis in Fission Yeast. Molecular Biology of the Cell, 2001, 12, 3919-3932.	0.9	139
66	<i>pkl1</i>⁺and<i>klp2</i>⁺: Two Kinesins of the Kar3 Subfamily in Fission Yeast Perform Different Functions in Both Mitosis and Meiosis. Molecular Biology of the Cell, 2001, 12, 3476-3488.	0.9	114
67	Electron Microscopy of Cells. Journal of Cell Biology, 2001, 153, F25-F32.	2.3	109
68	<i>CENP-meta,</i> an Essential Kinetochore Kinesin Required for the Maintenance of Metaphase Chromosome Alignment in <i>Drosophila</i>. Journal of Cell Biology, 2000, 150, 1-12.	2.3	25
69	Golgi Structure in Three Dimensions: Functional Insights from the Normal Rat Kidney Cell. Journal of Cell Biology, 1999, 144, 1135-1149.	2.3	607
70	A Cytoplasmic Dynein Heavy Chain Is Required for Oscillatory Nuclear Movement of Meiotic Prophase and Efficient Meiotic Recombination in Fission Yeast. Journal of Cell Biology, 1999, 145, 1233-1250.	2.3	244
71	High-Voltage Electron Tomography of Spindle Pole Bodies and Early Mitotic Spindles in the Yeast<i>Saccharomyces cerevisiae</i>. Molecular Biology of the Cell, 1999, 10, 2017-2031.	0.9	272
72	Slk19p Is a Centromere Protein That Functions to Stabilize Mitotic Spindles. Journal of Cell Biology, 1999, 146, 415-425.	2.3	136

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73	Life cycles of yeast spindle pole bodies: Getting microtubules into a closed nucleus. Biology of the Cell, 1999, 91, 305-312.	0.7	19
74	Life cycles of yeast spindle pole bodies: Getting microtubules into a closed nucleus. , 1999, 91, 305.		1
75	Activation of the MKK/ERK Pathway during Somatic Cell Mitosis: Direct Interactions of Active ERK with Kinetochores and Regulation of the Mitotic 3F3/2 Phosphoantigen. Journal of Cell Biology, 1998, 142, 1533-1545.	2.3	217
76	<i>cut11</i>⁺: A Gene Required for Cell Cycle-dependent Spindle Pole Body Anchoring in the Nuclear Envelope and Bipolar Spindle Formation in<i>Schizosaccharomyces pombe</i>. Molecular Biology of the Cell, 1998, 9, 2839-2855.	0.9	158
77	The Dynamic Behavior of Individual Microtubules Associated with Chromosomes In Vitro. Molecular Biology of the Cell, 1998, 9, 2857-2871.	0.9	46
78	A Screen for Genes Involved in the Anaphase Proteolytic Pathway Identifies tsm1+, a Novel Schizosaccharomyces pombe Gene Important for Microtubule Integrity. Genetics, 1998, 149, 1251-1264.	1.2	12
79	Resources for the Study of Cellular Structure by High Voltage Electron Tomography, Serial Thin Sectioning, Specific Labeling, and Image Analysis. Microscopy and Microanalysis, 1997, 3, 273-274.	0.2	0
80	Minus-end-directed motion of kinesinâ€"coated microspheres driven by microtubule depolymerization. Nature, 1995, 373, 161-164.	13.7	179
81	Molecular Characterization of a Cytoplasmic Dynein from Dictyostelium. Journal of Eukaryotic Microbiology, 1994, 41, 645-651.	0.8	14
82	Two distinct isoforms of sea urchin egg dynein. Cytoskeleton, 1992, 21, 281-292.	4.4	11
83	Identification and immunolocalization of cytoplasmic dynein indictyostelium. Cytoskeleton, 1990, 15, 51-62.	4.4	73
84	Dynamics of a fluorescent calmodulin analog in the mammalian mitotic spindle at metaphase. Cytoskeleton, 1988, 9, 231-242.	4.4	19
85	Dynamics of Tubulin and Calmodulin in the Mammalian Mitotic Spindle. Annals of the New York Academy of Sciences, 1986, 466, 566-579.	1.8	11
86	Cytoskeleton: Dynamic microtubule dynamics. Nature, 1986, 324, 106-107.	13.7	13
87	Cell biology: Microtubule catastrophe. Nature, 1984, 312, 196-197.	13.7	25
88	A microtubule-associated protein in the mitotic spindle and the interphase nucleus. Nature, 1982, 295, 248-250.	13.7	63
89	Visualization of the structural polarity of microtubules. Nature, 1980, 286, 517-519.	13.7	203
90	STUDIES ON THE MECHANISM OF MITOSIS. Annals of the New York Academy of Sciences, 1975, 253, 407-427.	1.8	75

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91	The ultrastructure ofPyrsonympha and its associated microorganisms. Journal of Morphology, 1974, 143, 77-105.	0.6	48
92	An introduction to microtubules. Journal of Supramolecular Structure, 1974, 2, 385-392.	2.3	4
93	THE DISTRIBUTION OF SPINDLE MICROTUBULES DURING MITOSIS IN CULTURED HUMAN CELLS. Journal of Cell Biology, 1971, 49, 468-497.	2.3	187
94	INTERMICROTUBULE BRIDGES IN MITOTIC SPINDLE APPARATUS. Journal of Cell Biology, 1970, 45, 438-444.	2.3	131