

# J Richard McIntosh

## List of Publications by Citations

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92  
papers

7,875  
citations

45  
h-index

88  
g-index

98  
ext. papers

8,860  
ext. citations

10.7  
avg, IF

5.86  
L-index

#	Paper	IF	Citations
92	The molecular architecture of axonemes revealed by cryoelectron tomography. <i>Science</i> , <b>2006</b> , 313, 944-8	33.3	649
91	A standardized kinesin nomenclature. <i>Journal of Cell Biology</i> , <b>2004</b> , 167, 19-22	7.3	570
90	Golgi structure in three dimensions: functional insights from the normal rat kidney cell. <i>Journal of Cell Biology</i> , <b>1999</b> , 144, 1135-49	7.3	536
89	New views of cells in 3D: an introduction to electron tomography. <i>Trends in Cell Biology</i> , <b>2005</b> , 15, 43-51	18.3	338
88	Unstable kinetochore-microtubule capture and chromosomal instability following deletion of CENP-E. <i>Developmental Cell</i> , <b>2002</b> , 3, 351-65	10.2	257
87	High-voltage electron tomography of spindle pole bodies and early mitotic spindles in the yeast <i>Saccharomyces cerevisiae</i> . <i>Molecular Biology of the Cell</i> , <b>1999</b> , 10, 2017-31	3.5	244
86	Force production by disassembling microtubules. <i>Nature</i> , <b>2005</b> , 438, 384-8	50.4	228
85	A cytoplasmic dynein heavy chain is required for oscillatory nuclear movement of meiotic prophase and efficient meiotic recombination in fission yeast. <i>Journal of Cell Biology</i> , <b>1999</b> , 145, 1233-49	7.3	219
84	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. <i>Journal of Cell Biology</i> , <b>1998</b> , 142, 1533-45	7.3	203
83	Chromosome-microtubule interactions during mitosis. <i>Annual Review of Cell and Developmental Biology</i> , <b>2002</b> , 18, 193-219	12.6	202
82	Visualization of the structural polarity of microtubules. <i>Nature</i> , <b>1980</b> , 286, 517-9	50.4	193
81	Cryo-fluorescence microscopy facilitates correlations between light and cryo-electron microscopy and reduces the rate of photobleaching. <i>Journal of Microscopy</i> , <b>2007</b> , 227, 98-109	1.9	172
80	The distribution of spindle microtubules during mitosis in cultured human cells. <i>Journal of Cell Biology</i> , <b>1971</b> , 49, 468-97	7.3	164
79	Fibrils connect microtubule tips with kinetochores: a mechanism to couple tubulin dynamics to chromosome motion. <i>Cell</i> , <b>2008</b> , 135, 322-33	56.2	160
78	Minus-end-directed motion of kinesin-coated microspheres driven by microtubule depolymerization. <i>Nature</i> , <b>1995</b> , 373, 161-4	50.4	160
77	Organization of interphase microtubules in fission yeast analyzed by electron tomography. <i>Developmental Cell</i> , <b>2007</b> , 12, 349-61	10.2	145
76	cut11(+): A gene required for cell cycle-dependent spindle pole body anchoring in the nuclear envelope and bipolar spindle formation in <i>Schizosaccharomyces pombe</i> . <i>Molecular Biology of the Cell</i> , <b>1998</b> , 9, 2839-55	3.5	137

75	FcRn-mediated antibody transport across epithelial cells revealed by electron tomography. <i>Nature</i> , <b>2008</b> , 455, 542-6	50.4	131
74	Three-dimensional organization of basal bodies from wild-type and delta-tubulin deletion strains of <i>Chlamydomonas reinhardtii</i> . <i>Molecular Biology of the Cell</i> , <b>2003</b> , 14, 2999-3012	3.5	130
73	Morphologically distinct microtubule ends in the mitotic centrosome of <i>Caenorhabditis elegans</i> . <i>Journal of Cell Biology</i> , <b>2003</b> , 163, 451-6	7.3	126
72	Slk19p is a centromere protein that functions to stabilize mitotic spindles. <i>Journal of Cell Biology</i> , <b>1999</b> , 146, 415-25	7.3	122
71	Two related kinesins, klp5+ and klp6+, foster microtubule disassembly and are required for meiosis in fission yeast. <i>Molecular Biology of the Cell</i> , <b>2001</b> , 12, 3919-32	3.5	117
70	Kinesins klp5+ and klp6+ are required for normal chromosome movement in mitosis. <i>Journal of Cell Science</i> , <b>2002</b> , 115, 931-940	5.3	113
69	Intermicrotubule bridges in mitotic spindle apparatus. <i>Journal of Cell Biology</i> , <b>1970</b> , 45, 438-44	7.3	112
68	Structure of the Golgi and distribution of reporter molecules at 20 degrees C reveals the complexity of the exit compartments. <i>Molecular Biology of the Cell</i> , <b>2002</b> , 13, 2810-25	3.5	108
67	Kinesins klp5(+) and klp6(+) are required for normal chromosome movement in mitosis. <i>Journal of Cell Science</i> , <b>2002</b> , 115, 931-40	5.3	104
66	Microtubule depolymerization can drive poleward chromosome motion in fission yeast. <i>EMBO Journal</i> , <b>2006</b> , 25, 4888-96	13	98
65	klp1(+) and klp2(+): Two kinesins of the Kar3 subfamily in fission yeast perform different functions in both mitosis and meiosis. <i>Molecular Biology of the Cell</i> , <b>2001</b> , 12, 3476-88	3.5	96
64	A molecular-mechanical model of the microtubule. <i>Biophysical Journal</i> , <b>2005</b> , 88, 3167-79	2.9	93
63	Electron microscopy of cells: a new beginning for a new century. <i>Journal of Cell Biology</i> , <b>2001</b> , 153, F25-32	3	92
62	Biophysics of mitosis. <i>Quarterly Reviews of Biophysics</i> , <b>2012</b> , 45, 147-207	7	90
61	Augmin-dependent microtubule nucleation at microtubule walls in the spindle. <i>Journal of Cell Biology</i> , <b>2013</b> , 202, 25-33	7.3	81
60	Microtubules grow by the addition of bent guanosine triphosphate tubulin to the tips of curved protofilaments. <i>Journal of Cell Biology</i> , <b>2018</b> , 217, 2691-2708	7.3	80
59	The Dam1 ring binds microtubules strongly enough to be a processive as well as energy-efficient coupler for chromosome motion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 15423-8	11.5	78
58	Studies on the mechanism of mitosis. <i>Annals of the New York Academy of Sciences</i> , <b>1975</b> , 253, 407-27	6.5	71

57	Probing the macromolecular organization of cells by electron tomography. <i>Current Opinion in Cell Biology</i> , <b>2009</b> , 21, 89-96	9	70
56	In search of an optimal ring to couple microtubule depolymerization to processive chromosome motions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 19011-22	11.5	68
55	Kinesin-8 from fission yeast: a heterodimeric, plus-end-directed motor that can couple microtubule depolymerization to cargo movement. <i>Molecular Biology of the Cell</i> , <b>2009</b> , 20, 963-72	3.5	67
54	Tubulin depolymerization may be an ancient biological motor. <i>Journal of Cell Science</i> , <b>2010</b> , 123, 3425-3453	5.3	66
53	Conserved and divergent features of kinetochores and spindle microtubule ends from five species. <i>Journal of Cell Biology</i> , <b>2013</b> , 200, 459-74	7.3	64
52	Identification and immunolocalization of cytoplasmic dynein in <i>Dictyostelium</i> . <i>Cytoskeleton</i> , <b>1990</b> , 15, 51-62		63
51	Mitosis. <i>Cold Spring Harbor Perspectives in Biology</i> , <b>2016</b> , 8,	10.2	60
50	A microtubule-associated protein in the mitotic spindle and the interphase nucleus. <i>Nature</i> , <b>1982</b> , 295, 248-50	50.4	57
49	Long tethers provide high-force coupling of the Dam1 ring to shortening microtubules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 7708-13	11.5	52
48	Cryo-electron tomography and 3-D analysis of the intact flagellum in <i>Trypanosoma brucei</i> . <i>Journal of Structural Biology</i> , <b>2012</b> , 178, 189-98	3.4	47
47	The ultrastructure of <i>Parsonympha</i> and its associated microorganisms. <i>Journal of Morphology</i> , <b>1974</b> , 143, 77-105	1.6	43
46	Lattice structure of cytoplasmic microtubules in a cultured Mammalian cell. <i>Journal of Molecular Biology</i> , <b>2009</b> , 394, 177-82	6.5	41
45	Vitreous cryo-sectioning of cells facilitated by a micromanipulator. <i>Journal of Microscopy</i> , <b>2006</b> , 224, 129-34	1.9	39
44	Electron tomography of yeast cells. <i>Methods in Enzymology</i> , <b>2002</b> , 351, 81-95	1.7	39
43	The dynamic behavior of individual microtubules associated with chromosomes in vitro. <i>Molecular Biology of the Cell</i> , <b>1998</b> , 9, 2857-71	3.5	39
42	Centromere protein F includes two sites that couple efficiently to depolymerizing microtubules. <i>Journal of Cell Biology</i> , <b>2015</b> , 209, 813-28	7.3	36
41	Electron tomography reveals a flared morphology on growing microtubule ends. <i>Journal of Cell Science</i> , <b>2011</b> , 124, 693-8	5.3	36
40	Mitotic chromosome biorientation in fission yeast is enhanced by dynein and a minus-end-directed, kinesin-like protein. <i>Molecular Biology of the Cell</i> , <b>2007</b> , 18, 2216-25	3.5	35

39	Physical determinants of bipolar mitotic spindle assembly and stability in fission yeast. <i>Science Advances</i> , <b>2017</b> , 3, e1601603	14.3	32
38	Single-strand DNA aptamers as probes for protein localization in cells. <i>Journal of Histochemistry and Cytochemistry</i> , <b>2003</b> , 51, 797-808	3.4	32
37	Three-Dimensional Structure of the Ultraoligotrophic Marine Bacterium "Candidatus Pelagibacter ubique". <i>Applied and Environmental Microbiology</i> , <b>2017</b> , 83,	4.8	28
36	Letter. Crystal morphology of MV-1 magnetite. <i>American Mineralogist</i> , <b>2002</b> , 87, 1727-1730	2.9	28
35	Contributions of Microtubule Dynamic Instability and Rotational Diffusion to Kinetochore Capture. <i>Biophysical Journal</i> , <b>2017</b> , 112, 552-563	2.9	26
34	A freeze substitution fixation-based gold enlarging technique for EM studies of endocytosed Nanogold-labeled molecules. <i>Journal of Structural Biology</i> , <b>2007</b> , 160, 103-13	3.4	25
33	Electron tomography reveals aspects of spindle structure important for mechanical stability at metaphase. <i>Molecular Biology of the Cell</i> , <b>2020</b> , 31, 184-195	3.5	25
32	Kinesin-8 effects on mitotic microtubule dynamics contribute to spindle function in fission yeast. <i>Molecular Biology of the Cell</i> , <b>2016</b> , 27, 3490-3514	3.5	25
31	CENP-meta, an Essential Kinetochore Kinesin Required for the Maintenance of Metaphase Chromosome Alignment in Drosophila. <i>Journal of Cell Biology</i> , <b>2000</b> , 150, 1-12	7.3	24
30	A Brief History of Research on Mitotic Mechanisms. <i>Biology</i> , <b>2016</b> , 5,	4.9	22
29	Regulation of microtubule dynamics, mechanics and function through the growing tip. <i>Nature Reviews Molecular Cell Biology</i> , <b>2021</b> , 22, 777-795	48.7	22
28	Mechanisms of microtubule dynamics and force generation examined with computational modeling and electron cryotomography. <i>Nature Communications</i> , <b>2020</b> , 11, 3765	17.4	21
27	Dynamics of a fluorescent calmodulin analog in the mammalian mitotic spindle at metaphase. <i>Cytoskeleton</i> , <b>1988</b> , 9, 231-42		17
26	Silver enhancement of Nanogold particles during freeze substitution for electron microscopy. <i>Journal of Microscopy</i> , <b>2008</b> , 230, 263-7	1.9	15
25	Mechanisms of chromosome biorientation and bipolar spindle assembly analyzed by computational modeling. <i>ELife</i> , <b>2020</b> , 9,	8.9	15
24	Assessing the Contributions of Motor Enzymes and Microtubule Dynamics to Mitotic Chromosome Motions. <i>Annual Review of Cell and Developmental Biology</i> , <b>2017</b> , 33, 1-22	12.6	14
23	Life cycles of yeast spindle pole bodies: Getting microtubules into a closed nucleus. <i>Biology of the Cell</i> , <b>1999</b> , 91, 305-312	3.5	14
22	Molecular characterization of a cytoplasmic dynein from Dictyostelium. <i>Journal of Eukaryotic Microbiology</i> , <b>1994</b> , 41, 645-51	3.6	12

21	Chromosome segregation in fission yeast with mutations in the tubulin folding cofactor D. <i>Current Genetics</i> , <b>2006</b> , 50, 281-94	2.9	11
20	Dynamics of tubulin and calmodulin in the mammalian mitotic spindle. <i>Annals of the New York Academy of Sciences</i> , <b>1986</b> , 466, 566-79	6.5	11
19	Two distinct isoforms of sea urchin egg dynein. <i>Cytoskeleton</i> , <b>1992</b> , 21, 281-92		10
18	A screen for genes involved in the anaphase proteolytic pathway identifies tsm1(+), a novel <i>Schizosaccharomyces pombe</i> gene important for microtubule integrity. <i>Genetics</i> , <b>1998</b> , 149, 1251-64	4	9
17	Preparing Fission Yeast for Electron Microscopy. <i>Cold Spring Harbor Protocols</i> , <b>2017</b> , 2017,	1.2	6
16	Regulation of chromosome speeds in mitosis. <i>Cellular and Molecular Bioengineering</i> , <b>2013</b> , 6, 418-430	3.9	6
15	Novel interactions of fission yeast kinesin 8 revealed through in vivo expression of truncation alleles. <i>Cytoskeleton</i> , <b>2008</b> , 65, 626-40		6
14	Large-Scale Electron Tomography of Cells Using SerialEM and IMOD <b>2018</b> , 95-116		4
13	An introduction to microtubules. <i>Journal of Supramolecular Structure</i> , <b>1974</b> , 2, 385-92		4
12	Motors or dynamics: what really moves chromosomes?. <i>Nature Cell Biology</i> , <b>2012</b> , 14, 1234	23.4	3
11	Anaphase A. <i>Seminars in Cell and Developmental Biology</i> , <b>2021</b> , 117, 118-126	7.5	3
10	Ultrastructural Analysis of Microtubule Ends. <i>Methods in Molecular Biology</i> , <b>2020</b> , 2101, 191-209	1.4	3
9	Electron Microscopy of Fission Yeast. <i>Cold Spring Harbor Protocols</i> , <b>2017</b> , 2017,	1.2	2
8	Mechanisms of chromosome biorientation and bipolar spindle assembly analyzed by computational modeling		2
7	Mitosis futures: the past is prologue. <i>Molecular Biology of the Cell</i> , <b>2011</b> , 22, 3933-5	3.5	1
6	Life cycles of yeast spindle pole bodies: Getting microtubules into a closed nucleus <b>1999</b> , 91, 305		1
5	Brownian dynamics simulation of protofilament relaxation during rapid freezing. <i>PLoS ONE</i> , <b>2021</b> , 16, e0247022	3.7	0
4	Richard McIntosh. <i>Current Biology</i> , <b>2019</b> , 29, R777-R779	6.3	

- 3 A brief scientific biography of Prof. Alan J. Hunt. *Cellular and Molecular Bioengineering*, **2013**, 6, 356-360 3.9
- 2 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 0.5
- 1 Regulation of Mitotic Microtubule Dynamic Instability in Monopolar Spindles by Bundling and Kinetochore Attachment. *FASEB Journal*, **2017**, 31, 932.6 0.9