Rebecca Heald

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	9,335 citations	46 h-index	96 g-index
151 ext. papers	10,710 ext. citations	14.5 avg, IF	6.24 L-index

#	Paper	IF	Citations
110	Self-organization of microtubules into bipolar spindles around artificial chromosomes in Xenopus egg extracts. *Nature*, **1996**, 382, 420-5	50.4	803
109	Mutations of phosphorylation sites in lamin A that prevent nuclear lamina disassembly in mitosis. *Cell*, **1990**, 61, 579-89	56.2	544
108	Genome evolution in the allotetraploid frog Xenopus laevis. *Nature*, **2016**, 538, 336-343	50.4	510
107	Visualization of a Ran-GTP gradient in interphase and mitotic Xenopus egg extracts. *Science*, **2002**, 295, 2452-6	33.3	444
106	Human wee1 maintains mitotic timing by protecting the nucleus from cytoplasmically activated Cdc2 kinase. *Cell*, **1993**, 74, 463-74	56.2	405
105	Dissection of the mammalian midbody proteome reveals conserved cytokinesis mechanisms. *Science*, **2004**, 305, 61-6	33.3	387
104	A model for the proposed roles of different microtubule-based motor proteins in establishing spindle bipolarity. *Current Biology*, **1998**, 8, 903-13	6.3	350
103	Importin beta is a mitotic target of the small GTPase Ran in spindle assembly. *Cell*, **2001**, 104, 95-106	56.2	332
102	Spindle assembly in Xenopus egg extracts: respective roles of centrosomes and microtubule self-organization. *Journal of Cell Biology*, **1997**, 138, 615-28	7.3	303
101	Analysis of a RanGTP-regulated gradient in mitotic somatic cells. *Nature*, **2006**, 440, 697-701	50.4	290
100	Mechanisms of mitotic spindle assembly and function. *International Review of Cytology*, **2008**, 265, 111-58		272
99	Formation of spindle poles by dynein/dynactin-dependent transport of NuMA. *Journal of Cell Biology*, **2000**, 149, 851-62	7.3	268
98	Mechanisms and molecules of the mitotic spindle. *Current Biology*, **2004**, 14, R797-805	6.3	250
97	A Rae1-containing ribonucleoprotein complex is required for mitotic spindle assembly. *Cell*, **2005**, 121, 223-34	56.2	224
96	The RanGTP gradient - a GPS for the mitotic spindle. *Journal of Cell Science*, **2008**, 121, 1577-86	5.3	220
95	Cytoplasmic volume modulates spindle size during embryogenesis. *Science*, **2013**, 342, 856-60	33.3	177
94	Nuclear size is regulated by importin □ and Ntf2 in Xenopus. *Cell*, **2010**, 143, 288-98	56.2	164

93	Importazole, a small molecule inhibitor of the transport receptor importin-. *ACS Chemical Biology*, **2011**, 6, 700-8	4.9	150
92	Katanin contributes to interspecies spindle length scaling in Xenopus. *Cell*, **2011**, 147, 1397-407	56.2	144
91	Genome-wide analysis demonstrates conserved localization of messenger RNAs to mitotic microtubules. *Journal of Cell Biology*, **2007**, 179, 1365-73	7.3	136
90	Investigating mitotic spindle assembly and function in vitro using Xenopus laevis egg extracts. *Nature Protocols*, **2006**, 1, 2305-14	18.8	125
89	Motor function in the mitotic spindle. *Cell*, **2000**, 102, 399-402	56.2	120
88	Thirty years of search and capture: The complex simplicity of mitotic spindle assembly. *Journal of Cell Biology*, **2015**, 211, 1103-11	7.3	100
87	A computational model predicts Xenopus meiotic spindle organization. *Journal of Cell Biology*, **2010** , 191, 1239-49	7.3	99
86	Histone H1 is essential for mitotic chromosome architecture and segregation in Xenopus laevis egg extracts. *Journal of Cell Biology*, **2005**, 169, 859-69	7.3	97
85	Microtubule dynamics. *Journal of Cell Science*, **2002**, 115, 3-4	5.3	96
84	Mechanisms of intracellular scaling. *Annual Review of Cell and Developmental Biology*, **2012**, 28, 113-35	12.6	95
83	Nuclear actin and protein 4.1: essential interactions during nuclear assembly in vitro. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 10752-7	11.5	87
82	Mitotic spindle scaling during Xenopus development by kif2a and importin . *ELife*, **2013**, 2, e00290	8.9	86
81	Xenopus tropicalis egg extracts provide insight into scaling of the mitotic spindle. *Journal of Cell Biology*, **2007**, 176, 765-70	7.3	85
80	REEP3/4 ensure endoplasmic reticulum clearance from metaphase chromatin and proper nuclear envelope architecture. *Developmental Cell*, **2013**, 26, 315-23	10.2	84
79	Regulation of Op18 during spindle assembly in Xenopus egg extracts. *Journal of Cell Biology*, **2001**, 153, 149-58	7.3	79
78	Methods for studying spindle assembly and chromosome condensation in Xenopus egg extracts. *Methods in Molecular Biology*, **2006**, 322, 459-74	1.4	74
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76	A comparative analysis of spindle morphometrics across metazoans. *Current Biology*, **2015**, 25, 1542-50	6.3	68

75	Centrosome proteins form an insoluble perinuclear matrix during muscle cell differentiation. *BMC Cell Biology*, **2009**, 10, 28		65
74	Micromanipulation studies of chromatin fibers in Xenopus egg extracts reveal ATP-dependent chromatin assembly dynamics. *Molecular Biology of the Cell*, **2007**, 18, 464-74	3.5	62
73	A cyclin-dependent kinase inhibitor inducing cancer cell differentiation: biochemical identification using Xenopus egg extracts. *Proceedings of the National Academy of Sciences of the United States of America*, **1999**, 96, 4797-802	11.5	60
72	Interplay between spindle architecture and function. *International Review of Cell and Molecular Biology*, **2013**, 306, 83-125	6	56
71	Identification of a Novel Protein Regulating Microtubule Stability through a Chemical Approach. *Chemistry and Biology*, **2004**, 11, 135-146		56
70	Xorbit/CLASP links dynamic microtubules to chromosomes in the Xenopus meiotic spindle. *Journal of Cell Biology*, **2006**, 172, 19-25	7.3	51
69	Microtubules: 50 years on from the discovery of tubulin. *Nature Reviews Molecular Cell Biology*, **2016**, 17, 322-8	48.7	50
68	Importin Partitioning to the Plasma Membrane Regulates Intracellular Scaling. *Cell*, **2019**, 176, 805-815.e8	38.2	50
67	TPX2 levels modulate meiotic spindle size and architecture in Xenopus egg extracts. *Journal of Cell Biology*, **2014**, 206, 385-93	7.3	49
66	The condensin complex is required for proper spindle assembly and chromosome segregation in Xenopus egg extracts. *Journal of Cell Biology*, **2003**, 161, 1041-51	7.3	47
65	Mitotic noncoding RNA processing promotes kinetochore and spindle assembly in Xenopus. *Journal of Cell Biology*, **2016**, 214, 133-41	7.3	46
64	Synthesis and biological evaluation of myoseverin derivatives: microtubule assembly inhibitors. *Journal of Medicinal Chemistry*, **2001**, 44, 4497-500	8.3	40
63	Microtubule-based motor function in mitosis. *Current Opinion in Structural Biology*, **1999**, 9, 268-74	8.1	39
62	Paternal chromosome loss and metabolic crisis contribute to hybrid inviability in Xenopus. *Nature*, **2018**, 553, 337-341	50.4	35
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60	Spindles get the ran around. *Trends in Cell Biology*, **2000**, 10, 1-4	18.3	35
59	Mitotic spindle assembly around RCC1-coated beads in Xenopus egg extracts. *PLoS Biology*, **2011**, 9, e1001225	9.7	33
58	Discovery of selective aminothiazole aurora kinase inhibitors. *ACS Chemical Biology*, **2008**, 3, 180-92	4.9	33

57	Chromosome movement: dynein-out at the kinetochore. *Current Biology*, **2001**, 11, R128-31	6.3	32
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54	N-terminal phosphorylation of p60 katanin directly regulates microtubule severing. *Journal of Molecular Biology*, **2013**, 425, 214-21	6.5	30
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51	RanGTP and CLASP1 cooperate to position the mitotic spindle. *Molecular Biology of the Cell*, **2013**, 24, 2506-14	3.5	28
50	Essential roles for cohesin in kinetochore and spindle function in Xenopus egg extracts. *Journal of Cell Science*, **2006**, 119, 5057-66	5.3	28
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48	Enzymatically Generated CRISPR Libraries for Genome Labeling and Screening. *Developmental Cell*, **2015**, 34, 373-8	10.2	24
47	Biological Scaling Problems and Solutions in Amphibians. *Cold Spring Harbor Perspectives in Biology*, **2015**, 8, a019166	10.2	24
46	Mitotic chromosome size scaling in Xenopus. *Cell Cycle*, **2011**, 10, 3863-70	4.7	24
45	The long and the short of it: linker histone H1 is required for metaphase chromosome compaction. *Cell Cycle*, **2006**, 5, 589-91	4.7	24
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31	Kinetochore function: the complications of becoming attached. *Current Biology*, **2001**, 11, R855-7	6.3	10
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28	Centrosomes and kinetochores, who needs XEm? The role of noncentromeric chromatin in spindle assembly. *Current Topics in Developmental Biology*, **2003**, 56, 85-113	5.3	9
27	A versatile multivariate image analysis pipeline reveals features of Xenopus extract spindles. *Journal of Cell Biology*, **2016**, 213, 127-36	7.3	8
26	Challenges facing the biologist doing chemical genetics. *Nature Chemical Biology*, **2006**, 2, 55-8	11.7	6
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21	The power of amphibians to elucidate mechanisms of size control and scaling. *Experimental Cell Research*, **2020**, 392, 112036	4.2	4
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17	Cryptic no longer: arrays of CLASP1 TOG domains. *Structure*, **2013**, 21, 869-70	5.2	2
16	Rebecca Heald. *Current Biology*, **2010**, 20, R503-4	6.3	2
15	A lab co-op helps young faculty members to thrive. *Nature*, **2018**, 556, 409	50.4	2
14	The Incredible Shrinking Spindle. *Developmental Cell*, **2018**, 45, 421-423	10.2	2
13	Generation of Xenopus Haploid, Triploid, and Hybrid Embryos. *Methods in Molecular Biology*, **2019**, 1920, 303-315	1.4	1
12	A DNA Crosslinker Collects Mitotic Chromosomes. *Developmental Cell*, **2017**, 42, 440-442	10.2	1
11	Altering membrane topology with Sar1 does not impair spindle assembly in Xenopus egg extracts. *Cytoskeleton*, **2012**, 69, 591-9	2.4	1
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3	Mechanisms of Mitotic Spindle Assembly and Function. *FASEB Journal*, **2007**, 21, A93	0.9	0
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