

Rebecca Heald

List of Publications by Year in Descending Order

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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	Identification and characterization of centromeric sequences in. <i>Genome Research</i> , 2021 , 31, 958-967	9.7	4
109	Emergent properties of mitotic chromosomes. <i>Current Opinion in Cell Biology</i> , 2020 , 64, 43-49	9	4
108	The power of amphibians to elucidate mechanisms of size control and scaling. <i>Experimental Cell Research</i> , 2020 , 392, 112036	4.2	4
107	Cell Biology: The Health Hazards of Super-Sizing. <i>Current Biology</i> , 2019 , 29, R289-R292	6.3	0
106	Generation of Xenopus Haploid, Triploid, and Hybrid Embryos. <i>Methods in Molecular Biology</i> , 2019 , 1920, 303-315	1.4	1
105	Kif2a Scales Meiotic Spindle Size in <i>Hymenochirus boettgeri</i> . <i>Current Biology</i> , 2019 , 29, 3720-3727.e5	6.3	9
104	Importin β Partitioning to the Plasma Membrane Regulates Intracellular Scaling. <i>Cell</i> , 2019 , 176, 805-815.e8	9.2	50
103	Subcellular scaling: does size matter for cell division?. <i>Current Opinion in Cell Biology</i> , 2018 , 52, 88-95	9	15
102	Paternal chromosome loss and metabolic crisis contribute to hybrid inviability in <i>Xenopus</i> . <i>Nature</i> , 2018 , 553, 337-341	50.4	35
101	Spindle assembly in egg extracts of the Marsabit clawed frog, <i>Xenopus borealis</i> . <i>Cytoskeleton</i> , 2018 , 75, 244-257	2.4	5
100	Katanin-like protein Katnal2 is required for ciliogenesis and brain development in <i>Xenopus</i> embryos. <i>Developmental Biology</i> , 2018 , 442, 276-287	3.1	13
99	Hybrids Provide Insight Into Cell and Organism Size Control. <i>Frontiers in Physiology</i> , 2018 , 9, 1758	4.6	6
98	A lab co-op helps young faculty members to thrive. <i>Nature</i> , 2018 , 556, 409	50.4	2
97	Preparation of Cellular Extracts from Eggs and Embryos. <i>Cold Spring Harbor Protocols</i> , 2018 , 2018,	1.2	16
96	The Incredible Shrinking Spindle. <i>Developmental Cell</i> , 2018 , 45, 421-423	10.2	2
95	Cover Image, Volume 75, Issue 6. <i>Cytoskeleton</i> , 2018 , 75, C1-C1	2.4	
94	Regulatory remodeling in the allo-tetraploid frog <i>Xenopus laevis</i> . <i>Genome Biology</i> , 2017 , 18, 198	18.3	13

93	A DNA Crosslinker Collects Mitotic Chromosomes. <i>Developmental Cell</i> , 2017 , 42, 440-442	10.2	1
92	Mitotic noncoding RNA processing promotes kinetochore and spindle assembly in <i>Xenopus</i> . <i>Journal of Cell Biology</i> , 2016 , 214, 133-41	7.3	46
91	Genome evolution in the allotetraploid frog <i>Xenopus laevis</i> . <i>Nature</i> , 2016 , 538, 336-343	50.4	510
90	A versatile multivariate image analysis pipeline reveals features of <i>Xenopus</i> extract spindles. <i>Journal of Cell Biology</i> , 2016 , 213, 127-36	7.3	8
89	Microtubules: 50 years on from the discovery of tubulin. <i>Nature Reviews Molecular Cell Biology</i> , 2016 , 17, 322-8	48.7	50
88	Enzymatically Generated CRISPR Libraries for Genome Labeling and Screening. <i>Developmental Cell</i> , 2015 , 34, 373-8	10.2	24
87	Glutamylation of Nap1 modulates histone H1 dynamics and chromosome condensation in <i>Xenopus</i> . <i>Journal of Cell Biology</i> , 2015 , 209, 211-20	7.3	12
86	Biological Scaling Problems and Solutions in Amphibians. <i>Cold Spring Harbor Perspectives in Biology</i> , 2015 , 8, a019166	10.2	24
85	A comparative analysis of spindle morphometrics across metazoans. <i>Current Biology</i> , 2015 , 25, 1542-50	6.3	68
84	Thirty years of search and capture: The complex simplicity of mitotic spindle assembly. <i>Journal of Cell Biology</i> , 2015 , 211, 1103-11	7.3	100
83	Morphology and function of membrane-bound organelles. <i>Current Opinion in Cell Biology</i> , 2014 , 26, 79-86		30
82	RUVs drive chromosome decondensation after mitosis. <i>Developmental Cell</i> , 2014 , 31, 259-260	10.2	2
81	TPX2 levels modulate meiotic spindle size and architecture in <i>Xenopus</i> egg extracts. <i>Journal of Cell Biology</i> , 2014 , 206, 385-93	7.3	49
80	REEP3/4 ensure endoplasmic reticulum clearance from metaphase chromatin and proper nuclear envelope architecture. <i>Developmental Cell</i> , 2013 , 26, 315-23	10.2	84
79	Cryptic no longer: arrays of CLASP1 TOG domains. <i>Structure</i> , 2013 , 21, 869-70	5.2	2
78	N-terminal phosphorylation of p60 katanin directly regulates microtubule severing. <i>Journal of Molecular Biology</i> , 2013 , 425, 214-21	6.5	30
77	Cytoplasmic volume modulates spindle size during embryogenesis. <i>Science</i> , 2013 , 342, 856-60	33.3	177
76	Interplay between spindle architecture and function. <i>International Review of Cell and Molecular Biology</i> , 2013 , 306, 83-125	6	56

75	RanGTP and CLASP1 cooperate to position the mitotic spindle. <i>Molecular Biology of the Cell</i> , 2013 , 24, 2506-14	3.5	28
74	Mitotic spindle scaling during <i>Xenopus</i> development by kif2a and importin β <i>ELife</i> , 2013 , 2, e00290	8.9	86
73	Mechanisms of intracellular scaling. <i>Annual Review of Cell and Developmental Biology</i> , 2012 , 28, 113-35	12.6	95
72	Multiple domains of human CLASP contribute to microtubule dynamics and organization in vitro and in <i>Xenopus</i> egg extracts. <i>Cytoskeleton</i> , 2012 , 69, 155-65	2.4	35
71	Altering membrane topology with Sar1 does not impair spindle assembly in <i>Xenopus</i> egg extracts. <i>Cytoskeleton</i> , 2012 , 69, 591-9	2.4	1
70	Histone H1 compacts DNA under force and during chromatin assembly. <i>Molecular Biology of the Cell</i> , 2012 , 23, 4864-71	3.5	29
69	Katanin contributes to interspecies spindle length scaling in <i>Xenopus</i> . <i>Cell</i> , 2011 , 147, 1397-407	56.2	144
68	Importazole, a small molecule inhibitor of the transport receptor importin- β <i>ACS Chemical Biology</i> , 2011 , 6, 700-8	4.9	150
67	Atomic force microscope imaging of chromatin assembled in <i>Xenopus laevis</i> egg extract. <i>Chromosoma</i> , 2011 , 120, 245-54	2.8	16
66	Mitotic chromosome size scaling in <i>Xenopus</i> . <i>Cell Cycle</i> , 2011 , 10, 3863-70	4.7	24
65	Mitotic spindle assembly around RCC1-coated beads in <i>Xenopus</i> egg extracts. <i>PLoS Biology</i> , 2011 , 9, e1001225	33	
64	<i>Xenopus</i> egg extracts increase dynamics of histone H1 on sperm chromatin. <i>PLoS ONE</i> , 2010 , 5, e13111	3.7	5
63	A computational model predicts <i>Xenopus</i> meiotic spindle organization. <i>Journal of Cell Biology</i> , 2010 , 191, 1239-49	7.3	99
62	Nuclear size is regulated by importin β and Ntf2 in <i>Xenopus</i> . <i>Cell</i> , 2010 , 143, 288-98	56.2	164
61	Functional comparison of H1 histones in <i>Xenopus</i> reveals isoform-specific regulation by Cdk1 and RanGTP. <i>Current Biology</i> , 2010 , 20, 1048-52	6.3	18
60	Rebecca Heald. <i>Current Biology</i> , 2010 , 20, R503-4	6.3	2
59	Centrosome proteins form an insoluble perinuclear matrix during muscle cell differentiation. <i>BMC Cell Biology</i> , 2009 , 10, 28		65
58	Mitotic Spindle Assembly Mechanisms 2009 , 1-38		1

57	Mechanisms of mitotic spindle assembly and function. <i>International Review of Cytology</i> , 2008 , 265, 111-58		272
56	SnapShot: motor proteins in spindle assembly. <i>Cell</i> , 2008 , 134, 548-548.e1	56.2	12
55	The RanGTP gradient - a GPS for the mitotic spindle. <i>Journal of Cell Science</i> , 2008 , 121, 1577-86	5.3	220
54	Discovery of selective aminothiazole aurora kinase inhibitors. <i>ACS Chemical Biology</i> , 2008 , 3, 180-92	4.9	33
53	Micromanipulation studies of chromatin fibers in <i>Xenopus</i> egg extracts reveal ATP-dependent chromatin assembly dynamics. <i>Molecular Biology of the Cell</i> , 2007 , 18, 464-74	3.5	62
52	<i>Xenopus tropicalis</i> egg extracts provide insight into scaling of the mitotic spindle. <i>Journal of Cell Biology</i> , 2007 , 176, 765-70	7.3	85
51	Genome-wide analysis demonstrates conserved localization of messenger RNAs to mitotic microtubules. <i>Journal of Cell Biology</i> , 2007 , 179, 1365-73	7.3	136
50	Mechanisms of Mitotic Spindle Assembly and Function. <i>FASEB Journal</i> , 2007 , 21, A93	0.9	0
49	The long and the short of it: linker histone H1 is required for metaphase chromosome compaction. <i>Cell Cycle</i> , 2006 , 5, 589-91	4.7	24
48	Essential roles for cohesin in kinetochore and spindle function in <i>Xenopus</i> egg extracts. <i>Journal of Cell Science</i> , 2006 , 119, 5057-66	5.3	28
47	Xorbit/CLASP links dynamic microtubules to chromosomes in the <i>Xenopus</i> meiotic spindle. <i>Journal of Cell Biology</i> , 2006 , 172, 19-25	7.3	51
46	Cell biology. Serving up a plate of chromosomes. <i>Science</i> , 2006 , 311, 343-4	33.3	3
45	Investigating mitotic spindle assembly and function in vitro using <i>Xenopus laevis</i> egg extracts. <i>Nature Protocols</i> , 2006 , 1, 2305-14	18.8	125
44	Analysis of microtubule polymerization in vitro and during the cell cycle in <i>Xenopus</i> egg extracts. <i>Methods</i> , 2006 , 38, 29-34	4.6	14
43	Challenges facing the biologist doing chemical genetics. <i>Nature Chemical Biology</i> , 2006 , 2, 55-8	11.7	6
42	Analysis of a RanGTP-regulated gradient in mitotic somatic cells. <i>Nature</i> , 2006 , 440, 697-701	50.4	290
41	Methods for studying spindle assembly and chromosome condensation in <i>Xenopus</i> egg extracts. <i>Methods in Molecular Biology</i> , 2006 , 322, 459-74	1.4	74
40	A Rae1-containing ribonucleoprotein complex is required for mitotic spindle assembly. <i>Cell</i> , 2005 , 121, 223-34	56.2	224

39	Chromosome congression: another fine mesh we've gotten into. <i>Developmental Cell</i> , 2005 , 9, 314-5	10.2	1
38	Scratch nXscreen for inhibitors of cell migration. <i>Chemistry and Biology</i> , 2005 , 12, 263-5		12
37	Xnf7 contributes to spindle integrity through its microtubule-bundling activity. <i>Current Biology</i> , 2005 , 15, 1755-61	6.3	27
36	The perichromosomal layer. <i>Chromosoma</i> , 2005 , 114, 377-88	2.8	70
35	Histone H1 is essential for mitotic chromosome architecture and segregation in <i>Xenopus laevis</i> egg extracts. <i>Journal of Cell Biology</i> , 2005 , 169, 859-69	7.3	97
34	Two protein 4.1 domains essential for mitotic spindle and aster microtubule dynamics and organization in vitro. <i>Journal of Biological Chemistry</i> , 2004 , 279, 27591-8	5.4	17
33	Mechanisms and molecules of the mitotic spindle. <i>Current Biology</i> , 2004 , 14, R797-805	6.3	250
32	Adenomatous polyposis coli associates with the microtubule-destabilizing protein XMAP215. <i>Current Biology</i> , 2004 , 14, 2033-8	6.3	29
31	Identification of a Novel Protein Regulating Microtubule Stability through a Chemical Approach. <i>Chemistry and Biology</i> , 2004 , 11, 135-146		56
30	Dissection of the mammalian midbody proteome reveals conserved cytokinesis mechanisms. <i>Science</i> , 2004 , 305, 61-6	33.3	387
29	Centromere glue provides spindle cue. <i>Cell</i> , 2004 , 118, 529-30	56.2	1
28	Identification of a novel protein regulating microtubule stability through a chemical approach. <i>Chemistry and Biology</i> , 2004 , 11, 135-46		16
27	Nuclear actin and protein 4.1: essential interactions during nuclear assembly in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 10752-7	11.5	87
26	The condensin complex is required for proper spindle assembly and chromosome segregation in <i>Xenopus</i> egg extracts. <i>Journal of Cell Biology</i> , 2003 , 161, 1041-51	7.3	47
25	The Role of Chromosome Architecture in Spindle Assembly and Anaphase: The Condensed Version. <i>Cell Cycle</i> , 2003 , 2, 589-590	4.7	
24	Centrosomes and kinetochores, who needs XMAP215? The role of noncentromeric chromatin in spindle assembly. <i>Current Topics in Developmental Biology</i> , 2003 , 56, 85-113	5.3	9
23	Visualization of a Ran-GTP gradient in interphase and mitotic <i>Xenopus</i> egg extracts. <i>Science</i> , 2002 , 295, 2452-6	33.3	444
22	Two distinct domains of protein 4.1 critical for assembly of functional nuclei in vitro. <i>Journal of Biological Chemistry</i> , 2002 , 277, 44339-46	5.4	31

21	Microtubule dynamics. <i>Journal of Cell Science</i> , 2002 , 115, 3-4	5.3	96
20	Methods for the study of centrosome-independent spindle assembly in <i>Xenopus</i> extracts. <i>Methods in Cell Biology</i> , 2001 , 67, 241-56	1.8	11
19	Chromosome movement: dynein-out at the kinetochore. <i>Current Biology</i> , 2001 , 11, R128-31	6.3	32
18	Kinetochore function: the complications of becoming attached. <i>Current Biology</i> , 2001 , 11, R855-7	6.3	10
17	Regulation of Op18 during spindle assembly in <i>Xenopus</i> egg extracts. <i>Journal of Cell Biology</i> , 2001 , 153, 149-58	7.3	79
16	Synthesis and biological evaluation of myoseverin derivatives: microtubule assembly inhibitors. <i>Journal of Medicinal Chemistry</i> , 2001 , 44, 4497-500	8.3	40
15	Mitotic spindle assembly in vitro. <i>Current Protocols in Cell Biology</i> , 2001 , Chapter 11, Unit 11.13	2.3	1
14	Importin beta is a mitotic target of the small GTPase Ran in spindle assembly. <i>Cell</i> , 2001 , 104, 95-106	56.2	332
13	Spindles get the ran around. <i>Trends in Cell Biology</i> , 2000 , 10, 1-4	18.3	35
12	Formation of spindle poles by dynein/dynactin-dependent transport of NuMA. <i>Journal of Cell Biology</i> , 2000 , 149, 851-62	7.3	268
11	Motor function in the mitotic spindle. <i>Cell</i> , 2000 , 102, 399-402	56.2	120
10	A cyclin-dependent kinase inhibitor inducing cancer cell differentiation: biochemical identification using <i>Xenopus</i> egg extracts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999 , 96, 4797-802	11.5	60
9	Microtubule-based motor function in mitosis. <i>Current Opinion in Structural Biology</i> , 1999 , 9, 268-74	8.1	39
8	A model for the proposed roles of different microtubule-based motor proteins in establishing spindle bipolarity. <i>Current Biology</i> , 1998 , 8, 903-13	6.3	350
7	Spindle assembly in <i>Xenopus</i> egg extracts: respective roles of centrosomes and microtubule self-organization. <i>Journal of Cell Biology</i> , 1997 , 138, 615-28	7.3	303
6	Role of chromosomes in assembly of meiotic and mitotic spindles. <i>Progress in Cell Cycle Research</i> , 1997 , 3, 271-84		10
5	Mitotic spindles and microtubule dynamics in <i>Xenopus</i> egg extracts. <i>Seminars in Cell and Developmental Biology</i> , 1996 , 7, 467-473	7.5	1
4	Self-organization of microtubules into bipolar spindles around artificial chromosomes in <i>Xenopus</i> egg extracts. <i>Nature</i> , 1996 , 382, 420-5	50.4	803

3	Human wee1 maintains mitotic timing by protecting the nucleus from cytoplasmically activated Cdc2 kinase. <i>Cell</i> , 1993 , 74, 463-74	56.2	405
2	Mutations of phosphorylation sites in lamin A that prevent nuclear lamina disassembly in mitosis. <i>Cell</i> , 1990 , 61, 579-89	56.2	544
1	Identification and characterization of centromeric sequences in <i>Xenopus laevis</i>		1