# Rebecca Heald

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 116 papers | 11,468 citations | 44042 48 h-index | 30894 102 g-index |
| 151 all docs | 151 docs citations | 151 times ranked | 9653 citing authors |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 1 | Identification and characterization of centromeric sequences in <i>Xenopus laevis</i>. Genome Research, 2021, 31, 958-967. | 2.4 | 12 |
| 2 | Reconstitution of muscle cell microtubule organization in vitro. Cytoskeleton, 2021, 78, 492-502. | 1.0 | 2 |
| 3 | Emergent properties of mitotic chromosomes. Current Opinion in Cell Biology, 2020, 64, 43-49. | 2.6 | 11 |
| 4 | The power of amphibians to elucidate mechanisms of size control and scaling. Experimental Cell Research, 2020, 392, 112036. | 1.2 | 13 |
| 5 | Kif2a Scales Meiotic Spindle Size in Hymenochirus boettgeri. Current Biology, 2019, 29, 3720-3727.e5. | 1.8 | 22 |
| 6 | Cell Biology: The Health Hazards of Super-Sizing. Current Biology, 2019, 29, R289-R292. | 1.8 | 1 |
| 7 | Generation of Xenopus Haploid, Triploid, and Hybrid Embryos. Methods in Molecular Biology, 2019, 1920, 303-315. | 0.4 | 5 |
| 8 | Importin Î± Partitioning to the Plasma Membrane Regulates Intracellular Scaling. Cell, 2019, 176, 805-815.e8. | 13.5 | 94 |
| 9 | The Use of Cell-Free <i>Xenopus</i> Extracts to Investigate Cytoplasmic Events. Cold Spring Harbor Protocols, 2019, 2019, pdb.top097048. | 0.2 | 5 |
| 10 | Subcellular scaling: does size matter for cell division?. Current Opinion in Cell Biology, 2018, 52, 88-95. | 2.6 | 27 |
| 11 | Paternal chromosome loss and metabolic crisis contribute to hybrid inviability in Xenopus. Nature, 2018, 553, 337-341. | 13.7 | 69 |
| 12 | Spindle assembly in egg extracts of the Marsabit clawed frog, <i>Xenopus borealis</i>. Cytoskeleton, 2018, 75, 244-257. | 1.0 | 17 |
| 13 | Xenopus Hybrids Provide Insight Into Cell and Organism Size Control. Frontiers in Physiology, 2018, 9, 1758. | 1.3 | 10 |
| 14 | A lab co-op helps young faculty members to thrive. Nature, 2018, 556, 409-409. | 13.7 | 3 |
| 15 | Preparation of Cellular Extracts from <i>Xenopus</i> Eggs and Embryos. Cold Spring Harbor Protocols, 2018, 2018, pdb.prot097055. | 0.2 | 38 |
| 16 | The Incredible Shrinking Spindle. Developmental Cell, 2018, 45, 421-423. | 3.1 | 2 |
| 17 | Cover Image, Volume 75, Issue 6. Cytoskeleton, 2018, 75, C1-C1. | 1.0 | 0 |
| 18 | Katanin-like protein Katnal2 is required for ciliogenesis and brain development in Xenopus embryos. Developmental Biology, 2018, 442, 276-287. | 0.9 | 27 |

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|---|---|---|---|
| 19 | A DNA Crosslinker Collects Mitotic Chromosomes. Developmental Cell, 2017, 42, 440-442. | 3.1 | 1 |
| 20 | Transcription brings the complex(ity) to the centromere. Cell Cycle, 2017, 16, 235-236. | 1.3 | 11 |
| 21 | Regulatory remodeling in the allo-tetraploid frog Xenopus laevis. Genome Biology, 2017, 18, 198. | 3.8 | 34 |
| 22 | A versatile multivariate image analysis pipeline reveals features of <i>Xenopus</i> extract spindles. Journal of Cell Biology, 2016, 213, 127-136. | 2.3 | 13 |
| 23 | Microtubules: 50 years on from the discovery of tubulin. Nature Reviews Molecular Cell Biology, 2016, 17, 322-328. | 16.1 | 67 |
| 24 | Mitotic noncoding RNA processing promotes kinetochore and spindle assembly in <i>Xenopus</i>. Journal of Cell Biology, 2016, 214, 133-141. | 2.3 | 64 |
| 25 | Genome evolution in the allotetraploid frog Xenopus laevis. Nature, 2016, 538, 336-343. | 13.7 | 849 |
| 26 | Biological Scaling Problems and Solutions in Amphibians. Cold Spring Harbor Perspectives in Biology, 2016, 8, a019166. | 2.3 | 43 |
| 27 | A Comparative Analysis of Spindle Morphometrics across Metazoans. Current Biology, 2015, 25, 1542-1550. | 1.8 | 98 |
| 28 | Thirty years of search and capture: The complex simplicity of mitotic spindle assembly. Journal of Cell Biology, 2015, 211, 1103-1111. | 2.3 | 148 |
| 29 | Enzymatically Generated CRISPR Libraries for Genome Labeling and Screening. Developmental Cell, 2015, 34, 373-378. | 3.1 | 32 |
| 30 | Glutamylation of Nap1 modulates histone H1 dynamics and chromosome condensation in <i>Xenopus</i>. Journal of Cell Biology, 2015, 209, 211-220. | 2.3 | 18 |
| 31 | TPX2 levels modulate meiotic spindle size and architecture in <i>Xenopus</i> egg extracts. Journal of Cell Biology, 2014, 206, 385-393. | 2.3 | 73 |
| 32 | Morphology and function of membrane-bound organelles. Current Opinion in Cell Biology, 2014, 26, 79-86. | 2.6 | 57 |
| 33 | RUVs Drive Chromosome Decondensation after Mitosis. Developmental Cell, 2014, 31, 259-260. | 3.1 | 2 |
| 34 | Limiting Cytoplasmic Components Couple Spindle Size to Cell Size during Embryogenesis. Biophysical Journal, 2014, 106, 167a. | 0.2 | 0 |
| 35 | REEP3/4 Ensure Endoplasmic Reticulum Clearance from Metaphase Chromatin and Proper Nuclear Envelope Architecture. Developmental Cell, 2013, 26, 315-323. | 3.1 | 120 |
| 36 | Cryptic No Longer: Arrays of CLASP1 TOG Domains. Structure, 2013, 21, 869-870. | 1.6 | 2 |

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|---|---|---|---|
| 37 | N-Terminal Phosphorylation of p60 Katanin Directly Regulates Microtubule Severing. Journal of Molecular Biology, 2013, 425, 214-221. | 2.0 | 32 |
| 38 | Cytoplasmic Volume Modulates Spindle Size During Embryogenesis. Science, 2013, 342, 856-860. | 6.0 | 234 |
| 39 | Interplay Between Spindle Architecture and Function. International Review of Cell and Molecular Biology, 2013, 306, 83-125. | 1.6 | 69 |
| 40 | RanGTP and CLASP1 cooperate to position the mitotic spindle. Molecular Biology of the Cell, 2013, 24, 2506-2514. | 0.9 | 31 |
| 41 | Mitotic spindle scaling during Xenopus development by kif2a and importin Î±. ELife, 2013, 2, e00290. | 2.8 | 116 |
| 42 | Histone H1 compacts DNA under force and during chromatin assembly. Molecular Biology of the Cell, 2012, 23, 4864-4871. | 0.9 | 40 |
| 43 | Mechanisms of Intracellular Scaling. Annual Review of Cell and Developmental Biology, 2012, 28, 113-135. | 4.0 | 123 |
| 44 | Multiple domains of human CLASP contribute to microtubule dynamics and organization in vitro and in <i>Xenopus</i> egg extracts. Cytoskeleton, 2012, 69, 155-165. | 1.0 | 40 |
| 45 | Altering membrane topology with Sar1 does not impair spindle assembly in <i>Xenopus</i> egg extracts. Cytoskeleton, 2012, 69, 591-599. | 1.0 | 1 |
| 46 | Katanin Contributes to Interspecies Spindle Length Scaling in Xenopus. Cell, 2011, 147, 1397-1407. | 13.5 | 184 |
| 47 | Importazole, a Small Molecule Inhibitor of the Transport Receptor Importin-Î². ACS Chemical Biology, 2011, 6, 700-708. | 1.6 | 211 |
| 48 | Cell structure and dynamics. Current Opinion in Cell Biology, 2011, 23, 1-3. | 2.6 | 83 |
| 49 | Atomic force microscope imaging of chromatin assembled in Xenopus laevis egg extract. Chromosoma, 2011, 120, 245-254. | 1.0 | 17 |
| 50 | Mitotic chromosome size scaling in Xenopus. Cell Cycle, 2011, 10, 3863-3870. | 1.3 | 33 |
| 51 | Mitotic Spindle Assembly around RCC1-Coated Beads in Xenopus Egg Extracts. PLoS Biology, 2011, 9, e1001225. | 2.6 | 41 |
| 52 | Functional Comparison of H1 Histones in Xenopus Reveals Isoform-Specific Regulation by Cdk1 and RanGTP. Current Biology, 2010, 20, 1048-1052. | 1.8 | 21 |
| 53 | Rebecca Heald. Current Biology, 2010, 20, R503-R504. | 1.8 | 2 |
| 54 | Xenopus Egg Extracts Increase Dynamics of Histone H1 on Sperm Chromatin. PLoS ONE, 2010, 5, e13111. | 1.1 | 6 |

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|---|---|---|---|
| 55 | A computational model predicts <i>Xenopus</i> meiotic spindle organization. Journal of Cell Biology, 2010, 191, 1239-1249. | 2.3 | 125 |
| 56 | Nuclear Size Is Regulated by Importin Î± and Ntf2 in Xenopus. Cell, 2010, 143, 288-298. | 13.5 | 234 |
| 57 | Centrosome proteins form an insoluble perinuclear matrix during muscle cell differentiation. BMC Cell Biology, 2009, 10, 28. | 3.0 | 78 |
| 58 | Mitotic Spindle Assembly Mechanisms. , 2009, , 1-38. | | 4 |
| 59 | Discovery of Selective Aminothiazole Aurora Kinase Inhibitors. ACS Chemical Biology, 2008, 3, 180-192. | 1.6 | 37 |
| 60 | Mechanisms of Mitotic Spindle Assembly and Function. International Review of Cytology, 2008, 265, 111-158. | 6.2 | 313 |
| 61 | SnapShot: Motor Proteins in Spindle Assembly. Cell, 2008, 134, 548-548.e1. | 13.5 | 12 |
| 62 | The RanGTP gradient â€“ a GPS for the mitotic spindle. Journal of Cell Science, 2008, 121, 1577-1586. | 1.2 | 259 |
| 63 | Micromanipulation Studies of Chromatin Fibers in Xenopus Egg Extracts Reveal ATP-dependent Chromatin Assembly Dynamics. Molecular Biology of the Cell, 2007, 18, 464-474. | 0.9 | 71 |
| 64 | Xenopus tropicalis egg extracts provide insight into scaling of the mitotic spindle. Journal of Cell Biology, 2007, 176, 765-770. | 2.3 | 110 |
| 65 | Genome-wide analysis demonstrates conserved localization of messenger RNAs to mitotic microtubules. Journal of Cell Biology, 2007, 179, 1365-1373. | 2.3 | 157 |
| 66 | Mechanisms of Mitotic Spindle Assembly and Function. FASEB Journal, 2007, 21, A93. | 0.2 | 2 |
| 67 | Investigating mitotic spindle assembly and function in vitro using Xenopus laevis egg extracts. Nature Protocols, 2006, 1, 2305-2314. | 5.5 | 155 |
| 68 | Analysis of microtubule polymerization in vitro and during the cell cycle in Xenopus egg extracts. Methods, 2006, 38, 29-34. | 1.9 | 15 |
| 69 | Challenges facing the biologist doing chemical genetics. Nature Chemical Biology, 2006, 2, 55-58. | 3.9 | 8 |
| 70 | Analysis of a RanGTP-regulated gradient in mitotic somatic cells. Nature, 2006, 440, 697-701. | 13.7 | 339 |
| 71 | The Long and the Short of it: Linker Histone H1 is Required for Metaphase Chromosome Compaction. Cell Cycle, 2006, 5, 589-591. | 1.3 | 26 |
| 72 | Essential roles for cohesin in kinetochore and spindle function in Xenopus egg extracts. Journal of Cell Science, 2006, 119, 5057-5066. | 1.2 | 31 |

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| 73 | Xorbit/CLASP links dynamic microtubules to chromosomes in the Xenopus meiotic spindle. Journal of Cell Biology, 2006, 172, 19-25. | 2.3 | 55 |
| 74 | Serving Up a Plate of Chromosomes. Science, 2006, 311, 343-344. | 6.0 | 4 |
| 75 | Methods for Studying Spindle Assembly and Chromosome Condensation in Xenopus Egg Extracts. Methods in Molecular Biology, 2006, 322, 459-474. | 0.4 | 96 |
| 76 | Scratch nâ€™ Screen for Inhibitors of Cell Migration. Chemistry and Biology, 2005, 12, 263-265. | 6.2 | 14 |
| 77 | Xnf7 Contributes to Spindle Integrity through Its Microtubule-Bundling Activity. Current Biology, 2005, 15, 1755-1761. | 1.8 | 29 |
| 78 | The perichromosomal layer. Chromosoma, 2005, 114, 377-388. | 1.0 | 91 |
| 79 | Histone H1 is essential for mitotic chromosome architecture and segregation in Xenopus laevis egg extracts. Journal of Cell Biology, 2005, 169, 859-869. | 2.3 | 116 |
| 80 | A Rae1-Containing Ribonucleoprotein Complex Is Required for Mitotic Spindle Assembly. Cell, 2005, 121, 223-234. | 13.5 | 257 |
| 81 | Chromosome Congression: Another Fine Mesh Weâ€™ve Gotten into. Developmental Cell, 2005, 9, 314-315. | 3.1 | 1 |
| 82 | Two Protein 4.1 Domains Essential for Mitotic Spindle and Aster Microtubule Dynamics and Organization in Vitro. Journal of Biological Chemistry, 2004, 279, 27591-27598. | 1.6 | 22 |
| 83 | Burning the spindle at both ends. Nature, 2004, 427, 300-301. | 13.7 | 5 |
| 84 | Mechanisms and Molecules of the Mitotic Spindle. Current Biology, 2004, 14, R797-R805. | 1.8 | 290 |
| 85 | Adenomatous Polyposis Coli Associates with the Microtubule-Destabilizing Protein XMCAK. Current Biology, 2004, 14, 2033-2038. | 1.8 | 30 |
| 86 | Identification of a Novel Protein Regulating Microtubule Stability through a Chemical Approach. Chemistry and Biology, 2004, 11, 135-146. | 6.2 | 65 |
| 87 | Dissection of the Mammalian Midbody Proteome Reveals Conserved Cytokinesis Mechanisms. Science, 2004, 305, 61-66. | 6.0 | 448 |
| 88 | Centromere Glue Provides Spindle Cue. Cell, 2004, 118, 529-530. | 13.5 | 2 |
| 89 | Identification of a novel protein regulating microtubule stability through a chemical approach. Chemistry and Biology, 2004, 11, 135-46. | 6.2 | 16 |
| 90 | 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, 10752-10757. | 3.3 | 96 |

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| 91 | The condensin complex is required for proper spindle assembly and chromosome segregation in Xenopus egg extracts. Journal of Cell Biology, 2003, 161, 1041-1051. | 2.3 | 52 |
| 92 | The Role of Chromosome Architecture in Spindle Assembly and Anaphase: The Condensed Version. Cell Cycle, 2003, 2, 589-590. | 1.3 | 0 |
| 93 | Centrosomes and Kinetochores, Who Needs 'Em? The Role of Noncentromeric Chromatin in Spindle Assembly. Current Topics in Developmental Biology, 2003, 56, 85-113. | 1.0 | 9 |
| 94 | Visualization of a Ran-GTP Gradient in Interphase and Mitotic Xenopus Egg Extracts. Science, 2002, 295, 2452-2456. | 6.0 | 496 |
| 95 | Two Distinct Domains of Protein 4.1 Critical for Assembly of Functional Nuclei in Vitro. Journal of Biological Chemistry, 2002, 277, 44339-44346. | 1.6 | 36 |
| 96 | Microtubule dynamics. Journal of Cell Science, 2002, 115, 3-4. | 1.2 | 110 |
| 97 | Synthesis and Biological Evaluation of Myoseverin Derivatives:Â Microtubule Assembly Inhibitors. Journal of Medicinal Chemistry, 2001, 44, 4497-4500. | 2.9 | 42 |
| 98 | Mitotic Spindle Assembly In Vitro. Current Protocols in Cell Biology, 2001, 9, Unit 11.13. | 2.3 | 1 |
| 99 | Importin Î² Is a Mitotic Target of the Small GTPase Ran in Spindle Assembly. Cell, 2001, 104, 95-106. | 13.5 | 373 |
| 100 | Methods for the study of centrosome-independent spindle assembly in Xenopus extracts. Methods in Cell Biology, 2001, 67, 241-256. | 0.5 | 13 |
| 101 | Chromosome movement: Dynein-out at the kinetochore. Current Biology, 2001, 11, R128-R131. | 1.8 | 40 |
| 102 | Kinetochore function: The complications of becoming attached. Current Biology, 2001, 11, R855-R857. | 1.8 | 11 |
| 103 | Regulation of Op18 during Spindle Assembly in Xenopus Egg Extracts. Journal of Cell Biology, 2001, 153, 149-158. | 2.3 | 84 |
| 104 | A dynamic duo of microtubule modulators. Nature Cell Biology, 2000, 2, E11-E12. | 4.6 | 16 |
| 105 | Spindles get the Ran around. Trends in Cell Biology, 2000, 10, 1-4. | 3.6 | 36 |
| 106 | Formation of Spindle Poles by Dynein/Dynactin-Dependent Transport of Numa. Journal of Cell Biology, 2000, 149, 851-862. | 2.3 | 292 |
| 107 | Motor Function in the Mitotic Spindle Minireview. Cell, 2000, 102, 399-402. | 13.5 | 126 |
| 108 | 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, 4797-4802. | 3.3 | 62 |

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| 109 | Microtubule-based motor function in mitosis. Current Opinion in Structural Biology, 1999, 9, 268-274. | 2.6 | 42 |
| 110 | A model for the proposed roles of different microtubule-based motor proteins in establishing spindle bipolarity. Current Biology, 1998, 8, 903-913. | 1.8 | 394 |
| 111 | Spindle Assembly in Xenopus Egg Extracts: Respective Roles of Centrosomes and Microtubule Self-Organization. Journal of Cell Biology, 1997, 138, 615-628. | 2.3 | 328 |
| 112 | Role of chromosomes in assembly of meiotic and mitotic spindles. , 1997, 3, 271-284. | | 12 |
| 113 | Mitotic spindles and microtubule dynamics inXenopusegg extracts. Seminars in Cell and Developmental Biology, 1996, 7, 467-473. | 2.3 | 1 |
| 114 | Self-organization of microtubules into bipolar spindles around artificial chromosomes in Xenopus egg extracts. Nature, 1996, 382, 420-425. | 13.7 | 921 |
| 115 | Human wee1 maintains mitotic timing by protecting the nucleus from cytoplasmically activated cdc2 kinase. Cell, 1993, 74, 463-474. | 13.5 | 446 |
| 116 | Mutations of phosphorylation sites in lamin A that prevent nuclear lamina disassembly in mitosis. Cell, 1990, 61, 579-589. | 13.5 | 628 |