Pierre Gonczy

List of Publications by Year
in descending order

113 papers	10,916 citations	30070 54 h-index	33894 99 g-index
127 all docs	127 docs citations	127 times ranked	7460 citing authors

#	Article	IF	Citations
1	Structures of SAS-6 coiled coil hold implications for the polarity of the centriolar cartwheel. Structure, 2022, 30, 671-684.e5.	3.3	4
2	Atypical and distinct microtubule radial symmetries in the centriole and the axoneme of <i>Lecudina tuzetae</i>. Molecular Biology of the Cell, 2022, 33, mbcE22040123.	2.1	3
3	TRIM37 prevents formation of centriolar protein assemblies by regulating Centrobin. ELife, 2021, 10, .	6.0	13
4	Physically asymmetric division of the C. elegans zygote ensures invariably successful embryogenesis. ELife, 2021, 10, .	6.0	19
5	Tuning SAS-6 architecture with monobodies impairs distinct steps of centriole assembly. Nature Communications, 2021, 12, 3805.	12.8	3
6	Pulchelloid A, a sesquiterpene lactone from the Canadian prairie plant Gaillardia aristata inhibits mitosis in human cells. Molecular Biology Reports, 2021, 48, 5459-5471.	2.3	3
7	TRIM37: a critical orchestrator of centrosome function. Cell Cycle, 2021, 20, 2443-2451.	2.6	2
8	Kinetic and structural roles for the surface in guiding SAS-6 self-assembly to direct centriole architecture. Nature Communications, 2021, 12, 6180.	12.8	10
9	Centriole foci persist in starfish oocytes despite Polo-like kinase 1 inactivation or loss of microtubule nucleation activity. Molecular Biology of the Cell, 2020, 31, 873-880.	2.1	7
10	Homogeneous multifocal excitation for high-throughput super-resolution imaging. Nature Methods, 2020, 17, 726-733.	19.0	46
11	Novel features of centriole polarity and cartwheel stacking revealed by cryoâ€tomography. EMBO Journal, 2020, 39, e106249.	7.8	23
12	Live imaging screen reveals that TYRO3 and GAK ensure accurate spindle positioning in human cells. Nature Communications, 2019, 10, 2859.	12.8	5
13	Tissue- and sex-specific small RNAomes reveal sex differences in response to the environment. PLoS Genetics, 2019, 15, e1007905.	3.5	22
14	Centriole assembly at a glance. Journal of Cell Science, 2019, 132, .	2.0	78
15	Aurora A depletion reveals centrosome-independent polarization mechanism in Caenorhabditis elegans. ELife, 2019, 8, .	6.0	56
16	The Rise of the Cartwheel: Seeding the Centriole Organelle. BioEssays, 2018, 40, e1700241.	2.5	53
17	ZYG-1 promotes limited centriole amplification in the C. elegans seam lineage. Developmental Biology, 2018, 434, 221-230.	2.0	5
18	Interaction between the<i>Caenorhabditis elegans</i>centriolar protein SAS-5 and microtubules facilitates organelle assembly. Molecular Biology of the Cell, 2018, 29, 722-735.	2.1	8

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19	Integrated Microfluidic Device for Drug Studies of Early <i>C. Elegans</i> Embryogenesis. Advanced Science, 2018, 5, 1700751.	11.2	12
20	Multicolor single-particle reconstruction of protein complexes. Nature Methods, 2018, 15, 777-780.	19.0	76
21	High-speed photothermal off-resonance atomic force microscopy reveals assembly routes of centriolar scaffold protein SAS-6. Nature Nanotechnology, 2018, 13, 696-701.	31.5	105
22	Microfluidic Devices: Integrated Microfluidic Device for Drug Studies of Early C. Elegans Embryogenesis (Adv. Sci. 5/2018). Advanced Science, 2018, 5, 1870032.	11.2	0
23	PI(4,5)P2 forms dynamic cortical structures and directs actin distribution as well as polarity in <i>C. elegans</i> embryos. Development (Cambridge), 2018, 145, .	2.5	13
24	An integrated microfluidic device for C. elegans early embryogenesis studies and drug assays. , 2017, , .		0
25	Zika virus causes supernumerary foci with centriolar proteins and impaired spindle positioning. Open Biology, 2017, 7, 160231.	3.6	34
26	Centriole Biogenesis: From Identifying the Characters to Understanding the Plot. Annual Review of Cell and Developmental Biology, 2017, 33, 23-49.	9.4	96
27	Identification of Chlamydomonas Central Core Centriolar Proteins Reveals a Role for Human WDR90 in Ciliogenesis. Current Biology, 2017, 27, 2486-2498.e6.	3.9	53
28	Computer simulations reveal mechanisms that organize nuclear dynein forces to separate centrosomes. Molecular Biology of the Cell, 2017, 28, 3165-3170.	2.1	11
29	TRACMIT: An effective pipeline for tracking and analyzing cells on micropatterns through mitosis. PLoS ONE, 2017, 12, e0179752.	2.5	5
30	Discovery of a Selective Aurora A Kinase Inhibitor by Virtual Screening. Journal of Medicinal Chemistry, 2016, 59, 7188-7211.	6.4	57
31	The Human Centriolar Protein CEP135 Contains a Two-Stranded Coiled-Coil Domain Critical for Microtubule Binding. Structure, 2016, 24, 1358-1371.	3.3	27
32	Chemical Genetic Screen Identifies Natural Products that Modulate Centriole Number. ChemBioChem, 2016, 17, 2063-2074.	2.6	5
33	Computational support for a scaffolding mechanism of centriole assembly. Scientific Reports, 2016, 6, 27075.	3.3	11
34	KAT2A/KAT2B-targeted acetylome reveals a role for PLK4 acetylation in preventing centrosome amplification. Nature Communications, 2016, 7, 13227.	12.8	84
35	Aurora A kinase regulates proper spindle positioning in <i>C. elegans</i> and in human cells. Journal of Cell Science, 2016, 129, 3015-25.	2.0	43
36	Centriolar CPAP/SAS-4 Imparts Slow Processive Microtubule Growth. Developmental Cell, 2016, 37, 362-376.	7.0	90

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37	Basal body structure in Trichonympha. Cilia, 2016, 5, 9.	1.8	6
38	Dynein Transmits Polarized Actomyosin Cortical Flows to Promote Centrosome Separation. Cell Reports, 2016, 14, 2250-2262.	6.4	43
39	Distinct mechanisms eliminate mother and daughter centrioles in meiosis of starfish oocytes. Journal of Cell Biology, 2016, 212, 815-827.	5.2	48
40	SAS-6 engineering reveals interdependence between cartwheel and microtubules in determining centrioleÂarchitecture. Nature Cell Biology, 2016, 18, 393-403.	10.3	73
41	Polarity-Dependent Asymmetric Distribution and MEX-5/6â€“Mediated Translational Activation of the Era-1 mRNA in C. elegans Embryos. PLoS ONE, 2015, 10, e0120984.	2.5	2
42	Quantitative Analysis and Modeling Probe Polarity Establishment in C.Âelegans Embryos. Biophysical Journal, 2015, 108, 799-809.	0.5	13
43	Paternally contributed centrioles exhibit exceptional persistence in C. elegans embryos. Cell Research, 2015, 25, 642-644.	12.0	32
44	Centrosomes and cancer: revisiting a long-standing relationship. Nature Reviews Cancer, 2015, 15, 639-652.	28.4	185
45	Isolation, cryotomography, and three-dimensional reconstruction of centrioles. Methods in Cell Biology, 2015, 129, 191-209.	1.1	7
46	The Caenorhabditis elegans protein SAS-5 forms large oligomeric assemblies critical for centriole formation. ELife, 2015, 4, e07410.	6.0	37
47	NuMA phosphorylation dictates dynein-dependent spindle positioning. Cell Cycle, 2014, 13, 177-178.	2.6	16
48	SAS-1 Is a C2 Domain Protein Critical for Centriole Integrity in C. elegans. PLoS Genetics, 2014, 10, e1004777.	3.5	18
49	Correlative multicolor 3D SIM and STORM microscopy. Biomedical Optics Express, 2014, 5, 3326.	2.9	37
50	Centrosomes back in the limelight. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130452.	4.0	27
51	Mechanisms of HsSAS-6 assembly promoting centriole formation in human cells. Journal of Cell Biology, 2014, 204, 697-712.	5.2	77
52	A missense mutation in the PISA domain of HsSAS-6 causes autosomal recessive primary microcephaly in a large consanguineous Pakistani family. Human Molecular Genetics, 2014, 23, 5940-5949.	2.9	63
53	Stereotyped distribution of midbody remnants in early C. elegans embryos requires cell death genes and is dispensable for development. Cell Research, 2014, 24, 251-253.	12.0	34
54	Multiciliogenesis: Multicilin Directs Transcriptional Activation of Centriole Formation. Current Biology, 2014, 24, R746-R749.	3.9	12

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55	Clathrin regulates centrosome positioning by promoting acto-myosin cortical tension in C. elegans embryos. Development (Cambridge), 2014, 141, 2712-2723.	2.5	11
56	NuMA interacts with phosphoinositides and links the mitotic spindle with the plasma membrane. EMBO Journal, 2014, 33, 1815-1830.	7.8	64
57	Polarity establishment, asymmetric division and segregation of fate determinants in early C. elegans embryos. WormBook, 2014, , 1-43.	5.3	152
58	NuMA phosphorylation by CDK1 couples mitotic progression with cortical dynein function. EMBO Journal, 2013, 32, 2517-2529.	7.8	93
59	Native Architecture of the Centriole Proximal Region Reveals Features Underlying Its 9-Fold Radial Symmetry. Current Biology, 2013, 23, 1620-1628.	3.9	113
60	Selective Chemical Crosslinking Reveals a Cep57-Cep63-Cep152 Centrosomal Complex. Current Biology, 2013, 23, 265-270.	3.9	102
61	Discovering Regulators of Centriole Biogenesis through siRNA-Based Functional Genomics in Human Cells. Developmental Cell, 2013, 25, 555-571.	7.0	78
62	Mechanisms of spindle positioning: cortical force generators in the limelight. Current Opinion in Cell Biology, 2013, 25, 741-748.	5.4	152
63	Simple buffers for 3D STORM microscopy. Biomedical Optics Express, 2013, 4, 885.	2.9	116
64	<i>Caenorhabditis elegans</i> centriolar protein SAS-6 forms a spiral that is consistent with imparting a ninefold symmetry. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11373-11378.	7.1	54
65	MISP is a novel Plk1 substrate required for proper spindle orientation and mitotic progression. Journal of Cell Biology, 2013, 200, 773-787.	5.2	65
66	[Letter to the editor]: Commercial Cdk1 antibodies recognize the centrosomal protein Cep152. BioTechniques, 2013, 55, 111-114.	1.8	12
67	Cortical dynein is critical for proper spindle positioning in human cells. Journal of Cell Biology, 2012, 199, 97-110.	5.2	208
68	Towards a molecular architecture of centriole assembly. Nature Reviews Molecular Cell Biology, 2012, 13, 425-435.	37.0	267
69	Cartwheel Architecture of <i>Trichonympha</i> Basal Body. Science, 2012, 337, 553-553.	12.6	84
70	Analysis of centriole elimination during<i>C. elegans</i>oogenesis. Development (Cambridge), 2012, 139, 1670-1679.	2.5	58
71	Structural Basis of the 9-Fold Symmetry of Centrioles. Cell, 2011, 144, 364-375.	28.9	317
72	PP2A Phosphatase Acts upon SAS-5 to Ensure Centriole Formation in C.Âelegans Embryos. Developmental Cell, 2011, 20, 550-562.	7.0	51

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73	Spindle positioning in human cells relies on proper centriole formation and on the microcephaly proteins CPAP and STIL. Journal of Cell Science, 2011, 124, 3884-3893.	2.0	99
74	Polarity mediates asymmetric trafficking of the GÎ² heterotrimeric G-protein subunit GPB-1 in C. elegans embryos. Development (Cambridge), 2011, 138, 2773-2782.	2.5	22
75	The SCFâ€"FBXW5 E3-ubiquitin ligase is regulated by PLK4 and targets HsSAS-6 to control centrosome duplication. Nature Cell Biology, 2011, 13, 1004-1009.	10.3	145
76	ASSET: A robust algorithm for the automated segmentation and standardization of early <i>Caenorhabditis elegans</i> embryos. Developmental Dynamics, 2010, 239, 3285-3296.	1.8	8
77	Regulation of cortical contractility and spindle positioning by the protein phosphatase 6 PPH-6 in one-cell stage<i>C. elegans</i>embryos. Development (Cambridge), 2010, 137, 237-247.	2.5	53
78	Mutual Antagonism Between the Anaphase Promoting Complex and the Spindle Assembly Checkpoint Contributes to Mitotic Timing in <i>Caenorhabditis elegans</i>. Genetics, 2010, 186, 1271-1283.	2.9	11
79	Coupling the cell cycle to development. Development (Cambridge), 2009, 136, 2861-2872.	2.5	84
80	Overly Long Centrioles and Defective Cell Division upon Excess of the SAS-4-Related Protein CPAP. Current Biology, 2009, 19, 1012-1018.	3.9	228
81	Phosphorylation of SAS-6 by ZYG-1 Is Critical for Centriole Formation in C. elegans Embryos. Developmental Cell, 2009, 17, 900-907.	7.0	54
82	Mechanisms of asymmetric cell division: flies and worms pave the way. Nature Reviews Molecular Cell Biology, 2008, 9, 355-366.	37.0	463
83	Mechanisms of procentriole formation. Trends in Cell Biology, 2008, 18, 389-396.	7.9	149
84	Structural Determinants Underlying the Temperature-sensitive Nature of a GÎ± Mutant in Asymmetric Cell Division of Caenorhabditis elegans. Journal of Biological Chemistry, 2008, 283, 21550-21558.	3.4	15
85	PLK-1 asymmetry contributes to asynchronous cell division of<i>C. elegans</i>embryos. Development (Cambridge), 2008, 135, 1303-1313.	2.5	73
86	Centrosomes Promote Timely Mitotic Entry in C. elegans Embryos. Developmental Cell, 2007, 12, 531-541.	7.0	87
87	Regulated HsSAS-6 Levels Ensure Formation of a Single Procentriole per Centriole during the Centrosome Duplication Cycle. Developmental Cell, 2007, 13, 203-213.	7.0	305
88	Coupling of cortical dynein and GÎ± proteins mediates spindle positioning in Caenorhabditis elegans. Nature Cell Biology, 2007, 9, 1294-1302.	10.3	237
89	Sequential Protein Recruitment in C. elegans Centriole Formation. Current Biology, 2006, 16, 1844-1849.	3.9	195
90	SAS-6 defines a protein family required for centrosome duplication in C. elegans and in human cells. Nature Cell Biology, 2005, 7, 115-125.	10.3	362

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91	Cortical localization of the GÎ± protein GPA-16 requires RIC-8 function during C. elegans asymmetric cell division. Development (Cambridge), 2005, 132, 4449-4459.	2.5	78
92	Centrosome Duplication and Nematodes: Recent Insights from an Old Relationship. Developmental Cell, 2005, 9, 317-325.	7.0	48
93	The arithmetic of centrosome biogenesis. Journal of Cell Science, 2004, 117, 1619-1630.	2.0	144
94	zyg-11 and cul-2 regulate progression through meiosis II and polarity establishment in C. elegans. Development (Cambridge), 2004, 131, 3527-3543.	2.5	113
95	lis-1 is required for dynein-dependent cell division processes in C. elegans embryos. Journal of Cell Science, 2004, 117, 4571-4582.	2.0	62
96	Centriolar SAS-5 is required for centrosome duplication in C. elegans. Nature Cell Biology, 2004, 6, 656-664.	10.3	156
97	Centrosomes: Hooked on the Nucleus. Current Biology, 2004, 14, R268-R270.	3.9	18
98	RIC-8 Is Required for GPR-1/2-Dependent GÎ± Function during Asymmetric Division of C. elegans Embryos. Cell, 2004, 119, 219-230.	28.9	186
99	Differential Activation of the DNA Replication Checkpoint Contributes to Asynchrony of Cell Division in C. elegans Embryos. Current Biology, 2003, 13, 819-827.	3.9	159
100	TAC-1 and ZYG-9 Form a Complex that Promotes Microtubule Assembly in C. elegans Embryos. Current Biology, 2003, 13, 1488-1498.	3.9	135
101	SAS-4 Is Essential for Centrosome Duplication in C. elegans and Is Recruited to Daughter Centrioles Once per Cell Cycle. Developmental Cell, 2003, 4, 431-439.	7.0	208
102	Translation of Polarity Cues into Asymmetric Spindle Positioning in Caenorhabditis elegans Embryos. Science, 2003, 300, 1957-1961.	12.6	277
103	The kinetically dominant assembly pathway for centrosomal asters in Caenorhabditis elegans is Î³-tubulin dependent. Journal of Cell Biology, 2002, 157, 591-602.	5.2	213
104	Cytoskeletal Regulation by the Nedd8 Ubiquitin-Like Protein Modification Pathway. Science, 2002, 295, 1294-1298.	12.6	180
105	Nuclear Envelope: Torn Apart at Mitosis. Current Biology, 2002, 12, R242-R244.	3.9	14
106	Mechanisms of spindle positioning: focus on flies and worms. Trends in Cell Biology, 2002, 12, 332-339.	7.9	91
107	zyg-8, a Gene Required for Spindle Positioning in C. elegans, Encodes a Doublecortin-Related Kinase that Promotes Microtubule Assembly. Developmental Cell, 2001, 1, 363-375.	7.0	98
108	Polarity controls forces governing asymmetric spindle positioning in the Caenorhabditis elegans embryo. Nature, 2001, 409, 630-633.	27.8	484

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109	Functional genomic analysis of cell division in C. elegans using RNAi of genes on chromosome III. Nature, 2000, 408, 331-336.	27.8	854
110	Cyk-4. Journal of Cell Biology, 2000, 149, 1391-1404.	5.2	356
111	Dissection of Cell Division Processes in the One Cell Stage Caenorhabditis elegans Embryo by Mutational Analysis. Journal of Cell Biology, 1999, 144, 927-946.	5.2	165
112	Cytoplasmic Dynein Is Required for Distinct Aspects of Mtoc Positioning, Including Centrosome Separation, in the One Cell Stage Caenorhabditis elegans Embryo. Journal of Cell Biology, 1999, 147, 135-150.	5.2	419
113	Cortical domains and the mechanisms of asymmetric cell division. Trends in Cell Biology, 1996, 6, 382-387.	7.9	46