

Pierre Gonczy

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112
papers

8,983
citations

51
h-index

94
g-index

127
ext. papers

10,336
ext. citations

12
avg, IF

6.43
L-index

#	Paper	IF	Citations
112	Functional genomic analysis of cell division in <i>C. elegans</i> using RNAi of genes on chromosome III. <i>Nature</i> , 2000 , 408, 331-6	50.4	753
111	Polarity controls forces governing asymmetric spindle positioning in the <i>Caenorhabditis elegans</i> embryo. <i>Nature</i> , 2001 , 409, 630-3	50.4	409
110	Mechanisms of asymmetric cell division: flies and worms pave the way. <i>Nature Reviews Molecular Cell Biology</i> , 2008 , 9, 355-66	48.7	403
109	Cytoplasmic dynein is required for distinct aspects of MTOC positioning, including centrosome separation, in the one cell stage <i>Caenorhabditis elegans</i> embryo. <i>Journal of Cell Biology</i> , 1999 , 147, 135-50	7.3	362
108	CYK-4: A Rho family gtpase activating protein (GAP) required for central spindle formation and cytokinesis. <i>Journal of Cell Biology</i> , 2000 , 149, 1391-404	7.3	309
107	SAS-6 defines a protein family required for centrosome duplication in <i>C. elegans</i> and in human cells. <i>Nature Cell Biology</i> , 2005 , 7, 115-25	23.4	305
106	Regulated HsSAS-6 levels ensure formation of a single procentriole per centriole during the centrosome duplication cycle. <i>Developmental Cell</i> , 2007 , 13, 203-13	10.2	268
105	Structural basis of the 9-fold symmetry of centrioles. <i>Cell</i> , 2011 , 144, 364-75	56.2	263
104	Towards a molecular architecture of centriole assembly. <i>Nature Reviews Molecular Cell Biology</i> , 2012 , 13, 425-35	48.7	234
103	Translation of polarity cues into asymmetric spindle positioning in <i>Caenorhabditis elegans</i> embryos. <i>Science</i> , 2003 , 300, 1957-61	33.3	232
102	Coupling of cortical dynein and G alpha proteins mediates spindle positioning in <i>Caenorhabditis elegans</i> . <i>Nature Cell Biology</i> , 2007 , 9, 1294-302	23.4	197
101	Overly long centrioles and defective cell division upon excess of the SAS-4-related protein CPAP. <i>Current Biology</i> , 2009 , 19, 1012-8	6.3	185
100	SAS-4 is essential for centrosome duplication in <i>C. elegans</i> and is recruited to daughter centrioles once per cell cycle. <i>Developmental Cell</i> , 2003 , 4, 431-9	10.2	180
99	The kinetically dominant assembly pathway for centrosomal asters in <i>Caenorhabditis elegans</i> is gamma-tubulin dependent. <i>Journal of Cell Biology</i> , 2002 , 157, 591-602	7.3	178
98	Cytoskeletal regulation by the Nedd8 ubiquitin-like protein modification pathway. <i>Science</i> , 2002 , 295, 1294-8	33.3	169
97	Sequential protein recruitment in <i>C. elegans</i> centriole formation. <i>Current Biology</i> , 2006 , 16, 1844-9	6.3	164
96	Cortical dynein is critical for proper spindle positioning in human cells. <i>Journal of Cell Biology</i> , 2012 , 199, 97-110	7.3	162

95	RIC-8 is required for GPR-1/2-dependent Galpha function during asymmetric division of <i>C. elegans</i> embryos. <i>Cell</i> , 2004 , 119, 219-30	56.2	160
94	Mechanisms of procentriole formation. <i>Trends in Cell Biology</i> , 2008 , 18, 389-96	18.3	143
93	Centrosomes and cancer: revisiting a long-standing relationship. <i>Nature Reviews Cancer</i> , 2015 , 15, 639-52	1.3	138
92	Dissection of cell division processes in the one cell stage <i>Caenorhabditis elegans</i> embryo by mutational analysis. <i>Journal of Cell Biology</i> , 1999 , 144, 927-46	7.3	138
91	Differential activation of the DNA replication checkpoint contributes to asynchrony of cell division in <i>C. elegans</i> embryos. <i>Current Biology</i> , 2003 , 13, 819-27	6.3	136
90	Centriolar SAS-5 is required for centrosome duplication in <i>C. elegans</i> . <i>Nature Cell Biology</i> , 2004 , 6, 656-64	3.4	126
89	The arithmetic of centrosome biogenesis. <i>Journal of Cell Science</i> , 2004 , 117, 1619-30	5.3	125
88	TAC-1 and ZYG-9 form a complex that promotes microtubule assembly in <i>C. elegans</i> embryos. <i>Current Biology</i> , 2003 , 13, 1488-98	6.3	121
87	The SCF-FBXW5 E3-ubiquitin ligase is regulated by PLK4 and targets HsSAS-6 to control centrosome duplication. <i>Nature Cell Biology</i> , 2011 , 13, 1004-9	23.4	120
86	Mechanisms of spindle positioning: cortical force generators in the limelight. <i>Current Opinion in Cell Biology</i> , 2013 , 25, 741-8	9	117
85	Zyg-11 and cul-2 regulate progression through meiosis II and polarity establishment in <i>C. elegans</i> . <i>Development (Cambridge)</i> , 2004 , 131, 3527-43	6.6	102
84	Polarity establishment, asymmetric division and segregation of fate determinants in early <i>C. elegans</i> embryos. <i>WormBook</i> , 2014 , 1-43		99
83	Native architecture of the centriole proximal region reveals features underlying its 9-fold radial symmetry. <i>Current Biology</i> , 2013 , 23, 1620-8	6.3	92
82	Spindle positioning in human cells relies on proper centriole formation and on the microcephaly proteins CPAP and STIL. <i>Journal of Cell Science</i> , 2011 , 124, 3884-93	5.3	88
81	Simple buffers for 3D STORM microscopy. <i>Biomedical Optics Express</i> , 2013 , 4, 885-99	3.5	82
80	zyg-8, a gene required for spindle positioning in <i>C. elegans</i> , encodes a doublecortin-related kinase that promotes microtubule assembly. <i>Developmental Cell</i> , 2001 , 1, 363-75	10.2	80
79	Mechanisms of spindle positioning: focus on flies and worms. <i>Trends in Cell Biology</i> , 2002 , 12, 332-9	18.3	79
78	Selective chemical crosslinking reveals a Cep57-Cep63-Cep152 centrosomal complex. <i>Current Biology</i> , 2013 , 23, 265-70	6.3	78

77	Microfluidic Devices: Integrated Microfluidic Device for Drug Studies of Early C. Elegans Embryogenesis (Adv. Sci. 5/2018). <i>Advanced Science</i> , 2018 , 5, 1870032	13.6	78
76	Cartwheel architecture of Trichonympha basal body. <i>Science</i> , 2012 , 337, 553	33.3	76
75	Coupling the cell cycle to development. <i>Development (Cambridge)</i> , 2009 , 136, 2861-72	6.6	73
74	High-speed photothermal off-resonance atomic force microscopy reveals assembly routes of centriolar scaffold protein SAS-6. <i>Nature Nanotechnology</i> , 2018 , 13, 696-701	28.7	71
73	NuMA phosphorylation by CDK1 couples mitotic progression with cortical dynein function. <i>EMBO Journal</i> , 2013 , 32, 2517-29	13	70
72	Centrosomes promote timely mitotic entry in C. elegans embryos. <i>Developmental Cell</i> , 2007 , 12, 531-41	10.2	69
71	Centriole Biogenesis: From Identifying the Characters to Understanding the Plot. <i>Annual Review of Cell and Developmental Biology</i> , 2017 , 33, 23-49	12.6	64
70	Cortical localization of the Galpha protein GPA-16 requires RIC-8 function during C. elegans asymmetric cell division. <i>Development (Cambridge)</i> , 2005 , 132, 4449-59	6.6	64
69	Discovering regulators of centriole biogenesis through siRNA-based functional genomics in human cells. <i>Developmental Cell</i> , 2013 , 25, 555-71	10.2	61
68	Centriolar CPAP/SAS-4 Imparts Slow Processive Microtubule Growth. <i>Developmental Cell</i> , 2016 , 37, 362-376	6.6	60
67	Mechanisms of HsSAS-6 assembly promoting centriole formation in human cells. <i>Journal of Cell Biology</i> , 2014 , 204, 697-712	7.3	59
66	SAS-6 engineering reveals interdependence between cartwheel and microtubules in determining centriole architecture. <i>Nature Cell Biology</i> , 2016 , 18, 393-403	23.4	55
65	A missense mutation in the PISA domain of HsSAS-6 causes autosomal recessive primary microcephaly in a large consanguineous Pakistani family. <i>Human Molecular Genetics</i> , 2014 , 23, 5940-9	5.6	55
64	PLK-1 asymmetry contributes to asynchronous cell division of C. elegans embryos. <i>Development (Cambridge)</i> , 2008 , 135, 1303-13	6.6	55
63	MISP is a novel Plk1 substrate required for proper spindle orientation and mitotic progression. <i>Journal of Cell Biology</i> , 2013 , 200, 773-87	7.3	51
62	lis-1 is required for dynein-dependent cell division processes in C. elegans embryos. <i>Journal of Cell Science</i> , 2004 , 117, 4571-82	5.3	51
61	Analysis of centriole elimination during C. elegans oogenesis. <i>Development (Cambridge)</i> , 2012 , 139, 1670-6	6.6	50
60	KAT2A/KAT2B-targeted acetylome reveals a role for PLK4 acetylation in preventing centrosome amplification. <i>Nature Communications</i> , 2016 , 7, 13227	17.4	49

59	NuMA interacts with phosphoinositides and links the mitotic spindle with the plasma membrane. <i>EMBO Journal</i> , 2014 , 33, 1815-30	13	49
58	Phosphorylation of SAS-6 by ZYG-1 is critical for centriole formation in <i>C. elegans</i> embryos. <i>Developmental Cell</i> , 2009 , 17, 900-7	10.2	49
57	Centrosome duplication and nematodes: recent insights from an old relationship. <i>Developmental Cell</i> , 2005 , 9, 317-25	10.2	46
56	Multicolor single-particle reconstruction of protein complexes. <i>Nature Methods</i> , 2018 , 15, 777-780	21.6	46
55	Regulation of cortical contractility and spindle positioning by the protein phosphatase 6 PPH-6 in one-cell stage <i>C. elegans</i> embryos. <i>Development (Cambridge)</i> , 2010 , 137, 237-47	6.6	45
54	<i>Caenorhabditis elegans</i> centriolar protein SAS-6 forms a spiral that is consistent with imparting a ninefold symmetry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 11373-8	11.5	44
53	Identification of Chlamydomonas Central Core Centriolar Proteins Reveals a Role for Human WDR90 in Ciliogenesis. <i>Current Biology</i> , 2017 , 27, 2486-2498.e6	6.3	42
52	Cortical domains and the mechanisms of asymmetric cell division. <i>Trends in Cell Biology</i> , 1996 , 6, 382-7	18.3	42
51	PP2A phosphatase acts upon SAS-5 to ensure centriole formation in <i>C. elegans</i> embryos. <i>Developmental Cell</i> , 2011 , 20, 550-62	10.2	41
50	Centriole assembly at a glance. <i>Journal of Cell Science</i> , 2019 , 132,	5.3	39
49	Discovery of a Selective Aurora A Kinase Inhibitor by Virtual Screening. <i>Journal of Medicinal Chemistry</i> , 2016 , 59, 7188-211	8.3	38
48	Aurora A kinase regulates proper spindle positioning in <i>C. elegans</i> and in human cells. <i>Journal of Cell Science</i> , 2016 , 129, 3015-25	5.3	36
47	The Rise of the Cartwheel: Seeding the Centriole Organelle. <i>BioEssays</i> , 2018 , 40, e1700241	4.1	35
46	Distinct mechanisms eliminate mother and daughter centrioles in meiosis of starfish oocytes. <i>Journal of Cell Biology</i> , 2016 , 212, 815-27	7.3	34
45	Correlative multicolor 3D SIM and STORM microscopy. <i>Biomedical Optics Express</i> , 2014 , 5, 3326-36	3.5	33
44	Dynein Transmits Polarized Actomyosin Cortical Flows to Promote Centrosome Separation. <i>Cell Reports</i> , 2016 , 14, 2250-2262	10.6	30
43	The <i>Caenorhabditis elegans</i> protein SAS-5 forms large oligomeric assemblies critical for centriole formation. <i>ELife</i> , 2015 , 4, e07410	8.9	30
42	Zika virus causes supernumerary foci with centriolar proteins and impaired spindle positioning. <i>Open Biology</i> , 2017 , 7,	7	27

41	Aurora A depletion reveals centrosome-independent polarization mechanism in. <i>ELife</i> , 2019 , 8,	8.9	25
40	Stereotyped distribution of midbody remnants in early <i>C. elegans</i> embryos requires cell death genes and is dispensable for development. <i>Cell Research</i> , 2014 , 24, 251-3	24.7	22
39	Centrosomes back in the limelight. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014 , 369,	5.8	22
38	Polarity mediates asymmetric trafficking of the Gbeta heterotrimeric G-protein subunit GPB-1 in <i>C. elegans</i> embryos. <i>Development (Cambridge)</i> , 2011 , 138, 2773-82	6.6	20
37	The Human Centriolar Protein CEP135 Contains a Two-Stranded Coiled-Coil Domain Critical for Microtubule Binding. <i>Structure</i> , 2016 , 24, 1358-1371	5.2	20
36	Paternally contributed centrioles exhibit exceptional persistence in <i>C. elegans</i> embryos. <i>Cell Research</i> , 2015 , 25, 642-4	24.7	18
35	Homogeneous multifocal excitation for high-throughput super-resolution imaging. <i>Nature Methods</i> , 2020 , 17, 726-733	21.6	18
34	Centrosomes: hooked on the nucleus. <i>Current Biology</i> , 2004 , 14, R268-70	6.3	16
33	Novel features of centriole polarity and cartwheel stacking revealed by cryo-tomography. <i>EMBO Journal</i> , 2020 , 39, e106249	13	16
32	Tissue- and sex-specific small RNAsomes reveal sex differences in response to the environment. <i>PLoS Genetics</i> , 2019 , 15, e1007905	6	13
31	Structural determinants underlying the temperature-sensitive nature of a Galpha mutant in asymmetric cell division of <i>Caenorhabditis elegans</i> . <i>Journal of Biological Chemistry</i> , 2008 , 283, 21550-8	5.4	13
30	Nuclear envelope: torn apart at mitosis. <i>Current Biology</i> , 2002 , 12, R242-4	6.3	12
29	Computational support for a scaffolding mechanism of centriole assembly. <i>Scientific Reports</i> , 2016 , 6, 27075	4.9	10
28	Clathrin regulates centrosome positioning by promoting acto-myosin cortical tension in <i>C. elegans</i> embryos. <i>Development (Cambridge)</i> , 2014 , 141, 2712-23	6.6	10
27	Integrated Microfluidic Device for Drug Studies of Early Embryogenesis. <i>Advanced Science</i> , 2018 , 5, 1700756	5.6	9
26	PI(4,5)P forms dynamic cortical structures and directs actin distribution as well as polarity in embryos. <i>Development (Cambridge)</i> , 2018 , 145,	6.6	9
25	Multiciliogenesis: multicilin directs transcriptional activation of centriole formation. <i>Current Biology</i> , 2014 , 24, R746-9	6.3	9
24	Quantitative analysis and modeling probe polarity establishment in <i>C. elegans</i> embryos. <i>Biophysical Journal</i> , 2015 , 108, 799-809	2.9	9

23	SAS-1 is a C2 domain protein critical for centriole integrity in <i>C. elegans</i> . <i>PLoS Genetics</i> , 2014 , 10, e1004767	9
22	Commercial Cdk1 antibodies recognize the centrosomal protein Cep152. <i>BioTechniques</i> , 2013 , 55, 111-4	2.5 8
21	Mutual antagonism between the anaphase promoting complex and the spindle assembly checkpoint contributes to mitotic timing in <i>Caenorhabditis elegans</i> . <i>Genetics</i> , 2010 , 186, 1271-83	4 7
20	Computer simulations reveal mechanisms that organize nuclear dynein forces to separate centrosomes. <i>Molecular Biology of the Cell</i> , 2017 , 28, 3165-3170	3.5 6
19	ASSET: a robust algorithm for the automated segmentation and standardization of early <i>Caenorhabditis elegans</i> embryos. <i>Developmental Dynamics</i> , 2010 , 239, 3285-96	2.9 6
18	Interaction between the centriolar protein SAS-5 and microtubules facilitates organelle assembly. <i>Molecular Biology of the Cell</i> , 2018 , 29, 722-735	3.5 5
17	TRACMIT: An effective pipeline for tracking and analyzing cells on micropatterns through mitosis. <i>PLoS ONE</i> , 2017 , 12, e0179752	3.7 5
16	Surface-catalyzed SAS-6 self-assembly directs centriole formation through kinetic and structural mechanisms	5
15	Isolation, cryotomography, and three-dimensional reconstruction of centrioles. <i>Methods in Cell Biology</i> , 2015 , 129, 191-209	1.8 4
14	Live imaging screen reveals that TYRO3 and GAK ensure accurate spindle positioning in human cells. <i>Nature Communications</i> , 2019 , 10, 2859	17.4 4
13	TRIM37 prevents formation of centriolar protein assemblies by regulating Centrobin. <i>ELife</i> , 2021 , 10,	8.9 4
12	Physically asymmetric division of the zygote ensures invariably successful embryogenesis. <i>ELife</i> , 2021 , 10,	8.9 4
11	Chemical Genetic Screen Identifies Natural Products that Modulate Centriole Number. <i>ChemBioChem</i> , 2016 , 17, 2063-2074	3.8 3
10	Basal body structure in <i>Trichonympha</i> . <i>Cilia</i> , 2016 , 5, 9	5.5 3
9	Kinetic and structural roles for the surface in guiding SAS-6 self-assembly to direct centriole architecture. <i>Nature Communications</i> , 2021 , 12, 6180	17.4 3
8	Polarity-dependent asymmetric distribution and MEX-5/6-mediated translational activation of the <i>Era-1</i> mRNA in <i>C. elegans</i> embryos. <i>PLoS ONE</i> , 2015 , 10, e0120984	3.7 2
7	Tuning SAS-6 architecture with monobodies impairs distinct steps of centriole assembly. <i>Nature Communications</i> , 2021 , 12, 3805	17.4 2
6	Pulchelloid A, a sesquiterpene lactone from the Canadian prairie plant <i>Gaillardia aristata</i> inhibits mitosis in human cells. <i>Molecular Biology Reports</i> , 2021 , 48, 5459-5471	2.8 2

5	Centriole foci persist in starfish oocytes despite Polo-like kinase 1 inactivation or loss of microtubule nucleation activity. <i>Molecular Biology of the Cell</i> , 2020 , 31, 873-880	3.5	1
4	ZYG-1 promotes limited centriole amplification in the <i>C. elegans</i> seam lineage. <i>Developmental Biology</i> , 2018 , 434, 221-230	3.1	1
3	Structures of SAS-6 coiled coil hold implications for the polarity of the centriolar cartwheel.. <i>Structure</i> , 2022 ,	5.2	1
2	TRIM37: a critical orchestrator of centrosome function. <i>Cell Cycle</i> , 2021 , 20, 2443-2451	4.7	0
1	Atypical and distinct microtubule radial symmetries in the centriole and the axoneme of .. <i>Molecular Biology of the Cell</i> , 2022 , mbcE22040123	3.5	0