Pierre Gonczy

List of Publications by Year in Descending Order

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	Structures of SAS-6 coiled coil hold implications for the polarity of the centriolar cartwheel.. *Structure*, **2022**,	5.2	1
111	Atypical and distinct microtubule radial symmetries in the centriole and the axoneme of .. *Molecular Biology of the Cell*, **2022**, mbcE22040123	3.5	0
110	TRIM37: a critical orchestrator of centrosome function. *Cell Cycle*, **2021**, 20, 2443-2451	4.7	0
109	Kinetic and structural roles for the surface in guiding SAS-6 self-assembly to direct centriole architecture. *Nature Communications*, **2021**, 12, 6180	17.4	3
108	Tuning SAS-6 architecture with monobodies impairs distinct steps of centriole assembly. *Nature Communications*, **2021**, 12, 3805	17.4	2
107	TRIM37 prevents formation of centriolar protein assemblies by regulating Centrobin. *ELife*, **2021**, 10,	8.9	4
106	Physically asymmetric division of the zygote ensures invariably successful embryogenesis. *ELife*, **2021**, 10,	8.9	4
105	Pulchelloid A, a sesquiterpene lactone from the Canadian prairie plant Gaillardia aristata inhibits mitosis in human cells. *Molecular Biology Reports*, **2021**, 48, 5459-5471	2.8	2
104	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	3.5	1
103	Homogeneous multifocal excitation for high-throughput super-resolution imaging. *Nature Methods*, **2020**, 17, 726-733	21.6	18
102	Novel features of centriole polarity and cartwheel stacking revealed by cryo-tomography. *EMBO Journal*, **2020**, 39, e106249	13	16
101	Tissue- and sex-specific small RNAomes reveal sex differences in response to the environment. *PLoS Genetics*, **2019**, 15, e1007905	6	13
100	Live imaging screen reveals that TYRO3 and GAK ensure accurate spindle positioning in human cells. *Nature Communications*, **2019**, 10, 2859	17.4	4
99	Aurora A depletion reveals centrosome-independent polarization mechanism in. *ELife*, **2019**, 8,	8.9	25
98	Centriole assembly at a glance. *Journal of Cell Science*, **2019**, 132,	5.3	39
97	The Rise of the Cartwheel: Seeding the Centriole Organelle. *BioEssays*, **2018**, 40, e1700241	4.1	35
96	ZYG-1 promotes limited centriole amplification in the C. elegans seam lineage. *Developmental Biology*, **2018**, 434, 221-230	3.1	1

95	Interaction between the centriolar protein SAS-5 and microtubules facilitates organelle assembly. *Molecular Biology of the Cell*, **2018**, 29, 722-735	3.5	5
94	Integrated Microfluidic Device for Drug Studies of Early Embryogenesis. *Advanced Science*, **2018**, 5, 1700751	13.6	9
93	PI(4,5)P forms dynamic cortical structures and directs actin distribution as well as polarity in embryos. *Development (Cambridge)*, **2018**, 145,	6.6	9
92	Multicolor single-particle reconstruction of protein complexes. *Nature Methods*, **2018**, 15, 777-780	21.6	46
91	High-speed photothermal off-resonance atomic force microscopy reveals assembly routes of centriolar scaffold protein SAS-6. *Nature Nanotechnology*, **2018**, 13, 696-701	28.7	71
90	Microfluidic Devices: Integrated Microfluidic Device for Drug Studies of Early C. Elegans Embryogenesis (Adv. Sci. 5/2018). *Advanced Science*, **2018**, 5, 1870032	13.6	78
89	Zika virus causes supernumerary foci with centriolar proteins and impaired spindle positioning. *Open Biology*, **2017**, 7,	7	27
88	Centriole Biogenesis: From Identifying the Characters to Understanding the Plot. *Annual Review of Cell and Developmental Biology*, **2017**, 33, 23-49	12.6	64
87	Identification of Chlamydomonas Central Core Centriolar Proteins Reveals a Role for Human WDR90 in Ciliogenesis. *Current Biology*, **2017**, 27, 2486-2498.e6	6.3	42
86	Computer simulations reveal mechanisms that organize nuclear dynein forces to separate centrosomes. *Molecular Biology of the Cell*, **2017**, 28, 3165-3170	3.5	6
85	TRACMIT: An effective pipeline for tracking and analyzing cells on micropatterns through mitosis. *PLoS ONE*, **2017**, 12, e0179752	3.7	5
84	Chemical Genetic Screen Identifies Natural Products that Modulate Centriole Number. *ChemBioChem*, **2016**, 17, 2063-2074	3.8	3
83	Computational support for a scaffolding mechanism of centriole assembly. *Scientific Reports*, **2016**, 6, 27075	4.9	10
82	KAT2A/KAT2B-targeted acetylome reveals a role for PLK4 acetylation in preventing centrosome amplification. *Nature Communications*, **2016**, 7, 13227	17.4	49
81	Aurora A kinase regulates proper spindle positioning in C. elegans and in human cells. *Journal of Cell Science*, **2016**, 129, 3015-25	5.3	36
80	Centriolar CPAP/SAS-4 Imparts Slow Processive Microtubule Growth. *Developmental Cell*, **2016**, 37, 362-376	10.2	60
79	Basal body structure in Trichonympha. *Cilia*, **2016**, 5, 9	5.5	3
78	Dynein Transmits Polarized Actomyosin Cortical Flows to Promote Centrosome Separation. *Cell Reports*, **2016**, 14, 2250-2262	10.6	30

77	Distinct mechanisms eliminate mother and daughter centrioles in meiosis of starfish oocytes. *Journal of Cell Biology*, **2016**, 212, 815-27	7.3	34
76	SAS-6 engineering reveals interdependence between cartwheel and microtubules in determining centriole architecture. *Nature Cell Biology*, **2016**, 18, 393-403	23.4	55
75	Discovery of a Selective Aurora A Kinase Inhibitor by Virtual Screening. *Journal of Medicinal Chemistry*, **2016**, 59, 7188-211	8.3	38
74	The Human Centriolar Protein CEP135 Contains a Two-Stranded Coiled-Coil Domain Critical for Microtubule Binding. *Structure*, **2016**, 24, 1358-1371	5.2	20
73	Paternally contributed centrioles exhibit exceptional persistence in C. elegans embryos. *Cell Research*, **2015**, 25, 642-4	24.7	18
72	Centrosomes and cancer: revisiting a long-standing relationship. *Nature Reviews Cancer*, **2015**, 15, 639-52	31.3	138
71	Isolation, cryotomography, and three-dimensional reconstruction of centrioles. *Methods in Cell Biology*, **2015**, 129, 191-209	1.8	4
70	Polarity-dependent asymmetric distribution and MEX-5/6-mediated translational activation of the Era-1 mRNA in C. elegans embryos. *PLoS ONE*, **2015**, 10, e0120984	3.7	2
69	Quantitative analysis and modeling probe polarity establishment in C. elegans embryos. *Biophysical Journal*, **2015**, 108, 799-809	2.9	9
68	The Caenorhabditis elegans protein SAS-5 forms large oligomeric assemblies critical for centriole formation. *ELife*, **2015**, 4, e07410	8.9	30
67	Mechanisms of HsSAS-6 assembly promoting centriole formation in human cells. *Journal of Cell Biology*, **2014**, 204, 697-712	7.3	59
66	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, 5940-9	5.6	55
65	Stereotyped distribution of midbody remnants in early C. elegans embryos requires cell death genes and is dispensable for development. *Cell Research*, **2014**, 24, 251-3	24.7	22
64	Multiciliogenesis: multicilin directs transcriptional activation of centriole formation. *Current Biology* , **2014**, 24, R746-9	6.3	9
63	Clathrin regulates centrosome positioning by promoting acto-myosin cortical tension in C. elegans embryos. *Development (Cambridge)*, **2014**, 141, 2712-23	6.6	10
62	NuMA interacts with phosphoinositides and links the mitotic spindle with the plasma membrane. *EMBO Journal*, **2014**, 33, 1815-30	13	49
61	SAS-1 is a C2 domain protein critical for centriole integrity in C. elegans. *PLoS Genetics*, **2014**, 10, e1004777	7	9
60	Correlative multicolor 3D SIM and STORM microscopy. *Biomedical Optics Express*, **2014**, 5, 3326-36	3.5	33

59	Centrosomes back in the limelight. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369,	5.8	22
58	Polarity establishment, asymmetric division and segregation of fate determinants in early C. elegans embryos. *WormBook*, **2014**, 1-43		99
57	NuMA phosphorylation by CDK1 couples mitotic progression with cortical dynein function. *EMBO Journal*, **2013**, 32, 2517-29	13	70
56	Native architecture of the centriole proximal region reveals features underlying its 9-fold radial symmetry. *Current Biology*, **2013**, 23, 1620-8	6.3	92
55	Selective chemical crosslinking reveals a Cep57-Cep63-Cep152 centrosomal complex. *Current Biology*, **2013**, 23, 265-70	6.3	78
54	Discovering regulators of centriole biogenesis through siRNA-based functional genomics in human cells. *Developmental Cell*, **2013**, 25, 555-71	10.2	61
53	Mechanisms of spindle positioning: cortical force generators in the limelight. *Current Opinion in Cell Biology*, **2013**, 25, 741-8	9	117
52	Simple buffers for 3D STORM microscopy. *Biomedical Optics Express*, **2013**, 4, 885-99	3.5	82
51	Caenorhabditis elegans 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, 11373-8	11.5	44
50	MISP is a novel Plk1 substrate required for proper spindle orientation and mitotic progression. *Journal of Cell Biology*, **2013**, 200, 773-87	7.3	51
49	Commercial Cdk1 antibodies recognize the centrosomal protein Cep152. *BioTechniques*, **2013**, 55, 111-4	2.5	8
48	Towards a molecular architecture of centriole assembly. *Nature Reviews Molecular Cell Biology*, **2012**, 13, 425-35	48.7	234
47	Cartwheel architecture of Trichonympha basal body. *Science*, **2012**, 337, 553	33.3	76
46	Analysis of centriole elimination during C. elegans oogenesis. *Development (Cambridge)*, **2012**, 139, 1670-6	6.6	50
45	Cortical dynein is critical for proper spindle positioning in human cells. *Journal of Cell Biology*, **2012**, 199, 97-110	7.3	162
44	Structural basis of the 9-fold symmetry of centrioles. *Cell*, **2011**, 144, 364-75	56.2	263
43	PP2A phosphatase acts upon SAS-5 to ensure centriole formation in C. elegans embryos. *Developmental Cell*, **2011**, 20, 550-62	10.2	41
42	Spindle positioning in human cells relies on proper centriole formation and on the microcephaly proteins CPAP and STIL. *Journal of Cell Science*, **2011**, 124, 3884-93	5.3	88

41	Polarity mediates asymmetric trafficking of the Gbeta heterotrimeric G-protein subunit GPB-1 in C. elegans embryos. *Development (Cambridge)*, **2011**, 138, 2773-82	6.6	20
40	The SCF-FBXW5 E3-ubiquitin ligase is regulated by PLK4 and targets HsSAS-6 to control centrosome duplication. *Nature Cell Biology*, **2011**, 13, 1004-9	23.4	120
39	Regulation of cortical contractility and spindle positioning by the protein phosphatase 6 PPH-6 in one-cell stage C. elegans embryos. *Development (Cambridge)*, **2010**, 137, 237-47	6.6	45
38	Mutual antagonism between the anaphase promoting complex and the spindle assembly checkpoint contributes to mitotic timing in Caenorhabditis elegans. *Genetics*, **2010**, 186, 1271-83	4	7
37	ASSET: a robust algorithm for the automated segmentation and standardization of early Caenorhabditis elegans embryos. *Developmental Dynamics*, **2010**, 239, 3285-96	2.9	6
36	Coupling the cell cycle to development. *Development (Cambridge)*, **2009**, 136, 2861-72	6.6	73
35	Overly long centrioles and defective cell division upon excess of the SAS-4-related protein CPAP. *Current Biology*, **2009**, 19, 1012-8	6.3	185
34	Phosphorylation of SAS-6 by ZYG-1 is critical for centriole formation in C. elegans embryos. *Developmental Cell*, **2009**, 17, 900-7	10.2	49
33	Mechanisms of asymmetric cell division: flies and worms pave the way. *Nature Reviews Molecular Cell Biology*, **2008**, 9, 355-66	48.7	403
32	Mechanisms of procentriole formation. *Trends in Cell Biology*, **2008**, 18, 389-96	18.3	143
31	Structural determinants underlying the temperature-sensitive nature of a Galpha mutant in asymmetric cell division of Caenorhabditis elegans. *Journal of Biological Chemistry*, **2008**, 283, 21550-8	5.4	13
30	PLK-1 asymmetry contributes to asynchronous cell division of C. elegans embryos. *Development (Cambridge)*, **2008**, 135, 1303-13	6.6	55
29	Regulated HsSAS-6 levels ensure formation of a single procentriole per centriole during the centrosome duplication cycle. *Developmental Cell*, **2007**, 13, 203-13	10.2	268
28	Coupling of cortical dynein and G alpha proteins mediates spindle positioning in Caenorhabditis elegans. *Nature Cell Biology*, **2007**, 9, 1294-302	23.4	197
27	Centrosomes promote timely mitotic entry in C. elegans embryos. *Developmental Cell*, **2007**, 12, 531-41	10.2	69
26	Sequential protein recruitment in C. elegans centriole formation. *Current Biology*, **2006**, 16, 1844-9	6.3	164
25	Centrosome duplication and nematodes: recent insights from an old relationship. *Developmental Cell*, **2005**, 9, 317-25	10.2	46
24	SAS-6 defines a protein family required for centrosome duplication in C. elegans and in human cells. *Nature Cell Biology*, **2005**, 7, 115-25	23.4	305

23	Cortical localization of the Galpha protein GPA-16 requires RIC-8 function during C. elegans asymmetric cell division. *Development (Cambridge)*, **2005**, 132, 4449-59	6.6	64
22	The arithmetic of centrosome biogenesis. *Journal of Cell Science*, **2004**, 117, 1619-30	5.3	125
21	Zyg-11 and cul-2 regulate progression through meiosis II and polarity establishment in C. elegans. *Development (Cambridge)*, **2004**, 131, 3527-43	6.6	102
20	lis-1 is required for dynein-dependent cell division processes in C. elegans embryos. *Journal of Cell Science*, **2004**, 117, 4571-82	5.3	51
19	Centriolar SAS-5 is required for centrosome duplication in C. elegans. *Nature Cell Biology*, **2004**, 6, 656-64	23.4	126
18	Centrosomes: hooked on the nucleus. *Current Biology*, **2004**, 14, R268-70	6.3	16
17	RIC-8 is required for GPR-1/2-dependent Galpha function during asymmetric division of C. elegans embryos. *Cell*, **2004**, 119, 219-30	56.2	160
16	Differential activation of the DNA replication checkpoint contributes to asynchrony of cell division in C. elegans embryos. *Current Biology*, **2003**, 13, 819-27	6.3	136
15	TAC-1 and ZYG-9 form a complex that promotes microtubule assembly in C. elegans embryos. *Current Biology*, **2003**, 13, 1488-98	6.3	121
14	SAS-4 is essential for centrosome duplication in C elegans and is recruited to daughter centrioles once per cell cycle. *Developmental Cell*, **2003**, 4, 431-9	10.2	180
13	Translation of polarity cues into asymmetric spindle positioning in Caenorhabditis elegans embryos. *Science*, **2003**, 300, 1957-61	33.3	232
12	Nuclear envelope: torn apart at mitosis. *Current Biology*, **2002**, 12, R242-4	6.3	12
11	Mechanisms of spindle positioning: focus on flies and worms. *Trends in Cell Biology*, **2002**, 12, 332-9	18.3	79
10	The kinetically dominant assembly pathway for centrosomal asters in Caenorhabditis elegans is gamma-tubulin dependent. *Journal of Cell Biology*, **2002**, 157, 591-602	7.3	178
9	Cytoskeletal regulation by the Nedd8 ubiquitin-like protein modification pathway. *Science*, **2002**, 295, 1294-8	33.3	169
8	Polarity controls forces governing asymmetric spindle positioning in the Caenorhabditis elegans embryo. *Nature*, **2001**, 409, 630-3	50.4	409
7	zyg-8, a gene required for spindle positioning in C. elegans, encodes a doublecortin-related kinase that promotes microtubule assembly. *Developmental Cell*, **2001**, 1, 363-75	10.2	80
6	Functional genomic analysis of cell division in C. elegans using RNAi of genes on chromosome III. *Nature*, **2000**, 408, 331-6	50.4	753

5	CYK-4: A Rho family gtpase activating protein (GAP) required for central spindle formation and cytokinesis. *Journal of Cell Biology*, **2000**, 149, 1391-404	7.3	309
4	Dissection of cell division processes in the one cell stage Caenorhabditis elegans embryo by mutational analysis. *Journal of Cell Biology*, **1999**, 144, 927-46	7.3	138
3	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, 135-50	7.3	362
2	Cortical domains and the mechanisms of asymmetric cell division. *Trends in Cell Biology*, **1996**, 6, 382-7	18.3	42
1	Surface-catalyzed SAS-6 self-assembly directs centriole formation through kinetic and structural mechanisms		5