Magdalena Å»ernicka-Goetz

List of Publications by Year
in descending order

142 papers	14,129 citations	19657 61 h-index	22832 112 g-index
213 all docs	213 docs citations	213 times ranked	11366 citing authors

#	Article	IF	Citations
1	Lima1 mediates the pluripotency control of membrane dynamics and cellular metabolism. Nature Communications, 2022, 13, 610.	12.8	8
2	Stain-free detection of embryo polarization using deep learning. Scientific Reports, 2022, 12, 2404.	3.3	3
3	Embryo size regulates the timing and mechanism of pluripotent tissue morphogenesis. Stem Cell Reports, 2021, 16, 1182-1196.	4.8	15
4	BMP signalling is required for extra-embryonic ectoderm development during pre-to-post-implantation transition of the mouse embryo. Developmental Biology, 2021, 470, 84-94.	2.0	10
5	The dynamics of morphogenesis in stem cell-based embryology: Novel insights for symmetry breaking. Developmental Biology, 2021, 474, 82-90.	2.0	9
6	Modeling human embryo development with embryonic and extra-embryonic stem cells. Developmental Biology, 2021, 474, 91-99.	2.0	35
7	Trophectoderm mechanics direct epiblast shape upon embryo implantation. Cell Reports, 2021, 34, 108655.	6.4	22
8	Inducible Stem-Cell-Derived Embryos Capture Mouse Morphogenetic Events InÂVitro. Developmental Cell, 2021, 56, 366-382.e9.	7.0	77
9	Integrin Î²1 coordinates survival and morphogenesis of the embryonic lineage upon implantation and pluripotency transition. Cell Reports, 2021, 34, 108834.	6.4	26
10	PANDORA-seq expands the repertoire of regulatory small RNAs by overcoming RNA modifications. Nature Cell Biology, 2021, 23, 424-436.	10.3	115
11	Machine learning-assisted high-content analysis of pluripotent stem cell-derived embryos inÂvitro. Stem Cell Reports, 2021, 16, 1331-1346.	4.8	18
12	Unifying synthetic embryology. Developmental Biology, 2021, 474, 1-4.	2.0	7
13	A single cell characterisation of human embryogenesis identifies pluripotency transitions and putative anterior hypoblast centre. Nature Communications, 2021, 12, 3679.	12.8	63
14	An in vitro stem cell model of human epiblast and yolk sac interaction. ELife, 2021, 10, .	6.0	24
15	Human embryo polarization requires PLC signaling to mediate trophectoderm specification. ELife, 2021, 10, .	6.0	24
16	Reconstructing aspects of human embryogenesis with pluripotent stem cells. Nature Communications, 2021, 12, 5550.	12.8	107
17	Modelling the impact of decidual senescence on embryo implantation in human endometrial assembloids. ELife, 2021, 10, .	6.0	100
18	Dynamic shapes of the zygote and two-cell mouse and human. Biology Open, 2021, 10, .	1.2	1

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19	Comparative analysis of human and mouse development: From zygote to pre-gastrulation. Current Topics in Developmental Biology, 2020, 136, 113-138.	2.2	64
20	Building an apical domain in the early mouse embryo: Lessons, challenges and perspectives. Current Opinion in Cell Biology, 2020, 62, 144-149.	5.4	12
21	Expression of SARS-CoV-2 receptor <i>ACE2</i> and the protease <i>TMPRSS2</i> suggests susceptibility of the human embryo in the first trimester. Open Biology, 2020, 10, 200162.	3.6	71
22	Starting life in space. National Science Review, 2020, 7, 1447-1448.	9.5	0
23	Principles of Self-Organization of the Mammalian Embryo. Cell, 2020, 183, 1467-1478.	28.9	60
24	Developmental potential of aneuploid human embryos cultured beyond implantation. Nature Communications, 2020, 11, 3987.	12.8	66
25	Developmental clock and mechanism of de novo polarization of the mouse embryo. Science, 2020, 370, .	12.6	57
26	Basement membrane remodelling regulates mouse embryogenesis. Nature, 2020, 582, 253-258.	27.8	71
27	Autophagy-mediated apoptosis eliminates aneuploid cells in a mouse model of chromosome mosaicism. Nature Communications, 2020, 11, 2958.	12.8	109
28	Living a Sweet Life: Glucose Instructs Cell Fate in the Mouse Embryo. Developmental Cell, 2020, 53, 1-2.	7.0	13
29	Global hyperactivation of enhancers stabilizes human and mouse naive pluripotency through inhibition of CDK8/19 Mediator kinases. Nature Cell Biology, 2020, 22, 1223-1238.	10.3	35
30	Morphogenesis of extra-embryonic tissues directs the remodelling of the mouse embryo at implantation. Nature Communications, 2019, 10, 3557.	12.8	57
31	Epigenetic remodelling licences adult cholangiocytes for organoid formation and liver regeneration. Nature Cell Biology, 2019, 21, 1321-1333.	10.3	102
32	Self-organization of stem cells into embryos: A window on early mammalian development. Science, 2019, 364, 948-951.	12.6	145
33	Concerted cell divisions in embryonic visceral endoderm guide anterior visceral endoderm migration. Developmental Biology, 2019, 450, 132-140.	2.0	14
34	Self-Organization of Mouse Stem Cells into an Extended Potential Blastoid. Developmental Cell, 2019, 51, 698-712.e8.	7.0	157
35	RASSF1A uncouples Wnt from Hippo signalling and promotes YAP mediated differentiation via p73. Nature Communications, 2018, 9, 424.	12.8	72
36	Cyclin B1 is essential for mitosis in mouse embryos, and its nuclear export sets the time for mitosis. Journal of Cell Biology, 2018, 217, 179-193.	5.2	59

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37	Debate ethics of embryo models from stem cells. Nature, 2018, 564, 183-185.	27.8	72
38	CARM1 and Paraspeckles Regulate Pre-implantation Mouse Embryo Development. Cell, 2018, 175, 1902-1916.e13.	28.9	78
39	Sequential formation and resolution of multiple rosettes drive embryo remodelling after implantation. Nature Cell Biology, 2018, 20, 1278-1289.	10.3	48
40	Delivery of mtZFNs into Early Mouse Embryos. Methods in Molecular Biology, 2018, 1867, 215-228.	0.9	6
41	Deconstructing and reconstructing the mouse and human early embryo. Nature Cell Biology, 2018, 20, 878-887.	10.3	161
42	Self-assembly of embryonic and two extra-embryonic stem cell types into gastrulating embryo-like structures. Nature Cell Biology, 2018, 20, 979-989.	10.3	248
43	In vitro generation of mouse polarized embryo-like structures from embryonic and trophoblast stem cells. Nature Protocols, 2018, 13, 1586-1602.	12.0	30
44	Tracing the origin of heterogeneity and symmetry breaking in the early mammalian embryo. Nature Communications, 2018, 9, 1819.	12.8	72
45	Assembly of embryonic and extraembryonic stem cells to mimic embryogenesis in vitro. Science, 2017, 356, .	12.6	318
46	The chromatin modifier Satb1 regulates cell fate through Fgf signalling in the early mouse embryo. Development (Cambridge), 2017, 144, 1450-1461.	2.5	17
47	Plk4 and Aurora A cooperate in the initiation of acentriolar spindle assembly in mammalian oocytes. Journal of Cell Biology, 2017, 216, 3571-3590.	5.2	58
48	Actomyosin polarisation through PLC-PKC triggers symmetry breaking of the mouse embryo. Nature Communications, 2017, 8, 921.	12.8	61
49	Pluripotent state transitions coordinate morphogenesis in mouse and human embryos. Nature, 2017, 552, 239-243.	27.8	193
50	Revisiting the Warnock rule. Nature Biotechnology, 2017, 35, 1029-1042.	17.5	47
51	Self-organization of the in vitro attached human embryo. Nature, 2016, 533, 251-254.	27.8	538
52	Self-organization of the human embryo in the absence of maternal tissues. Nature Cell Biology, 2016, 18, 700-708.	10.3	516
53	The Acquisition of Cell Fate in Mouse Development. Current Topics in Developmental Biology, 2016, 117, 671-695.	2.2	24
54	Mouse model of chromosome mosaicism reveals lineage-specific depletion of aneuploid cells and normal developmental potential. Nature Communications, 2016, 7, 11165.	12.8	339

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55	Heterogeneity in Oct4 and Sox2 Targets Biases Cell Fate in 4-Cell Mouse Embryos. Cell, 2016, 165, 61-74.	28.9	385
56	BAF chromatin remodelling complex is an epigenetic regulator of lineage specification in the early mouse embryo. Development (Cambridge), 2016, 143, 1271-83.	2.5	32
57	Polarity and cell division orientation in the cleavage embryo: from worm to human. Molecular Human Reproduction, 2016, 22, 691-703.	2.8	43
58	Development of the anterior-posterior axis is a self-organizing process in the absence of maternal cues in the mouse embryo. Cell Research, 2015, 25, 1368-1371.	12.0	31
59	Over-expression of Plk4 induces centrosome amplification, loss of primary cilia and associated tissue hyperplasia in the mouse. Open Biology, 2015, 5, 150209.	3.6	130
60	Maternal-zygotic knockout reveals a critical role of Cdx2 in the morula to blastocyst transition. Developmental Biology, 2015, 398, 147-152.	2.0	48
61	G&T-seq: parallel sequencing of single-cell genomes and transcriptomes. Nature Methods, 2015, 12, 519-522.	19.0	633
62	Cell death and morphogenesis during early mouse development: Are they interconnected?. BioEssays, 2015, 37, 372-378.	2.5	17
63	Mapping the journey from totipotency to lineage specification in the mouse embryo. Current Opinion in Genetics and Development, 2015, 34, 71-76.	3.3	23
64	BMP signalling regulates the pre-implantation development of extra-embryonic cell lineages in the mouse embryo. Nature Communications, 2014, 5, 5667.	12.8	84
65	Developmental plasticity, cell fate specification and morphogenesis in the early mouse embryo. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130538.	4.0	98
66	From pluripotency to differentiation: laying foundations for the body pattern in the mouse embryo. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130535.	4.0	4
67	Self-Organizing Properties of Mouse Pluripotent Cells Initiate Morphogenesis upon Implantation. Cell, 2014, 156, 1032-1044.	28.9	362
68	Citrullination regulates pluripotency and histone H1 binding to chromatin. Nature, 2014, 507, 104-108.	27.8	358
69	In vitro culture of mouse blastocysts beyond the implantation stages. Nature Protocols, 2014, 9, 2732-2739.	12.0	151
70	The basal position of nuclei is one pre-requisite for asymmetric cell divisions in the early mouse embryo. Developmental Biology, 2014, 392, 133-140.	2.0	26
71	Spindle Formation in the Mouse Embryo Requires Plk4 in the Absence of Centrioles. Developmental Cell, 2013, 27, 586-597.	7.0	63
72	Introduction to the special issue â€œMolecular Players in Early Pregnancyâ€ Molecular Aspects of Medicine, 2013, 34, vi-vii.	6.4	1

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73	Development: Do Mouse Embryos Play Dice?. Current Biology, 2013, 23, R15-R17.	3.9	8
74	Asymmetric Localization of Cdx2 mRNA during the First Cell-Fate Decision in Early Mouse Development. Cell Reports, 2013, 3, 442-457.	6.4	56
75	Quality control of embryo development. Molecular Aspects of Medicine, 2013, 34, 903-918.	6.4	44
76	The differential response to Fgf signalling in cells internalized at different times influences lineage segregation in preimplantation mouse embryos. Open Biology, 2013, 3, 130104.	3.6	67
77	Angiomotin prevents pluripotent lineage differentiation in mouse embryos via Hippo pathway-dependent and -independent mechanisms. Nature Communications, 2013, 4, 2251.	12.8	162
78	Oocyte Polarity and Its Developmental Significance. , 2013, , 253-264.		1
79	Developmental Plasticity Is Bound by Pluripotency and the Fgf and Wnt Signaling Pathways. Cell Reports, 2012, 2, 756-765.	6.4	82
80	Dynamics of anteriorâ€“posterior axis formation in the developing mouse embryo. Nature Communications, 2012, 3, 673.	12.8	86
81	Histone variant macroH2A marks embryonic differentiation <i>in vivo</i> and acts as an epigenetic barrier to induced pluripotency. Journal of Cell Science, 2012, 125, 6094-6104.	2.0	92
82	Phospholipase C-Î¶-induced Ca2+ oscillations cause coincident cytoplasmic movements in human oocytes that failed to fertilize after intracytoplasmic sperm injection. Fertility and Sterility, 2012, 97, 742-747.	1.0	55
83	Formation of Distinct Cell Types in the Mouse Blastocyst. Results and Problems in Cell Differentiation, 2012, 55, 203-217.	0.7	14
84	Protein Arginine Methyltransferase 6 Regulates Embryonic Stem Cell Identity. Stem Cells and Development, 2012, 21, 2613-2622.	2.1	47
85	Proclaiming fate in the early mouse embryo. Nature Cell Biology, 2011, 13, 112-114.	10.3	13
86	Rhythmic actomyosin-driven contractions induced by sperm entry predict mammalian embryo viability. Nature Communications, 2011, 2, 417.	12.8	107
87	Stochasticity versus determinism in development: a false dichotomy?. Nature Reviews Genetics, 2010, 11, 743-744.	16.3	42
88	Origin and formation of the first two distinct cell types of the inner cell mass in the mouse embryo. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6364-6369.	7.1	269
89	The chromosome passenger complex is required for fidelity of chromosome transmission and cytokinesis in meiosis of mouse oocytes. Journal of Cell Science, 2010, 123, 4292-4300.	2.0	77
90	Epigenetic Modification Affecting Expression of Cell Polarity and Cell Fate Genes to Regulate Lineage Specification in the Early Mouse Embryo. Molecular Biology of the Cell, 2010, 21, 2649-2660.	2.1	60

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91	Developmental control of the early mammalian embryo: competition among heterogeneous cells that biases cell fate. Current Opinion in Genetics and Development, 2010, 20, 485-491.	3.3	46
92	Maternally and zygotically provided Cdx2 have novel and critical roles for early development of the mouse embryo. Developmental Biology, 2010, 344, 66-78.	2.0	77
93	CARM1 is Required in Embryonic Stem Cells to Maintain Pluripotency and Resist Differentiation. Stem Cells, 2009, 27, 2637-2645.	3.2	101
94	Making a firm decision: multifaceted regulation of cell fate in the early mouse embryo. Nature Reviews Genetics, 2009, 10, 467-477.	16.3	275
95	Active cell movements coupled to positional induction are involved in lineage segregation in the mouse blastocyst. Developmental Biology, 2009, 331, 210-221.	2.0	152
96	Bone morphogenetic protein 4 signaling regulates development of the anterior visceral endoderm in the mouse embryo. Development Growth and Differentiation, 2008, 50, 615-621.	1.5	36
97	Maternal Argonaute 2 Is Essential for Early Mouse Development at the Maternal-Zygotic Transition. Molecular Biology of the Cell, 2008, 19, 4383-4392.	2.1	104
98	Formation of the embryonic-abembryonic axis of the mouse blastocyst:relationships between orientation of early cleavage divisions and pattern of symmetric/asymmetric divisions. Development (Cambridge), 2008, 135, 953-962.	2.5	124
99	Role of Cdx2 and cell polarity in cell allocation and specification of trophectoderm and inner cell mass in the mouse embryo. Genes and Development, 2008, 22, 2692-2706.	5.9	214
100	Dishevelled proteins regulate cell adhesion in mouse blastocyst and serve to monitor changes in Wnt signaling. Developmental Biology, 2007, 302, 40-49.	2.0	36
101	The anterior visceral endoderm of the mouse embryo is established from both preimplantation precursor cells and by de novo gene expression after implantation. Developmental Biology, 2007, 309, 97-112.	2.0	39
102	Novel gene expression patterns along the proximo-distal axis of the mouse embryo before gastrulation. BMC Developmental Biology, 2007, 7, 8.	2.1	34
103	Regionalisation of the mouse visceral endoderm as the blastocyst transforms into the egg cylinder. BMC Developmental Biology, 2007, 7, 96.	2.1	26
104	Histone arginine methylation regulates pluripotency in the early mouse embryo. Nature, 2007, 445, 214-218.	27.8	533
105	Regionalised signalling within the extraembryonic ectoderm regulates anterior visceral endoderm positioning in the mouse embryo. Mechanisms of Development, 2006, 123, 288-296.	1.7	44
106	The first cell-fate decisions in the mouse embryo: destiny is a matter of both chance and choice. Current Opinion in Genetics and Development, 2006, 16, 406-412.	3.3	70
107	Dynamic distribution of the replacement histone variant H3.3 in the mouse oocyte and preimplantation embryos. International Journal of Developmental Biology, 2006, 50, 455-61.	0.6	222
108	Does prepatterning occur in the mouse egg? (Reply). Nature, 2006, 442, E4-E4.	27.8	3

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109	Asymmetric Positioning and Organization of the Meiotic Spindle of Mouse Oocytes Requires CDC42 Function. Current Biology, 2006, 16, 1249-1254.	3.9	95
110	Role of TIF1Î± as a modulator of embryonic transcription in the mouse zygote. Journal of Cell Biology, 2006, 174, 329-338.	5.2	71
111	Cleavage pattern and emerging asymmetry of the mouse embryo. Nature Reviews Molecular Cell Biology, 2005, 6, 919-928.	37.0	137
112	The first cleavage of the mouse zygote predicts the blastocyst axis. Nature, 2005, 434, 391-395.	27.8	130
113	Functional studies of signaling pathways in peri-implantation development of the mouse embryo by RNAi. BMC Developmental Biology, 2005, 5, 28.	2.1	52
114	PAR-1 and the microtubule-associated proteins CLASP2 and dynactin-p50 have specific localisation on mouse meiotic and first mitotic spindles. Reproduction, 2005, 130, 311-320.	2.6	9
115	Four-cell stage mouse blastomeres have different developmental properties. Development (Cambridge), 2005, 132, 479-490.	2.5	207
116	Downregulation of Par3 and aPKC function directs cells towards the ICM in the preimplantation mouse embryo. Journal of Cell Science, 2005, 118, 505-515.	2.0	242
117	Spatial arrangement of individual 4-cell stage blastomeres and the order in which they are generated correlate with blastocyst pattern in the mouse embryo. Mechanisms of Development, 2005, 122, 487-500.	1.7	115
118	The Anterior-Posterior Axis Emerges Respecting the Morphology of the Mouse Embryo that Changes and Aligns with the Uterus before Gastrulation. Current Biology, 2004, 14, 184-196.	3.9	64
119	First Cleavage of the Mouse Embryo Responds to Change in Egg Shape at Fertilization. Current Biology, 2004, 14, 397-405.	3.9	119
120	Directing pluripotent cell differentiation using ?diced RNA? in transient transfection. Genesis, 2004, 40, 157-163.	1.6	13
121	First cell fate decisions and spatial patterning in the early mouse embryo. Seminars in Cell and Developmental Biology, 2004, 15, 563-572.	5.0	35
122	A Genome-Wide Study of Gene Activity Reveals Developmental Signaling Pathways in the Preimplantation Mouse Embryo. Developmental Cell, 2004, 6, 133-144.	7.0	481
123	Developmental fate of embryonic germ cells (EGCs), in vivo and in vitro. Differentiation, 2003, 71, 135-141.	1.9	33
124	Determining the first cleavage of the mouse zygote. Reproductive BioMedicine Online, 2003, 6, 160-163.	2.4	15
125	Early patterning of the mouse embryo â€" contributions of sperm and egg. Development (Cambridge), 2002, 129, 5803-5813.	2.5	51
126	Sperm entry position provides a surface marker for the first cleavage plane of the mouse zygote. Genesis, 2002, 32, 193-198.	1.6	54

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127	Efficient delivery of dsRNA into zona-enclosed mouse oocytes and preimplantation embryos by electroporation. Genesis, 2002, 32, 269-276.	1.6	75
128	Site of the previous meiotic division defines cleavage orientation in the mouse embryo. Nature Cell Biology, 2002, 4, 811-815.	10.3	65
129	Patterning of the embryo: the first spatial decisions in the life of a mouse. Development (Cambridge), 2002, 129, 815-829.	2.5	114
130	Use of Green Fluorescent Protein in Mouse Embryos. Methods, 2001, 24, 55-60.	3.8	12
131	Role for sperm in spatial patterning of the early mouse embryo. Nature, 2001, 409, 517-521.	27.8	244
132	Blastomeres arising from the first cleavage division have distinguishable fates in normal mouse development. Development (Cambridge), 2001, 128, 3739-3748.	2.5	190
133	Progression of mouse oocytes from metaphase I to metaphase II is inhibited by fusion with G2 cells. Zygote, 2000, 8, 145-151.	1.1	4
134	Specific interference with gene function by double-stranded RNA in early mouse development. Nature Cell Biology, 2000, 2, 70-75.	10.3	663
135	Green Fluorescent Protein. , 1999, , 521-527.		5
136	Mouse polo-like kinase 1 associates with the acentriolar spindle poles, meiotic chromosomes and spindle midzone during oocyte maturation. Chromosoma, 1998, 107, 430-439.	2.2	61
137	Cytostatic factor inactivation is induced by a calcium-dependent mechanism present until the second cell cycle in fertilized but not in parthenogenetically activated mouse eggs. Biology of the Cell, 1995, 84, 104-104a.	2.0	0
138	Activation of embryonic genes during preimplantation rat development. Molecular Reproduction and Development, 1994, 38, 30-35.	2.0	40
139	Cytoskeletal organization of rat oocytes during metaphase II arrest and following abortive activation: A study by confocal laser scanning microscopy. Molecular Reproduction and Development, 1993, 35, 165-175.	2.0	44
140	Spontaneous and induced activation of rat oocytes. Molecular Reproduction and Development, 1991, 28, 169-176.	2.0	84
141	Culture of human embryos through implantation stages in vitro. Protocol Exchange, 0, , .	0.3	4
142	Stem cells reconstituting gastrulating embryo-like structures in vitro. Protocol Exchange, 0, , .	0.3	2