Mitinori Saitou

List of Publications by Year
in descending order

86 papers	14,231 citations	53660 45 h-index	53109 85 g-index
89 all docs	89 docs citations	89 times ranked	9380 citing authors

#	Article	IF	Citations
1	Reconstitution of the Mouse Germ Cell Specification Pathway in Culture by Pluripotent Stem Cells. Cell, 2011, 146, 519-532.	13.5	1,156
2	Direct Binding of Three Tight Junction-Associated Maguks, Zo-1, Zo-2, and Zo-3, with the Cooh Termini of Claudins. Journal of Cell Biology, 1999, 147, 1351-1363.	2.3	993
3	Blimp1 is a critical determinant of the germ cell lineage in mice. Nature, 2005, 436, 207-213.	13.7	915
4	A molecular programme for the specification of germ cell fate in mice. Nature, 2002, 418, 293-300.	13.7	791
5	Offspring from Oocytes Derived from in Vitro Primordial Germ Cellâ€"like Cells in Mice. Science, 2012, 338, 971-975.	6.0	645
6	Critical function of Prdm14 for the establishment of the germ cell lineage in mice. Nature Genetics, 2008, 40, 1016-1022.	9.4	516
7	Extensive and orderly reprogramming of genome-wide chromatin modifications associated with specification and early development of germ cells in mice. Developmental Biology, 2005, 278, 440-458.	0.9	484
8	A Signaling Principle for the Specification of the Germ Cell Lineage in Mice. Cell, 2009, 137, 571-584.	13.5	471
9	Reconstitution in vitro of the entire cycle of the mouse female germ line. Nature, 2016, 539, 299-303.	13.7	470
10	Robust InÂVitro Induction of Human Germ Cell Fate from Pluripotent Stem Cells. Cell Stem Cell, 2015, 17, 178-194.	5.2	428
11	A developmental coordinate of pluripotency among mice, monkeys and humans. Nature, 2016, 537, 57-62.	13.7	419
12	Cellular dynamics associated with the genome-wide epigenetic reprogramming in migrating primordial germ cells in mice. Development (Cambridge), 2007, 134, 2627-2638.	1.2	388
13	Epigenetic reprogramming in mouse pre-implantation development and primordial germ cells. Development (Cambridge), 2012, 139, 15-31.	1.2	355
14	An improved single-cell cDNA amplification method for efficient high-density oligonucleotide microarray analysis. Nucleic Acids Research, 2006, 34, e42-e42.	6.5	341
15	Primordial Germ Cells in Mice. Cold Spring Harbor Perspectives in Biology, 2012, 4, a008375-a008375.	2.3	308
16	Induction of mouse germ-cell fate by transcription factors in vitro. Nature, 2013, 501, 222-226.	13.7	277
17	PRDM14 Ensures Naive Pluripotency through Dual Regulation of Signaling and Epigenetic Pathways in Mouse Embryonic Stem Cells. Cell Stem Cell, 2013, 12, 368-382.	5.2	266
18	Cell-to-cell expression variability followed by signal reinforcement progressively segregates early mouse lineages. Nature Cell Biology, 2014, 16, 27-37.	4.6	262

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19	Replication-coupled passive DNA demethylation for the erasure of genome imprints in mice. EMBO Journal, 2012, 32, 340-353.	3.5	261
20	The Germ Cell Fate of Cynomolgus Monkeys Is Specified in the Nascent Amnion. Developmental Cell, 2016, 39, 169-185.	3.1	252
21	Germ cell specification in mice. Current Opinion in Genetics and Development, 2009, 19, 386-395.	1.5	243
22	Generation of human oogonia from induced pluripotent stem cells in vitro. Science, 2018, 362, 356-360.	6.0	221
23	A Mesodermal Factor, T, Specifies Mouse Germ Cell Fate by Directly Activating Germline Determinants. Developmental Cell, 2013, 27, 516-529.	3.1	206
24	Generation of eggs from mouse embryonic stem cells and induced pluripotent stem cells. Nature Protocols, 2013, 8, 1513-1524.	5.5	188
25	Segregation of mitochondrial DNA heteroplasmy through a developmental genetic bottleneck in human embryos. Nature Cell Biology, 2018, 20, 144-151.	4.6	182
26	Quantitative Dynamics of Chromatin Remodeling during Germ Cell Specification from Mouse Embryonic Stem Cells. Cell Stem Cell, 2015, 16, 517-532.	5.2	166
27	Capturing human trophoblast development with naive pluripotent stem cells inÂvitro. Cell Stem Cell, 2021, 28, 1023-1039.e13.	5.2	164
28	Gametogenesis from Pluripotent Stem Cells. Cell Stem Cell, 2016, 18, 721-735.	5.2	160
29	Generation ofstella-GFP transgenic mice: A novel tool to study germ cell development. Genesis, 2006, 44, 75-83.	0.8	150
30	The Two Active X Chromosomes in Female ESCs Block Exit from the Pluripotent State by Modulating the ESC Signaling Network. Cell Stem Cell, 2014, 14, 203-216.	5.2	149
31	Evolutionarily Distinctive Transcriptional and Signaling Programs Drive Human Germ Cell Lineage Specification from Pluripotent Stem Cells. Cell Stem Cell, 2017, 21, 517-532.e5.	5.2	145
32	InÂVitro Derivation and Propagation of Spermatogonial Stem Cell Activity from Mouse Pluripotent Stem Cells. Cell Reports, 2016, 17, 2789-2804.	2.9	136
33	Germ cell specification in mice: signaling, transcription regulation, and epigenetic consequences. Reproduction, 2010, 139, 931-942.	1.1	122
34	A comprehensive, non-invasive visualization of primordial germ cell development in mice by the Prdm1-mVenus and Dppa3-ECFP double transgenic reporter. Reproduction, 2008, 136, 503-514.	1.1	110
35	Global Landscape and Regulatory Principles of DNA Methylation Reprogramming for Germ Cell Specification by Mouse Pluripotent Stem Cells. Developmental Cell, 2016, 39, 87-103.	3.1	106
36	Bone morphogenetic protein and retinoic acid synergistically specify female germâ€cell fate in mice. EMBO Journal, 2017, 36, 3100-3119.	3.5	105

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37	SC3-seq: a method for highly parallel and quantitative measurement of single-cell gene expression. Nucleic Acids Research, 2015, 43, e60-e60.	6.5	104
38	Tsix RNA and the Germline Factor, PRDM14, Link X Reactivation and Stem Cell Reprogramming. Molecular Cell, 2013, 52, 805-818.	4.5	96
39	Chromosome Cohesion Established by Rec8-Cohesin in Fetal Oocytes Is Maintained without Detectable Turnover in Oocytes Arrested for Months in Mice. Current Biology, 2016, 26, 678-685.	1.8	92
40	<i>In vitro</i> expansion of mouse primordial germ cellâ€like cells recapitulates an epigenetic blank slate. EMBO Journal, 2017, 36, 1888-1907.	3.5	92
41	Mammalian in vitro gametogenesis. Science, 2021, 374, eaaz6830.	6.0	77
42	InÂvitro reconstitution of the whole male germ-cell development from mouse pluripotent stem cells. Cell Stem Cell, 2021, 28, 2167-2179.e9.	5.2	75
43	ZGLP1 is a determinant for the oogenic fate in mice. Science, 2020, 367, .	6.0	69
44	Human embryo research, stem cell-derived embryo models and inÂvitro gametogenesis: Considerations leading to the revised ISSCR guidelines. Stem Cell Reports, 2021, 16, 1416-1424.	2.3	59
45	PRDM14: a unique regulator for pluripotency and epigenetic reprogramming. Trends in Biochemical Sciences, 2014, 39, 289-298.	3.7	58
46	Contribution of epigenetic landscapes and transcription factors to X-chromosome reactivation in the inner cell mass. Nature Communications, 2017, 8, 1297.	5.8	52
47	Clonal variation of human induced pluripotent stem cells for induction into the germ cell fateâ€. Biology of Reproduction, 2017, 96, 1154-1166.	1.2	48
48	Fertile offspring from sterile sex chromosome trisomic mice. Science, 2017, 357, 932-935.	6.0	45
49	Longâ€term expansion with germline potential of human primordial germ cellâ€like cells <i>inÂvitro</i>. EMBO Journal, 2020, 39, e104929.	3.5	43
50	Generation of human oogonia from induced pluripotent stem cells in culture. Nature Protocols, 2020, 15, 1560-1583.	5.5	41
51	Induction of the germ cell fate from pluripotent stem cells in cynomolgus monkeysâ€. Biology of Reproduction, 2020, 102, 620-638.	1.2	40
52	Single-cell transcriptome of early embryos and cultured embryonic stem cells of cynomolgus monkeys. Scientific Data, 2017, 4, 170067.	2.4	39
53	Paternal Nucleosomes: Are They Retained in Developmental Promoters or Gene Deserts?. Developmental Cell, 2014, 30, 6-8.	3.1	38
54	GATA transcription factors, SOX17 and TFAP2C, drive the human germ-cell specification program. Life Science Alliance, 2021, 4, e202000974.	1.3	37

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55	Germ cell reprogramming. Current Topics in Developmental Biology, 2019, 135, 91-125.	1.0	36
56	A symmetric toggle switch explains the onset of random X inactivation in different mammals. Nature Structural and Molecular Biology, 2019, 26, 350-360.	3.6	36
57	Non-human primates as a model for human development. Stem Cell Reports, 2021, 16, 1093-1103.	2.3	33
58	The X chromosome dosage compensation program during the development of cynomolgus monkeys. Science, 2021, 374, eabd8887.	6.0	33
59	Software updates in the Illumina HiSeq platform affect whole-genome bisulfite sequencing. BMC Genomics, 2017, 18, 31.	1.2	29
60	Induction of Primordial Germ Cell-Like Cells From Mouse Embryonic Stem Cells by ERK Signal Inhibition. Stem Cells, 2014, 32, 2668-2678.	1.4	28
61	Flexible adaptation of male germ cells from female iPSCs of endangered <i>Tokudaia osimensis</i>. Science Advances, 2017, 3, e1602179.	4.7	28
62	Epigenome regulation during germ cell specification and development from pluripotent stem cells. Current Opinion in Genetics and Development, 2018, 52, 57-64.	1.5	27
63	The embryonic ontogeny of the gonadal somatic cells in mice and monkeys. Cell Reports, 2021, 35, 109075.	2.9	25
64	<i>Klf5</i> maintains the balance of primitive endoderm to epiblast specification during mouse embryonic development by suppression of <i>Fgf4</i>. Development (Cambridge), 2017, 144, 3706-3718.	1.2	24
65	Mechanism and Reconstitution In Vitro of Germ Cell Development in Mammals. Cold Spring Harbor Symposia on Quantitative Biology, 2015, 80, 147-154.	2.0	23
66	Mitochondrial DNA heteroplasmy is modulated during oocyte development propagating mutation transmission. Science Advances, 2021, 7, eabi5657.	4.7	22
67	Mammalian Germ Cell Development: From Mechanism to InÂVitro Reconstitution. Stem Cell Reports, 2021, 16, 669-680.	2.3	20
68	Promoting In Vitro Gametogenesis Research with a Social Understanding. Trends in Molecular Medicine, 2017, 23, 985-988.	3.5	18
69	The CD44/COL17A1 pathway promotes the formation of multilayered, transformed epithelia. Current Biology, 2021, 31, 3086-3097.e7.	1.8	18
70	The developmental origin and the specification of the adrenal cortex in humans and cynomolgus monkeys. Science Advances, 2022, 8, eabn8485.	4.7	18
71	Discrimination of Stem Cell Status after Subjecting Cynomolgus Monkey Pluripotent Stem Cells to NaÃ¯ve Conversion. Scientific Reports, 2017, 7, 45285.	1.6	17
72	DMRT1-mediated reprogramming drives development of cancer resembling human germ cell tumors with features of totipotency. Nature Communications, 2021, 12, 5041.	5.8	17

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73	Persistent Requirement and Alteration of the Key Targets of PRDM1 During Primordial Germ Cell Development in Mice1. Biology of Reproduction, 2016, 94, 7.	1.2	16
74	Inherent genomic properties underlie the epigenomic heterogeneity of human induced pluripotent stem cells. Cell Reports, 2021, 37, 109909.	2.9	14
75	Controlled Xâ€chromosome dynamics defines meiotic potential of female mouse <i>in vitro</i> germ cells. EMBO Journal, 2022, 41, .	3.5	13
76	Reconstitution of Female Germ Cell Fate Determination and Meiotic Initiation in Mammals. Cold Spring Harbor Symposia on Quantitative Biology, 2017, 82, 213-222.	2.0	12
77	Principles for the regulation of multiple developmental pathways by a versatile transcriptional factor, BLIMP1. Nucleic Acids Research, 2017, 45, 12152-12169.	6.5	12
78	Cyclosporin A and FGF signaling support the proliferation/survival of mouse primordial germ cell-like cells in vitroâ€. Biology of Reproduction, 2021, 104, 344-360.	1.2	12
79	Establishment of macaque trophoblast stem cell lines derived from cynomolgus monkey blastocysts. Scientific Reports, 2020, 10, 6827.	1.6	10
80	Nucleome programming is required for the foundation of totipotency in mammalian germline development. EMBO Journal, 2022, 41, .	3.5	9
81	Induction of fetal primary oocytes and the meiotic prophase from mouse pluripotent stem cells. Methods in Cell Biology, 2018, 144, 409-429.	0.5	8
82	Oxygen tension modulates the mitochondrial genetic bottleneck and influences the segregation of a heteroplasmic mtDNA variant in vitro. Communications Biology, 2021, 4, 584.	2.0	7
83	Optimized protocol to derive germline stem-cell-like cells from mouse pluripotent stem cells. STAR Protocols, 2022, 3, 101544.	0.5	4
84	Reconstituting oogenesis inÂvitro: Recent progress and future prospects. Current Opinion in Endocrine and Metabolic Research, 2021, 18, 145-151.	0.6	2
85	Reconstitution of Germ Cell Development In Vitro. , 2018, , 1-19.		0
86	InÂVitro Spermatogenesis. , 2018, , 134-143.		0