Rudolf Jaenisch

List of Publications by Year
in descending order

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112	44,993	9786	23533
papers	citations	73 h-index	111 g-index

116	116	116	49894
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Epigenetic regulation of gene expression: how the genome integrates intrinsic and environmental signals. Nature Genetics, 2003, 33, 245-254.	21.4	5,434
2	A Bivalent Chromatin Structure Marks Key Developmental Genes in Embryonic Stem Cells. Cell, 2006, 125, 315-326.	28.9	4,773
3	Core Transcriptional Regulatory Circuitry in Human Embryonic Stem Cells. Cell, 2005, 122, 947-956.	28.9	4,000
4	Control of Developmental Regulators by Polycomb in Human Embryonic Stem Cells. Cell, 2006, 125, 301-313.	28.9	2,059
5	Role for DNA methylation in genomic imprinting. Nature, 1993, 366, 362-365.	27.8	2,001
6	One-Step Generation of Mice Carrying Reporter and Conditional Alleles by CRISPR/Cas-Mediated Genome Engineering. Cell, 2013, 154, 1370-1379.	28.9	1,442
7	Connecting microRNA Genes to the Core Transcriptional Regulatory Circuitry of Embryonic Stem Cells. Cell, 2008, 134, 521-533.	28.9	1,332
8	Genetic engineering of human pluripotent cells using TALE nucleases. Nature Biotechnology, 2011, 29, 731-734.	17.5	1,082
9	Î²2-Microglobulin deficient mice lack CD4â^'8+ cytolytic T cells. Nature, 1990, 344, 742-746.	27.8	1,026
10	Mice lacking brain-derived neurotrophic factor develop with sensory deficits. Nature, 1994, 368, 147-150.	27.8	1,023
11	Efficient targeting of expressed and silent genes in human ESCs and iPSCs using zinc-finger nucleases. Nature Biotechnology, 2009, 27, 851-857.	17.5	990
12	Editing DNA Methylation in the Mammalian Genome. Cell, 2016, 167, 233-247.e17.	28.9	932
13	DNA hypomethylation leads to elevated mutation rates. Nature, 1998, 395, 89-93.	27.8	859
14	Human embryonic stem cells with biological and epigenetic characteristics similar to those of mouse ESCs. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9222-9227.	7.1	755
15	YY1 Is a Structural Regulator of Enhancer-Promoter Loops. Cell, 2017, 171, 1573-1588.e28.	28.9	749
16	Nuclear Cloning and Epigenetic Reprogramming of the Genome. Science, 2001, 293, 1093-1098.	12.6	704
17	Generation of Isogenic Pluripotent Stem Cells Differing Exclusively at Two Early Onset Parkinson Point Mutations. Cell, 2011, 146, 318-331.	28.9	703
18	Systematic Identification of Culture Conditions for Induction and Maintenance of Naive Human Pluripotency. Cell Stem Cell, 2014, 15, 471-487.	11.1	702

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19	Conditional Deletion Of Brain-Derived Neurotrophic Factor in the Postnatal Brain Leads to Obesity and Hyperactivity. Molecular Endocrinology, 2001, 15, 1748-1757.	3.7	692
20	Reduced cortical activity due to a shift in the balance between excitation and inhibition in a mouse model of Rett Syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12560-12565.	7.1	558
21	Partial reversal of Rett Syndrome-like symptoms in MeCP2 mutant mice. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2029-2034.	7.1	511
22	Efficient derivation of microglia-like cells from human pluripotent stem cells. Nature Medicine, 2016, 22, 1358-1367.	30.7	486
23	Generating genetically modified mice using CRISPR/Cas-mediated genome engineering. Nature Protocols, 2014, 9, 1956-1968.	12.0	477
24	Parkinson-associated risk variant in distal enhancer of Î±-synuclein modulates target gene expression. Nature, 2016, 533, 95-99.	27.8	466
25	THE ROLE OF DNA METHYLATION IN CANCER GENETICS AND EPIGENETICS. Annual Review of Genetics, 1996, 30, 441-464.	7.6	455
26	Molecular Criteria for Defining the Naive Human Pluripotent State. Cell Stem Cell, 2016, 19, 502-515.	11.1	415
27	Induced Pluripotent Stem Cells Meet Genome Editing. Cell Stem Cell, 2016, 18, 573-586.	11.1	398
28	3D Chromosome Regulatory Landscape of Human Pluripotent Cells. Cell Stem Cell, 2016, 18, 262-275.	11.1	369
29	Derivation of Pre-X Inactivation Human Embryonic Stem Cells under Physiological Oxygen Concentrations. Cell, 2010, 141, 872-883.	28.9	367
30	Sensory but not motor neuron deficits in mice lacking NT4 and BDNF. Nature, 1995, 375, 238-241.	27.8	357
31	Rescue of Fragile X Syndrome Neurons by DNA Methylation Editing of the FMR1 Gene. Cell, 2018, 172, 979-992.e6.	28.9	351
32	Induction of Expansion and Folding in Human Cerebral Organoids. Cell Stem Cell, 2017, 20, 385-396.e3.	11.1	346
33	Contrasting roles of histone 3 lysine 27 demethylases in acute lymphoblastic leukaemia. Nature, 2014, 514, 513-517.	27.8	340
34	A Drug-Inducible System for Direct Reprogramming of Human Somatic Cells to Pluripotency. Cell Stem Cell, 2008, 3, 346-353.	11.1	318
35	Loss of Tet Enzymes Compromises Proper Differentiation of Embryonic Stem Cells. Developmental Cell, 2014, 29, 102-111.	7.0	274
36	Global Transcriptional and Translational Repression in Human-Embryonic-Stem-Cell-Derived Rett Syndrome Neurons. Cell Stem Cell, 2013, 13, 446-458.	11.1	273

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37	Long-range cis effects of ectopic X-inactivation centres on a mouse autosome. Nature, 1997, 386, 275-279.	27.8	269
38	Partial rescue of MeCP2 deficiency by postnatal activation of MeCP2. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1931-1936.	7.1	247
39	Parkinson-causing Î±-synuclein missense mutations shift native tetramers to monomers as a mechanism for disease initiation. Nature Communications, 2015, 6, 7314.	12.8	245
40	Perinatal lethal osteogenesis imperfecta in transgenic mice bearing an engineered mutant pro-Î±1(I) collagen gene. Nature, 1988, 332, 131-136.	27.8	240
41	X-Chromosome Inactivation in Cloned Mouse Embryos. Science, 2000, 290, 1578-1581.	12.6	240
42	Conditional Deletion Of Brain-Derived Neurotrophic Factor in the Postnatal Brain Leads to Obesity and Hyperactivity. Molecular Endocrinology, 2001, 15, 1748-1757.	3.7	214
43	Hominoid-Specific Transposable Elements and KZFPs Facilitate Human Embryonic Genome Activation and Control Transcription in Naive Human ESCs. Cell Stem Cell, 2019, 24, 724-735.e5.	11.1	208
44	Human Naive Pluripotent Stem Cells Model X Chromosome Dampening and X Inactivation. Cell Stem Cell, 2017, 20, 87-101.	11.1	188
45	Trisomy eight in ES cells is a common potential problem in gene targeting and interferes with germ line transmission. Developmental Dynamics, 1997, 209, 85-91.	1.8	186
46	Genetic and Chemical Correction of Cholesterol Accumulation and Impaired Autophagy in Hepatic and Neural Cells Derived from Niemann-Pick Type C Patient-Specific iPS Cells. Stem Cell Reports, 2014, 2, 866-880.	4.8	180
47	Mutations in the WRN Gene in Mice Accelerate Mortality in a p53-Null Background. Molecular and Cellular Biology, 2000, 20, 3286-3291.	2.3	179
48	TET1 is a tumor suppressor of hematopoietic malignancy. Nature Immunology, 2015, 16, 653-662.	14.5	173
49	Lipidomic Analysis of Î±-Synuclein Neurotoxicity Identifies Stearoyl CoA Desaturase as a Target for Parkinson Treatment. Molecular Cell, 2019, 73, 1001-1014.e8.	9.7	173
50	iPSC Disease Modeling. Science, 2012, 338, 1155-1156.	12.6	166
51	Functional redundancy of the muscle-specific transcription factors Myf5 and myogenin. Nature, 1996, 379, 823-825.	27.8	158
52	A Systematic Approach to Identify Candidate Transcription Factors that Control Cell Identity. Stem Cell Reports, 2015, 5, 763-775.	4.8	148
53	Jointly reduced inhibition and excitation underlies circuit-wide changes in cortical processing in Rett syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E7287-E7296.	7.1	148
54	In situ genome sequencing resolves DNA sequence and structure in intact biological samples. Science, 2021, 371, .	12.6	141

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55	The Developmental Potential of iPSCs Is Greatly Influenced by Reprogramming Factor Selection. Cell Stem Cell, 2014, 15, 295-309.	11.1	137
56	Stem cells and interspecies chimaeras. Nature, 2016, 540, 51-59.	27.8	134
57	Chromatin proteomic profiling reveals novel proteins associated with histone-marked genomic regions. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3841-3846.	7.1	123
58	Molecular Control of Induced Pluripotency. Cell Stem Cell, 2014, 14, 720-734.	11.1	121
59	Tracing Dynamic Changes of DNA Methylation at Single-Cell Resolution. Cell, 2015, 163, 218-229.	28.9	120
60	Two-Step Imprinted X Inactivation: Repeat versus Genic Silencing in the Mouse. Molecular and Cellular Biology, 2010, 30, 3187-3205.	2.3	115
61	Human iPSC-derived microglia assume a primary microglia-like state after transplantation into the neonatal mouse brain. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25293-25303.	7.1	115
62	MeCP2 links heterochromatin condensates and neurodevelopmental disease. Nature, 2020, 586, 440-444.	27.8	112
63	Pharmacological enhancement of KCC2 gene expression exerts therapeutic effects on human Rett syndrome neurons and Mecp2 mutant mice. Science Translational Medicine, 2019, 11, .	12.4	111
64	Stem Cells, Genome Editing, and the Path to Translational Medicine. Cell, 2018, 175, 615-632.	28.9	105
65	S-Nitrosylation of PINK1 Attenuates PINK1/Parkin-Dependent Mitophagy in hiPSC-Based Parkinsonâ€™s Disease Models. Cell Reports, 2017, 21, 2171-2182.	6.4	103
66	DEVELOPMENTAL BIOLOGY: Don't Clone Humans!. Science, 2001, 291, 2552-2552.	12.6	103
67	Control of gammadelta T-Cell Development. Immunological Reviews, 1991, 120, 185-204.	6.0	93
68	Initial differentiation of the metanephric mesenchyme is independent of WT1 and the ureteric bud. Genesis, 1999, 24, 252-262.	2.1	89
69	Mammalian neural crest cells participate in normal embryonic development on microinjection into post-implantation mouse embryos. Nature, 1985, 318, 181-183.	27.8	88
70	Induced Pluripotency and Epigenetic Reprogramming. Cold Spring Harbor Perspectives in Biology, 2015, 7, a019448.	5.5	84
71	Human Intestinal Tissue with Adult Stem Cell Properties Derived from Pluripotent Stem Cells. Stem Cell Reports, 2014, 2, 838-852.	4.8	83
72	Combined Loss of Tet1 and Tet2 Promotes B Cell, but Not Myeloid Malignancies, in Mice. Cell Reports, 2015, 13, 1692-1704.	6.4	83

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73	The role of GABAergic signalling in neurodevelopmental disorders. Nature Reviews Neuroscience, 2021, 22, 290-307.	10.2	83
74	High frequency of unequal recombination in pseudoautosomal region shown by proviral insertion in transgenic mouse. Nature, 1986, 324, 682-685.	27.8	74
75	Higher Vulnerability and Stress Sensitivity of Neuronal Precursor Cells Carrying an Alpha-Synuclein Gene Triplication. PLoS ONE, 2014, 9, e112413.	2.5	73
76	Dynamic Enhancer DNA Methylation as Basis for Transcriptional and Cellular Heterogeneity of ESCs. Molecular Cell, 2019, 75, 905-920.e6.	9.7	73
77	Human physiomimetic model integrating microphysiological systems of the gut, liver, and brain for studies of neurodegenerative diseases. Science Advances, 2021, 7, .	10.3	73
78	Whole chromosome loss and genomic instability in mouse embryos after CRISPR-Cas9 genome editing. Nature Communications, 2021, 12, 5855.	12.8	72
79	Intravital imaging of mouse embryos. Science, 2020, 368, 181-186.	12.6	70
80	Role of abortive retroviral infection of neurons in spongiform CNS degeneration. Nature, 1990, 346, 181-183.	27.8	67
81	Mechanisms of gene regulation in human embryos and pluripotent stem cells. Development (Cambridge), 2017, 144, 4496-4509.	2.5	63
82	Direct Lineage Conversion of Adult Mouse Liver Cells and B Lymphocytes to Neural Stem Cells. Stem Cell Reports, 2014, 3, 948-956.	4.8	57
83	Tet1 and Tet2 Protect DNA Methylation Canyons against Hypermethylation. Molecular and Cellular Biology, 2016, 36, 452-461.	2.3	54
84	Human neural crest cells contribute to coat pigmentation in interspecies chimeras after in utero injection into mouse embryos. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1570-1575.	7.1	50
85	Somatic cell nuclear transfer and derivation of embryonic stem cells in the mouse. Methods, 2008, 45, 101-114.	3.8	46
86	Stimulation of the collagen Î±1(I) endogenous gene and transgene in carbon tetrachlorideâ€“induced hepatic fibrosis. Hepatology, 1993, 17, 287-292.	7.3	44
87	Severe peripheral sensory neuron loss and modest motor neuron reduction in mice with combined deficiency of brain-derived neurotrophic factor, neurotrophin 3 and neurotrophin 4/5. Developmental Dynamics, 2000, 218, 94-101.	1.8	44
88	Expression of Xist RNA is sufficient to initiate macrochromatin body formation. Chromosoma, 2001, 110, 411-420.	2.2	40
89	Parent-of-Origin DNA Methylation Dynamics during Mouse Development. Cell Reports, 2016, 16, 3167-3180.	6.4	40
90	Sequence-specific methylation of the mouseH19 gene in embryonic cells deficient in theDnmt-1 gene. Genesis, 1998, 22, 111-121.	2.1	37

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91	Editing the Epigenome to Tackle Brain Disorders. Trends in Neurosciences, 2019, 42, 861-870.	8.6	37
92	Transcriptional profiling of cells sorted by RNA abundance. Nature Methods, 2014, 11, 549-551.	19.0	34
93	Microcephaly Modeling of Kinetochore Mutation Reveals a Brain-Specific Phenotype. Cell Reports, 2018, 25, 368-382.e5.	6.4	34
94	Matched Developmental Timing of Donor Cells with the Host Is Crucial for Chimera Formation. Stem Cell Reports, 2018, 10, 1445-1452.	4.8	33
95	Formation of Human Neuroblastoma in Mouse-Human Neural Crest Chimeras. Cell Stem Cell, 2020, 26, 579-592.e6.	11.1	32
96	Partial FMRP expression is sufficient to normalize neuronal hyperactivity in Fragile X neurons. European Journal of Neuroscience, 2020, 51, 2143-2157.	2.6	30
97	Probing the signaling requirements for naive human pluripotency by high-throughput chemical screening. Cell Reports, 2021, 35, 109233.	6.4	28
98	Engineered tissues and strategies to overcome challenges in drug development. Advanced Drug Delivery Reviews, 2020, 158, 116-139.	13.7	26
99	A stochastic model dissects cell states in biological transition processes. Scientific Reports, 2014, 4, 3692.	3.3	24
100	CNS disease models with human pluripotent stem cells in the CRISPR age. Current Opinion in Cell Biology, 2016, 43, 96-103.	5.4	19
101	Mammalian X Chromosome Inactivation. Novartis Foundation Symposium, 1998, 214, 200-213.	1.1	19
102	OCT4 cooperates with distinct ATP-dependent chromatin remodelers in naÃ¯ve and primed pluripotent states in human. Nature Communications, 2021, 12, 5123.	12.8	17
103	Nuclear Cloning, Epigenetic Reprogramming and Cellular Differentiation. Novartis Foundation Symposium, 2008, , 107-121.	1.1	15
104	Functional analysis of CX3CR1 in human induced pluripotent stem (iPS) cellâ€derived microgliaâ€like cells. European Journal of Neuroscience, 2020, 52, 3667-3678.	2.6	14
105	Development of a physiological insulin resistance model in human stem cellâ€“derived adipocytes. Science Advances, 2022, 8, .	10.3	10
106	Dissecting Risk Haplotypes in Sporadic Alzheimer's Disease. Cell Stem Cell, 2015, 16, 341-342.	11.1	7
107	Monitoring Dynamics of DNA Methylation at Single-Cell Resolution during Development and Disease. Cold Spring Harbor Symposia on Quantitative Biology, 2015, 80, 199-206.	1.1	7
108	JIP2 haploinsufficiency contributes to neurodevelopmental abnormalities in human pluripotent stem cellâ€“derived neural progenitors and cortical neurons. Life Science Alliance, 2018, 1, e201800094.	2.8	6

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109	The nuclear receptor THRB facilitates differentiation of human PSCs into more mature hepatocytes. Cell Stem Cell, 2022, 29, 795-809.e11.	11.1	5
110	Trisomy eight in ES cells is a common potential problem in gene targeting and interferes with germ line transmission. Developmental Dynamics, 1997, 209, 85-91.	1.8	1
111	The Role of K-ras Signaling in Erythropoiesis In Vivo.. Blood, 2005, 106, 3136-3136.	1.4	0
112	Stem cells, pluripotency and nuclear reprogramming. FASEB Journal, 2013, 27, 78.1.	0.5	0