DÃ³nal O'Carroll

List of Publications by Year
in descending order

59 papers	17,790 citations	61945 43 h-index	138417 58 g-index
59 all docs	59 docs citations	59 times ranked	20004 citing authors

#	Article	IF	Citations
1	Regulation of chromatin structure by site-specific histone H3 methyltransferases. Nature, 2000, 406, 593-599.	13.7	2,497
2	Methylation of histone H3 lysine 9 creates a binding site for HP1 proteins. Nature, 2001, 410, 116-120.	13.7	2,481
3	Loss of the Suv39h Histone Methyltransferases Impairs Mammalian Heterochromatin and Genome Stability. Cell, 2001, 107, 323-337.	13.5	1,552
4	Blimp1 is a critical determinant of the germ cell lineage in mice. Nature, 2005, 436, 207-213.	13.7	915
5	Rb targets histone H3 methylation and HP1 to promoters. Nature, 2001, 412, 561-565.	13.7	840
6	PIWI-interacting RNAs: small RNAs with big functions. Nature Reviews Genetics, 2019, 20, 89-108.	7.7	779
7	Essential function of histone deacetylase 1 in proliferation control and CDK inhibitor repression. EMBO Journal, 2002, 21, 2672-2681.	3.5	678
8	Morphogenesis in skin is governed by discrete sets of differentially expressed microRNAs. Nature Genetics, 2006, 38, 356-362.	9.4	518
9	Maternal microRNAs are essential for mouse zygotic development. Genes and Development, 2007, 21, 644-648.	2.7	496
10	Cerebellar neurodegeneration in the absence of microRNAs. Journal of Experimental Medicine, 2007, 204, 1553-1558.	4.2	461
11	Histone H3 lysine 9 methylation is an epigenetic imprint of facultative heterochromatin. Nature Genetics, 2002, 30, 77-80.	9.4	448
12	MicroRNA Biogenesis Is Required for Mouse Primordial Germ Cell Development and Spermatogenesis. PLoS ONE, 2008, 3, e1738.	1.1	442
13	Blimp1 Defines a Progenitor Population that Governs Cellular Input to the Sebaceous Gland. Cell, 2006, 126, 597-609.	13.5	396
14	Conserved vertebrate <i>mir-451</i> provides a platform for Dicer-independent, Ago2-mediated microRNA biogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15163-15168.	3.3	389
15	Dicer-dependent microRNA pathway safeguards regulatory T cell function. Journal of Experimental Medicine, 2008, 205, 1993-2004.	4.2	361
16	Targeting the RNA m6A Reader YTHDF2 Selectively Compromises Cancer Stem Cells in Acute Myeloid Leukemia. Cell Stem Cell, 2019, 25, 137-148.e6.	5.2	342
17	A Slicer-independent role for Argonaute 2 in hematopoiesis and the microRNA pathway. Genes and Development, 2007, 21, 1999-2004.	2.7	313
18	The RNA m 6 A Reader YTHDF2 Is Essential for the Post-transcriptional Regulation of the Maternal Transcriptome and Oocyte Competence. Molecular Cell, 2017, 67, 1059-1067.e4.	4.5	287

#	ARTICLE	IF	CITATIONS
19	The endonuclease activity of Mili fuels piRNA amplification that silences LINE1 elements. Nature, 2011, 480, 259-263.	13.7	285
20	The miR-144/451 locus is required for erythroid homeostasis. Journal of Experimental Medicine, 2010, 207, 1351-1358.	4.2	277
21	MicroRNA-128 Governs Neuronal Excitability and Motor Behavior in Mice. Science, 2013, 342, 1254-1258.	6.0	264
22	DGCR8-dependent microRNA biogenesis is essential for skin development. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 498-502.	3.3	217
23	General Principals of miRNA Biogenesis and Regulation in the Brain. Neuropsychopharmacology, 2013, 38, 39-54.	2.8	173
24	Multiple Epigenetic Mechanisms and the piRNA Pathway Enforce LINE1 Silencing during Adult Spermatogenesis. Molecular Cell, 2013, 50, 601-608.	4.5	170
25	Quantitative functions of Argonaute proteins in mammalian development. Genes and Development, 2012, 26, 693-704.	2.7	153
26	MicroRNA degradation by a conserved target RNA regulates animal behavior. Nature Structural and Molecular Biology, 2018, 25, 244-251.	3.6	149
27	mRNA 3â€² uridylation and poly(A) tail length sculpt the mammalian maternal transcriptome. Nature, 2017, 548, 347-351.	13.7	142
28	Argonaute2 Mediates Compensatory Expansion of the Pancreatic Î² Cell. Cell Metabolism, 2014, 19, 122-134.	7.2	139
29	Argonaute 2 in dopamine 2 receptorâ€"expressing neurons regulates cocaine addiction. Journal of Experimental Medicine, 2010, 207, 1843-1851.	4.2	134
30	Oligoasthenoteratozoospermia and Infertility in Mice Deficient for miR-34b/c and miR-449 Loci. PLoS Genetics, 2014, 10, e1004597.	1.5	116
31	Erythropoietin guides multipotent hematopoietic progenitor cells toward an erythroid fate. Journal of Experimental Medicine, 2014, 211, 181-188.	4.2	111
32	220-plex microRNA expression profile of a single cell. Nature Protocols, 2006, 1, 1154-1159.	5.5	97
33	SPOCD1 is an essential executor of piRNA-directed de novo DNA methylation. Nature, 2020, 584, 635-639.	13.7	96
34	The mRNA m6A reader YTHDF2 suppresses proinflammatory pathways and sustains hematopoietic stem cell function. Journal of Experimental Medicine, 2021, 218, .	4.2	90
35	FOG-1 and GATA-1 act sequentially to specify definitive megakaryocytic and erythroid progenitors. EMBO Journal, 2012, 31, 351-365.	3.5	84
36	Terminal uridylyltransferases target RNA viruses as part of the innate immune system. Nature Structural and Molecular Biology, 2018, 25, 778-786.	3.6	79

#	Article	IF	Citations
37	Blimp1 and the Emergence of the Germ Line during Development in the Mouse. Cell Cycle, 2005, 4, 1736-1740.	1.3	78
38	Reversible Block of Mouse Neural Stem Cell Differentiation in the Absence of Dicer and MicroRNAs. PLoS ONE, 2010, 5, e13453.	1.1	65
39	Hif-1Î± and Hif-2Î± synergize to suppress AML development but are dispensable for disease maintenance. Journal of Experimental Medicine, 2015, 212, 2223-2234.	4.2	65
40	Deficiency in the nuclear long noncoding <scp>RNA</scp> <i>Charme</i> causes myogenic defects and heart remodeling in mice. EMBO Journal, 2018, 37, .	3.5	65
41	Fumarate hydratase is a critical metabolic regulator of hematopoietic stem cell functions. Journal of Experimental Medicine, 2017, 214, 719-735.	4.2	62
42	G9a co-suppresses LINE1 elements in spermatogonia. Epigenetics and Chromatin, 2014, 7, 24.	1.8	56
43	A transit-amplifying population underpins the efficient regenerative capacity of the testis. Journal of Experimental Medicine, 2017, 214, 1631-1641.	4.2	50
44	A programmed wave of uridylation-primed mRNA degradation is essential for meiotic progression and mammalian spermatogenesis. Cell Research, 2019, 29, 221-232.	5.7	48
45	<i>CARMN</i> Loss Regulates Smooth Muscle Cells and Accelerates Atherosclerosis in Mice. Circulation Research, 2021, 128, 1258-1275.	2.0	47
46	TEX15 is an essential executor of MIWI2-directed transposon DNA methylation and silencing. Nature Communications, 2020, 11, 3739.	5.8	44
47	Genome-Wide Identification of Targets and Function of Individual MicroRNAs in Mouse Embryonic Stem Cells. PLoS Genetics, 2010, 6, e1001163.	1.5	39
48	Transposonâ€driven transcription is a conserved feature of vertebrate spermatogenesis and transcript evolution. EMBO Reports, 2017, 18, 1231-1247.	2.0	34
49	Endogenous Mouse Dicer Is an Exclusively Cytoplasmic Protein. PLoS Genetics, 2016, 12, e1006095.	1.5	27
50	Defective germline reprogramming rewires the spermatogonial transcriptome. Nature Structural and Molecular Biology, 2018, 25, 394-404.	3.6	27
51	MicroRNAs are tightly associated with RNA-induced gene silencing complexes in vivo. Biochemical and Biophysical Research Communications, 2008, 372, 24-29.	1.0	26
52	A MILI-independent piRNA biogenesis pathway empowers partial germline reprogramming. Nature Structural and Molecular Biology, 2017, 24, 604-606.	3.6	18
53	The murine polycomb-group genes Ezh1 and Ezh2 map close to Hox gene clusters on mouse Chromosomes 11 and 6 Accession numbers. The genomic Ezh1 (accession number AF104360) and genomic Ezh2 (accession number AF104359) sequences have been deposited in GenBank. The fine mapping data of the murine Ezh1 and Ezh2 loci presented in this study have been submitted to MGD and can be accessed under accession number J:50304.-->. Mammalian Genome, 1999, 10, 311-314.	1.0	16
54	Expression of Piwi protein MIWI2 defines a distinct population of multiciliated cells. Journal of Clinical Investigation, 2017, 127, 3866-3876.	3.9	14

#	Article	IF	Citations
55	The RNA uridyltransferase Zcchc6 is expressed in macrophages and impacts innate immune responses. PLoS ONE, 2017, 12, e0179797.	1.1	12
56	NANOS2 is a sequence-specific mRNA-binding protein that promotes transcript degradation in spermatogonial stem cells. IScience, 2021, 24, 102762.	1.9	11
57	JMJD6 promotes self-renewal and regenerative capacity of hematopoietic stem cells. Blood Advances, 2021, 5, 889-899.	2.5	9
58	CITED2 coordinates key hematopoietic regulatory pathways to maintain the HSC pool in both steady-state hematopoiesis and transplantation. Stem Cell Reports, 2021, 16, 2784-2797.	2.3	6
59	mRNA 3â€² Uridylation and Poly(A) Tail Length Sculpt the Mammalian Maternal Transcriptome. Obstetrical and Gynecological Survey, 2017, 72, 656-656.	0.2	0