Petr Svoboda

List of Publications by Year
in descending order

88 papers	5,267 citations	126907 33 h-index	91884 69 g-index
97 all docs	97 docs citations	97 times ranked	6483 citing authors

#	Article	IF	Citations
1	MicroRNAs control de novo DNA methylation through regulation of transcriptional repressors in mouse embryonic stem cells. Nature Structural and Molecular Biology, 2008, 15, 259-267.	8.2	451
2	Disruption of the Mouse mTOR Gene Leads to Early Postimplantation Lethality and Prohibits Embryonic Stem Cell Development. Molecular and Cellular Biology, 2004, 24, 9508-9516.	2.3	427
3	Maternal BRG1 regulates zygotic genome activation in the mouse. Genes and Development, 2006, 20, 1744-1754.	5.9	293
4	Transgenic RNAi Reveals Essential Function for CTCF in <i>H19</i> Gene Imprinting. Science, 2004, 303, 238-240.	12.6	261
5	A Retrotransposon-Driven Dicer Isoform Directs Endogenous Small Interfering RNA Production in Mouse Oocytes. Cell, 2013, 155, 807-816.	28.9	238
6	MicroRNA Activity Is Suppressed in Mouse Oocytes. Current Biology, 2010, 20, 265-270.	3.9	220
7	RNAi and expression of retrotransposons MuERV-L and IAP in preimplantation mouse embryos. Developmental Biology, 2004, 269, 276-285.	2.0	194
8	Effects of Dicer and Argonaute down-regulation on mRNA levels in human HEK293 cells. Nucleic Acids Research, 2006, 34, 4801-4815.	14.5	178
9	Hairpin RNA: a secondary structure of primary importance. Cellular and Molecular Life Sciences, 2006, 63, 901-908.	5.4	176
10	The first murine zygotic transcription is promiscuous and uncoupled from splicing and 3â€² processing. EMBO Journal, 2015, 34, 1523-1537.	7.8	131
11	Long terminal repeats power evolution of genes and gene expression programs in mammalian oocytes and zygotes. Genome Research, 2017, 27, 1384-1394.	5.5	129
12	P-Body Loss Is Concomitant with Formation of a Messenger RNA Storage Domain in Mouse Oocytes1. Biology of Reproduction, 2010, 82, 1008-1017.	2.7	125
13	RNAi in Mouse Oocytes and Preimplantation Embryos: Effectiveness of Hairpin dsRNA. Biochemical and Biophysical Research Communications, 2001, 287, 1099-1104.	2.1	124
14	Transgenic RNAi in mouse oocytes: a simple and fast approach to study gene function. Developmental Biology, 2003, 256, 188-194.	2.0	120
15	Stochastic NANOG fluctuations allow mouse embryonic stem cells to explore pluripotency. Development (Cambridge), 2014, 141, 2770-2779.	2.5	120
16	The oocyte-to-embryo transition in mouse: past, present, and futureâ€. Biology of Reproduction, 2018, 99, 160-174.	2.7	120
17	Sculpting the Transcriptome During the Oocyte-to-Embryo Transition in Mouse. Current Topics in Developmental Biology, 2015, 113, 305-349.	2.2	117
18	Regulation of Zygotic Gene Activation in the Preimplantation Mouse Embryo: Global Activation and Repression of Gene Expression1. Biology of Reproduction, 2001, 64, 1713-1721.	2.7	113

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19	RNAi: Mammalian oocytes do it without RNA-dependent RNA polymerase. Rna, 2003, 9, 187-192.	3.5	112
20	Reprogramming of gene expression during preimplantation development. , 1999, 285, 276-282.		108
21	The role of miRNAs and endogenous siRNAs in maternalâ€toâ€zygotic reprogramming and the establishment of pluripotency. EMBO Reports, 2010, 11, 590-597.	4.5	86
22	Maternally Recruited DCP1A and DCP2 Contribute to Messenger RNA Degradation During Oocyte Maturation and Genome Activation in Mouse1. Biology of Reproduction, 2013, 88, 11.	2.7	77
23	TAL effectors: tools for DNA Targeting. Briefings in Functional Genomics, 2014, 13, 409-419.	2.7	76
24	Mammalian zygotic genome activation. Seminars in Cell and Developmental Biology, 2018, 84, 118-126.	5.0	69
25	Dicer Is Associated with Ribosomal DNA Chromatin in Mammalian Cells. PLoS ONE, 2010, 5, e12175.	2.5	68
26	Off-targeting and other non-specific effects of RNAi experiments in mammalian cells. Current Opinion in Molecular Therapeutics, 2007, 9, 248-57.	2.8	67
27	Intracellular Localization and Routing of miRNA and RNAi Pathway Components. Current Topics in Medicinal Chemistry, 2012, 12, 79-88.	2.1	49
28	Renaissance of mammalian endogenous RNAi. FEBS Letters, 2014, 588, 2550-2556.	2.8	47
29	Lack of homologous sequence-specific DNA methylation in response to stable dsRNA expression in mouse oocytes. Nucleic Acids Research, 2004, 32, 3601-3606.	14.5	43
30	dsRNA expression in the mouse elicits RNAi in oocytes and low adenosine deamination in somatic cells. Nucleic Acids Research, 2012, 40, 399-413.	14.5	43
31	Production of small RNAs by mammalian Dicer. Pflugers Archiv European Journal of Physiology, 2016, 468, 1089-1102.	2.8	41
32	Long non-coding RNA exchange during the oocyte-to-embryo transition in mice. DNA Research, 2017, 24, dsw058.	3.4	37
33	Key Mechanistic Principles and Considerations Concerning RNA Interference. Frontiers in Plant Science, 2020, 11, 1237.	3.6	37
34	Role of <i>Cnot6l</i> in maternal mRNA turnover. Life Science Alliance, 2018, 1, e201800084.	2.8	37
35	Long dsRNA and silent genes strike back:RNAi in mouse oocytes and early embryos. Cytogenetic and Genome Research, 2004, 105, 422-434.	1.1	36
36	Deep Sequencing Reveals Complex Spurious Transcription from Transiently Transfected Plasmids. PLoS ONE, 2012, 7, e43283.	2.5	32

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37	Smad5, a tumor suppressor candidate at 5q31.1, is hemizygously lost and not mutated in the retained allele in human leukemia cell line HL60. Leukemia, 1997, 11, 1187-1192.	7.2	30
38	A toolbox for miRNA analysis. FEBS Letters, 2015, 589, 1694-1701.	2.8	29
39	Formation of spermatogonia and fertile oocytes in golden hamsters requires piRNAs. Nature Cell Biology, 2021, 23, 992-1001.	10.3	29
40	Abundant transcripts from retrotransposons are unstable in fully grown mouse oocytes. Biochemical and Biophysical Research Communications, 2006, 347, 36-43.	2.1	27
41	Restricted and non-essential redundancy of RNAi and piRNA pathways in mouse oocytes. PLoS Genetics, 2019, 15, e1008261.	3.5	27
42	Long and small noncoding RNAs during oocyte-to-embryo transition in mammals. Biochemical Society Transactions, 2017, 45, 1117-1124.	3.4	25
43	The most abundant maternal lncRNA Sirena1 acts post-transcriptionally and impacts mitochondrial distribution. Nucleic Acids Research, 2020, 48, 3211-3227.	14.5	25
44	Lin28a Is Dormant, Functional, and Dispensable During Mouse Oocyte-to-Embryo Transition1. Biology of Reproduction, 2014, 90, 131.	2.7	20
45	An oocyte-specific ELAVL2 isoform is a translational repressor ablated from meiotically competent antral oocytes. Cell Cycle, 2014, 13, 1187-1200.	2.6	20
46	Retrotransposon-associated long non-coding RNAs in mice and men. Pflugers Archiv European Journal of Physiology, 2016, 468, 1049-1060.	2.8	20
47	MicroRNA dilution during oocyte growth disables the microRNA pathway in mammalian oocytes. Nucleic Acids Research, 2020, 48, 8050-8062.	14.5	20
48	Why mouse oocytes and early embryos ignore miRNAs?. RNA Biology, 2010, 7, 559-563.	3.1	19
49	Reporters Transiently Transfected into Mammalian Cells Are Highly Sensitive to Translational Repression Induced by dsRNA Expression. PLoS ONE, 2014, 9, e87517.	2.5	16
50	An Antisense Transcript toSMAD5Expressed in Fetal and Tumor Tissues. Biochemical and Biophysical Research Communications, 1999, 255, 668-672.	2.1	15
51	Accumulation of the Proteolytic Marker Peptide Ubiquitin in the Trophoblast of Mammalian Blastocysts. Cloning and Stem Cells, 2001, 3, 157-161.	2.6	15
52	Literature review of baseline information to support the risk assessment of RNAiâ€based GM plants. EFSA Supporting Publications, 2017, 14, 1246E.	0.7	15
53	RNA Silencing in Mammalian Oocytes and Early Embryos. Current Topics in Microbiology and Immunology, 2008, 320, 225-256.	1.1	15
54	Nuclear LSm8 affects number of cytoplasmic processing bodies via controlling cellular distribution of Like-Sm proteins. Molecular Biology of the Cell, 2012, 23, 3776-3785.	2.1	14

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55	Ribonucleoprotein localization in mouse oocytes. Methods, 2011, 53, 136-141.	3.8	13
56	Main constraints for RNAi induced by expressed long dsRNA in mouse cells. Life Science Alliance, 2019, 2, e201800289.	2.8	13
57	RNAi Experiments in Mouse Oocytes and Early Embryos. Cold Spring Harbor Protocols, 2009, 2009, pdb.top56-pdb.top56.	0.3	11
58	Targeting genes in living mammals by RNA interference. Briefings in Functional Genomics, 2011, 10, 238-247.	2.7	11
59	Production and Application of Long dsRNA in Mammalian Cells. Methods in Molecular Biology, 2013, 942, 291-314.	0.9	10
60	Fluorescence-Based High-Throughput Screening of Dicer Cleavage Activity. Journal of Biomolecular Screening, 2014, 19, 417-426.	2.6	10
61	Clearance of Parental Products. Advances in Experimental Medicine and Biology, 2017, 953, 489-535.	1.6	10
62	The Potential Regulation of L1 Mobility by RNA Interference. Journal of Biomedicine and Biotechnology, 2006, 2006, 1-8.	3.0	9
63	Cloning and Sequencing an Inverted Repeat. Cold Spring Harbor Protocols, 2009, 2009, pdb.ip64-pdb.ip64.	0.3	9
64	Choosing the Sequence of dsRNA for RNAi in Mouse. Cold Spring Harbor Protocols, 2009, 2009, pdb.ip63.	0.3	9
65	Cell-Based Reporter System for High-Throughput Screening of MicroRNA Pathway Inhibitors and Its Limitations. Frontiers in Genetics, 2018, 9, 45.	2.3	9
66	Analysis of the Role of RecQ Helicases in RNAi in Mammals. Biochemical and Biophysical Research Communications, 2002, 291, 1119-1122.	2.1	8
67	Cloning a Transgene for Transgenic RNAi in Mouse Oocytes. Cold Spring Harbor Protocols, 2009, 2009, pdb.prot5134-pdb.prot5134.	0.3	8
68	Shortcomings of short hairpin RNA-based transgenic RNA interference in mouse oocytes. Journal of Negative Results in BioMedicine, 2010, 9, 8.	1.4	8
69	Preparation of dsRNA for Microinjection Experiments in Mouse. Cold Spring Harbor Protocols, 2009, 2009, pdb.prot5131-pdb.prot5131.	0.3	7
70	Microinjection of dsRNA into Mouse Oocytes and Early Embryos. Cold Spring Harbor Protocols, 2006, 2006, pdb.prot4511-pdb.prot4511.	0.3	6
71	Transgenic RNAi in mouse oocytes: The first decade. Animal Reproduction Science, 2012, 134, 64-68.	1.5	5
72	RNAi-Based Methods for Gene Silencing in Mouse Oocytes. Methods in Molecular Biology, 2013, 957, 135-151.	0.9	5

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73	Control of the Interferon Response in RNAi Experiments. Methods in Molecular Biology, 2012, 820, 133-161.	0.9	5
74	The Canonical RNA Interference Pathway in Animals. , 2012, , 111-149.		4
75	Physiologically relevant miRNAs in mammalian oocytes are rare and highly abundant. EMBO Reports, 2022, 23, e53514.	4.5	4
76	miRNA, piRNA, siRNAâ€"kleine wiener ribonukleinsÃuren. BioEssays, 2007, 29, 940-943.	2.5	2
77	Preparation of dsRNA Molecules for RNAi in Mouse Oocytes and Early Embryos. Cold Spring Harbor Protocols, 2006, 2006, pdb.prot4508-pdb.prot4508.	0.3	2
78	Collection of Mouse Oocytes for RNAi. Cold Spring Harbor Protocols, 2006, 2006, pdb.prot4509-pdb.prot4509.	0.3	1
79	Collection of Early Mouse Embryos for RNAi. Cold Spring Harbor Protocols, 2006, 2006, pdb.prot4510-pdb.prot4510.	0.3	1
80	RNA Isolation and RT-PCR from dsRNA-Treated Mouse Oocytes and Early Embryos. Cold Spring Harbor Protocols, 2006, 2006, pdb.prot4513-pdb.prot4513.	0.3	1
81	CRISPR-Induced Expression of N-Terminally Truncated Dicer in Mouse Cells. Genes, 2021, 12, 540.	2.4	0
82	Role of Maturation-Associated Recruitment of Dcp1a and Dcp2 in Degradation of Maternal mRNA.. Biology of Reproduction, 2010, 83, 72-72.	2.7	0
83	Restricted and non-essential redundancy of RNAi and piRNA pathways in mouse oocytes. , 2019, 15, e1008261.		0
84	Restricted and non-essential redundancy of RNAi and piRNA pathways in mouse oocytes. , 2019, 15, e1008261.		0
85	Restricted and non-essential redundancy of RNAi and piRNA pathways in mouse oocytes. , 2019, 15, e1008261.		0
86	Restricted and non-essential redundancy of RNAi and piRNA pathways in mouse oocytes. , 2019, 15, e1008261.		0
87	Restricted and non-essential redundancy of RNAi and piRNA pathways in mouse oocytes. , 2019, 15, e1008261.		0
88	Restricted and non-essential redundancy of RNAi and piRNA pathways in mouse oocytes. , 2019, 15, e1008261.		0