Neil Brockdorff

List of Publications by Year
in descending order

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121 papers	18,547 citations	17405 63 h-index	19690 117 g-index
154 all docs	154 docs citations	154 times ranked	14632 citing authors

#	Article	IF	Citations
1	Requirement for Xist in X chromosome inactivation. Nature, 1996, 379, 131-137.	13.7	1,178
2	The product of the mouse Xist gene is a 15 kb inactive X-specific transcript containing no conserved ORF and located in the nucleus. Cell, 1992, 71, 515-526.	13.5	964
3	Polycomb Group Proteins Ring1A/B Link Ubiquitylation of Histone H2A to Heritable Gene Silencing and X Inactivation. Developmental Cell, 2004, 7, 663-676.	3.1	829
4	Establishment of Histone H3 Methylation on the Inactive X Chromosome Requires Transient Recruitment of Eed-Enx1 Polycomb Group Complexes. Developmental Cell, 2003, 4, 481-495.	3.1	614
5	Conservation of position and exclusive expression of mouse Xist from the inactive X chromosome. Nature, 1991, 351, 329-331.	13.7	613
6	Variant PRC1 Complex-Dependent H2A Ubiquitylation Drives PRC2 Recruitment and Polycomb Domain Formation. Cell, 2014, 157, 1445-1459.	13.5	613
7	The interplay of histone modifications â€“ writers that read. EMBO Reports, 2015, 16, 1467-1481.	2.0	604
8	Ring1-mediated ubiquitination of H2A restrains poised RNA polymerase II at bivalent genes in mouse ES cells. Nature Cell Biology, 2007, 9, 1428-1435.	4.6	584
9	RYBP-PRC1 Complexes Mediate H2A Ubiquitylation at Polycomb Target Sites Independently of PRC2 and H3K27me3. Cell, 2012, 148, 664-678.	13.5	513
10	T cell lineage choice and differentiation in the absence of the RNase III enzyme Dicer. Journal of Experimental Medicine, 2005, 201, 1367-1373.	4.2	489
11	Reactivation of the Paternal X Chromosome in Early Mouse Embryos. Science, 2004, 303, 666-669.	6.0	475
12	Histone H3 lysine 9 methylation is an epigenetic imprint of facultative heterochromatin. Nature Genetics, 2002, 30, 77-80.	9.4	448
13	KDM2B links the Polycomb Repressive Complex 1 (PRC1) to recognition of CpG islands. ELife, 2012, 1, e00205.	2.8	414
14	Composition and histone substrates of polycomb repressive group complexes change during cellular differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 1859-1864.	3.3	371
15	Expression of Xist during mouse development suggests a role in the initiation of X chromosome inactivation. Cell, 1993, 72, 171-182.	13.5	360
16	The Matrix Protein hnRNP U Is Required for Chromosomal Localization of Xist RNA. Developmental Cell, 2010, 19, 469-476.	3.1	333
17	Considerations when investigating lncRNA function in vivo. ELife, 2014, 3, e03058.	2.8	309
18	SmcHD1, containing a structural-maintenance-of-chromosomes hinge domain, has a critical role in X inactivation. Nature Genetics, 2008, 40, 663-669.	9.4	305

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19	Targeting Polycomb to Pericentric Heterochromatin in Embryonic Stem Cells Reveals a Role for H2AK119u1 in PRC2 Recruitment. Cell Reports, 2014, 7, 1456-1470.	2.9	283
20	Jarid2 is a PRC2 component in embryonic stem cells required for multi-lineage differentiation and recruitment of PRC1 and RNA Polymerase II to developmental regulators. Nature Cell Biology, 2010, 12, 618-624.	4.6	274
21	Polycomb group proteins Ring1A/B are functionally linked to the core transcriptional regulatory circuitry to maintain ES cell identity. Development (Cambridge), 2008, 135, 1513-1524.	1.2	265
22	Noncoding RNA and Polycomb recruitment. Rna, 2013, 19, 429-442.	1.6	264
23	hnRNPK Recruits PCGF3/5-PRC1 to the Xist RNA B-Repeat to Establish Polycomb-Mediated Chromosomal Silencing. Molecular Cell, 2017, 68, 955-969.e10.	4.5	255
24	Evidence that random and imprinted Xist expression is controlled by preemptive methylation. Cell, 1994, 77, 41-51.	13.5	245
25	Stabilization of Xist RNA Mediates Initiation of X Chromosome Inactivation. Cell, 1997, 91, 99-107.	13.5	245
26	A Pooled shRNA Screen Identifies Rbm15, Spen, and Wtap as Factors Required for Xist RNA-Mediated Silencing. Cell Reports, 2015, 12, 562-572.	2.9	226
27	Global hypomethylation of the genome in XX embryonic stem cells. Nature Genetics, 2005, 37, 1274-1279.	9.4	222
28	PCGF3/5â€“PRC1 initiates Polycomb recruitment in X chromosome inactivation. Science, 2017, 356, 1081-1084.	6.0	220
29	Transcription Initiation Activity Sets Replication Origin Efficiency in Mammalian Cells. PLoS Genetics, 2009, 5, e1000446.	1.5	216
30	Mitotically Stable Association of Polycomb Group Proteins Eed and Enx1 with the Inactive X Chromosome in Trophoblast Stem Cells. Current Biology, 2002, 12, 1016-1020.	1.8	208
31	Jarid2 binds mono-ubiquitylated H2A lysine 119 to mediate crosstalk between Polycomb complexes PRC1 and PRC2. Nature Communications, 2016, 7, 13661.	5.8	207
32	Characterization of the Genomic Xist Locus in Rodents Reveals Conservation of Overall Gene Structure and Tandem Repeats but Rapid Evolution of Unique Sequence. Genome Research, 2001, 11, 833-849.	2.4	183
33	Histone H3 Lysine 9 Methylation Occurs Rapidly at the Onset of Random X Chromosome Inactivation. Current Biology, 2002, 12, 247-251.	1.8	173
34	A Dual Origin of the Xist Gene from a Protein-Coding Gene and a Set of Transposable Elements. PLoS ONE, 2008, 3, e2521.	1.1	162
35	Smchd1-Dependent and -Independent Pathways Determine Developmental Dynamics of CpG Island Methylation on the Inactive X Chromosome. Developmental Cell, 2012, 23, 265-279.	3.1	160
36	Histone Macroh2a1.2 Relocates to the Inactive X Chromosome after Initiation and Propagation of X-Inactivation. Journal of Cell Biology, 1999, 147, 1399-1408.	2.3	158

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37	Cloning of Tabby, the murine homolog of the human EDA gene: evidence for a membrane-associated protein with a short collagenous domain. Human Molecular Genetics, 1997, 6, 1589-1594.	1.4	152
38	Three-dimensional super-resolution microscopy of the inactive X chromosome territory reveals a collapse of its active nuclear compartment harboring distinct Xist RNA foci. Epigenetics and Chromatin, 2014, 7, 8.	1.8	148
39	Xist RNA exhibits a banded localization on the inactive X chromosome and is excluded from autosomal material in cis. Human Molecular Genetics, 1999, 8, 195-204.	1.4	140
40	X-chromosome inactivation: closing in on proteins that bind Xist RNA. Trends in Genetics, 2002, 18, 352-358.	2.9	135
41	m6A modification of non-coding RNA and the control of mammalian gene expression. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2019, 1862, 310-318.	0.9	132
42	A candidate spermatogenesis gene on the mouse Y chromosome is homologous to ubiquitin-activating enzyme E1. Nature, 1991, 354, 486-489.	13.7	129
43	High-resolution analysis of epigenetic changes associated with X inactivation. Genome Research, 2009, 19, 1361-1373.	2.4	122
44	A Phosphorylated Form of Mel-18 Targets the Ring1B Histone H2A Ubiquitin Ligase to Chromatin. Molecular Cell, 2007, 28, 107-120.	4.5	118
45	Chromatin Samplingâ€"An Emerging Perspective on Targeting Polycomb Repressor Proteins. PLoS Genetics, 2013, 9, e1003717.	1.5	109
46	The nuclear matrix protein CIZ1 facilitates localization of Xist RNA to the inactive X-chromosome territory. Genes and Development, 2017, 31, 876-888.	2.7	104
47	Methylation status of CpG-rich islands on active and inactive mouse X chromosomes. Mammalian Genome, 1991, 1, 78-83.	1.0	103
48	Epigenetic Functions of Smchd1 Repress Gene Clusters on the Inactive X Chromosome and on Autosomes. Molecular and Cellular Biology, 2013, 33, 3150-3165.	1.1	99
49	Dosage Compensation in Mammals. Cold Spring Harbor Perspectives in Biology, 2015, 7, a019406.	2.3	96
50	Selective Roles of Vertebrate PCF11 in Premature and Full-Length Transcript Termination. Molecular Cell, 2019, 74, 158-172.e9.	4.5	95
51	Progress toward understanding chromosome silencing by Xist RNA. Genes and Development, 2020, 34, 733-744.	2.7	95
52	Systematic allelic analysis defines the interplay of key pathways in X chromosome inactivation. Nature Communications, 2019, 10, 3129.	5.8	93
53	Spatial separation of Xist RNA and polycomb proteins revealed by superresolution microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2235-2240.	3.3	91
54	The non-canonical SMC protein SmcHD1 antagonises TAD formation and compartmentalisation on the inactive X chromosome. Nature Communications, 2019, 10, 30.	5.8	87

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55	Early Loss of Xist RNA Expression and Inactive X Chromosome Associated Chromatin Modification in Developing Primordial Germ Cells. PLoS ONE, 2007, 2, e860.	1.1	86
56	Polycomblike 2 facilitates the recruitment of PRC2 Polycomb group complexes to the inactive X chromosome and to target loci in embryonic stem cells. Development (Cambridge), 2011, 138, 1471-1482.	1.2	85
57	Developmentally Regulated Xist Promoter Switch Mediates Initiation of X Inactivation. Cell, 1998, 94, 809-817.	13.5	84
58	Functional analysis of AEBP2, a PRC2 Polycomb protein, reveals a Trithorax phenotype in embryonic development and in ES cells. Development (Cambridge), 2016, 143, 2716-23.	1.2	84
59	Cross-talking noncoding RNAs contribute to cell-specific neurodegeneration in SCA7. Nature Structural and Molecular Biology, 2014, 21, 955-961.	3.6	79
60	Dicer regulates Xist promoter methylation in ES cells indirectly through transcriptional control of Dnmt3a. Epigenetics and Chromatin, 2008, 1, 2.	1.8	76
61	Attenuated spread of X-inactivation in an X;autosome translocation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7706-7711.	3.3	74
62	Loss of Xist Imprinting in Diploid Parthenogenetic Preimplantation Embryos. Developmental Biology, 2001, 235, 343-350.	0.9	70
63	Heterochromatin on the inactive X chromosome delays replication timing without affecting origin usage. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6923-6928.	3.3	69
64	Mammalian Polycomb-Like Pcl2/Mtf2 Is a Novel Regulatory Component of PRC2 That Can Differentially Modulate Polycomb Activity both at the Hox Gene Cluster and at Cdkn2a Genes. Molecular and Cellular Biology, 2011, 31, 351-364.	1.1	68
65	A developmental switch in H4 acetylation upstream of Xist plays a role in X chromosome inactivation. EMBO Journal, 1999, 18, 2897-2907.	3.5	67
66	Independent Mechanisms Target SMCHD1 to Trimethylated Histone H3 Lysine 9-Modified Chromatin and the Inactive X Chromosome. Molecular and Cellular Biology, 2015, 35, 4053-4068.	1.1	66
67	Polycomb Repressive Complexes Restrain the Expression of Lineage-Specific Regulators in Embryonic Stem Cells. Cell Cycle, 2006, 5, 1411-1414.	1.3	64
68	Skewing X chromosome choice by modulating sense transcription across the Xist locus. Genes and Development, 2003, 17, 2177-2190.	2.7	62
69	Xist gene regulation at the onset of X inactivation. Current Opinion in Genetics and Development, 2009, 19, 122-126.	1.5	61
70	The role of Xist in X-inactivation. Current Opinion in Genetics and Development, 1998, 8, 328-333.	1.5	60
71	Enox, a Novel Gene That Maps 10 kb Upstream of Xist and Partially Escapes X Inactivation. Genomics, 2002, 80, 236-244.	1.3	60
72	Chromosome silencing mechanisms in X-chromosome inactivation: unknown unknowns. Development (Cambridge), 2011, 138, 5057-5065.	1.2	60

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73	Polycomb complexes in X chromosome inactivation. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20170021.	1.8	56
74	Smchd1 Targeting to the Inactive X Is Dependent on the Xist-HnrnpK-PRC1 Pathway. Cell Reports, 2018, 25, 1912-1923.e9.	2.9	56
75	Efficiency of Xist-mediated silencing on autosomes is linked to chromosomal domain organisation. Epigenetics and Chromatin, 2010, 3, 10.	1.8	54
76	Genes flanking Xist in mouse and human are separated on the X chromosome in American marsupials. Chromosome Research, 2007, 15, 127-136.	1.0	53
77	Advances in understanding chromosome silencing by the long non-coding RNA Xist. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20110325.	1.8	52
78	The mouse Smcx gene exhibits developmental and tissue specific variation in degree of escape from X inactivation. Human Molecular Genetics, 1996, 5, 1355-1360.	1.4	51
79	Control of Chromosomal Localization of Xist by hnRNP U Family Molecules. Developmental Cell, 2016, 39, 11-12.	3.1	45
80	The many faces of Polycomb regulation by RNA. Current Opinion in Genetics and Development, 2020, 61, 53-61.	1.5	45
81	Disruption of a conserved region of Xist exon 1 impairs Xist RNA localisation and X-linked gene silencing during random and imprinted X chromosome inactivation. Development (Cambridge), 2011, 138, 1541-1550.	1.2	44
82	Jarid2 Coordinates Nanog Expression and PCP/Wnt Signaling Required for Efficient ESC Differentiation and Early Embryo Development. Cell Reports, 2015, 12, 573-586.	2.9	43
83	Pluripotency factor binding and Tsix expression act synergistically to repress Xist in undifferentiated embryonic stem cells. Epigenetics and Chromatin, 2011, 4, 17.	1.8	42
84	Time-resolved structured illumination microscopy reveals key principles of Xist RNA spreading. Science, 2021, 372, .	6.0	42
85	A variant NuRD complex containing PWWP2A/B excludes MBD2/3 to regulate transcription at active genes. Nature Communications, 2018, 9, 3798.	5.8	40
86	Locus-specific expression of transposable elements in single cells with CELLO-seq. Nature Biotechnology, 2022, 40, 546-554.	9.4	38
87	RNA binding proteins implicated in Xist-mediated chromosome silencing. Seminars in Cell and Developmental Biology, 2016, 56, 58-70.	2.3	37
88	Local Tandem Repeat Expansion in Xist RNA as a Model for the Functionalisation of ncRNA. Non-coding RNA, 2018, 4, 28.	1.3	37
89	Acute depletion of METTL3 implicates N⁶-methyladenosine in alternative intron/exon inclusion in the nascent transcriptome. Genome Research, 2021, 31, 1395-1408.	2.4	37
90	The role of the Xist 5â€™ m6A region and RBM15 in X chromosome inactivation. Wellcome Open Research, 2020, 5, 31.	0.9	37

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91	Xist expression and macroH2A1.2 localisation in mouse primordial and pluripotent embryonic germ cells. Differentiation, 2002, 69, 216-225.	1.0	36
92	A scaffold for X chromosome inactivation. Human Genetics, 2011, 130, 247-253.	1.8	35
93	Comparative mapping of X chromosomes in vole species of the genus Microtus. Chromosome Research, 1998, 6, 41-48.	1.0	29
94	Repetitive DNA sequences in the common vole: cloning, characterization and chromosome localization of two novel complex repeats MS3 and MS4 from the genome of the East European vole Microtus rossiaemeridionalis. Chromosome Research, 1998, 6, 351-360.	1.0	26
95	FGF4 Independent Derivation of Trophoblast Stem Cells from the Common Vole. PLoS ONE, 2009, 4, e7161.	1.1	25
96	In Vivo Ultraviolet and Dimethyl Sulfate Footprinting of the 5â€² Region of the Expressed and Silent XistAlleles. Journal of Biological Chemistry, 1997, 272, 10975-10980.	1.6	24
97	MicroRNAs of the miR-290â€“295 Family Maintain Bivalency in Mouse Embryonic Stem Cells. Stem Cell Reports, 2016, 6, 635-642.	2.3	24
98	Localized accumulation of Xist RNA in X chromosome inactivation. Open Biology, 2019, 9, 190213.	1.5	21
99	Ordered chromatin changes and human X chromosome reactivation by cell fusion-mediated pluripotent reprogramming. Nature Communications, 2016, 7, 12354.	5.8	19
100	Centrosomal Association of Histone MacroH2A1.2 in Embryonic Stem Cells and Somatic Cells. Experimental Cell Research, 2001, 268, 245-251.	1.2	17
101	SMCHD1 accumulates at DNA damage sites and facilitates the repair of DNA double-strand breaks. Journal of Cell Science, 2014, 127, 1869-1874.	1.2	17
102	Physical Mapping of 2000 kb of the Mouse X Chromosome in the Vicinity of the Xist Locus. Genomics, 1993, 15, 570-575.	1.3	15
103	Structure and expression pattern of Oct4 gene are conserved in vole Microtus rossiaemeridionalis. BMC Genomics, 2008, 9, 162.	1.2	15
104	Variability of Sequence Surrounding the Xist Gene in Rodents Suggests Taxon-Specific Regulation of X Chromosome Inactivation. PLoS ONE, 2011, 6, e22771.	1.1	15
105	Molecular genetic analysis of the Ta 25H deletion: Evidence for additional deleted loci. Mammalian Genome, 1991, 1, 152-157.	1.0	14
106	Difference between random and imprinted X inactivation in common voles. Chromosoma, 2010, 119, 541-552.	1.0	12
107	YAC Clone Contigs Surrounding the Zfx and Pola Loci on the Mouse X Chromosome. Genomics, 1993, 17, 52-58.	1.3	11
108	SAT in Silence. Developmental Cell, 2009, 16, 483-484.	3.1	11

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109	Genome-wide shRNA screening to identify factors mediating Gata6 repression in mouse embryonic stem cells. Development (Cambridge), 2013, 140, 4110-4115.	1.2	9
110	The PWWP2A Histone Deacetylase Complex Represses Intragenic Spurious Transcription Initiation in mESCs. IScience, 2020, 23, 101741.	1.9	9
111	Xist-mediated silencing requires additive functions of SPEN and Polycomb together with differentiation-dependent recruitment of SmcHD1. Cell Reports, 2022, 39, 110830.	2.9	9
112	Epigenetic memory and parliamentary privilege combine to evoke discussions on inheritance. Development (Cambridge), 2012, 139, 3891-3896.	1.2	8
113	Genome Environment Browser (GEB): a dynamic browser for visualising high-throughput experimental data in the context of genome features. BMC Bioinformatics, 2008, 9, 501.	1.2	7
114	Prion-like domains drive CIZ1 assembly formation at the inactive X chromosome. Journal of Cell Biology, 2022, 221, .	2.3	7
115	Xist Repeats B and C, but not Repeat A, mediate de novo recruitment of the Polycomb system in X chromosome inactivation. Developmental Cell, 2021, 56, 1234-1235.	3.1	4
116	RYBP-PRC1 Complexes Mediate H2A Ubiquitylation at Polycomb Target Sites Independently of PRC2 and H3K27me3. Cell, 2012, 149, 1647-1648.	13.5	2
117	Determination of the active chromatin domain of the expressed Xist allele in mouse. Genetical Research, 1997, 70, 79-89.	0.3	0
118	The role of Xist in the regulation of X chromosome inactivation. Genetical Research, 1998, 72, 59-72.	0.3	0
119	Regulation of X-chromosome inactivation in relation to lineage allocation in early mouse embryogenesis. , 0, , 46-64.		0
120	Preface. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160353.	1.8	0
121	Unbiased Genetic Screen to Identify Factors Involved in X-Chromosome Inactivation Using a Pooled Bar-Coded shRNA Library. Methods in Molecular Biology, 2018, 1861, 19-36.	0.4	0