Neil Brockdorff

List of Publications by Citations

120 papers	15,403 citations	59 h-index	124 g-index
154 ext. papers	17,313 ext. citations	13.6 avg, IF	6.41 L-index

#	Paper	IF	Citations
120	Requirement for Xist in X chromosome inactivation. *Nature*, **1996**, 379, 131-7	50.4	1029
119	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, 515-26	56.2	848
118	Polycomb group proteins Ring1A/B link ubiquitylation of histone H2A to heritable gene silencing and X inactivation. *Developmental Cell*, **2004**, 7, 663-76	10.2	711
117	Establishment of histone h3 methylation on the inactive X chromosome requires transient recruitment of Eed-Enx1 polycomb group complexes. *Developmental Cell*, **2003**, 4, 481-95	10.2	552
116	Ring1-mediated ubiquitination of H2A restrains poised RNA polymerase II at bivalent genes in mouse ES cells. *Nature Cell Biology*, **2007**, 9, 1428-35	23.4	534
115	Conservation of position and exclusive expression of mouse Xist from the inactive X chromosome. *Nature*, **1991**, 351, 329-31	50.4	524
114	Variant PRC1 complex-dependent H2A ubiquitylation drives PRC2 recruitment and polycomb domain formation. *Cell*, **2014**, 157, 1445-1459	56.2	477
113	T cell lineage choice and differentiation in the absence of the RNase III enzyme Dicer. *Journal of Experimental Medicine*, **2005**, 201, 1367-73	16.6	441
112	RYBP-PRC1 complexes mediate H2A ubiquitylation at polycomb target sites independently of PRC2 and H3K27me3. *Cell*, **2012**, 148, 664-78	56.2	434
111	Reactivation of the paternal X chromosome in early mouse embryos. *Science*, **2004**, 303, 666-9	33.3	417
110	The interplay of histone modifications - writers that read. *EMBO Reports*, **2015**, 16, 1467-81	6.5	411
109	Histone H3 lysine 9 methylation is an epigenetic imprint of facultative heterochromatin. *Nature Genetics*, **2002**, 30, 77-80	36.3	409
108	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, 1859-64	11.5	344
107	Expression of Xist during mouse development suggests a role in the initiation of X chromosome inactivation. *Cell*, **1993**, 72, 171-82	56.2	325
106	KDM2B links the Polycomb Repressive Complex 1 (PRC1) to recognition of CpG islands. *ELife*, **2012**, 1, e00205	8.9	318
105	The matrix protein hnRNP U is required for chromosomal localization of Xist RNA. *Developmental Cell*, **2010**, 19, 469-76	10.2	282
104	SmcHD1, containing a structural-maintenance-of-chromosomes hinge domain, has a critical role in X inactivation. *Nature Genetics*, **2008**, 40, 663-9	36.3	258

103	Considerations when investigating lncRNA function in vivo. *ELife*, **2014**, 3, e03058	8.9	252
102	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, 618-24	23.4	240
101	Noncoding RNA and Polycomb recruitment. *Rna*, **2013**, 19, 429-42	5.8	237
100	Targeting polycomb to pericentric heterochromatin in embryonic stem cells reveals a role for H2AK119u1 in PRC2 recruitment. *Cell Reports*, **2014**, 7, 1456-1470	10.6	233
99	Polycomb group proteins Ring1A/B are functionally linked to the core transcriptional regulatory circuitry to maintain ES cell identity. *Development (Cambridge)*, **2008**, 135, 1513-24	6.6	227
98	Stabilization of Xist RNA mediates initiation of X chromosome inactivation. *Cell*, **1997**, 91, 99-107	56.2	226
97	Evidence that random and imprinted Xist expression is controlled by preemptive methylation. *Cell*, **1994**, 77, 41-51	56.2	221
96	Global hypomethylation of the genome in XX embryonic stem cells. *Nature Genetics*, **2005**, 37, 1274-9	36.3	201
95	Mitotically stable association of polycomb group proteins eed and enx1 with the inactive x chromosome in trophoblast stem cells. *Current Biology*, **2002**, 12, 1016-20	6.3	198
94	Transcription initiation activity sets replication origin efficiency in mammalian cells. *PLoS Genetics*, **2009**, 5, e1000446	6	179
93	A Pooled shRNA Screen Identifies Rbm15, Spen, and Wtap as Factors Required for Xist RNA-Mediated Silencing. *Cell Reports*, **2015**, 12, 562-72	10.6	175
92	Histone H3 lysine 9 methylation occurs rapidly at the onset of random X chromosome inactivation. *Current Biology*, **2002**, 12, 247-51	6.3	160
91	PCGF3/5-PRC1 initiates Polycomb recruitment in X chromosome inactivation. *Science*, **2017**, 356, 1081-1084	33.3	155
90	hnRNPK Recruits PCGF3/5-PRC1 to the Xist RNA B-Repeat to Establish Polycomb-Mediated Chromosomal Silencing. *Molecular Cell*, **2017**, 68, 955-969.e10	17.6	152
89	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, 833-49	9.7	149
88	Jarid2 binds mono-ubiquitylated H2A lysine 119 to mediate crosstalk between Polycomb complexes PRC1 and PRC2. *Nature Communications*, **2016**, 7, 13661	17.4	146
87	Histone macroH2A1.2 relocates to the inactive X chromosome after initiation and propagation of X-inactivation. *Journal of Cell Biology*, **1999**, 147, 1399-408	7.3	142
86	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	5.8	129

85	A dual origin of the Xist gene from a protein-coding gene and a set of transposable elements. *PLoS ONE*, **2008**, 3, e2521	3.7	129
84	Smchd1-dependent and -independent pathways determine developmental dynamics of CpG island methylation on the inactive X chromosome. *Developmental Cell*, **2012**, 23, 265-79	10.2	128
83	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, 1589-94	5.6	127
82	A candidate spermatogenesis gene on the mouse Y chromosome is homologous to ubiquitin-activating enzyme E1. *Nature*, **1991**, 354, 486-9	50.4	122
81	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	5.6	121
80	X-chromosome inactivation: closing in on proteins that bind Xist RNA. *Trends in Genetics*, **2002**, 18, 352-8	8.5	117
79	High-resolution analysis of epigenetic changes associated with X inactivation. *Genome Research*, **2009**, 19, 1361-73	9.7	112
78	A phosphorylated form of Mel-18 targets the Ring1B histone H2A ubiquitin ligase to chromatin. *Molecular Cell*, **2007**, 28, 107-20	17.6	110
77	Methylation status of CpG-rich islands on active and inactive mouse X chromosomes. *Mammalian Genome*, **1991**, 1, 78-83	3.2	96
76	Chromatin sampling--an emerging perspective on targeting polycomb repressor proteins. *PLoS Genetics*, **2013**, 9, e1003717	6	92
75	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, 2235-40	11.5	81
74	Epigenetic functions of smchd1 repress gene clusters on the inactive X chromosome and on autosomes. *Molecular and Cellular Biology*, **2013**, 33, 3150-65	4.8	81
73	Dosage compensation in mammals. *Cold Spring Harbor Perspectives in Biology*, **2015**, 7, a019406	10.2	75
72	Developmentally regulated Xist promoter switch mediates initiation of X inactivation. *Cell*, **1998**, 94, 809-17	56.2	73
71	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, 1471-82	6.6	71
70	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, 7706-11	11.5	71
69	m6A modification of non-coding RNA and the control of mammalian gene expression. *Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms*, **2019**, 1862, 310-318	6	68
68	Dicer regulates Xist promoter methylation in ES cells indirectly through transcriptional control of Dnmt3a. *Epigenetics and Chromatin*, **2008**, 1, 2	5.8	66

67	Early loss of Xist RNA expression and inactive X chromosome associated chromatin modification in developing primordial germ cells. *PLoS ONE*, **2007**, 2, e860	3.7	66
66	Loss of Xist imprinting in diploid parthenogenetic preimplantation embryos. *Developmental Biology* , **2001**, 235, 343-50	3.1	65
65	The nuclear matrix protein CIZ1 facilitates localization of Xist RNA to the inactive X-chromosome territory. *Genes and Development*, **2017**, 31, 876-888	12.6	64
64	Cross-talking noncoding RNAs contribute to cell-specific neurodegeneration in SCA7. *Nature Structural and Molecular Biology*, **2014**, 21, 955-961	17.6	64
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, 6923-8	11.5	61
62	A developmental switch in H4 acetylation upstream of Xist plays a role in X chromosome inactivation. *EMBO Journal*, **1999**, 18, 2897-907	13	60
61	Functional analysis of AEBP2, a PRC2 Polycomb protein, reveals a Trithorax phenotype in embryonic development and in ESCs. *Development (Cambridge)*, **2016**, 143, 2716-23	6.6	58
60	Enox, a novel gene that maps 10 kb upstream of Xist and partially escapes X inactivation. *Genomics*, **2002**, 80, 236-44	4.3	57
59	Chromosome silencing mechanisms in X-chromosome inactivation: unknown unknowns. *Development (Cambridge)*, **2011**, 138, 5057-65	6.6	56
58	Xist gene regulation at the onset of X inactivation. *Current Opinion in Genetics and Development*, **2009**, 19, 122-6	4.9	56
57	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, 351-64	4.8	56
56	The non-canonical SMC protein SmcHD1 antagonises TAD formation and compartmentalisation on the inactive X chromosome. *Nature Communications*, **2019**, 10, 30	17.4	56
55	Systematic allelic analysis defines the interplay of key pathways in X chromosome inactivation. *Nature Communications*, **2019**, 10, 3129	17.4	55
54	Stem cells primed for action: polycomb repressive complexes restrain the expression of lineage-specific regulators in embryonic stem cells. *Cell Cycle*, **2006**, 5, 1411-4	4.7	55
53	Skewing X chromosome choice by modulating sense transcription across the Xist locus. *Genes and Development*, **2003**, 17, 2177-90	12.6	53
52	Selective Roles of Vertebrate PCF11 in Premature and Full-Length Transcript Termination. *Molecular Cell*, **2019**, 74, 158-172.e9	17.6	51
51	Efficiency of Xist-mediated silencing on autosomes is linked to chromosomal domain organisation. *Epigenetics and Chromatin*, **2010**, 3, 10	5.8	50
50	The role of Xist in X-inactivation. *Current Opinion in Genetics and Development*, **1998**, 8, 328-33	4.9	50

49	Independent Mechanisms Target SMCHD1 to Trimethylated Histone H3 Lysine 9-Modified Chromatin and the Inactive X Chromosome. *Molecular and Cellular Biology*, **2015**, 35, 4053-68	4.8	47
48	Advances in understanding chromosome silencing by the long non-coding RNA Xist. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2013**, 368, 20110325	5.8	47
47	The mouse Smcx gene exhibits developmental and tissue specific variation in degree of escape from X inactivation. *Human Molecular Genetics*, **1996**, 5, 1355-60	5.6	44
46	Genes flanking Xist in mouse and human are separated on the X chromosome in American marsupials. *Chromosome Research*, **2007**, 15, 127-36	4.4	43
45	Polycomb complexes in X chromosome inactivation. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2017**, 372,	5.8	41
44	Progress toward understanding chromosome silencing by Xist RNA. *Genes and Development*, **2020**, 34, 733-744	12.6	41
43	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, 1541-50	6.6	39
42	Pluripotency factor binding and Tsix expression act synergistically to repress Xist in undifferentiated embryonic stem cells. *Epigenetics and Chromatin*, **2011**, 4, 17	5.8	35
41	Control of Chromosomal Localization of Xist by hnRNP U Family Molecules. *Developmental Cell*, **2016**, 39, 11-12	10.2	34
40	Xist expression and macroH2A1.2 localisation in mouse primordial and pluripotent embryonic germ cells. *Differentiation*, **2002**, 69, 216-25	3.5	33
39	Jarid2 Coordinates Nanog Expression and PCP/Wnt Signaling Required for Efficient ESC Differentiation and Early Embryo Development. *Cell Reports*, **2015**, 12, 573-86	10.6	32
38	A scaffold for X chromosome inactivation. *Human Genetics*, **2011**, 130, 247-53	6.3	32
37	Smchd1 Targeting to the Inactive X Is Dependent on the Xist-HnrnpK-PRC1 Pathway. *Cell Reports*, **2018**, 25, 1912-1923.e9	10.6	29
36	RNA binding proteins implicated in Xist-mediated chromosome silencing. *Seminars in Cell and Developmental Biology*, **2016**, 56, 58-70	7.5	27
35	Comparative mapping of X chromosomes in vole species of the genus Microtus. *Chromosome Research*, **1998**, 6, 41-8	4.4	24
34	The many faces of Polycomb regulation by RNA. *Current Opinion in Genetics and Development*, **2020**, 61, 53-61	4.9	22
33	A variant NuRD complex containing PWWP2A/B excludes MBD2/3 to regulate transcription at active genes. *Nature Communications*, **2018**, 9, 3798	17.4	22
32	In vivo ultraviolet and dimethyl sulfate footprinting of the 5Tregion of the expressed and silent Xist alleles. *Journal of Biological Chemistry*, **1997**, 272, 10975-80	5.4	21

31	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, 351-60	4.4	21
30	FGF4 independent derivation of trophoblast stem cells from the common vole. *PLoS ONE*, **2009**, 4, e7161	3.7	20
29	The role of the Xist 5Tm6A region and RBM15 in X chromosome inactivation. *Wellcome Open Research*, **2020**, 5, 31	4.8	18
28	Local Tandem Repeat Expansion in RNA as a Model for the Functionalisation of ncRNA. *Non-coding RNA*, **2018**, 4,	7.1	18
27	SMCHD1 accumulates at DNA damage sites and facilitates the repair of DNA double-strand breaks. *Journal of Cell Science*, **2014**, 127, 1869-74	5.3	16
26	MicroRNAs of the miR-290-295 Family Maintain Bivalency in Mouse Embryonic Stem Cells. *Stem Cell Reports*, **2016**, 6, 635-642	8	16
25	Physical mapping of 2000 kb of the mouse X chromosome in the vicinity of the Xist locus. *Genomics*, **1993**, 15, 570-5	4.3	15
24	Structure and expression pattern of Oct4 gene are conserved in vole Microtus rossiaemeridionalis. *BMC Genomics*, **2008**, 9, 162	4.5	14
23	Centrosomal association of histone macroH2A1.2 in embryonic stem cells and somatic cells. *Experimental Cell Research*, **2001**, 268, 245-51	4.2	14
22	Time-resolved structured illumination microscopy reveals key principles of Xist RNA spreading. *Science*, **2021**, 372,	33.3	14
21	Ordered chromatin changes and human X chromosome reactivation by cell fusion-mediated pluripotent reprogramming. *Nature Communications*, **2016**, 7, 12354	17.4	13
20	Molecular genetic analysis of the Ta25H deletion: evidence for additional deleted loci. *Mammalian Genome*, **1991**, 1, 152-7	3.2	13
19	Variability of sequence surrounding the Xist gene in rodents suggests taxon-specific regulation of X chromosome inactivation. *PLoS ONE*, **2011**, 6, e22771	3.7	11
18	SAT in silence. *Developmental Cell*, **2009**, 16, 483-4	10.2	11
17	Localized accumulation of Xist RNA in X chromosome inactivation. *Open Biology*, **2019**, 9, 190213	7	10
16	Genome-wide shRNA screening to identify factors mediating Gata6 repression in mouse embryonic stem cells. *Development (Cambridge)*, **2013**, 140, 4110-5	6.6	9
15	Difference between random and imprinted X inactivation in common voles. *Chromosoma*, **2010**, 119, 541-52	2.8	9
14	YAC clone contigs surrounding the Zfx and Pola loci on the mouse X chromosome. *Genomics*, **1993**, 17, 52-8	4.3	9

13	Epigenetic memory and parliamentary privilege combine to evoke discussions on inheritance. *Development (Cambridge)*, **2012**, 139, 3891-6	6.6	8
12	Genome Environment Browser (GEB): a dynamic browser for visualising high-throughput experimental data in the context of genome features. *BMC Bioinformatics*, **2008**, 9, 501	3.6	7
11	Locus-specific expression of transposable elements in single cells with CELLO-seq. *Nature Biotechnology*, **2021**,	44.5	4
10	The non-canonical SMC protein SmcHD1 antagonises TAD formation on the inactive X chromosome		2
9	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	10.2	2
8	The PWWP2A Histone Deacetylase Complex Represses Intragenic Spurious Transcription Initiation in mESCs. *IScience*, **2020**, 23, 101741	6.1	1
7	Time-resolved structured illumination microscopy reveals key principles of Xist RNA spreading		1
6	Acute depletion of METTL3 implicates -methyladenosine in alternative intron/exon inclusion in the nascent transcriptome. *Genome Research*, **2021**, 31, 1395-1408	9.7	1
5	Xist-mediated silencing requires additive functions of SPEN and Polycomb together with differentiation-dependent recruitment of SmcHD1.. *Cell Reports*, **2022**, 39, 110830	10.6	0
4	Determination of the active chromatin domain of the expressed Xist allele in mouse. *Genetical Research*, **1997**, 70, 79-89	1.1	
3	Regulation of X-chromosome inactivation in relation to lineage allocation in early mouse embryogenesis	46-64	
2	The role of Xist in the regulation of X chromosome inactivation. *Genetical Research*, **1998**, 72, 59-72	1.1	
1	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	1.4	