Bradley R Cairns

List of Publications by Year
in descending order

103 papers	18,343 citations	17440 63 h-index	31849 101 g-index
112 all docs	112 docs citations	112 times ranked	16930 citing authors

#	Article	IF	Citations
1	The Biology of Chromatin Remodeling Complexes. Annual Review of Biochemistry, 2009, 78, 273-304.	11.1	1,891
2	Distinctive chromatin in human sperm packages genes for embryo development. Nature, 2009, 460, 473-478.	27.8	1,178
3	ING2 PHD domain links histone H3 lysine 4 methylation to active gene repression. Nature, 2006, 442, 96-99.	27.8	851
4	Mechanisms of action and regulation of ATP-dependent chromatin-remodelling complexes. Nature Reviews Molecular Cell Biology, 2017, 18, 407-422.	37.0	828
5	RSC, an Essential, Abundant Chromatin-Remodeling Complex. Cell, 1996, 87, 1249-1260.	28.9	654
6	DNA Demethylation in Zebrafish Involves the Coupling of a Deaminase, a Glycosylase, and Gadd45. Cell, 2008, 135, 1201-1212.	28.9	594
7	Conserved roles of mouse DUX and human DUX4 in activating cleavage-stage genes and MERVL/HERVL retrotransposons. Nature Genetics, 2017, 49, 925-934.	21.4	545
8	Chromatin remodelling: the industrial revolution of DNA around histones. Nature Reviews Molecular Cell Biology, 2006, 7, 437-447.	37.0	496
9	Genome-Wide Dynamics of Htz1, a Histone H2A Variant that Poises Repressed/Basal Promoters for Activation through Histone Loss. Cell, 2005, 123, 219-231.	28.9	460
10	The adult human testis transcriptional cell atlas. Cell Research, 2018, 28, 1141-1157.	12.0	426
11	The logic of chromatin architecture and remodelling at promoters. Nature, 2009, 461, 193-198.	27.8	399
12	Identification of direct targets and modified bases of RNA cytosine methyltransferases. Nature Biotechnology, 2013, 31, 458-464.	17.5	373
13	Reprogramming the Maternal Zebrafish Genome after Fertilization to Match the Paternal Methylation Pattern. Cell, 2013, 153, 759-772.	28.9	354
14	Nucleosome mobilization catalysed by the yeast SWI/SNF complex. Nature, 1999, 400, 784-787.	27.8	306
15	Chromatin and Transcription Transitions of Mammalian Adult Germline Stem Cells and Spermatogenesis. Cell Stem Cell, 2014, 15, 239-253.	11.1	280
16	Alterations in sperm DNA methylation patterns at imprinted loci in two classes of infertility. Fertility and Sterility, 2010, 94, 1728-1733.	1.0	259
17	Distinct roles for the RSC and Swi/Snf ATP-dependent chromatin remodelers in DNA double-strand break repair. Genes and Development, 2005, 19, 1656-1661.	5.9	258
18	Genome-wide analysis identifies changes in histone retention and epigenetic modifications at developmental and imprinted gene loci in the sperm of infertile men. Human Reproduction, 2011, 26, 2558-2569.	0.9	247

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19	Age-Associated Sperm DNA Methylation Alterations: Possible Implications in Offspring Disease Susceptibility. PLoS Genetics, 2014, 10, e1004458.	3.5	238
20	Human RNA polymerase III transcriptomes and relationships to Pol II promoter chromatin and enhancer-binding factors. Nature Structural and Molecular Biology, 2010, 17, 620-628.	8.2	234
21	Activation Domainâ€“Mediated Targeting of the SWI/SNF Complex to Promoters Stimulates Transcription from Nucleosome Arrays. Molecular Cell, 1999, 4, 649-655.	9.7	231
22	Chromatin remodeling: insights and intrigue from single-molecule studies. Nature Structural and Molecular Biology, 2007, 14, 989-996.	8.2	223
23	Chromatin remodeling by RSC involves ATP-dependent DNA translocation. Genes and Development, 2002, 16, 2120-2134.	5.9	222
24	Tandem bromodomains in the chromatin remodeler RSC recognize acetylated histone H3 Lys14. EMBO Journal, 2004, 23, 1348-1359.	7.8	213
25	Two Functionally Distinct Forms of the RSC Nucleosome-Remodeling Complex, Containing Essential AT Hook, BAH, and Bromodomains. Molecular Cell, 1999, 4, 715-723.	9.7	205
26	Two Actin-Related Proteins Are Shared Functional Components of the Chromatin-Remodeling Complexes RSC and SWI/SNF. Molecular Cell, 1998, 2, 639-651.	9.7	200
27	Chromatin and Single-Cell RNA-Seq Profiling Reveal Dynamic Signaling and Metabolic Transitions during Human Spermatogonial Stem Cell Development. Cell Stem Cell, 2017, 21, 533-546.e6.	11.1	200
28	DNA Translocation and Loop Formation Mechanism of Chromatin Remodeling by SWI/SNF and RSC. Molecular Cell, 2006, 24, 559-568.	9.7	198
29	Chromatin remodeling through directional DNA translocation from an internal nucleosomal site. Nature Structural and Molecular Biology, 2005, 12, 747-755.	8.2	195
30	Activated RSCâ€“Nucleosome Complex and Persistently Altered Form of the Nucleosome. Cell, 1998, 94, 29-34.	28.9	190
31	Dnmt2 functions in the cytoplasm to promote liver, brain, and retina development in zebrafish. Genes and Development, 2007, 21, 261-266.	5.9	179
32	The HSA domain binds nuclear actin-related proteins to regulate chromatin-remodeling ATPases. Nature Structural and Molecular Biology, 2008, 15, 469-476.	8.2	177
33	RSC regulates nucleosome positioning at Pol II genes and density at Pol III genes. EMBO Journal, 2008, 27, 100-110.	7.8	175
34	Genes for embryo development are packaged in blocks of multivalent chromatin in zebrafish sperm. Genome Research, 2011, 21, 578-589.	5.5	175
35	A Rsc3/Rsc30 Zinc Cluster Dimer Reveals Novel Roles for the Chromatin Remodeler RSC in Gene Expression and Cell Cycle Control. Molecular Cell, 2001, 7, 741-751.	9.7	174
36	Chromatin remodeling machines: similar motors, ulterior motives. Trends in Biochemical Sciences, 1998, 23, 20-25.	7.5	170

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37	The RNA polymerase III transcriptome revealed by genome-wide localization and activity-occupancy relationships. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 14695-14700.	7.1	164
38	The Dynamic Transcriptional Cell Atlas of Testis Development during Human Puberty. Cell Stem Cell, 2020, 26, 262-276.e4.	11.1	155
39	Chromatin remodeling complexes: strength in diversity, precision through specialization. Current Opinion in Genetics and Development, 2005, 15, 185-190.	3.3	153
40	Aberrant sperm DNA methylation predicts male fertility status and embryo quality. Fertility and Sterility, 2015, 104, 1388-1397.e5.	1.0	153
41	Zebra Fish Dnmt1 and Suv39h1 Regulate Organ-Specific Terminal Differentiation during Development. Molecular and Cellular Biology, 2006, 26, 7077-7085.	2.3	143
42	Regulation of ISWI involves inhibitory modules antagonized by nucleosomal epitopes. Nature, 2012, 492, 280-284.	27.8	137
43	Placeholder Nucleosomes Underlie Germline-to-Embryo DNA Methylation Reprogramming. Cell, 2018, 172, 993-1006.e13.	28.9	137
44	The Genome-Wide Localization of Rsc9, a Component of the RSC Chromatin-Remodeling Complex, Changes in Response to Stress. Molecular Cell, 2002, 9, 563-573.	9.7	135
45	Dephosphorylation and Genome-Wide Association of Maf1 with Pol III-Transcribed Genes during Repression. Molecular Cell, 2006, 22, 633-644.	9.7	128
46	Autoregulation of the Rsc4 Tandem Bromodomain by Gcn5 Acetylation. Molecular Cell, 2007, 27, 817-828.	9.7	124
47	Dnmt3 and G9a Cooperate for Tissue-specific Development in Zebrafish. Journal of Biological Chemistry, 2010, 285, 4110-4121.	3.4	114
48	Transcriptional Inhibition of Genes with Severe Histone H3 Hypoacetylation in the Coding Region. Molecular Cell, 2002, 10, 925-933.	9.7	109
49	The nuclear actin-related proteins Arp7 and Arp9: a dimeric module that cooperates with architectural proteins for chromatin remodeling. EMBO Journal, 2003, 22, 3175-3187.	7.8	104
50	Single-cell analysis of the developing human testis reveals somatic niche cell specification and fetal germline stem cell establishment. Cell Stem Cell, 2021, 28, 764-778.e4.	11.1	104
51	The Yaf9 Component of the SWR1 and NuA4 Complexes Is Required for Proper Gene Expression, Histone H4 Acetylation, and Htz1 Replacement near Telomeres. Molecular and Cellular Biology, 2004, 24, 9424-9436.	2.3	101
52	Rsc4 Connects the Chromatin Remodeler RSC to RNA Polymerases. Molecular and Cellular Biology, 2006, 26, 4920-4933.	2.3	98
53	DNA Demethylase Activity Maintains Intestinal Cells in an Undifferentiated State Following Loss of APC. Cell, 2010, 142, 930-942.	28.9	96
54	Dynamic transcriptome of Schizosaccharomyces pombe shown by RNA-DNA hybrid mapping. Nature Genetics, 2008, 40, 977-986.	21.4	95

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55	Paternal aging and associated intraindividual alterations of global sperm 5-methylcytosine and 5-hydroxymethylcytosine levels. Fertility and Sterility, 2013, 100, 945-951.e2.	1.0	93
56	Structure of the RSC complex bound to the nucleosome. Science, 2019, 366, 838-843.	12.6	92
57	Structure and function of the SWIRM domain, a conserved protein module found in chromatin regulatory complexes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2057-2062.	7.1	89
58	Conformational flexibility in the chromatin remodeler RSC observed by electron microscopy and the orthogonal tilt reconstruction method. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4913-4918.	7.1	84
59	The RSC chromatin remodelling ATPase translocates DNA with high force and small step size. EMBO Journal, 2011, 30, 2364-2372.	7.8	84
60	Histone trimethylation by Set1 is coordinated by the RRM, autoinhibitory, and catalytic domains. EMBO Journal, 2005, 24, 1222-1231.	7.8	83
61	Structure of an actin-related subcomplex of the SWI/SNF chromatin remodeler. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3345-3350.	7.1	81
62	Regulation of DNA Translocation Efficiency within the Chromatin Remodeler RSC/Sth1 Potentiates Nucleosome Sliding and Ejection. Molecular Cell, 2016, 62, 453-461.	9.7	81
63	Epigenetic regulation of colon cancer and intestinal stem cells. Current Opinion in Cell Biology, 2013, 25, 177-183.	5.4	80
64	SINE transcription by RNA polymerase III is suppressed by histone methylation but not by DNA methylation. Nature Communications, 2015, 6, 6569.	12.8	80
65	The chromatin remodelers RSC and ISW1 display functional and chromatin-based promoter antagonism. ELife, 2015, 4, e06073.	6.0	68
66	Histone deacetylases 1 and 2 maintain S-phase chromatin and DNA replication fork progression. Epigenetics and Chromatin, 2013, 6, 27.	3.9	62
67	The RSC Chromatin Remodeling Complex Bears an Essential Fungal-Specific Protein Module With Broad Functional Roles. Genetics, 2006, 172, 795-809.	2.9	61
68	Transcription and imprinting dynamics in developing postnatal male germline stem cells. Genes and Development, 2015, 29, 2312-2324.	5.9	61
69	p53 convergently activates Dux/DUX4 in embryonic stem cells and in facioscapulohumeral muscular dystrophy cell models. Nature Genetics, 2021, 53, 1207-1220.	21.4	59
70	Dissecting mammalian spermatogenesis using spatial transcriptomics. Cell Reports, 2021, 37, 109915.	6.4	54
71	Counteracting H3K4 methylation modulators Set1 and Jhd2 co-regulate chromatin dynamics and gene transcription. Nature Communications, 2016, 7, 11949.	12.8	50
72	The Interactions of Yeast SWI/SNF and RSC with the Nucleosome before and after Chromatin Remodeling. Journal of Biological Chemistry, 2001, 276, 12636-12644.	3.4	49

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73	Transcriptome-wide target profiling of RNA cytosine methyltransferases using the mechanism-based enrichment procedure Aza-IP. Nature Protocols, 2014, 9, 337-361.	12.0	49
74	Chromatin architecture transitions from zebrafish sperm through early embryogenesis. Genome Research, 2021, 31, 981-994.	5.5	48
75	Reintroducing domesticated wild mice to sociality induces adaptive transgenerational effects on MUP expression. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19848-19853.	7.1	47
76	Single-cell analysis of human testis aging and correlation with elevated body mass index. Developmental Cell, 2022, 57, 1160-1176.e5.	7.0	47
77	SnapShot: Chromatin Remodeling:SWI/SNF. Cell, 2011, 144, 310-310.e1.	28.9	42
78	PP4 dephosphorylates Maf1 to couple multiple stress conditions to RNA polymerase III repression. EMBO Journal, 2012, 31, 1440-1452.	7.8	39
79	Spreading of Sir3 protein in cells with severe histone H3 hypoacetylation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 7551-7556.	7.1	38
80	CTCF looping is established during gastrulation in medaka embryos. Genome Research, 2021, 31, 968-980.	5.5	37
81	Mechanisms for Nucleosome Movement by ATP-dependent Chromatin Remodeling Complexes. , 2006, 41, 127-148.		36
82	HDAC1,2 inhibition impairs EZH2- and BBAP- mediated DNA repair to overcome chemoresistance in EZH2 gain-of-function mutant diffuse large B-cell lymphoma. Oncotarget, 2015, 6, 4863-4887.	1.8	35
83	Kinetic Model for the ATP-Dependent Translocation of Saccharomyces cerevisiae RSC along Double-Stranded DNA. Biochemistry, 2007, 46, 12416-12426.	2.5	32
84	RNA Polymerase III Transcriptomes in Human Embryonic Stem Cells and Induced Pluripotent Stem Cells, and Relationships with Pluripotency Transcription Factors. PLoS ONE, 2014, 9, e85648.	2.5	31
85	HTL1 Encodes a Novel Factor That Interacts with the RSC Chromatin Remodeling Complex in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2002, 22, 8165-8174.	2.3	27
86	A Role for SMARCB1 in Synovial Sarcomagenesis Reveals That SS18â€"SSX Induces Canonical BAF Destruction. Cancer Discovery, 2021, 11, 2620-2637.	9.4	26
87	Genome-Wide Dynamics of SAPHIRE, an Essential Complex for Gene Activation and Chromatin Boundaries. Molecular and Cellular Biology, 2007, 27, 4058-4069.	2.3	24
88	DNA Methylation Profiling in Zebrafish. Methods in Cell Biology, 2011, 104, 327-339.	1.1	23
89	Zinc-dependent Regulation of the adh1 Antisense Transcript in Fission Yeast. Journal of Biological Chemistry, 2013, 288, 759-769.	3.4	21
90	Genome-wide reconstitution of chromatin transactions reveals that RSC preferentially disrupts H2AZ-containing nucleosomes. Genome Research, 2019, 29, 988-998.	5.5	21

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91	Cancer-Associated Gain-of-Function Mutations Activate a SWI/SNF-Family Regulatory Hub. Molecular Cell, 2020, 80, 712-725.e5.	9.7	20
92	Specialization of the chromatin remodeler RSC to mobilize partially-unwrapped nucleosomes. ELife, 2020, 9, .	6.0	18
93	Maintenance of spatial gene expression by Polycomb-mediated repression after formation of a vertebrate body plan. Development (Cambridge), 2019, 146, .	2.5	13
94	Establishment of developmental gene silencing by ordered polycomb complex recruitment in early zebrafish embryos. ELife, 2022, 11, .	6.0	13
95	Developmentally Programmed Tankyrase Activity Upregulates Î²-Catenin and Licenses Progression of Embryonic Genome Activation. Developmental Cell, 2020, 53, 545-560.e7.	7.0	12
96	Experimental Approaches for Target Profiling of RNA Cytosine Methyltransferases. Methods in Enzymology, 2015, 560, 273-296.	1.0	11
97	Allosteric Interactions of DNA and Nucleotides withS. cerevisiaeRSC. Biochemistry, 2011, 50, 7881-7890.	2.5	10
98	Interaction of the Jhd2 Histone H3 Lys-4 Demethylase with Chromatin Is Controlled by Histone H2A Surfaces and Restricted by H2B Ubiquitination. Journal of Biological Chemistry, 2015, 290, 28760-28777.	3.4	10
99	Isolation and Enrichment of Spermatogonial Stem Cells From Human Testis Tissues. Current Protocols in Stem Cell Biology, 2019, 49, e77.	3.0	10
100	Chromatin Remodeling Complexes. , 2014, , 69-146.		7
101	Selective repression of SINE transcription by RNA polymerase III. Mobile Genetic Elements, 2015, 5, 86-91.	1.8	7
102	Antibody detection of translocations in Ewing sarcoma. EMBO Molecular Medicine, 2012, 4, 453-461.	6.9	5
103	Tet proteins enhance the developmental hourglass. Nature Genetics, 2016, 48, 345-347.	21.4	3