David M Gilbert

List of Publications by Year in descending order

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132 papers 15,847 citations

59 h-index 20943 115 g-index

160 all docs

160 docs citations

160 times ranked 17912 citing authors

#	Article	IF	CITATIONS
1	A comparative encyclopedia of DNA elements in the mouse genome. Nature, 2014, 515, 355-364.	13.7	1,444
2	Expanded encyclopaedias of DNA elements in the human and mouse genomes. Nature, 2020, 583, 699-710.	13.7	1,252
3	Topologically associating domains are stable units of replication-timing regulation. Nature, 2014, 515, 402-405.	13.7	779
4	Defining functional DNA elements in the human genome. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6131-6138.	3.3	635
5	Maintenance of Stable Heterochromatin Domains by Dynamic HP1 Binding. Science, 2003, 299, 721-725.	6.0	559
6	Evolutionarily conserved replication timing profiles predict long-range chromatin interactions and distinguish closely related cell types. Genome Research, 2010, 20, 761-770.	2.4	526
7	Global Reorganization of Replication Domains During Embryonic Stem Cell Differentiation. PLoS Biology, 2008, 6, e245.	2.6	496
8	An encyclopedia of mouse DNA elements (Mouse ENCODE). Genome Biology, 2012, 13, 418.	13.9	410
9	Activation of mammalian Chk1 during DNA replication arrest. Journal of Cell Biology, 2001, 154, 913-924.	2.3	322
10	The Spatial Position and Replication Timing of Chromosomal Domains Are Both Established in Early G1 Phase. Molecular Cell, 1999, 4, 983-993.	4.5	299
11	Genome-wide dynamics of replication timing revealed by in vitro models of mouse embryogenesis. Genome Research, 2010, 20, 155-169.	2.4	287
12	DNA Replication Timing. Cold Spring Harbor Perspectives in Biology, 2013, 5, a010132-a010132.	2.3	278
13	Integrative detection and analysis of structural variation in cancer genomes. Nature Genetics, 2018, 50, 1388-1398.	9.4	268
14	Replication timing and transcriptional control: beyond cause and effect. Current Opinion in Cell Biology, 2002, 14, 377-383.	2.6	262
15	Independence of Repressive Histone Marks and Chromatin Compaction during Senescent Heterochromatic Layer Formation. Molecular Cell, 2012, 47, 203-214.	4.5	258
16	Heterochromatin, HP1 and methylation at lysine 9 of histone H3 in animals. Chromosoma, 2002, 111, 22-36.	1.0	244
17	Heterochromatin and tri-methylated lysine 20 of histone H4 in animals. Journal of Cell Science, 2004, 117, 2491-2501.	1.2	230
18	Actin up in the nucleus. Nature Reviews Molecular Cell Biology, 2004, 5, 410-415.	16.1	222

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19	Mouse Rif1 is a key regulator of the replication-timing programme in mammalian cells. EMBO Journal, 2012, 31, 3678-3690.	3.5	221
20	Control of DNA replication timing in the 3D genome. Nature Reviews Molecular Cell Biology, 2019, 20, 721-737.	16.1	198
21	Mcm2, but Not Rpa, Is a Component of the Mammalian Early G1-Phase Prereplication Complex. Journal of Cell Biology, 1999, 146, 709-722.	2.3	160
22	Productive Hepatitis C Virus Infection of Stem Cell-Derived Hepatocytes Reveals a Critical Transition to Viral Permissiveness during Differentiation. PLoS Pathogens, 2012, 8, e1002617.	2.1	159
23	Topologically associating domains and their long-range contacts are established during early G1 coincident with the establishment of the replication-timing program. Genome Research, 2015, 25, $1104-1113$.	2.4	157
24	Temporally coordinated assembly and disassembly of replication factories in the absence of DNA synthesis. Nature Cell Biology, 2000, 2, 686-694.	4.6	155
25	Nuclear Architecture Organized by Rif1 Underpins the Replication-Timing Program. Molecular Cell, 2016, 61, 260-273.	4.5	155
26	Epigenomic replication: Linking epigenetics to DNA replication. BioEssays, 2003, 25, 647-656.	1.2	153
27	Evaluating genome-scale approaches to eukaryotic DNA replication. Nature Reviews Genetics, 2010, 11, 673-684.	7.7	150
28	Dynamic changes in replication timing and gene expression during lineage specification of human pluripotent stem cells. Genome Research, 2015, 25, 1091-1103.	2.4	145
29	Identifying cis Elements for Spatiotemporal Control of Mammalian DNA Replication. Cell, 2019, 176, 816-830.e18.	13.5	144
30	Proliferation-dependent and cell cycle–regulated transcription of mouse pericentric heterochromatin. Journal of Cell Biology, 2007, 179, 411-421.	2.3	142
31	Bovine papilloma virus plasmids replicate randomly in mouse fibroblasts throughout S phase of the cell cycle. Cell, 1987, 50, 59-68.	13.5	137
32	G9a selectively represses a class of late-replicating genes at the nuclear periphery. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19363-19368.	3.3	134
33	Replication timing and transcriptional control: beyond cause and effectâ€"part II. Current Opinion in Genetics and Development, 2009, 19, 142-149.	1.5	133
34	Genome-wide analysis of replication timing by next-generation sequencing with E/L Repli-seq. Nature Protocols, 2018, 13, 819-839.	5.5	126
35	In search of the holy replicator. Nature Reviews Molecular Cell Biology, 2004, 5, 848-855.	16.1	125
36	Replication timing and transcriptional control: beyond cause and effect â€" part III. Current Opinion in Cell Biology, 2016, 40, 168-178.	2.6	124

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37	Perspectives on ENCODE. Nature, 2020, 583, 693-698.	13.7	123
38	Differential Subnuclear Localization and Replication Timing of Histone H3 Lysine 9 Methylation States. Molecular Biology of the Cell, 2005, 16, 2872-2881.	0.9	117
39	Differentiation-induced replication-timing changes are restricted to AT-rich/long interspersed nuclear element (LINE)-rich isochores. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16861-16866.	3.3	110
40	Genome-scale analysis of replication timing: from bench to bioinformatics. Nature Protocols, 2011, 6, 870-895.	5.5	110
41	4D Genome Rewiring during Oncogene-Induced and Replicative Senescence. Molecular Cell, 2020, 78, 522-538.e9.	4.5	107
42	Mimosine Arrests DNA Synthesis at Replication Forks by Inhibiting Deoxyribonucleotide Metabolism. Journal of Biological Chemistry, 1995, 270, 9597-9606.	1.6	104
43	Replication timing maintains the global epigenetic state in human cells. Science, 2021, 372, 371-378.	6.0	103
44	An integrative ENCODE resource for cancer genomics. Nature Communications, 2020, 11, 3696.	5.8	95
45	The many faces of the origin recognition complex. Current Opinion in Cell Biology, 2007, 19, 337-343.	2.6	93
46	Replication timing as an epigenetic mark. Epigenetics, 2009, 4, 93-97.	1.3	91
47	Space and Time in the Nucleus: Developmental Control of Replication Timing and Chromosome Architecture. Cold Spring Harbor Symposia on Quantitative Biology, 2010, 75, 143-153.	2.0	91
48	Abnormal developmental control of replication-timing domains in pediatric acute lymphoblastic leukemia. Genome Research, 2012, 22, 1833-1844.	2.4	89
49	High-resolution Repli-Seq defines the temporal choreography of initiation, elongation and termination of replication in mammalian cells. Genome Biology, 2020, 21, 76.	3.8	84
50	Replicating Large Genomes: Divide and Conquer. Molecular Cell, 2016, 62, 756-765.	4.5	83
51	Head and/or CaaX Domain Deletions of Lamin Proteins Disrupt Preformed Lamin A and C But Not Lamin B Structure in Mammalian Cells. Molecular Biology of the Cell, 2000, 11, 4323-4337.	0.9	82
52	ReplicationDomain: a visualization tool and comparative database for genome-wide replication timing data. BMC Bioinformatics, 2008, 9, 530.	1.2	80
53	Highly stable loading of Mcm proteins onto chromatin in living cells requires replication to unload. Journal of Cell Biology, 2011, 192, 29-41.	2.3	78
54	Replication Timing: A Fingerprint for Cell Identity and Pluripotency. PLoS Computational Biology, 2011, 7, e1002225.	1.5	78

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55	Single-cell replication profiling to measure stochastic variation in mammalian replication timing. Nature Communications, 2018, 9, 427.	5.8	78
56	Joint annotation of chromatin state and chromatin conformation reveals relationships among domain types and identifies domains of cell-type-specific expression. Genome Research, 2015, 25, 544-557.	2.4	74
57	Mammalian nuclei become licensed for DNA replication during late telophase. Journal of Cell Science, 2002, 115, 51-9.	1.2	70
58	Domain-wide regulation of DNA replication timing during mammalian development. Chromosome Research, 2010, 18, 127-136.	1.0	66
59	Complex correlations: replication timing and mutational landscapes during cancer and genome evolution. Current Opinion in Genetics and Development, 2014, 25, 93-100.	1.5	66
60	The replication timing program of the Chinese hamster \hat{l}^2 -globin locus is established coincident with its repositioning near peripheral heterochromatin in early G1 phase. Journal of Cell Biology, 2001, 154, 283-292.	2.3	65
61	Replication origins in yeast versus metazoa: separation of the haves and the have nots. Current Opinion in Genetics and Development, 1998, 8, 194-199.	1.5	64
62	Allele-specific control of replication timing and genome organization during development. Genome Research, 2018, 28, 800-811.	2.4	63
63	Uncoupling global and fine-tuning replication timing determinants for mouse pericentric heterochromatin. Journal of Cell Biology, 2006, 174, 185-194.	2.3	62
64	Replication origin plasticity, Taylor-made: inhibition vs recruitment of origins under conditions of replication stress. Chromosoma, 2007, 116, 341-347.	1.0	62
65	Pre-replication complex proteins assemble at regions of low nucleosome occupancy within the Chinese hamster dihydrofolate reductase initiation zone. Nucleic Acids Research, 2011, 39, 3141-3155.	6.5	61
66	SPIN reveals genome-wide landscape of nuclear compartmentalization. Genome Biology, 2021, 22, 36.	3.8	61
67	Chromatin-interaction compartment switch at developmentally regulated chromosomal domains reveals an unusual principle of chromatin folding. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12574-12579.	3.3	59
68	Local rewiring of genome–nuclear lamina interactions by transcription. EMBO Journal, 2020, 39, e103159.	3.5	59
69	Large-Scale Chromatin Structure–Function Relationships during the Cell Cycle and Development: Insights from Replication Timing. Cold Spring Harbor Symposia on Quantitative Biology, 2015, 80, 53-63.	2.0	59
70	Stability and Nuclear Distribution of Mammalian Replication Protein A Heterotrimeric Complex. Experimental Cell Research, 2000, 254, 321-327.	1.2	58
71	Genome-wide mapping of human DNA replication by optical replication mapping supports a stochastic model of eukaryotic replication. Molecular Cell, 2021, 81, 2975-2988.e6.	4.5	57
72	Copy Number Variation Is a Fundamental Aspect of the Placental Genome. PLoS Genetics, 2014, 10, e1004290.	1.5	56

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73	«London in all its glory—or how to enjoy London»: guidebook representations of imperial London. Journal of Historical Geography, 1999, 25, 279-297.	0.3	54
74	Nuclear Position Leaves Its Mark on Replication Timing. Journal of Cell Biology, 2001, 152, F11-F16.	2.3	50
75	Spatial distribution and specification of mammalian replication origins during G1 phase. Journal of Cell Biology, 2003, 161, 257-266.	2.3	49
76	Cohesin-mediated loop anchors confine the locations of human replication origins. Nature, 2022, 606, 812-819.	13.7	47
77	3D genome organization contributes to genome instability at fragile sites. Nature Communications, 2020, 11, 3613.	5.8	46
78	The Chinese Hamster Dihydrofolate Reductase Replication Origin Decision Point Follows Activation of Transcription and Suppresses Initiation of Replication within Transcription Units. Molecular and Cellular Biology, 2006, 26, 1051-1062.	1.1	43
79	The Tiger Rattlesnake genome reveals a complex genotype underlying a simple venom phenotype. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	43
80	Origin-Specific Initiation of Mammalian Nuclear DNA Replication in aXenopusCell-Free System. Methods, 1997, 13, 313-324.	1.9	41
81	Homogeneous tetracycline-regulatable gene expression in mammalian fibroblasts. Journal of Cellular Biochemistry, 2000, 76, 280-289.	1.2	40
82	RB Reversibly Inhibits DNA Replication via Two Temporally Distinct Mechanisms. Molecular and Cellular Biology, 2004, 24, 5404-5420.	1.1	40
83	Spatio-temporal organization of DNA replication in murine embryonic stem, primary, and immortalized cells. Journal of Cellular Biochemistry, 2005, 95, 74-82.	1.2	40
84	G2 phase chromatin lacks determinants of replication timing. Journal of Cell Biology, 2010, 189, 967-980.	2.3	40
85	Chinese hamster ORC subunits dynamically associate with chromatin throughout the cell-cycle. Experimental Cell Research, 2005, 308, 345-356.	1.2	38
86	DNA replication timing alterations identify common markers between distinct progeroid diseases. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10972-E10980.	3.3	36
87	Rapid DNA preparation for 2D gel analysis of replication intermediates. Nucleic Acids Research, 1995, 23, 3997-3998.	6.5	35
88	Structure of a palindromic amplicon junction implicates microhomology-mediated end joining as a mechanism of sister chromatid fusion during gene amplification. Nucleic Acids Research, 2004, 32, 749-756.	6.5	35
89	Replication-timing boundaries facilitate cell-type and species-specific regulation of a rearranged human chromosome in mouse. Human Molecular Genetics, 2012, 21, 4162-4170.	1.4	35
90	Cohesin depleted cells rebuild functional nuclear compartments after endomitosis. Nature Communications, 2020, 11, 6146.	5.8	35

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91	Cell fate transitions and the replication timing decision point. Journal of Cell Biology, 2010, 191, 899-903.	2.3	33
92	The Replication Domain Model: Regulating Replicon Firing in the Context of Large-Scale Chromosome Architecture. Journal of Molecular Biology, 2013, 425, 4690-4695.	2.0	32
93	Nuclear organisation and replication timing are coupled through RIF1–PP1 interaction. Nature Communications, 2021, 12, 2910.	5.8	29
94	New York City and the Transatlantic Imagination. Journal of Urban History, 2006, 33, 77-107.	0.3	28
95	Stability of patient-specific features of altered DNA replication timing in xenografts of primary human acute lymphoblastic leukemia. Experimental Hematology, 2017, 51, 71-82.e3.	0.2	28
96	Murine esBAF chromatin remodeling complex subunits BAF250a and Brg1 are necessary to maintain and reprogram pluripotency-specific replication timing of select replication domains. Epigenetics and Chromatin, 2013, 6, 42.	1.8	27
97	Spatio-temporal re-organization of replication foci accompanies replication domain consolidation during human pluripotent stem cell lineage specification. Cell Cycle, 2016, 15, 2464-2475.	1.3	25
98	The Distribution of Genomic Variations in Human iPSCs Is Related to Replication-Timing Reorganization during Reprogramming. Cell Reports, 2014, 7, 70-78.	2.9	24
99	Rapid Irreversible Transcriptional Reprogramming in Human Stem Cells Accompanied by Discordance between Replication Timing and Chromatin Compartment. Stem Cell Reports, 2019, 13, 193-206.	2.3	24
100	Sensitivity of the Origin Decision Point to Specific Inhibitors of Cellular Signaling and Metabolism. Experimental Cell Research, 2002, 273, 54-64.	1.2	22
101	Overexpression of ORC subunits and increased ORC-chromatin association in transformed mammalian cells. Journal of Cellular Biochemistry, 2005, 96, 879-887.	1.2	21
102	DNA Replication Timing Is Maintained Genome-Wide in Primary Human Myoblasts Independent of D4Z4 Contraction in FSH Muscular Dystrophy. PLoS ONE, 2011, 6, e27413.	1.1	21
103	Lovastatin arrests CHO cells between the origin decision point and the restriction point. FEBS Letters, 2000, 484, 108-112.	1.3	20
104	Replication origins run (ultra) deep. Nature Structural and Molecular Biology, 2012, 19, 740-742.	3.6	20
105	Continuous-Trait Probabilistic Model for Comparing Multi-species Functional Genomic Data. Cell Systems, 2018, 7, 208-218.e11.	2.9	20
106	Developmental control of replication timing defines a new breed of chromosomal domains with a novel mechanism of chromatin unfolding. Nucleus, 2012, 3, 500-507.	0.6	19
107	High-throughput single-cell epigenomic profiling by targeted insertion of promoters (TIP-seq). Journal of Cell Biology, 2021, 220, .	2.3	19
108	Replication Domains: Genome Compartmentalization into Functional Replication Units. Advances in Experimental Medicine and Biology, 2017, 1042, 229-257.	0.8	18

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109	Cellular senescence induces replication stress with almost no affect on DNA replication timing. Cell Cycle, 2018, 17, 1667-1681.	1.3	18
110	Replication timing and metazoan evolution. Nature Genetics, 2002, 32, 336-337.	9.4	16
111	SnapShot: Replication Timing. Cell, 2013, 152, 1390-1390.e1.	13.5	16
112	DNA Replication and Nuclear Organization: Prospects for a Soluble In Vitro System. Critical Reviews in Eukaryotic Gene Expression, 1999, 9, 353-361.	0.4	15
113	Up and down in Down's syndrome. Nature, 2014, 508, 323-324.	13.7	15
114	Replication timing alterations in leukemia affect clinically relevant chromosome domains. Blood Advances, 2019, 3, 3201-3213.	2.5	15
115	Many paths lead chromatin to the nuclear periphery. BioEssays, 2015, 37, 862-866.	1.2	13
116	Evidence for a pre-restriction point Cdk3 activity. Journal of Cellular Biochemistry, 2002, 85, 545-552.	1.2	12
117	Origins Go Plastic. Molecular Cell, 2005, 20, 657-658.	4.5	12
118	Replication timing networks reveal a link between transcription regulatory circuits and replication timing control. Genome Research, 2019, 29, 1415-1428.	2.4	12
119	Autosomal Lyonization of Replication Domains During Early Mammalian Development. Advances in Experimental Medicine and Biology, 2010, 695, 41-58.	0.8	11
120	Influence of ATM-Mediated DNA Damage Response on Genomic Variation in Human Induced Pluripotent Stem Cells. Stem Cells and Development, 2016, 25, 740-747.	1.1	9
121	RT States: systematic annotation of the human genome using cell type-specific replication timing programs. Bioinformatics, 2019, 35, 2167-2176.	1.8	9
122	Evidence for a mammalian late-G1 phase inhibitor of replication licensing distinct from geminin or Cdk activity. Nucleus, 2011, 2, 455-464.	0.6	8
123	Genome-wide analysis of replication timing in mammalian cells: Troubleshooting problems encountered when comparing different cell types. Methods, 2012, 57, 165-169.	1.9	8
124	Bacterial artificial chromosomes establish replication timing and sub-nuclear compartment de novo as extra-chromosomal vectors. Nucleic Acids Research, 2018, 46, 1810-1820.	6.5	8
125	The future of human embryonic stem cell research: addressing ethical conflict with responsible scientific research. Medical Science Monitor, 2004, 10, RA99-103.	0.5	7
126	Observing S-Phase Dynamics of Histone Modifications With Fluorescently Labeled Antibodies. , 2006, 325, 139-148.		5

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127	Computing interaction probabilities in signaling networks. Eurasip Journal on Bioinformatics and Systems Biology, 2015, 2015, 10.	1.4	5
128	Three Dimensional Organization of the Nucleus: adding DNA sequences to the big picture. Genome Biology, 2015, 16, 181.	3.8	5
129	Mapping Replication Timing in Single Mammalian Cells. Current Protocols, 2022, 2, e334.	1.3	5
130	Initiation of DNA replication inSaccharomyces cerevisiae G1-phase nuclei byXenopus egg extract. Journal of Cellular Biochemistry, 2001, 80, 73-84.	1,2	2
131	Identification of <i>cis</i> Elements for Spatio-temporal Control of DNA Replication. SSRN Electronic Journal, 0, , .	0.4	1
132	Replicating Chromatin in the Eukaryotic Genome. , 2018, , 407-434.		0