Andrei Chabes

List of Publications by Year
in descending order

73 papers	5,478 citations	101543 36 h-index	88630 70 g-index
77 all docs	77 docs citations	77 times ranked	5385 citing authors

#	Article	IF	Citations
1	Survival of DNA Damage in Yeast Directly Depends on Increased dNTP Levels Allowed by Relaxed Feedback Inhibition of Ribonucleotide Reductase. Cell, 2003, 112, 391-401.	28.9	382
2	Abundant ribonucleotide incorporation into DNA by yeast replicative polymerases. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4949-4954.	7.1	367
3	Genome instability due to ribonucleotide incorporation into DNA. Nature Chemical Biology, 2010, 6, 774-781.	8.0	346
4	SAMHD1 acts at stalled replication forks to prevent interferon induction. Nature, 2018, 557, 57-61.	27.8	319
5	The ribonucleotide reductase inhibitor Sml1 is a new target of the Mec1/Rad53 kinase cascade during growth and in response to DNA damage. EMBO Journal, 2001, 20, 3544-3553.	7.8	248
6	Break-Induced Replication Is Highly Inaccurate. PLoS Biology, 2011, 9, e1000594.	5.6	243
7	dNTP pools determine fork progression and origin usage under replication stress. EMBO Journal, 2012, 31, 883-894.	7.8	232
8	A mechanism for preventing asymmetric histone segregation onto replicating DNA strands. Science, 2018, 361, 1386-1389.	12.6	179
9	Mechanisms of mutagenesis in vivo due to imbalanced dNTP pools. Nucleic Acids Research, 2011, 39, 1360-1371.	14.5	178
10	Strand-Specific Analysis Shows Protein Binding at Replication Forks and PCNA Unloading from Lagging Strands when Forks Stall. Molecular Cell, 2014, 56, 551-563.	9.7	153
11	Controlled Protein Degradation Regulates Ribonucleotide Reductase Activity in Proliferating Mammalian Cells during the Normal Cell Cycle and in Response to DNA Damage and Replication Blocks. Journal of Biological Chemistry, 2000, 275, 17747-17753.	3.4	143
12	Cid13 Is a Cytoplasmic Poly(A) Polymerase that Regulates Ribonucleotide Reductase mRNA. Cell, 2002, 109, 563-573.	28.9	130
13	Topoisomerase 1-Mediated Removal of Ribonucleotides from Nascent Leading-Strand DNA. Molecular Cell, 2013, 49, 1010-1015.	9.7	130
14	Highly mutagenic and severely imbalanced dNTP pools can escape detection by the S-phase checkpoint. Nucleic Acids Research, 2010, 38, 3975-3983.	14.5	124
15	Yeast Sml1, a Protein Inhibitor of Ribonucleotide Reductase. Journal of Biological Chemistry, 1999, 274, 36679-36683.	3.4	120
16	Constitutively high dNTP concentration inhibits cell cycle progression and the DNA damage checkpoint in yeast Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1183-1188.	7.1	118
17	Trypanosoma brucei CTP synthetase: A target for the treatment of African sleeping sickness. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 6412-6416.	7.1	111
18	Heterozygous colon cancer-associated mutations of <i>SAMHD1</i> have functional significance. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4723-4728.	7.1	100

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19	Endogenous DNA replication stress results in expansion of dNTP pools and a mutator phenotype. EMBO Journal, 2012, 31, 895-907.	7.8	95
20	The Histone Deacetylases Sir2 and Rpd3 Act on Ribosomal DNA to Control the Replication Program in Budding Yeast. Molecular Cell, 2014, 54, 691-697.	9.7	95
21	Mutational and Structural Analyses of the Ribonucleotide Reductase Inhibitor Sml1 Define Its Rnr1 Interaction Domain Whose Inactivation Allows Suppression of mec1 and rad53 Lethality. Molecular and Cellular Biology, 2000, 20, 9076-9083.	2.3	85
22	Evidence for lesion bypass by yeast replicative DNA polymerases during DNA damage. Nucleic Acids Research, 2008, 36, 5660-5667.	14.5	80
23	Increased and Imbalanced dNTP Pools Symmetrically Promote Both Leading and Lagging Strand Replication Infidelity. PLoS Genetics, 2014, 10, e1004846.	3.5	71
24	Ixr1 Is Required for the Expression of the Ribonucleotide Reductase Rnr1 and Maintenance of dNTP Pools. PLoS Genetics, 2011, 7, e1002061.	3.5	64
25	A Common Telomeric Gene Silencing Assay Is Affected by Nucleotide Metabolism. Molecular Cell, 2011, 42, 127-136.	9.7	63
26	Genome-wide analysis of the specificity and mechanisms of replication infidelity driven by imbalanced dNTP pools. Nucleic Acids Research, 2016, 44, 1669-1680.	14.5	62
27	A recurrent cancer-associated substitution in DNA polymerase Îµ produces a hyperactive enzyme. Nature Communications, 2019, 10, 374.	12.8	59
28	Colon cancer-associated mutator DNA polymerase Î´ variant causes expansion of dNTP pools increasing its own infidelity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2467-76.	7.1	58
29	Myc-dependent purine biosynthesis affects nucleolar stress and therapy response in prostate cancer. Oncotarget, 2015, 6, 12587-12602.	1.8	58
30	Mrc1 and Rad9 cooperate to regulate initiation and elongation of DNA replication in response to DNA damage. EMBO Journal, 2018, 37, .	7.8	54
31	Yeast DNA Damage-inducible Rnr3 Has a Very Low Catalytic Activity Strongly Stimulated after the Formation of a Cross-talking Rnr1/Rnr3 Complex. Journal of Biological Chemistry, 2002, 277, 18574-18578.	3.4	51
32	Replication Fork Collapse and Genome Instability in a Deoxycytidylate Deaminase Mutant. Molecular and Cellular Biology, 2012, 32, 4445-4454.	2.3	50
33	Checkpoint Kinase Rad53 Couples Leading- and Lagging-Strand DNA Synthesis under Replication Stress. Molecular Cell, 2017, 68, 446-455.e3.	9.7	49
34	Mec1 Is Activated at the Onset of Normal S Phase by Low-dNTP Pools Impeding DNA Replication. Molecular Cell, 2020, 78, 396-410.e4.	9.7	48
35	dNTP pool levels modulate mutator phenotypes of error-prone DNA polymerase Îµ variants. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2457-66.	7.1	47
36	Evidence that processing of ribonucleotides in DNA by topoisomerase 1 is leading-strand specific. Nature Structural and Molecular Biology, 2015, 22, 291-297.	8.2	45

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37	Telomere Length Homeostasis Responds to Changes in Intracellular dNTP Pools. Genetics, 2013, 193, 1095-1105.	2.9	44
38	Simultaneous determination of ribonucleoside and deoxyribonucleoside triphosphates in biological samples by hydrophilic interaction liquid chromatography coupled with tandem mass spectrometry. Nucleic Acids Research, 2018, 46, e66-e66.	14.5	40
39	Ribonucleotides incorporated by the yeast mitochondrial DNA polymerase are not repaired. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12466-12471.	7.1	39
40	Acute Smc5/6 depletion reveals its primary role in rDNA replication by restraining recombination at fork pausing sites. PLoS Genetics, 2018, 14, e1007129.	3.5	35
41	Elevated dNTP levels suppress hyper-recombination in Saccharomyces cerevisiae S-phase checkpoint mutants. Nucleic Acids Research, 2010, 38, 1195-1203.	14.5	34
42	Lesion bypass by S. cerevisiae Pol Î¶ alone. DNA Repair, 2011, 10, 826-834.	2.8	31
43	Alterations in cellular metabolism triggered by <i>URA7</i> or <i>GLN3</i> inactivation cause imbalanced dNTP pools and increased mutagenesis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E4442-E4451.	7.1	30
44	Separable roles for Mec1/ATR in genome maintenance, DNA replication, and checkpoint signaling. Genes and Development, 2018, 32, 822-835.	5.9	30
45	The mutation spectrum in genomic late replication domains shapes mammalian GC content. Nucleic Acids Research, 2016, 44, 4222-4232.	14.5	29
46	Determination of Deoxyribonucleoside Triphosphate Concentrations in Yeast Cells by Strong Anion-Exchange High-Performance Liquid Chromatography Coupled with Ultraviolet Detection. Methods in Molecular Biology, 2015, 1300, 113-121.	0.9	27
47	H2B Mono-ubiquitylation Facilitates Fork Stalling and Recovery during Replication Stress by Coordinating Rad53 Activation and Chromatin Assembly. PLoS Genetics, 2014, 10, e1004667.	3.5	26
48	DNA Building Blocks at the Foundation of Better Survival. Cell Cycle, 2003, 2, 171-172.	2.6	25
49	Hydroxyurea-Mediated Cytotoxicity Without Inhibition of Ribonucleotide Reductase. Cell Reports, 2016, 17, 1657-1670.	6.4	24
50	Rtt105 functions as a chaperone for replication protein A to preserve genome stability. EMBO Journal, 2018, 37, .	7.8	23
51	Molecular Basis of the Essential S Phase Function of the Rad53 Checkpoint Kinase. Molecular and Cellular Biology, 2013, 33, 3202-3213.	2.3	22
52	Dinucleotide Degradation by REXO2 Maintains Promoter Specificity in Mammalian Mitochondria. Molecular Cell, 2019, 76, 784-796.e6.	9.7	22
53	Rnr1, but not Rnr3, facilitates the sustained telomerase-dependent elongation of telomeres. PLoS Genetics, 2017, 13, e1007082.	3.5	20
54	Shortage of dNTPs underlies altered replication dynamics and DNA breakage in the absence of the APC/C cofactor Cdh1. Oncogene, 2017, 36, 5808-5818.	5.9	19

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55	The absence of the catalytic domains of Saccharomyces cerevisiae DNA polymerase Ïµ strongly reduces DNA replication fidelity. Nucleic Acids Research, 2019, 47, 3986-3995.	14.5	19
56	Yeast DNA polymerase Î¶ maintains consistent activity and mutagenicity across a wide range of physiological dNTP concentrations. Nucleic Acids Research, 2017, 45, 1200-1218.	14.5	18
57	A genetic screen pinpoints ribonucleotide reductase residues that sustain dNTP homeostasis and specifies a highly mutagenic type of dNTP imbalance. Nucleic Acids Research, 2019, 47, 237-252.	14.5	16
58	SAMHD1 Limits the Efficacy of Forodesine in Leukemia by Protecting Cells against the Cytotoxicity of dGTP. Cell Reports, 2020, 31, 107640.	6.4	16
59	Telomere length kinetics assay (TELKA) sorts the telomere length maintenance (tlm) mutants into functional groups. Nucleic Acids Research, 2014, 42, 6314-6325.	14.5	14
60	Elimination of rNMPs from mitochondrial DNA has no effect on its stability. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14306-14313.	7.1	14
61	Ribonucleotides in mitochondrial <scp>DNA</scp>. FEBS Letters, 2019, 593, 1554-1565.	2.8	13
62	De novo dNTP production is essential for normal postnatal murine heart development. Journal of Biological Chemistry, 2019, 294, 15889-15897.	3.4	12
63	Pre-activation of the genome integrity checkpoint increases DNA damage tolerance. Nucleic Acids Research, 2013, 41, 10371-10378.	14.5	10
64	Phosphines are ribonucleotide reductase reductants that act via C-terminal cysteines similar to thioredoxins and glutaredoxins. Scientific Reports, 2014, 4, 5539.	3.3	9
65	Upregulation of dNTP Levels After Telomerase Inactivation Influences Telomerase-Independent Telomere Maintenance Pathway Choice in <i>Saccharomyces cerevisiae</i>. G3: Genes, Genomes, Genetics, 2018, 8, 2551-2558.	1.8	9
66	A geographically matched control population efficiently limits the number of candidate disease-causing variants in an unbiased whole-genome analysis. PLoS ONE, 2019, 14, e0213350.	2.5	8
67	High density of unrepaired genomic ribonucleotides leads to Topoisomerase 1-mediated severe growth defects in absence of ribonucleotide reductase. Nucleic Acids Research, 2020, 48, 4274-4297.	14.5	8
68	Isocratic HPLC analysis for the simultaneous determination of dNTPs, rNTPsÂand ADP in biological samples. Nucleic Acids Research, 2022, 50, e18-e18.	14.5	8
69	Inactivation of folylpolyglutamate synthetase Met7 results in genome instability driven by an increased dUTP/dTTP ratio. Nucleic Acids Research, 2020, 48, 264-277.	14.5	7
70	Proofreading deficiency in mitochondrial DNA polymerase does not affect total dNTP pools in mouse embryos. Nature Metabolism, 2020, 2, 673-675.	11.9	7
71	S phase block following<i>MEC1ATR</i>inactivation occurs without severe dNTP depletion. Biology Open, 2015, 4, 1739-1743.	1.2	6
72	Increased contribution of DNA polymerase delta to the leading strand replication in yeast with an impaired CMG helicase complex. DNA Repair, 2022, 110, 103272.	2.8	4

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73	Chl1 helicase controls replication fork progression by regulating dNTP pools. Life Science Alliance, 2022, 5, e202101153.	2.8	1