Ian Holt

List of Publications by Year in descending order

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84 papers	6,599 citations	61984 43 h-index	64796 79 g-index
89 all docs	89 docs citations	89 times ranked	6593 citing authors

#	Article	IF	Citations
1	Enzymatic Removal of Ribonucleotides from DNA Is Essential for Mammalian Genome Integrity and Development. Cell, 2012, 149, 1008-1022.	28.9	397
2	Coupled Leading- and Lagging-Strand Synthesis of Mammalian Mitochondrial DNA. Cell, 2000, 100, 515-524.	28.9	372
3	Blue Native electrophoresis to study mitochondrial and other protein complexes. Methods, 2002, 26, 327-334.	3.8	329
4	Minimizing the damage: repair pathways keep mitochondrial DNA intact. Nature Reviews Molecular Cell Biology, 2012, 13, 659-671.	37.0	324
5	PrimPol, an Archaic Primase/Polymerase Operating in Human Cells. Molecular Cell, 2013, 52, 541-553.	9.7	322
6	Biased Incorporation of Ribonucleotides on the Mitochondrial L-Strand Accounts for Apparent Strand-Asymmetric DNA Replication. Cell, 2002, 111, 495-505.	28.9	238
7	Replication of vertebrate mitochondrial DNA entails transient ribonucleotide incorporation throughout the lagging strand. EMBO Journal, 2006, 25, 5358-5371.	7.8	205
8	Twinkle helicase is essential for mtDNA maintenance and regulates mtDNA copy number. Human Molecular Genetics, 2004, 13, 3219-3227.	2.9	202
9	The AAA+ protein ATAD3 has displacement loop binding properties and is involved in mitochondrial nucleoid organization. Journal of Cell Biology, 2007, 176, 141-146.	5.2	198
10	Mitochondrial RNA Polymerase Is Needed for Activation of the Origin of Light-Strand DNA Replication. Molecular Cell, 2010, 37, 67-78.	9.7	183
11	Mammalian Mitochondrial DNA Replicates Bidirectionally from an Initiation Zone. Journal of Biological Chemistry, 2003, 278, 50961-50969.	3.4	174
12	Alterations to the expression level of mitochondrial transcription factor A, TFAM, modify the mode of mitochondrial DNA replication in cultured human cells. Nucleic Acids Research, 2006, 34, 5815-5828.	14.5	151
13	A Bidirectional Origin of Replication Maps to the Major Noncoding Region of Human Mitochondrial DNA. Molecular Cell, 2005, 18, 651-662.	9.7	148
14	Mammalian mitochondrial nucleoids: Organizing an independently minded genome. Mitochondrion, 2007, 7, 311-321.	3.4	142
15	TEFM (c17orf42) is necessary for transcription of human mtDNA. Nucleic Acids Research, 2011, 39, 4284-4299.	14.5	142
16	Human telomerase acts as a hTR-independent reverse transcriptase in mitochondria. Nucleic Acids Research, 2012, 40, 712-725.	14.5	142
17	Human Mitochondrial DNA Replication. Cold Spring Harbor Perspectives in Biology, 2012, 4, a012971-a012971.	5.5	121
18	Human Heart Mitochondrial DNA Is Organized in Complex Catenated Networks Containing Abundant Four-way Junctions and Replication Forks. Journal of Biological Chemistry, 2009, 284, 21446-21457.	3.4	110

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19	Mammalian Mitochondrial DNA Replication Intermediates Are Essentially Duplex but Contain Extensive Tracts of RNA/DNA Hybrid. Journal of Molecular Biology, 2010, 397, 1144-1155.	4.2	110
20	Impaired ATP Synthase Assembly Associated with a Mutation in the Human ATP Synthase Subunit 6 Gene. Journal of Biological Chemistry, 2001, 276, 6755-6762.	3.4	106
21	ATAD3 gene cluster deletions cause cerebellar dysfunction associated with altered mitochondrial DNA and cholesterol metabolism. Brain, 2017, 140, 1595-1610.	7.6	105
22	A tRNA suppressor mutation in human mitochondria. Nature Genetics, 1998, 18, 350-353.	21.4	103
23	The mitochondrial transcription termination factor mTERF modulates replication pausing in human mitochondrial DNA. Nucleic Acids Research, 2007, 35, 6458-6474.	14.5	95
24	Mitochondrial DNA replication proceeds via a â€˜bootlaceâ€™ mechanism involving the incorporation of processed transcripts. Nucleic Acids Research, 2013, 41, 5837-5850.	14.5	93
25	Prominent mitochondrial DNA recombination intermediates in human heart muscle. EMBO Reports, 2001, 2, 1007-1012.	4.5	92
26	Mice expressing an error-prone DNA polymerase in mitochondria display elevated replication pausing and chromosomal breakage at fragile sites of mitochondrial DNA. Nucleic Acids Research, 2009, 37, 2327-2335.	14.5	87
27	Inhibition of mitochondrial fission favours mutant over wild-type mitochondrial DNA. Human Molecular Genetics, 2009, 18, 3407-3416.	2.9	84
28	An Upstream Open Reading Frame and the Context of the Two AUG Codons Affect the Abundance of Mitochondrial and Nuclear RNase H1. Molecular and Cellular Biology, 2010, 30, 5123-5134.	2.3	83
29	Primer retention owing to the absence of RNase H1 is catastrophic for mitochondrial DNA replication. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9334-9339.	7.1	75
30	Transmission of Mitochondrial DNA Diseases and Ways to Prevent Them. PLoS Genetics, 2010, 6, e1001066.	3.5	74
31	Human Mitochondrial DNA-Protein Complexes Attach to a Cholesterol-Rich Membrane Structure. Scientific Reports, 2015, 5, 15292.	3.3	73
32	Bidirectional Replication Initiates at Sites Throughout the Mitochondrial Genome of Birds. Journal of Biological Chemistry, 2005, 280, 3242-3250.	3.4	71
33	Mitochondrial DNA replication and repair: all a flap. Trends in Biochemical Sciences, 2009, 34, 358-365.	7.5	69
34	Wobble modification deficiency in mutant tRNAs in patients with mitochondrial diseases. FEBS Letters, 2005, 579, 2948-2952.	2.8	68
35	MPV17 Loss Causes Deoxynucleotide Insufficiency and Slow DNA Replication in Mitochondria. PLoS Genetics, 2016, 12, e1005779.	3.5	67
36	Response: The mitochondrial DNA replication bubble has not burst. Trends in Biochemical Sciences, 2003, 28, 355-356.	7.5	62

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37	The conserved translocase Tim17 prevents mitochondrial DNA loss. Human Molecular Genetics, 2009, 18, 65-74.	2.9	58
38	Genotypic Stability, Segregation and Selection in Heteroplasmic Human Cell Lines Containing np 3243 Mutant mtDNA. Genetics, 2000, 154, 363-380.	2.9	57
39	Alternative translation initiation augments the human mitochondrial proteome. Nucleic Acids Research, 2013, 41, 2354-2369.	14.5	56
40	MPV17L2 is required for ribosome assembly in mitochondria. Nucleic Acids Research, 2014, 42, 8500-8515.	14.5	56
41	Mitochondrial DNA: does more lead to less?. Nature Genetics, 1994, 8, 313-315.	21.4	53
42	Amino Acid Starvation Has Opposite Effects on Mitochondrial and Cytosolic Protein Synthesis. PLoS ONE, 2014, 9, e93597.	2.5	48
43	Pathological ribonuclease H1 causes R-loop depletion and aberrant DNA segregation in mitochondria. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4276-85.	7.1	48
44	Parkinsonism and spastic paraplegia type 7: Expanding the spectrum of mitochondrial Parkinsonism. Movement Disorders, 2019, 34, 1547-1561.	3.9	44
45	Aberrant ribonucleotide incorporation and multiple deletions in mitochondrial DNA of the murine MPV17 disease model. Nucleic Acids Research, 2017, 45, 12808-12815.	14.5	43
46	The mitochondrial R-loop. Nucleic Acids Research, 2019, 47, 5480-5489.	14.5	43
47	<scp>LETM</scp> 1 couples mitochondrial <scp>DNA</scp> metabolism and nutrient preference. EMBO Molecular Medicine, 2018, 10, .	6.9	41
48	Expression of Algal Nuclear ATP Synthase Subunit 6 in Human Cells Results in Protein Targeting to Mitochondria but No Assembly into ATP Synthase. Rejuvenation Research, 2006, 9, 455-469.	1.8	37
49	Acquisition of the wobble modification in mitochondrial tRNALeu(CUN) bearing the G12300A mutation suppresses the MELAS molecular defect. Human Molecular Genetics, 2006, 15, 897-904.	2.9	36
50	Overexpression of MTERFD1 or MTERFD3 impairs the completion of mitochondrial DNA replication. Molecular Biology Reports, 2011, 38, 1321-1328.	2.3	36
51	A Cryptic Targeting Signal Creates a Mitochondrial FEN1 Isoform with Tailed R-Loop Binding Properties. PLoS ONE, 2013, 8, e62340.	2.5	36
52	Separation of intact pyruvate dehydrogenase complex using blue native agarose gel electrophoresis. Electrophoresis, 2000, 21, 2925-2931.	2.4	35
53	MRPS25 mutations impair mitochondrial translation and cause encephalomyopathy. Human Molecular Genetics, 2019, 28, 2711-2719.	2.9	33
54	Recurrent De Novo NAHR Reciprocal Duplications in the ATAD3 Gene Cluster Cause a Neurogenetic Trait with Perturbed Cholesterol and Mitochondrial Metabolism. American Journal of Human Genetics, 2020, 106, 272-279.	6.2	33

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55	Unique features of DNA replication in mitochondria: A functional and evolutionary perspective. BioEssays, 2014, 36, 1024-1031.	2.5	31
56	Zen and the art of mitochondrial DNA maintenance. Trends in Genetics, 2010, 26, 103-109.	6.7	30
57	Systematic Segregation to Mutant Mitochondrial DNA and Accompanying Loss of Mitochondrial DNA in Human NT2 Teratocarcinoma Cybrids. Genetics, 2005, 170, 1879-1885.	2.9	29
58	The molecular pathology of respiratory-chain dysfunction in human mitochondrial myopathies. Biochimica Et Biophysica Acta - Bioenergetics, 1990, 1018, 217-222.	1.0	27
59	Mitochondrial quality control: Cell-type-dependent responses to pathological mutant mitochondrial DNA. Autophagy, 2016, 12, 2098-2112.	9.1	21
60	Transcript availability dictates the balance between strand-asynchronous and strand-coupled mitochondrial DNA replication. Nucleic Acids Research, 2018, 46, 10771-10781.	14.5	20
61	Clinicopathologic and molecular spectrum of RNASEH1 -related mitochondrial disease. Neurology: Genetics, 2017, 3, e149.	1.9	19
62	Analysis of Mitochondrial DNA by Two-Dimensional Agarose Gel Electrophoresis. Methods in Molecular Biology, 2009, 554, 15-35.	0.9	19
63	Mitochondrial Transcription Terminator Family Members mTTF and mTerf5 Have Opposing Roles in Coordination of mtDNA Synthesis. PLoS Genetics, 2013, 9, e1003800.	3.5	17
64	Biochemical and molecular aspects of human mitochondrial respiratory chain disorders. Biochemical Society Transactions, 1990, 18, 517-519.	3.4	14
65	The road to rack and ruin: selecting deleterious mitochondrial DNA variants. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130451.	4.0	14
66	Mitochondrial myopathies: clinical defects. Biochemical Society Transactions, 1990, 18, 523-526.	3.4	13
67	Cultured muscle cells display defects of mitochondrial myopathy ameliorated by anti-oxidants. Brain, 2007, 130, 2715-2724.	7.6	13
68	A robust assay to measure DNA topology-dependent protein binding affinity. Nucleic Acids Research, 2015, 43, e43-e43.	14.5	13
69	Characterizing the mitochondrial DNA polymerase gamma interactome by BioID identifies Ruvbl2 localizes to the mitochondria. Mitochondrion, 2017, 32, 31-35.	3.4	13
70	2-Deoxy-D-glucose couples mitochondrial DNA replication with mitochondrial fitness and promotes the selection of wild-type over mutant mitochondrial DNA. Nature Communications, 2021, 12, 6997.	12.8	12
71	The yeast Holliday junction resolvase, CCE1, can restore wild-type mitochondrial DNA to human cells carrying rearranged mitochondrial DNA. Human Molecular Genetics, 2007, 16, 2306-2314.	2.9	11
72	The Jekyll and Hyde character of RNase H1 and its multiple roles in mitochondrial DNA metabolism. DNA Repair, 2019, 84, 102630.	2.8	11

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73	Reply: Genotype-phenotype correlation in ATAD3A deletions: not just of scientific relevance. Brain, 2017, 140, e67-e67.	7.6	9
74	Rhabdomyosarcoma ï0 cells: isolation and characterization of a mitochondrial DNA depleted cell line with â€˜muscle-likeâ€™ properties. Neuromuscular Disorders, 2000, 10, 454-459.	0.6	8
75	In vitroStudy of Muscle Aerobic Metabolism in Chronic Fatigue Syndrome. The Journal of Chronic Fatigue Syndrome: Multidisciplinary Innovations in Researchory and Clinical Practice, 1999, 5, 3-16.	0.4	7
76	2 deoxy-D-glucose augments the mitochondrial respiratory chain in heart. Scientific Reports, 2022, 12, 6890.	3.3	5
77	R-Loops and Mitochondrial DNA Metabolism. Methods in Molecular Biology, 2022, , 173-202.	0.9	5
78	Analysis of Replicating Mitochondrial DNA by In Organello Labeling and Two-Dimensional Agarose Gel Electrophoresis. Methods in Molecular Biology, 2016, 1351, 95-113.	0.9	2
79	Uniparental isodisomy of chromosome 2 causing MRPL44-related multisystem mitochondrial disease. Molecular Biology Reports, 2021, 48, 2093-2104.	2.3	1
80	Corrigendum to â€œRhabdomyosarcoma ï0 cells: isolation and characterization of mitochondrial DNA depleted cell line with â€˜muscle-likeâ€™ propertiesâ€•[Neuromuscular Disorders 10 (2000) 454â€“459]. Neuromuscular Disorders, 2001, 11, 99.	0.6	0
81	Reply to: â€œMitochondrial Parkinsonism due to SPG7/Paraplegin variants with secondary mtDNA depletionâ€• Movement Disorders, 2019, 34, 1932-1933.	3.9	0
82	Mechanisms of onset and accumulation of mtDNA mutations. , 2020, , 195-219.		0
83	Erretikulu endoplasmatikoaren eta Mitokondriaren arteko konexioek mtDNA-ren erreplikazioan duten inplikazioa. , 0, , .		0
84	ATAD3 gene-familian de novo duplikazioek Harel-Yoon sindromea sortzen dute, eta kolesterolaren eta mitokondrien metabolismoan kalteak eragiten dituzte. , 0, , .		0