Maria Falkenberg

List of Publications by Year
in descending order

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76 papers	9,733 citations	81434 41 h-index	93651 72 g-index
79 all docs	79 docs citations	79 times ranked	10012 citing authors

#	Article	IF	Citations
1	Ribonucleotides embedded in template DNA impair mitochondrial RNA polymerase progression. Nucleic Acids Research, 2022, 50, 989-999.	6.5	4
2	Non-coding 7S RNA inhibits transcription via mitochondrial RNA polymerase dimerization. Cell, 2022, 185, 2309-2323.e24.	13.5	20
3	Disease causing mutation (P178L) in mitochondrial transcription factor A results in impaired mitochondrial transcription initiation. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2022, 1868, 166467.	1.8	2
4	Mitochondrial DNA variants in inclusion body myositis characterized by deep sequencing. Brain Pathology, 2021, 31, e12931.	2.1	17
5	POLRMT mutations impair mitochondrial transcription causing neurological disease. Nature Communications, 2021, 12, 1135.	5.8	21
6	Functional analysis of a novel POLÎ³A mutation associated with a severe perinatal mitochondrial encephalomyopathy. Neuromuscular Disorders, 2021, 31, 348-358.	0.3	2
7	DNA polymerase gamma mutations that impair holoenzyme stability cause catalytic subunit depletion. Nucleic Acids Research, 2021, 49, 5230-5248.	6.5	15
8	The mitochondrial single-stranded DNA binding protein is essential for initiation of mtDNA replication. Science Advances, 2021, 7, .	4.7	36
9	In Vitro Analysis of mtDNA Replication. Methods in Molecular Biology, 2021, 2192, 1-20.	0.4	0
10	Editing the Mitochondrial Genome. New England Journal of Medicine, 2020, 383, 1489-1491.	13.9	7
11	Mammalian mitochondrial DNA replication and mechanisms of deletion formation. Critical Reviews in Biochemistry and Molecular Biology, 2020, 55, 509-524.	2.3	42
12	Small-molecule inhibitors of human mitochondrial DNA transcription. Nature, 2020, 588, 712-716.	13.7	115
13	Recurrent horizontal transfer identifies mitochondrial positive selection in a transmissible cancer. Nature Communications, 2020, 11, 3059.	5.8	18
14	TWINKLE and Other Human Mitochondrial DNA Helicases: Structure, Function and Disease. Genes, 2020, 11, 408.	1.0	40
15	Deep sequencing of mitochondrial DNA and characterization of a novel POLG mutation in a patient with arPEO. Neurology: Genetics, 2020, 6, e391.	0.9	8
16	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. PLoS Genetics, 2020, 16, e1009242.	1.5	41
17	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
18	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0

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19	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
20	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
21	Dinucleotide Degradation by REXO2 Maintains Promoter Specificity in Mammalian Mitochondria. Molecular Cell, 2019, 76, 784-796.e6.	4.5	22
22	Organization of DNA in Mammalian Mitochondria. International Journal of Molecular Sciences, 2019, 20, 2770.	1.8	82
23	Copy-choice recombination during mitochondrial L-strand synthesis causes DNA deletions. Nature Communications, 2019, 10, 759.	5.8	34
24	RNase H1 directs origin-specific initiation of DNA replication in human mitochondria. PLoS Genetics, 2019, 15, e1007781.	1.5	58
25	Structural basis for adPEO-causing mutations in the mitochondrial TWINKLE helicase. Human Molecular Genetics, 2019, 28, 1090-1099.	1.4	18
26	SSBP1 mutations cause mtDNA depletion underlying a complex optic atrophy disorder. Journal of Clinical Investigation, 2019, 130, 108-125.	3.9	65
27	Defective mitochondrial protease LonP1 can cause classical mitochondrial disease. Human Molecular Genetics, 2018, 27, 1743-1753.	1.4	46
28	Topoisomerase 3Î± Is Required for Decatenation and Segregation of Human mtDNA. Molecular Cell, 2018, 69, 9-23.e6.	4.5	102
29	Mice lacking the mitochondrial exonuclease MGME1 accumulate mtDNA deletions without developing progeria. Nature Communications, 2018, 9, 1202.	5.8	57
30	Mitochondrial DNA replication in mammalian cells: overview of the pathway. Essays in Biochemistry, 2018, 62, 287-296.	2.1	120
31	A two-nuclease pathway involving RNase H1 is required for primer removal at human mitochondrial OriL. Nucleic Acids Research, 2018, 46, 9471-9483.	6.5	25
32	An Adaptable High-Throughput Technology Enabling the Identification of Specific Transcription Modulators. SLAS Discovery, 2017, 22, 378-386.	1.4	5
33	A multi-systemic mitochondrial disorder due to a dominant p.Y955H disease variant in DNA polymerase gamma. Human Molecular Genetics, 2017, 26, 2515-2525.	1.4	12
34	Nucleotide pools dictate the identity and frequency of ribonucleotide incorporation in mitochondrial DNA. PLoS Genetics, 2017, 13, e1006628.	1.5	55
35	MGME1 processes flaps into ligatable nicks in concert with DNA polymerase Î³ during mtDNA replication. Nucleic Acids Research, 2016, 44, 5861-5871.	6.5	56
36	Mitochondrial transcription termination factor 1 directs polar replication fork pausing. Nucleic Acids Research, 2016, 44, 5732-5742.	6.5	32

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37	Maintenance and Expression of Mammalian Mitochondrial DNA. Annual Review of Biochemistry, 2016, 85, 133-160.	5.0	507
38	TEFM is a potent stimulator of mitochondrial transcription elongation in vitro. Nucleic Acids Research, 2015, 43, 2615-2624.	6.5	80
39	Regulation of DNA replication at the end of the mitochondrial D-loop involves the helicase TWINKLE and a conserved sequence element. Nucleic Acids Research, 2015, 43, 9262-9275.	6.5	81
40	Complementation between polymerase- and exonuclease-deficient mitochondrial DNA polymerase mutants in genomically engineered flies. Nature Communications, 2015, 6, 8808.	5.8	48
41	The exonuclease activity of DNA polymerase Î³ is required for ligation during mitochondrial DNA replication. Nature Communications, 2015, 6, 7303.	5.8	70
42	Cross-strand binding of TFAM to a single mtDNA molecule forms the mitochondrial nucleoid. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11288-11293.	3.3	266
43	Primer removal during mammalian mitochondrial DNA replication. DNA Repair, 2015, 34, 28-38.	1.3	41
44	A human mitochondrial poly(A) polymerase mutation reveals the complexities of post-transcriptional mitochondrial gene expression. Human Molecular Genetics, 2014, 23, 6345-6355.	1.4	63
45	In Vivo Occupancy of Mitochondrial Single-Stranded DNA Binding Protein Supports the Strand Displacement Mode of DNA Replication. PLoS Genetics, 2014, 10, e1004832.	1.5	112
46	The UbL protein UBTD1 stably interacts with the UBE2D family of E2 ubiquitin conjugating enzymes. Biochemical and Biophysical Research Communications, 2014, 443, 7-12.	1.0	17
47	POLRMT does not transcribe nuclear genes. Nature, 2014, 514, E7-E11.	13.7	35
48	InÂVitro-Reconstituted Nucleoids Can Block Mitochondrial DNA Replication and Transcription. Cell Reports, 2014, 8, 66-74.	2.9	98
49	MTERF1 Binds mtDNA to Prevent Transcriptional Interference at the Light-Strand Promoter but Is Dispensable for rRNA Gene Transcription Regulation. Cell Metabolism, 2013, 17, 618-626.	7.2	93
50	TWINKLE is an essential mitochondrial helicase required for synthesis of nascent D-loop strands and complete mtDNA replication. Human Molecular Genetics, 2013, 22, 1983-1993.	1.4	132
51	Mammalian transcription factor A is a core component of the mitochondrial transcription machinery. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16510-16515.	3.3	156
52	A hybrid G-quadruplex structure formed between RNA and DNA explains the extraordinary stability of the mitochondrial R-loop. Nucleic Acids Research, 2012, 40, 10334-10344.	6.5	133
53	Protein sliding and DNA denaturation are essential for DNA organization by human mitochondrial transcription factor A. Nature Communications, 2012, 3, 1013.	5.8	101
54	In vivo mutagenesis reveals that OriL is essential for mitochondrial DNA replication. EMBO Reports, 2012, 13, 1130-1137.	2.0	59

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55	Sequence-specific stalling of DNA polymerase Î³ and the effects of mutations causing progressive ophthalmoplegiaâ€. Human Molecular Genetics, 2011, 20, 1212-1223.	1.4	24
56	Super-resolution microscopy reveals that mammalian mitochondrial nucleoids have a uniform size and frequently contain a single copy of mtDNA. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13534-13539.	3.3	450
57	The mitochondrial DNA helicase TWINKLE can assemble on a closed circular template and support initiation of DNA synthesis. Nucleic Acids Research, 2011, 39, 9238-9249.	6.5	39
58	Human Mitochondrial Transcription Revisited. Journal of Biological Chemistry, 2010, 285, 18129-18133.	1.6	174
59	G-quadruplex structures in RNA stimulate mitochondrial transcription termination and primer formation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16072-16077.	3.3	147
60	Maintenance of respiratory chain function in mouse hearts with severely impaired mtDNA transcription. Nucleic Acids Research, 2010, 38, 6577-6588.	6.5	35
61	Mitochondrial RNA Polymerase Is Needed for Activation of the Origin of Light-Strand DNA Replication. Molecular Cell, 2010, 37, 67-78.	4.5	183
62	Structure Casts Light on mtDNA Replication. Cell, 2009, 139, 231-233.	13.5	6
63	Structureâ€“function defects of the twinkle amino-terminal region in progressive external ophthalmoplegia. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2009, 1792, 132-139.	1.8	32
64	Structureâ€“Function Defects of the TWINKLE Linker Region in Progressive External Ophthalmoplegia. Journal of Molecular Biology, 2008, 377, 691-705.	2.0	57
65	Human mitochondrial RNA polymerase primes lagging-strand DNA synthesis in vitro. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11122-11127.	3.3	152
66	The N-terminal domain of TWINKLE contributes to single-stranded DNA binding and DNA helicase activities. Nucleic Acids Research, 2007, 36, 393-403.	6.5	57
67	The accessory subunit B of DNA polymerase Â is required for mitochondrial replisome function. Nucleic Acids Research, 2007, 35, 902-911.	6.5	46
68	DNA Replication and Transcription in Mammalian Mitochondria. Annual Review of Biochemistry, 2007, 76, 679-699.	5.0	567
69	Conserved Sequence Box II Directs Transcription Termination and Primer Formation in Mitochondria. Journal of Biological Chemistry, 2006, 281, 24647-24652.	1.6	114
70	Mitochondrial transcription factor A regulates mtDNA copy number in mammals. Human Molecular Genetics, 2004, 13, 935-944.	1.4	730
71	Reconstitution of a minimal mtDNA replisome in vitro. EMBO Journal, 2004, 23, 2423-2429.	3.5	345
72	The mitochondrial RNA polymerase contributes critically to promoter specificity in mammalian cells. EMBO Journal, 2004, 23, 4606-4614.	3.5	151

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73	Premature ageing in mice expressing defective mitochondrial DNA polymerase. Nature, 2004, 429, 417-423.	13.7	2,318
74	TWINKLE Has 5â€² â†’ 3â€² DNA Helicase Activity and Is Specifically Stimulated by Mitochondrial Single-stranded DNA-binding Protein. Journal of Biological Chemistry, 2003, 278, 48627-48632.	1.6	245
75	Mitochondrial transcription factors B1 and B2 activate transcription of human mtDNA. Nature Genetics, 2002, 31, 289-294.	9.4	535
76	The UL8 Subunit of the Heterotrimeric Herpes Simplex Virus Type 1 Helicase-Primase Is Required for the Unwinding of Single Strand DNA-binding Protein (ICP8)-coated DNA Substrates. Journal of Biological Chemistry, 1997, 272, 22766-22770.	1.6	54