

# Maria Falkenberg

## List of Publications by Year in descending order

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76  
papers

9,733  
citations

71102

41  
h-index

82547

72  
g-index

79  
all docs

79  
docs citations

79  
times ranked

9101  
citing authors

#	ARTICLE	IF	CITATIONS
1	Premature ageing in mice expressing defective mitochondrial DNA polymerase. <i>Nature</i> , 2004, 429, 417-423.	27.8	2,318
2	Mitochondrial transcription factor A regulates mtDNA copy number in mammals. <i>Human Molecular Genetics</i> , 2004, 13, 935-944.	2.9	730
3	DNA Replication and Transcription in Mammalian Mitochondria. <i>Annual Review of Biochemistry</i> , 2007, 76, 679-699.	11.1	567
4	Mitochondrial transcription factors B1 and B2 activate transcription of human mtDNA. <i>Nature Genetics</i> , 2002, 31, 289-294.	21.4	535
5	Maintenance and Expression of Mammalian Mitochondrial DNA. <i>Annual Review of Biochemistry</i> , 2016, 85, 133-160.	11.1	507
6	Super-resolution microscopy reveals that mammalian mitochondrial nucleoids have a uniform size and frequently contain a single copy of mtDNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 13534-13539.	7.1	450
7	Reconstitution of a minimal mtDNA replisome in vitro. <i>EMBO Journal</i> , 2004, 23, 2423-2429.	7.8	345
8	Cross-strand binding of TFAM to a single mtDNA molecule forms the mitochondrial nucleoid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11288-11293.	7.1	266
9	TWINKLE Has 5' to 3' DNA Helicase Activity and Is Specifically Stimulated by Mitochondrial Single-stranded DNA-binding Protein. <i>Journal of Biological Chemistry</i> , 2003, 278, 48627-48632.	3.4	245
10	Mitochondrial RNA Polymerase Is Needed for Activation of the Origin of Light-Strand DNA Replication. <i>Molecular Cell</i> , 2010, 37, 67-78.	9.7	183
11	Human Mitochondrial Transcription Revisited. <i>Journal of Biological Chemistry</i> , 2010, 285, 18129-18133.	3.4	174
12	Mammalian transcription factor A is a core component of the mitochondrial transcription machinery. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 16510-16515.	7.1	156
13	Human mitochondrial RNA polymerase primes lagging-strand DNA synthesis <i>in vitro</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 11122-11127.	7.1	152
14	The mitochondrial RNA polymerase contributes critically to promoter specificity in mammalian cells. <i>EMBO Journal</i> , 2004, 23, 4606-4614.	7.8	151
15	G-quadruplex structures in RNA stimulate mitochondrial transcription termination and primer formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 16072-16077.	7.1	147
16	A hybrid G-quadruplex structure formed between RNA and DNA explains the extraordinary stability of the mitochondrial R-loop. <i>Nucleic Acids Research</i> , 2012, 40, 10334-10344.	14.5	133
17	TWINKLE is an essential mitochondrial helicase required for synthesis of nascent D-loop strands and complete mtDNA replication. <i>Human Molecular Genetics</i> , 2013, 22, 1983-1993.	2.9	132
18	Mitochondrial DNA replication in mammalian cells: overview of the pathway. <i>Essays in Biochemistry</i> , 2018, 62, 287-296.	4.7	120

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19	Small-molecule inhibitors of human mitochondrial DNA transcription. <i>Nature</i> , 2020, 588, 712-716.	27.8	115
20	Conserved Sequence Box II Directs Transcription Termination and Primer Formation in Mitochondria. <i>Journal of Biological Chemistry</i> , 2006, 281, 24647-24652.	3.4	114
21	In Vivo Occupancy of Mitochondrial Single-Stranded DNA Binding Protein Supports the Strand Displacement Mode of DNA Replication. <i>PLoS Genetics</i> , 2014, 10, e1004832.	3.5	112
22	Topoisomerase 3 $\beta$ Is Required for Decatenation and Segregation of Human mtDNA. <i>Molecular Cell</i> , 2018, 69, 9-23.e6.	9.7	102
23	Protein sliding and DNA denaturation are essential for DNA organization by human mitochondrial transcription factor A. <i>Nature Communications</i> , 2012, 3, 1013.	12.8	101
24	In Vitro-Reconstituted Nucleoids Can Block Mitochondrial DNA Replication and Transcription. <i>Cell Reports</i> , 2014, 8, 66-74.	6.4	98
25	MTERF1 Binds mtDNA to Prevent Transcriptional Interference at the Light-Strand Promoter but Is Dispensable for rRNA Gene Transcription Regulation. <i>Cell Metabolism</i> , 2013, 17, 618-626.	16.2	93
26	Organization of DNA in Mammalian Mitochondria. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2770.	4.1	82
27	Regulation of DNA replication at the end of the mitochondrial D-loop involves the helicase TWINKLE and a conserved sequence element. <i>Nucleic Acids Research</i> , 2015, 43, 9262-9275.	14.5	81
28	TEFM is a potent stimulator of mitochondrial transcription elongation in vitro. <i>Nucleic Acids Research</i> , 2015, 43, 2615-2624.	14.5	80
29	The exonuclease activity of DNA polymerase $\beta$ is required for ligation during mitochondrial DNA replication. <i>Nature Communications</i> , 2015, 6, 7303.	12.8	70
30	SSBP1 mutations cause mtDNA depletion underlying a complex optic atrophy disorder. <i>Journal of Clinical Investigation</i> , 2019, 130, 108-125.	8.2	65
31	A human mitochondrial poly(A) polymerase mutation reveals the complexities of post-transcriptional mitochondrial gene expression. <i>Human Molecular Genetics</i> , 2014, 23, 6345-6355.	2.9	63
32	<i>In vivo</i> mutagenesis reveals that OriL is essential for mitochondrial DNA replication. <i>EMBO Reports</i> , 2012, 13, 1130-1137.	4.5	59
33	RNase H1 directs origin-specific initiation of DNA replication in human mitochondria. <i>PLoS Genetics</i> , 2019, 15, e1007781.	3.5	58
34	The N-terminal domain of TWINKLE contributes to single-stranded DNA binding and DNA helicase activities. <i>Nucleic Acids Research</i> , 2007, 36, 393-403.	14.5	57
35	Structure-Function Defects of the TWINKLE Linker Region in Progressive External Ophthalmoplegia. <i>Journal of Molecular Biology</i> , 2008, 377, 691-705.	4.2	57
36	Mice lacking the mitochondrial exonuclease MGME1 accumulate mtDNA deletions without developing progeria. <i>Nature Communications</i> , 2018, 9, 1202.	12.8	57

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37	MGME1 processes flaps into ligatable nicks in concert with DNA polymerase $\gamma$ during mtDNA replication. <i>Nucleic Acids Research</i> , 2016, 44, 5861-5871.	14.5	56
38	Nucleotide pools dictate the identity and frequency of ribonucleotide incorporation in mitochondrial DNA. <i>PLoS Genetics</i> , 2017, 13, e1006628.	3.5	55
39	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. <i>Journal of Biological Chemistry</i> , 1997, 272, 22766-22770.	3.4	54
40	Complementation between polymerase- and exonuclease-deficient mitochondrial DNA polymerase mutants in genomically engineered flies. <i>Nature Communications</i> , 2015, 6, 8808.	12.8	48
41	The accessory subunit B of DNA polymerase $\gamma$ is required for mitochondrial replisome function. <i>Nucleic Acids Research</i> , 2007, 35, 902-911.	14.5	46
42	Defective mitochondrial protease LonP1 can cause classical mitochondrial disease. <i>Human Molecular Genetics</i> , 2018, 27, 1743-1753.	2.9	46
43	Mammalian mitochondrial DNA replication and mechanisms of deletion formation. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2020, 55, 509-524.	5.2	42
44	Primer removal during mammalian mitochondrial DNA replication. <i>DNA Repair</i> , 2015, 34, 28-38.	2.8	41
45	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. <i>PLoS Genetics</i> , 2020, 16, e1009242.	3.5	41
46	TWINKLE and Other Human Mitochondrial DNA Helicases: Structure, Function and Disease. <i>Genes</i> , 2020, 11, 408.	2.4	40
47	The mitochondrial DNA helicase TWINKLE can assemble on a closed circular template and support initiation of DNA synthesis. <i>Nucleic Acids Research</i> , 2011, 39, 9238-9249.	14.5	39
48	The mitochondrial single-stranded DNA binding protein is essential for initiation of mtDNA replication. <i>Science Advances</i> , 2021, 7, .	10.3	36
49	Maintenance of respiratory chain function in mouse hearts with severely impaired mtDNA transcription. <i>Nucleic Acids Research</i> , 2010, 38, 6577-6588.	14.5	35
50	POLRMT does not transcribe nuclear genes. <i>Nature</i> , 2014, 514, E7-E11.	27.8	35
51	Copy-choice recombination during mitochondrial L-strand synthesis causes DNA deletions. <i>Nature Communications</i> , 2019, 10, 759.	12.8	34
52	Structure-function defects of the twinkle amino-terminal region in progressive external ophthalmoplegia. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2009, 1792, 132-139.	3.8	32
53	Mitochondrial transcription termination factor 1 directs polar replication fork pausing. <i>Nucleic Acids Research</i> , 2016, 44, 5732-5742.	14.5	32
54	A two-nuclease pathway involving RNase H1 is required for primer removal at human mitochondrial OriL. <i>Nucleic Acids Research</i> , 2018, 46, 9471-9483.	14.5	25

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55	Sequence-specific stalling of DNA polymerase $\gamma$ and the effects of mutations causing progressive ophthalmoplegia. Human Molecular Genetics, 2011, 20, 1212-1223.	2.9	24
56	Dinucleotide Degradation by REXO2 Maintains Promoter Specificity in Mammalian Mitochondria. Molecular Cell, 2019, 76, 784-796.e6.	9.7	22
57	POLRMT mutations impair mitochondrial transcription causing neurological disease. Nature Communications, 2021, 12, 1135.	12.8	21
58	Non-coding 7S RNA inhibits transcription via mitochondrial RNA polymerase dimerization. Cell, 2022, 185, 2309-2323.e24.	28.9	20
59	Structural basis for adPEO-causing mutations in the mitochondrial TWINKLE helicase. Human Molecular Genetics, 2019, 28, 1090-1099.	2.9	18
60	Recurrent horizontal transfer identifies mitochondrial positive selection in a transmissible cancer. Nature Communications, 2020, 11, 3059.	12.8	18
61	The Ubl protein UBTD1 stably interacts with the UBE2D family of E2 ubiquitin conjugating enzymes. Biochemical and Biophysical Research Communications, 2014, 443, 7-12.	2.1	17
62	Mitochondrial DNA variants in inclusion body myositis characterized by deep sequencing. Brain Pathology, 2021, 31, e12931.	4.1	17
63	DNA polymerase gamma mutations that impair holoenzyme stability cause catalytic subunit depletion. Nucleic Acids Research, 2021, 49, 5230-5248.	14.5	15
64	A multi-systemic mitochondrial disorder due to a dominant p.Y955H disease variant in DNA polymerase gamma. Human Molecular Genetics, 2017, 26, 2515-2525.	2.9	12
65	Deep sequencing of mitochondrial DNA and characterization of a novel POLG mutation in a patient with arPEO. Neurology: Genetics, 2020, 6, e391.	1.9	8
66	Editing the Mitochondrial Genome. New England Journal of Medicine, 2020, 383, 1489-1491.	27.0	7
67	Structure Casts Light on mtDNA Replication. Cell, 2009, 139, 231-233.	28.9	6
68	An Adaptable High-Throughput Technology Enabling the Identification of Specific Transcription Modulators. SLAS Discovery, 2017, 22, 378-386.	2.7	5
69	Ribonucleotides embedded in template DNA impair mitochondrial RNA polymerase progression. Nucleic Acids Research, 2022, 50, 989-999.	14.5	4
70	Functional analysis of a novel POL $\gamma$ A mutation associated with a severe perinatal mitochondrial encephalomyopathy. Neuromuscular Disorders, 2021, 31, 348-358.	0.6	2
71	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.	3.8	2
72	In Vitro Analysis of mtDNA Replication. Methods in Molecular Biology, 2021, 2192, 1-20.	0.9	0

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73	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
74	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
75	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
76	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0