Claes M Gustafsson

List of Publications by Year
in descending order

92 papers	9,266 citations	47006 47 h-index	46799 89 g-index
94 all docs	94 docs citations	94 times ranked	9657 citing authors

#	Article	IF	Citations
1	Mitochondrial transcription factor A regulates mtDNA copy number in mammals. Human Molecular Genetics, 2004, 13, 935-944.	2.9	730
2	DNA Replication and Transcription in Mammalian Mitochondria. Annual Review of Biochemistry, 2007, 76, 679-699.	11.1	567
3	Mitochondrial transcription factors B1 and B2 activate transcription of human mtDNA. Nature Genetics, 2002, 31, 289-294.	21.4	535
4	MEG3 long noncoding RNA regulates the TGF-Î² pathway genes through formation of RNAâ€“DNA triplex structures. Nature Communications, 2015, 6, 7743.	12.8	534
5	Maintenance and Expression of Mammalian Mitochondrial DNA. Annual Review of Biochemistry, 2016, 85, 133-160.	11.1	507
6	Architectural Role of Mitochondrial Transcription Factor A in Maintenance of Human Mitochondrial DNA. Molecular and Cellular Biology, 2004, 24, 9823-9834.	2.3	267
7	Methylation of 12S rRNA Is Necessary for In Vivo Stability of the Small Subunit of the Mammalian Mitochondrial Ribosome. Cell Metabolism, 2009, 9, 386-397.	16.2	264
8	LRPPRC is necessary for polyadenylation and coordination of translation of mitochondrial mRNAs. EMBO Journal, 2012, 31, 443-456.	7.8	264
9	MTERF4 Regulates Translation by Targeting the Methyltransferase NSUN4 to the Mammalian Mitochondrial Ribosome. Cell Metabolism, 2011, 13, 527-539.	16.2	221
10	MTERF3 Is a Negative Regulator of Mammalian mtDNA Transcription. Cell, 2007, 130, 273-285.	28.9	209
11	Mitochondrial transcription and its regulation in mammalian cells. Trends in Biochemical Sciences, 2007, 32, 111-117.	7.5	193
12	The cyclin-dependent kinase 8 module sterically blocks Mediator interactions with RNA polymerase II. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15788-15793.	7.1	186
13	Mitochondrial RNA Polymerase Is Needed for Activation of the Origin of Light-Strand DNA Replication. Molecular Cell, 2010, 37, 67-78.	9.7	183
14	Human Mitochondrial Transcription Revisited. Journal of Biological Chemistry, 2010, 285, 18129-18133.	3.4	174
15	The yeast Mediator complex and its regulation. Trends in Biochemical Sciences, 2005, 30, 240-244.	7.5	165
16	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.	7.1	156
17	Human mitochondrial RNA polymerase primes lagging-strand DNA synthesis <i>in vitro</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11122-11127.	7.1	152
18	The mitochondrial RNA polymerase contributes critically to promoter specificity in mammalian cells. EMBO Journal, 2004, 23, 4606-4614.	7.8	151

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19	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.	7.1	147
20	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.	14.5	133
21	A family of putative transcription termination factors shared amongst metazoans and plants. Current Genetics, 2005, 48, 265-269.	1.7	116
22	Small-molecule inhibitors of human mitochondrial DNA transcription. Nature, 2020, 588, 712-716.	27.8	115
23	Conserved Sequence Box II Directs Transcription Termination and Primer Formation in Mitochondria. Journal of Biological Chemistry, 2006, 281, 24647-24652.	3.4	114
24	In Vivo Occupancy of Mitochondrial Single-Stranded DNA Binding Protein Supports the Strand Displacement Mode of DNA Replication. PLoS Genetics, 2014, 10, e1004832.	3.5	112
25	TRAP230/ARC240 and TRAP240/ARC250 Mediator subunits are functionally conserved through evolution. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6422-6427.	7.1	109
26	Structure of the human MTERF4â€“NSUN4 protein complex that regulates mitochondrial ribosome biogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15253-15258.	7.1	105
27	Adenosine Kinase Deficiency Disrupts the Methionine Cycle and Causes Hypermethioninemia, Encephalopathy, and Abnormal Liver Function. American Journal of Human Genetics, 2011, 89, 507-515.	6.2	104
28	Genome-Wide Occupancy Profile of Mediator and the Srb8-11 Module Reveals Interactions with Coding Regions. Molecular Cell, 2006, 22, 169-178.	9.7	103
29	Topoisomerase 3Î± Is Required for Decatenation and Segregation of Human mtDNA. Molecular Cell, 2018, 69, 9-23.e6.	9.7	102
30	Protein sliding and DNA denaturation are essential for DNA organization by human mitochondrial transcription factor A. Nature Communications, 2012, 3, 1013.	12.8	101
31	InÂVitro-Reconstituted Nucleoids Can Block Mitochondrial DNA Replication and Transcription. Cell Reports, 2014, 8, 66-74.	6.4	98
32	The transcription machinery in mammalian mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1659, 148-152.	1.0	94
33	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.	16.2	93
34	POLRMT regulates the switch between replication primer formation and gene expression of mammalian mtDNA. Science Advances, 2016, 2, e1600963.	10.3	91
35	Whole exome sequencing reveals mutations in<i>NARS2</i>and<i>PARS2</i>, encoding the mitochondrial asparaginyl-tRNA synthetase and prolyl-tRNA synthetase, in patients with Alpers syndrome. Molecular Genetics & Genomic Medicine, 2015, 3, 59-68.	1.2	87
36	The multitalented Mediator complex. Trends in Biochemical Sciences, 2013, 38, 531-537.	7.5	83

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37	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.	14.5	81
38	TEFM is a potent stimulator of mitochondrial transcription elongation in vitro. Nucleic Acids Research, 2015, 43, 2615-2624.	14.5	80
39	Role of Human DNA Glycosylase Nei-like 2 (NEIL2) and Single Strand Break Repair Protein Polynucleotide Kinase 3â€²-Phosphatase in Maintenance of Mitochondrial Genome. Journal of Biological Chemistry, 2012, 287, 2819-2829.	3.4	77
40	Essential Genetic Interactors of SIR2 Required for Spatial Sequestration and Asymmetrical Inheritance of Protein Aggregates. PLoS Genetics, 2014, 10, e1004539.	3.5	73
41	MTERF2 is a nucleoid component in mammalian mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 296-302.	1.0	70
42	The exonuclease activity of DNA polymerase Î³ is required for ligation during mitochondrial DNA replication. Nature Communications, 2015, 6, 7303.	12.8	70
43	The Human Mitochondrial Transcription Termination Factor (mTERF) Is FullyActive in Vitro in the Non-phosphorylatedForm. Journal of Biological Chemistry, 2005, 280, 25499-25505.	3.4	60
44	<i>In vivo</i> mutagenesis reveals that OriL is essential for mitochondrial DNA replication. EMBO Reports, 2012, 13, 1130-1137.	4.5	59
45	RNase H1 directs origin-specific initiation of DNA replication in human mitochondria. PLoS Genetics, 2019, 15, e1007781.	3.5	58
46	MGME1 processes flaps into ligatable nicks in concert with DNA polymerase Î³ during mtDNA replication. Nucleic Acids Research, 2016, 44, 5861-5871.	14.5	56
47	Nucleotide pools dictate the identity and frequency of ribonucleotide incorporation in mitochondrial DNA. PLoS Genetics, 2017, 13, e1006628.	3.5	55
48	Mutations in mitochondrial DNA causing tubulointerstitial kidney disease. PLoS Genetics, 2017, 13, e1006620.	3.5	52
49	<scp>TEFM</scp> regulates both transcription elongation and <scp>RNA</scp> processing in mitochondria. EMBO Reports, 2019, 20, .	4.5	51
50	The Structural and Functional Role of Med5 in the Yeast Mediator Tail Module. Journal of Biological Chemistry, 2005, 280, 41366-41372.	3.4	50
51	The amino terminal extension of mammalian mitochondrial RNA polymerase ensures promoter specific transcription initiation. Nucleic Acids Research, 2014, 42, 3638-3647.	14.5	50
52	LRPPRC is a mitochondrial matrix protein that is conserved in metazoans. Biochemical and Biophysical Research Communications, 2010, 398, 759-764.	2.1	49
53	Mediator - a universal complex in transcriptional regulation. Molecular Microbiology, 2001, 41, 1-8.	2.5	48
54	Structure of mitochondrial transcription termination factor 3 reveals a novel nucleic acid-binding domain. Biochemical and Biophysical Research Communications, 2010, 397, 386-390.	2.1	43

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55	Mammalian mitochondrial DNA replication and mechanisms of deletion formation. Critical Reviews in Biochemistry and Molecular Biology, 2020, 55, 509-524.	5.2	42
56	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. PLoS Genetics, 2020, 16, e1009242.	3.5	41
57	Histone modifications influence mediator interactions with chromatin. Nucleic Acids Research, 2011, 39, 8342-8354.	14.5	39
58	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.	14.5	39
59	Human Mitochondrial Transcription Factor B2 Is Required for Promoter Melting during Initiation of Transcription. Journal of Biological Chemistry, 2017, 292, 2637-2645.	3.4	39
60	Yeast RNA Polymerase II Transcription Reconstituted with Purified Proteins. Methods, 1997, 12, 212-216.	3.8	38
61	Mediator Influences Schizosaccharomyces pombe RNA Polymerase II-dependent Transcription in Vitro. Journal of Biological Chemistry, 2003, 278, 51301-51306.	3.4	38
62	Separating and Segregating the Human Mitochondrial Genome. Trends in Biochemical Sciences, 2018, 43, 869-881.	7.5	37
63	The mitochondrial single-stranded DNA binding protein is essential for initiation of mtDNA replication. Science Advances, 2021, 7, .	10.3	36
64	Maintenance of respiratory chain function in mouse hearts with severely impaired mtDNA transcription. Nucleic Acids Research, 2010, 38, 6577-6588.	14.5	35
65	Characterization of the mouse genes for mitochondrial transcription factors B1 and B2. Mammalian Genome, 2003, 14, 1-6.	2.2	34
66	Copy-choice recombination during mitochondrial L-strand synthesis causes DNA deletions. Nature Communications, 2019, 10, 759.	12.8	34
67	Mitochondrial transcription termination factor 1 directs polar replication fork pausing. Nucleic Acids Research, 2016, 44, 5732-5742.	14.5	32
68	Two conserved modules of Schizosaccharomyces pombe Mediator regulate distinct cellular pathways. Nucleic Acids Research, 2008, 36, 2489-2504.	14.5	30
69	The DNA Ligands Influence the Interactions between the Herpes Simplex Virus 1 Origin Binding Protein and the Single Strand DNA-binding Protein, ICP-8. Journal of Biological Chemistry, 1995, 270, 19028-19034.	3.4	27
70	Emerging roles of Cdk8 in cell cycle control. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2013, 1829, 916-920.	1.9	26
71	Mediator Promotes CENP-A Incorporation at Fission Yeast Centromeres. Molecular and Cellular Biology, 2012, 32, 4035-4043.	2.3	23
72	Mediator tail subunits can form amyloid-like aggregatesin vivoand affect stress response in yeast. Nucleic Acids Research, 2015, 43, 7306-7314.	14.5	23

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73	Dinucleotide Degradation by REXO2 Maintains Promoter Specificity in Mammalian Mitochondria. Molecular Cell, 2019, 76, 784-796.e6.	9.7	22
74	POLRMT mutations impair mitochondrial transcription causing neurological disease. Nature Communications, 2021, 12, 1135.	12.8	21
75	Non-coding 7S RNA inhibits transcription via mitochondrial RNA polymerase dimerization. Cell, 2022, 185, 2309-2323.e24.	28.9	20
76	Recurrent horizontal transfer identifies mitochondrial positive selection in a transmissible cancer. Nature Communications, 2020, 11, 3059.	12.8	18
77	A Chromatin-remodeling Protein Is a Component of Fission Yeast Mediator. Journal of Biological Chemistry, 2010, 285, 29729-29737.	3.4	17
78	Hereditary myopathy with early respiratory failure is associated with misfolding of the titin fibronectin III 119 subdomain. Neuromuscular Disorders, 2014, 24, 373-379.	0.6	17
79	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
80	Cyclin-Dependent Kinase 8 Regulates Mitotic Commitment in Fission Yeast. Molecular and Cellular Biology, 2012, 32, 2099-2109.	2.3	15
81	Mediator Can Regulate Mitotic Entry and Direct Periodic Transcription in Fission Yeast. Molecular and Cellular Biology, 2014, 34, 4008-4018.	2.3	13
82	Loss of the Mediator subunit Med20 affects transcription of tRNA and other non-coding RNA genes in fission yeast. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2016, 1859, 339-347.	1.9	12
83	An Adaptable High-Throughput Technology Enabling the Identification of Specific Transcription Modulators. SLAS Discovery, 2017, 22, 378-386.	2.7	5
84	Lsm7 phase-separated condensates trigger stress granule formation. Nature Communications, 2022, 13, .	12.8	5
85	Cyclin C influences the timing of mitosis in fission yeast. Molecular Biology of the Cell, 2017, 28, 1738-1744.	2.1	4
86	Ribonucleotides embedded in template DNA impair mitochondrial RNA polymerase progression. Nucleic Acids Research, 2022, 50, 989-999.	14.5	4
87	MTERF1 Gives mtDNA an Unusual Twist. Cell Metabolism, 2010, 12, 3-4.	16.2	3
88	Yeast mismatch repair components are required for stable inheritance of gene silencing. PLoS Genetics, 2020, 16, e1008798.	3.5	2
89	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
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91	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0
92	Accurate mapping of mitochondrial DNA deletions and duplications using deep sequencing. , 2020, 16, e1009242.		0