Mario MÃ¶rl

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7647072/publications.pdf

Version: 2024-02-01

65 papers	3,119 citations	218677 26 h-index	168389 53 g-index
72 all docs	72 docs citations	72 times ranked	3441 citing authors

#	Article	IF	Citations
1	tRNAdb 2009: compilation of tRNA sequences and tRNA genes. Nucleic Acids Research, 2009, 37, D159-D162.	14.5	751
2	tRNA Modifications: Impact on Structure and Thermal Adaptation. Biomolecules, 2017, 7, 35.	4.0	241
3	Designer tRNAs for efficient incorporation of non-canonical amino acids by the pyrrolysine system in mammalian cells. Nucleic Acids Research, 2018, 46, 1-10.	14.5	170
4	De novo design of a synthetic riboswitch that regulates transcription termination. Nucleic Acids Research, 2013, 41, 2541-2551.	14.5	163
5	A universal method to produce in vitro transcripts with homogeneous 3' ends. Nucleic Acids Research, 2002, 30, 56e-56.	14.5	140
6	The final cut. EMBO Reports, 2001, 2, 17-20.	4.5	97
7	Reversible and Rapid Transfer-RNA Deactivation as a Mechanism of Translational Repression in Stress. PLoS Genetics, 2013, 9, e1003767.	3.5	94
8	Evidence for Import of a Lysyl-tRNA into Marsupial Mitochondria. Molecular Biology of the Cell, 2001, 12, 2688-2698.	2.1	82
9	Synthetic Riboswitches: From Plug and Pray toward Plug and Play. Biochemistry, 2017, 56, 1181-1198.	2.5	82
10	This Is the End: Processing, Editing and Repair at the tRNA 3-Terminus. Biological Chemistry, 2001, 382, 1147-56.	2.5	73
11	Crystal Structure of the Human CCA-adding Enzyme: Insights into Template-independent Polymerization. Journal of Molecular Biology, 2003, 328, 985-994.	4.2	71
12	C to U editing and modifications during the maturation of the mitochondrial tRNAASPin marsupials. Nucleic Acids Research, 1995, 23, 3380-3384.	14.5	68
13	tRNA nucleotidyltransferases: ancient catalysts with an unusual mechanism of polymerization. Cellular and Molecular Life Sciences, 2010, 67, 1447-1463.	5.4	62
14	A Pathogenesis-associated Mutation in Human Mitochondrial tRNALeu(UUR) Leads to Reduced 3â€²-End Processing and CCA Addition. Journal of Molecular Biology, 2004, 337, 535-544.	4.2	60
15	Biological evidence for the world's smallest tRNAs. Biochimie, 2014, 100, 151-158.	2.6	57
16	Applicability of a computational design approach for synthetic riboswitches. Nucleic Acids Research, 2017, 45, gkw1267.	14.5	52
17	Design of Artificial Riboswitches as Biosensors. Sensors, 2017, 17, 1990.	3.8	50
18	Processing and Editing of Overlapping tRNAs in Human Mitochondria. Journal of Biological Chemistry, 1998, 273, 31977-31984.	3.4	46

#	Article	IF	Citations
19	Exchange of Regions between Bacterial Poly(A) Polymerase and the CCA-Adding Enzyme Generates Altered Specificities. Molecular Cell, 2004, 15, 389-398.	9.7	46
20	A comparative analysis of CCA-adding enzymes from human and E. coli: Differences in CCA addition and tRNA 3â€²-end repair. Biochimie, 2008, 90, 762-772.	2.6	42
21	Evolution of tRNA nucleotidyltransferases: A small deletion generated CC-adding enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7953-7958.	7.1	42
22	Design criteria for synthetic riboswitches acting on transcription. RNA Biology, 2015, 12, 221-231.	3.1	41
23	A tRNA's fate is decided at its 3â€² end: Collaborative actions of CCA-adding enzyme and RNases involved in tRNA processing and degradation. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2018, 1861, 433-441.	1.9	41
24	The CCAâ€adding enzyme: A central scrutinizer in tRNA quality control. BioEssays, 2015, 37, 975-982.	2.5	35
25	Small but large enough: structural properties of armless mitochondrial tRNAs from the nematode Romanomermis culicivorax. Nucleic Acids Research, 2018, 46, 9170-9180.	14.5	35
26	Repair of tRNAs in metazoan mitochondria. Nucleic Acids Research, 2000, 28, 2043-2048.	14.5	34
27	Accurate mapping of tRNA reads. Bioinformatics, 2018, 34, 1116-1124.	4.1	33
28	From End to End: tRNA Editing at 5'- and 3'-Terminal Positions. International Journal of Molecular Sciences, 2014, 15, 23975-23998.	4.1	27
29	tRNAâ€nucleotidyltransferases: Highly unusual RNA polymerases with vital functions. FEBS Letters, 2010, 584, 297-302.	2.8	26
30	A comparative analysis of two conserved motifs in bacterial poly(A) polymerase and CCA-adding enzyme. Nucleic Acids Research, 2008, 36, 5212-5220.	14.5	25
31	Cold adaptation of tRNA nucleotidyltransferases: A tradeoff in activity, stability and fidelity. RNA Biology, 2018, 15, 144-155.	3.1	24
32	A simple and versatile microfluidic device for efficient biomacromolecule crystallization and structural analysis by serial crystallography. IUCrJ, 2019, 6, 454-464.	2.2	23
33	Hfq stimulates the activity of the CCA-adding enzyme. BMC Molecular Biology, 2007, 8, 92.	3.0	22
34	The identity of the discriminator base has an impact on CCA addition. Nucleic Acids Research, 2015, 43, 5617-5629.	14.5	22
35	LOTTE-seq (Long hairpin oligonucleotide based tRNA high-throughput sequencing): specific selection of tRNAs with 3â€™-CCA end for high-throughput sequencing. RNA Biology, 2020, 17, 23-32.	3.1	22
36	An inhibitory C-terminal region dictates the specificity of A-adding enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 21040-21045.	7.1	20

#	Article	IF	Citations
37	Examining tRNA 3â€²-ends inEscherichia coli: teamwork between CCA-adding enzyme, RNase T, and RNase R. Rna, 2018, 24, 361-370.	3.5	20
38	Unusual evolution of a catalytic core element in CCA-adding enzymes. Nucleic Acids Research, 2010, 38, 4436-4447.	14.5	19
39	The ancestor of modern Holozoa acquired the CCA-adding enzyme from Alphaproteobacteria by horizontal gene transfer. Nucleic Acids Research, 2015, 43, 6739-6746.	14.5	14
40	Domain movements during CCA-addition: A new function for motif C in the catalytic core of the human tRNA nucleotidyltransferases. RNA Biology, 2015, 12, 435-446.	3.1	14
41	Production of RNAs with Homogeneous 5â€² and 3â€² Ends. , 0, , 22-35.		13
42	A Splice Variant of the Human CCA-adding Enzyme with Modified Activity. Journal of Molecular Biology, 2007, 366, 1258-1265.	4.2	13
43	Is yeast on its way to evolving tRNA editing?. EMBO Reports, 2005, 6, 367-372.	4.5	10
44	A new mitochondrial point mutation in the transfer RNALys gene associated with progressive external ophthalmoplegia with impaired respiratory regulation. Journal of the Neurological Sciences, 2012, 316, 108-111.	0.6	9
45	Design of Transcription Regulating Riboswitches. Methods in Enzymology, 2015, 550, 1-22.	1.0	8
46	Combining crystallogenesis methods to produce diffraction-quality crystals of a psychrophilic tRNA-maturation enzyme. Acta Crystallographica Section F, Structural Biology Communications, 2018, 74, 747-753.	0.8	8
47	Dual expression of CCA-adding enzyme and RNase T in Escherichia coli generates a distinct cca growth phenotype with diverse applications. Nucleic Acids Research, 2019, 47, 3631-3639.	14.5	7
48	The TRAMP Complex Shows tRNA Editing Activity in S. cerevisiae. Molecular Biology and Evolution, 2012, 29, 1451-1459.	8.9	6
49	Evolving methods for rational de novo design of functional RNA molecules. Methods, 2019, 161, 54-63.	3.8	6
50	Adaptation of the Romanomermis culicivorax CCA-Adding Enzyme to Miniaturized Armless tRNA Substrates. International Journal of Molecular Sciences, 2020, 21, 9047.	4.1	6
51	Beyond Plug and Pray: Context Sensitivity and in silico Design of Artificial Neomycin Riboswitches. RNA Biology, 2021, 18, 457-467.	3.1	6
52	Genotyping bacterial and fungal pathogens using sequence variation in the gene for the CCA-adding enzyme. BMC Microbiology, 2016, 16, 47.	3.3	5
53	Divergent Evolution of Eukaryotic CC- and A-Adding Enzymes. International Journal of Molecular Sciences, 2020, 21, 462.	4.1	5
54	Unusual Occurrence of Two Bona-Fide CCA-Adding Enzymes in Dictyostelium discoideum. International Journal of Molecular Sciences, 2020, 21, 5210.	4.1	4

#	Article	IF	Citations
55	Ligand-dependent tRNA processing by a rationally designed RNase P riboswitch. Nucleic Acids Research, 2021, 49, 1784-1800.	14.5	4
56	A Temporal Order in 5â€²- and 3â€²- Processing of Eukaryotic tRNAHis. International Journal of Molecular Sciences, 2019, 20, 1384.	4.1	3
57	Monitoring the Production of High Diffraction-Quality Crystals of Two Enzymes in Real Time Using In Situ Dynamic Light Scattering. Crystals, 2020, 10, 65.	2.2	3
58	Synthetic Riboswitches for the Analysis of tRNA Processing by eukaryotic RNase P Enzymes. Rna, 2022, , rna.078814.121.	3.5	3
59	CCA-addition in the cold: Structural characterization of the psychrophilic CCA-adding enzyme from the permafrost bacterium Planococcus halocryophilus. Computational and Structural Biotechnology Journal, 2021, 19, 5845-5855.	4.1	2
60	Mitochondrial tRNA editing. Topics in Current Genetics, 2004, , 81-96.	0.7	1
61	Post-Transcriptional Regulation of tRNA Pools To Govern the Central Dogma: A Perspective. Biochemistry, 2019, 58, 299-304.	2.5	1
62	Changes of the tRNA Modification Pattern during the Development of Dictyostelium discoideum. Non-coding RNA, 2021, 7, 32.	2.6	1
63	RNA Design Principles for Riboswitches that Regulate RNase P-Mediated tRNA Processing. Methods in Molecular Biology, 2022, , 179-202.	0.9	1
64	CCA-Addition Gone Wild: Unusual Occurrence and Phylogeny of Four Different tRNA Nucleotidyltransferases in Acanthamoeba castellanii. Molecular Biology and Evolution, 2021, 38, 1006-1017.	8.9	0
65	Crystallization and Structural Determination of an Enzyme:Substrate Complex by Serial Crystallography in a Versatile Microfluidic Chip. Journal of Visualized Experiments, 2021, , .	0.3	0