

Christopher S Francklyn

List of Publications by Year in descending order

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55
papers

3,240
citations

186265

28
h-index

155660

55
g-index

57
all docs

57
docs citations

57
times ranked

3753
citing authors

#	ARTICLE	IF	CITATIONS
1	Aminoacylation of RNA minihelices with alanine. <i>Nature</i> , 1989, 337, 478-481.	27.8	328
2	Chemical synthesis of biologically active oligoribonucleotides using \hat{I}^2 -cyanoethyl protected ribonucleoside phosphoramidites. <i>Nucleic Acids Research</i> , 1990, 18, 5433-5441.	14.5	313
3	Genetic Mapping and Exome Sequencing Identify Variants Associated with Five Novel Diseases. <i>PLoS ONE</i> , 2012, 7, e28936.	2.5	254
4	Transfer RNA-mediated Editing in Threonyl-tRNA Synthetase. <i>Cell</i> , 2000, 103, 877-884.	28.9	175
5	Transfer RNA and human disease. <i>Frontiers in Genetics</i> , 2014, 5, 158.	2.3	169
6	Zinc ion mediated amino acid discrimination by threonyl-tRNA synthetase. <i>Nature Structural Biology</i> , 2000, 7, 461-465.	9.7	139
7	Progress and challenges in aminoacyl-tRNA synthetase-based therapeutics. <i>Journal of Biological Chemistry</i> , 2019, 294, 5365-5385.	3.4	103
8	Distinct Kinetic Mechanisms of the Two Classes of Aminoacyl-tRNA Synthetases. <i>Journal of Molecular Biology</i> , 2006, 361, 300-311.	4.2	100
9	Methods for kinetic and thermodynamic analysis of aminoacyl-tRNA synthetases. <i>Methods</i> , 2008, 44, 100-118.	3.8	98
10	Standardizing Analysis of Circulating MicroRNA: Clinical and Biological Relevance. <i>Journal of Cellular Biochemistry</i> , 2014, 115, 805-811.	2.6	90
11	The tRNA-binding moiety in GCN2 contains a dimerization domain that interacts with the kinase domain and is required for tRNA binding and kinase activation. <i>EMBO Journal</i> , 2001, 20, 1425-1438.	7.8	81
12	Aminoacylating Urzymes Challenge the RNA World Hypothesis. <i>Journal of Biological Chemistry</i> , 2013, 288, 26856-26863.	3.4	77
13	Aminoacyl-tRNA synthetases: Versatile players in the changing theater of translation. <i>Rna</i> , 2002, 8, 1363-1372.	3.5	74
14	Secreted Threonyl-tRNA synthetase stimulates endothelial cell migration and angiogenesis. <i>Scientific Reports</i> , 2013, 3, 1317.	3.3	73
15	Analogues of natural aminoacyl-tRNA synthetase inhibitors clear malaria in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E5508-17.	7.1	69
16	Kinetic Discrimination of tRNA Identity by the Conserved Motif 2 Loop of a Class II Aminoacyl-tRNA Synthetase. <i>Molecular Cell</i> , 2007, 25, 531-542.	9.7	67
17	Structural basis for full-spectrum inhibition of translational functions on a tRNA synthetase. <i>Nature Communications</i> , 2015, 6, 6402.	12.8	67
18	Histidyl-tRNA Synthetase Urzymes. <i>Journal of Biological Chemistry</i> , 2011, 286, 10387-10395.	3.4	55

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19	tRNA as an active chemical scaffold for diverse chemical transformations. <i>FEBS Letters</i> , 2010, 584, 366-375.	2.8	52
20	Aminoacyl Transfer Rate Dictates Choice of Editing Pathway in Threonyl-tRNA Synthetase. <i>Journal of Biological Chemistry</i> , 2010, 285, 23810-23817.	3.4	52
21	A Unique Hydrophobic Cluster Near the Active Site Contributes to Differences in Borrelidin Inhibition among Threonyl-tRNA Synthetases. <i>Journal of Biological Chemistry</i> , 2005, 280, 571-577.	3.4	49
22	RNA-assisted catalysis in a protein enzyme: The 2'-hydroxyl of tRNA ^{Thr} A76 promotes aminoacylation by threonyl-tRNA synthetase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 17748-17753.	7.1	45
23	Small RNA helices as substrates for aminoacylation and their relationship to charging of transfer RNAs. <i>FEBS Journal</i> , 1992, 206, 315-321.	0.2	43
24	DNA Polymerases and Aminoacyl-tRNA Synthetases: Shared Mechanisms for Ensuring the Fidelity of Gene Expression. <i>Biochemistry</i> , 2008, 47, 11695-11703.	2.5	43
25	A tRNA Identity Switch Mediated by the Binding Interaction between a tRNA Anticodon and the Accessory Domain of a Class II Aminoacyl-tRNA Synthetase. <i>Biochemistry</i> , 1996, 35, 6559-6568.	2.5	40
26	Biallelic VARS variants cause developmental encephalopathy with microcephaly that is recapitulated in vars knockout zebrafish. <i>Nature Communications</i> , 2019, 10, 708.	12.8	40
27	tRNA Discrimination at the Binding Step by a Class II Aminoacyl-tRNA Synthetase. <i>Biochemistry</i> , 1999, 38, 13725-13735.	2.5	35
28	tRNA synthetase paralogs: Evolutionary links in the transition from tRNA-dependent amino acid biosynthesis to de novo biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 9650-9652.	7.1	34
29	Regulation of Angiogenesis by Aminoacyl-tRNA Synthetases. <i>International Journal of Molecular Sciences</i> , 2014, 15, 23725-23748.	4.1	33
30	De Novo and Bi-allelic Pathogenic Variants in NARS1 Cause Neurodevelopmental Delay Due to Toxic Gain-of-Function and Partial Loss-of-Function Effects. <i>American Journal of Human Genetics</i> , 2020, 107, 311-324.	6.2	32
31	Activation of the Hetero-octameric ATP Phosphoribosyl Transferase through Subunit Interface Rearrangement by a tRNA Synthetase Paralog. <i>Journal of Biological Chemistry</i> , 2005, 280, 34096-34104.	3.4	30
32	Substrate interaction defects in histidyl-tRNA synthetase linked to dominant axonal peripheral neuropathy. <i>Human Mutation</i> , 2018, 39, 415-432.	2.5	30
33	Molecular dissection of a transfer RNA and the basis for its identity. <i>Trends in Biochemical Sciences</i> , 1989, 14, 233-237.	7.5	27
34	Proteobacterial Histidine-Biosynthetic Pathways Are Paraphyletic. <i>Journal of Molecular Evolution</i> , 2000, 50, 339-347.	1.8	27
35	Evolutionary conservation of a functionally important backbone phosphate group critical for aminoacylation of histidine tRNAs. <i>Rna</i> , 2006, 12, 1315-1322.	3.5	27
36	Aminoacyl-tRNA synthetase dependent angiogenesis revealed by a bioengineered macrolide inhibitor. <i>Scientific Reports</i> , 2015, 5, 13160.	3.3	26

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37	Crystallization of Histidyl-tRNA Synthetase from Escherichia coli. <i>Journal of Molecular Biology</i> , 1994, 241, 275-277.	4.2	25
38	Asymmetric Amino Acid Activation by Class II Histidyl-tRNA Synthetase from Escherichia coli. <i>Journal of Biological Chemistry</i> , 2009, 284, 20753-20762.	3.4	20
39	The Usher Syndrome Type IIIB Histidyl-tRNA Synthetase Mutation Confers Temperature Sensitivity. <i>Biochemistry</i> , 2017, 56, 3619-3631.	2.5	19
40	The Î±-Amino Group of the Threonine Substrate as The General Base During tRNA Aminoacylation: A New Version of Substrate-Assisted Catalysis Predicted by Hybrid DFT. <i>Journal of Physical Chemistry A</i> , 2011, 115, 13050-13060.	2.5	18
41	Catalytic defects in mutants of class II histidyl-tRNA synthetase from Salmonella typhimurium previously linked to decreased control of histidine biosynthesis regulation 1 Edited by D. Draper. <i>Journal of Molecular Biology</i> , 1998, 280, 847-858.	4.2	16
42	Mutational analysis of the engrailed homeodomain recognition helix by phage display. <i>Nucleic Acids Research</i> , 1999, 27, 1182-1189.	14.5	15
43	Peripheral neuropathy and cognitive impairment associated with a novel monoallelic HARS variant. <i>Annals of Clinical and Translational Neurology</i> , 2019, 6, 1072-1080.	3.7	15
44	Biallelic mutations in HARS1 severely impair histidyl-tRNA synthetase expression and enzymatic activity causing a novel multisystem ataxic syndrome. <i>Human Mutation</i> , 2020, 41, 1232-1237.	2.5	15
45	Synthetic RNA molecules as substrates for enzymes that act on tRNAs and tRNA-like molecules. <i>Chemical Reviews</i> , 1990, 90, 1327-1342.	47.7	14
46	Knock-Down of Histidyl-tRNA Synthetase Causes Cell Cycle Arrest and Apoptosis of Neuronal Progenitor Cells in vivo. <i>Frontiers in Cell and Developmental Biology</i> , 2019, 7, 67.	3.7	14
47	Immunity-Guided Identification of Threonyl-tRNA Synthetase as the Molecular Target of Obafloquin, a Î²-Lactone Antibiotic. <i>ACS Chemical Biology</i> , 2019, 14, 2663-2671.	3.4	13
48	Neuropathy-associated histidyl-tRNA synthetase variants attenuate protein synthesis in vitro and disrupt axon outgrowth in developing zebrafish. <i>FEBS Journal</i> , 2021, 288, 142-159.	4.7	13
49	Characterization of aminoacyl-tRNA synthetase stability and substrate interaction by differential scanning fluorimetry. <i>Methods</i> , 2017, 113, 64-71.	3.8	11
50	A single Danio rerio hars gene encodes both cytoplasmic and mitochondrial histidyl-tRNA synthetases. <i>PLoS ONE</i> , 2017, 12, e0185317.	2.5	10
51	Turning tRNA upside down: When aminoacylation is not a prerequisite to protein synthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 7493-7494.	7.1	8
52	Altered nuclear cofactor switching in retinoic acid-resistant variants of the PML-RARÎ± oncoprotein of acute promyelocytic leukemia. <i>Proteins: Structure, Function and Bioinformatics</i> , 2012, 80, 1095-1109.	2.6	6
53	Aminoacyl-Transfer RNA Synthetases. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2016, 36, 582-583.	2.4	4
54	Aminoacylation at the Atomic Level in Class IIa Aminoacyl-tRNA Synthetases. <i>Journal of Biomolecular Structure and Dynamics</i> , 2000, 17, 23-27.	3.5	3

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55	Charging two for the price of one. , 2001, 8, 189-191.		3