

Jiqiang Ling

List of Publications by Year in descending order

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52
papers

2,634
citations

218677

26
h-index

197818

49
g-index

54
all docs

54
docs citations

54
times ranked

3506
citing authors

#	ARTICLE	IF	CITATIONS
1	Aminoacyl-tRNA Synthesis and Translational Quality Control. Annual Review of Microbiology, 2009, 63, 61-78.	7.3	328
2	Exome Sequencing and the Management of Neurometabolic Disorders. New England Journal of Medicine, 2016, 374, 2246-2255.	27.0	254
3	Severe oxidative stress induces protein mistranslation through impairment of an aminoacyl-tRNA synthetase editing site. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4028-4033.	7.1	192
4	Post-transfer editing in vitro and in vivo by the $\hat{1}^2$ subunit of phenylalanyl-tRNA synthetase. EMBO Journal, 2004, 23, 4639-4648.	7.8	147
5	Upgrading protein synthesis for synthetic biology. Nature Chemical Biology, 2013, 9, 594-598.	8.0	143
6	Mutations in QARS, Encoding Glutamyl-tRNA Synthetase, Cause Progressive Microcephaly, Cerebral-Cerebellar Atrophy, and Intractable Seizures. American Journal of Human Genetics, 2014, 94, 547-558.	6.2	106
7	Genetic code flexibility in microorganisms: novel mechanisms and impact on physiology. Nature Reviews Microbiology, 2015, 13, 707-721.	28.6	104
8	Protein Aggregation Caused by Aminoglycoside Action Is Prevented by a Hydrogen Peroxide Scavenger. Molecular Cell, 2012, 48, 713-722.	9.7	98
9	Loss of Editing Activity during the Evolution of Mitochondrial Phenylalanyl-tRNA Synthetase. Journal of Biological Chemistry, 2005, 280, 38186-38192.	3.4	95
10	Resampling and Editing of Mischarged tRNA Prior to Translation Elongation. Molecular Cell, 2009, 33, 654-660.	9.7	79
11	Mechanism of tRNA-dependent editing in translational quality control. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 72-77.	7.1	75
12	Protein mistranslation protects bacteria against oxidative stress. Nucleic Acids Research, 2015, 43, 1740-1748.	14.5	73
13	Near-cognate suppression of amber, opal and quadruplet codons competes with aminoacyl-tRNA ^{Pyl} for genetic code expansion. FEBS Letters, 2012, 586, 3931-3937.	2.8	70
14	Cell-specific differences in the requirements for translation quality control. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4063-4068.	7.1	67
15	Phenylalanyl-tRNA synthetase editing defects result in efficient mistranslation of phenylalanine codons as tyrosine. Rna, 2007, 13, 1881-1886.	3.5	61
16	Global analysis of tRNA and translation factor expression reveals a dynamic landscape of translational regulation in human cancers. Communications Biology, 2018, 1, 234.	4.4	58
17	Mechanism of oxidant-induced mistranslation by threonyl-tRNA synthetase. Nucleic Acids Research, 2014, 42, 6523-6531.	14.5	44
18	Pathogenic mechanism of a human mitochondrial tRNA ^{Phe} mutation associated with myoclonic epilepsy with ragged red fibers syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15299-15304.	7.1	40

#	ARTICLE	IF	CITATIONS
19	Deficient activity of alanyl-tRNA synthetase underlies an autosomal recessive syndrome of progressive microcephaly, hypomyelination, and epileptic encephalopathy. <i>Human Mutation</i> , 2017, 38, 1348-1354.	2.5	40
20	Heterogeneity of Stop Codon Readthrough in Single Bacterial Cells and Implications for Population Fitness. <i>Molecular Cell</i> , 2017, 67, 826-836.e5.	9.7	40
21	Transfer RNA Misidentification Scrambles Sense Codon Recoding. <i>ChemBioChem</i> , 2013, 14, 1967-1972.	2.6	39
22	An unusual tRNA ^{Thr} derived from tRNA ^{His} reassigns in yeast mitochondria the CUN codons to threonine. <i>Nucleic Acids Research</i> , 2011, 39, 4866-4874.	14.5	35
23	MS-READ: Quantitative measurement of amino acid incorporation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 3081-3088.	2.4	35
24	The Mechanism of Pre-transfer Editing in Yeast Mitochondrial Threonyl-tRNA Synthetase. <i>Journal of Biological Chemistry</i> , 2012, 287, 28518-28525.	3.4	34
25	Efficient Reassignment of a Frequent Serine Codon in Wild-Type <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , 2016, 5, 163-171.	3.8	34
26	Errors during Gene Expression: Single-Cell Heterogeneity, Stress Resistance, and Microbe-Host Interactions. <i>MBio</i> , 2018, 9, .	4.1	30
27	Yeast mitochondrial threonyl-tRNA synthetase recognizes tRNA isoacceptors by distinct mechanisms and promotes CUN codon reassignment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 3281-3286.	7.1	27
28	Cloning and characterization of a novel gene which encodes a protein interacting with the mitosis-associated kinase-like protein NTKL. <i>Journal of Human Genetics</i> , 2003, 48, 315-321.	2.3	26
29	Experimental challenges of sense codon reassignment: An innovative approach to genetic code expansion. <i>FEBS Letters</i> , 2014, 588, 383-388.	2.8	25
30	Natural reassignment of CUU and CUA sense codons to alanine in <i>Ashbya</i> mitochondria. <i>Nucleic Acids Research</i> , 2014, 42, 499-508.	14.5	23
31	Optimal translational fidelity is critical for <i>Salmonella</i> virulence and host interactions. <i>Nucleic Acids Research</i> , 2019, 47, 5356-5367.	14.5	21
32	Increased mistranslation protects <i>E. coli</i> from protein misfolding stress due to activation of a RpoS-dependent heat shock response. <i>FEBS Letters</i> , 2019, 593, 3220-3227.	2.8	20
33	Metabolic stress promotes stop-codon readthrough and phenotypic heterogeneity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 22167-22172.	7.1	19
34	Aminoacylation of tRNA ² or tRNA ³ hydroxyl by phosphoseryl- and pyrrolysyl-tRNA synthetases. <i>FEBS Letters</i> , 2013, 587, 3360-3364.	2.8	16
35	Transfer RNA function and evolution. <i>RNA Biology</i> , 2018, 15, 423-426.	3.1	15
36	Heterogeneous Flagellar Expression in Single <i>Salmonella</i> Cells Promotes Diversity in Antibiotic Tolerance. <i>MBio</i> , 2021, 12, e0237421.	4.1	15

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37	The crystal structure of human GlnRS provides basis for the development of neurological disorders. <i>Nucleic Acids Research</i> , 2016, 44, 3420-3431.	14.5	14
38	Rational design and directed evolution of a bacterial-type glutaminyl-tRNA synthetase precursor. <i>Nucleic Acids Research</i> , 2012, 40, 7967-7974.	14.5	12
39	Reduced Protein Synthesis Fidelity Inhibits Flagellar Biosynthesis and Motility. <i>Scientific Reports</i> , 2016, 6, 30960.	3.3	11
40	HCC-Associated Protein HCAP1, a Variant of GEMIN4, Interacts with Zinc-Finger Proteins. <i>Journal of Biochemistry</i> , 2003, 133, 713-718.	1.7	9
41	Mutational analysis of Sepâ€tRNA:Cysâ€tRNA synthase reveals critical residues for tRNAâ€dependent cysteine formation. <i>FEBS Letters</i> , 2012, 586, 60-63.	2.8	9
42	Severe growth deficiency, microcephaly, intellectual disability, and characteristic facial features are due to a homozygous QARS mutation. <i>Neurogenetics</i> , 2017, 18, 141-146.	1.4	9
43	Impact of alanyl-tRNA synthetase editing deficiency in yeast. <i>Nucleic Acids Research</i> , 2021, 49, 9953-9964.	14.5	9
44	Visualizing translational errors: one cell at a time. <i>Current Genetics</i> , 2018, 64, 551-554.	1.7	8
45	Trade-Offs between Speed, Accuracy, and Dissipation in tRNA^{Ile} Aminoacylation. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 4001-4007.	4.6	8
46	The crystal structure of yeast mitochondrial ThrRS in complex with the canonical threonine tRNA. <i>Nucleic Acids Research</i> , 2016, 44, 1428-1439.	14.5	7
47	Rewiring protein synthesis: From natural to synthetic amino acids. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 3024-3029.	2.4	4
48	The genetic code: Yesterday, today, and tomorrow. <i>Resonance</i> , 2012, 17, 1136-1142.	0.3	2
49	Increase in Ribosomal Fidelity Benefits Salmonella upon Bile Salt Exposure. <i>Genes</i> , 2022, 13, 184.	2.4	2
50	The unnatural culture of amino acids. <i>Nature Methods</i> , 2007, 4, 205-206.	19.0	1
51	Aminoacyl-tRNA Synthetases. , 2013, , 57-61.		1
52	Editorial: RNA Biology of Microorganisms. <i>Frontiers in Microbiology</i> , 2021, 12, 754109.	3.5	0