

Xiang-Lei Yang

List of Publications by Citations

Source: <https://exaly.com/author-pdf/8403979/xiang-lei-yang-publications-by-citations.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

104
papers

3,879
citations

37
h-index

60
g-index

112
ext. papers

4,567
ext. citations

12.5
avg, IF

5.18
L-index

#	Paper	IF	Citations
104	RNA function. Ribosome stalling induced by mutation of a CNS-specific tRNA causes neurodegeneration. <i>Science</i> , 2014 , 345, 455-9	33.3	263
103	New functions of aminoacyl-tRNA synthetases beyond translation. <i>Nature Reviews Molecular Cell Biology</i> , 2010 , 11, 668-74	48.7	228
102	Structural studies of atom-specific anticancer drugs acting on DNA 1999 , 83, 181-215		172
101	Charcot-Marie-Tooth disease-associated mutant tRNA synthetases linked to altered dimer interface and neurite distribution defect. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 11239-44	11.5	116
100	ATP-directed capture of bioactive herbal-based medicine on human tRNA synthetase. <i>Nature</i> , 2013 , 494, 121-4	50.4	110
99	Structural switch of lysyl-tRNA synthetase between translation and transcription. <i>Molecular Cell</i> , 2013 , 49, 30-42	17.6	104
98	Exome sequencing identifies a significant variant in methionyl-tRNA synthetase (MARS) in a family with late-onset CMT2. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2013 , 84, 1247-9	5.5	95
97	CMT2D neuropathy is linked to the neomorphic binding activity of glycyl-tRNA synthetase. <i>Nature</i> , 2015 , 526, 710-4	50.4	93
96	Secreted human glycyl-tRNA synthetase implicated in defense against ERK-activated tumorigenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, E640-7	11.5	93
95	Charcot-Marie-Tooth-linked mutant GARS is toxic to peripheral neurons independent of wild-type GARS levels. <i>PLoS Genetics</i> , 2011 , 7, e1002399	6	87
94	Crystal structure of a human aminoacyl-tRNA synthetase cytokine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 15369-74	11.5	82
93	Human tRNA synthetase catalytic nulls with diverse functions. <i>Science</i> , 2014 , 345, 328-32	33.3	81
92	Functional expansion of human tRNA synthetases achieved by structural inventions. <i>FEBS Letters</i> , 2010 , 584, 434-42	3.8	81
91	Crystal structures that suggest late development of genetic code components for differentiating aromatic side chains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 15376-80	11.5	77
90	Dominant mutations in the tyrosyl-tRNA synthetase gene recapitulate in <i>Drosophila</i> features of human Charcot-Marie-Tooth neuropathy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 11782-7	11.5	76
89	Paradox of mistranslation of serine for alanine caused by AlaRS recognition dilemma. <i>Nature</i> , 2009 , 462, 808-12	50.4	76
88	Unique domain appended to vertebrate tRNA synthetase is essential for vascular development. <i>Nature Communications</i> , 2012 , 3, 681	17.4	76

87	Trp-tRNA synthetase bridges DNA-PKcs to PARP-1 to link IFN- α and p53 signaling. <i>Nature Chemical Biology</i> , 2012 , 8, 547-54	11.7	72
86	Long-range structural effects of a Charcot-Marie-Tooth disease-causing mutation in human glycyl-tRNA synthetase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 9976-81	11.5	72
85	Crystal structure of tetrameric form of human lysyl-tRNA synthetase: Implications for multisynthetase complex formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 2331-6	11.5	71
84	Impaired protein translation in Drosophila models for Charcot-Marie-Tooth neuropathy caused by mutant tRNA synthetases. <i>Nature Communications</i> , 2015 , 6, 7520	17.4	67
83	The C-Ala domain brings together editing and aminoacylation functions on one tRNA. <i>Science</i> , 2009 , 325, 744-7	33.3	65
82	Aberrant GlyRS-HDAC6 interaction linked to axonal transport deficits in Charcot-Marie-Tooth neuropathy. <i>Nature Communications</i> , 2018 , 9, 1007	17.4	63
81	Orthogonal use of a human tRNA synthetase active site to achieve multifunctionality. <i>Nature Structural and Molecular Biology</i> , 2010 , 17, 57-61	17.6	63
80	The selective tRNA aminoacylation mechanism based on a single GU pair. <i>Nature</i> , 2014 , 510, 507-11	50.4	61
79	Natural homolog of tRNA synthetase editing domain rescues conditional lethality caused by mistranslation. <i>Journal of Biological Chemistry</i> , 2008 , 283, 30073-8	5.4	50
78	Relationship of two human tRNA synthetases used in cell signaling. <i>Trends in Biochemical Sciences</i> , 2004 , 29, 250-6	10.3	50
77	Structural studies of a stable parallel-stranded DNA duplex incorporating isoguanine:cytosine and isocytosine:guanine basepairs by nuclear magnetic resonance spectroscopy. <i>Biophysical Journal</i> , 1998 , 75, 1163-71	2.9	49
76	tRNA synthetase counteracts c-Myc to develop functional vasculature. <i>ELife</i> , 2014 , 3, e02349	8.9	46
75	Dispersed disease-causing neomorphic mutations on a single protein promote the same localized conformational opening. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 12307-12	11.5	46
74	Two conformations of a crystalline human tRNA synthetase-tRNA complex: implications for protein synthesis. <i>EMBO Journal</i> , 2006 , 25, 2919-29	13	45
73	Alanyl-tRNA synthetase crystal structure and design for acceptor-stem recognition. <i>Molecular Cell</i> , 2004 , 13, 829-41	17.6	45
72	Trk receptor signaling and sensory neuron fate are perturbed in human neuropathy caused by mutations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E3324-E3333	11.5	44
71	Sphingosine 1-phosphate lyase deficiency causes Charcot-Marie-Tooth neuropathy. <i>Neurology</i> , 2017 , 88, 533-542	6.5	43
70	Oxidative stress diverts tRNA synthetase to nucleus for protection against DNA damage. <i>Molecular Cell</i> , 2014 , 56, 323-332	17.6	42

69	Binding of a Macrocyclic Bisacridine and Ametantone to CGTACG Involves Similar Unusual Intercalation Platforms <i>Biochemistry</i> , 2000 , 39, 10950-10957	3.2	40
68	Functional and crystal structure analysis of active site adaptations of a potent anti-angiogenic human tRNA synthetase. <i>Structure</i> , 2007 , 15, 793-805	5.2	39
67	Neurodegenerative Charcot-Marie-Tooth disease as a case study to decipher novel functions of aminoacyl-tRNA synthetases. <i>Journal of Biological Chemistry</i> , 2019 , 294, 5321-5339	5.4	36
66	Secreted histidyl-tRNA synthetase splice variants elaborate major epitopes for autoantibodies in inflammatory myositis. <i>Journal of Biological Chemistry</i> , 2014 , 289, 19269-75	5.4	34
65	tRNA-controlled nuclear import of a human tRNA synthetase. <i>Journal of Biological Chemistry</i> , 2012 , 287, 9330-4	5.4	33
64	Crystal Structure of an EMAP-II-Like Cytokine Released from a Human tRNA Synthetase. <i>Helvetica Chimica Acta</i> , 2003 , 86, 1246-1257	2	33
63	Gain-of-function mutational activation of human tRNA synthetase procytokine. <i>Chemistry and Biology</i> , 2007 , 14, 1323-33		32
62	Structural context for mobilization of a human tRNA synthetase from its cytoplasmic complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 8239-44	11.5	30
61	Evidence for annexin II-S100A10 complex and plasmin in mobilization of cytokine activity of human TrpRS. <i>Journal of Biological Chemistry</i> , 2008 , 283, 2070-7	5.4	30
60	Neddylation requires glycyl-tRNA synthetase to protect activated E2. <i>Nature Structural and Molecular Biology</i> , 2016 , 23, 730-7	17.6	29
59	Crystal structures and biochemical analyses suggest a unique mechanism and role for human glycyl-tRNA synthetase in Ap4A homeostasis. <i>Journal of Biological Chemistry</i> , 2009 , 284, 28968-76	5.4	29
58	Alternative stable conformation capable of protein misinteraction links tRNA synthetase to peripheral neuropathy. <i>Nucleic Acids Research</i> , 2017 , 45, 8091-8104	20.1	27
57	Evolutionary Gain of Alanine Mischarging to Noncognate tRNAs with a G4:U69 Base Pair. <i>Journal of the American Chemical Society</i> , 2016 , 138, 12948-12955	16.4	27
56	Architecture and metamorphosis. <i>Topics in Current Chemistry</i> , 2014 , 344, 89-118		27
55	Crystallographic analysis of a novel complex of actinomycin D bound to the DNA decamer CGATCGATCG. <i>Biochemistry</i> , 2001 , 40, 5587-92	3.2	27
54	Internally deleted human tRNA synthetase suggests evolutionary pressure for repurposing. <i>Structure</i> , 2012 , 20, 1470-7	5.2	25
53	PANDORA-seq expands the repertoire of regulatory small RNAs by overcoming RNA modifications. <i>Nature Cell Biology</i> , 2021 , 23, 424-436	23.4	25
52	Tyrosyl-tRNA synthetase stimulates thrombopoietin-independent hematopoiesis accelerating recovery from thrombocytopenia. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E8228-E8235	11.5	24

51	Allele-specific RNA interference prevents neuropathy in Charcot-Marie-Tooth disease type 2D mouse models. <i>Journal of Clinical Investigation</i> , 2019 , 129, 5568-5583	15.9	24
50	Dissociating quaternary structure regulates cell-signaling functions of a secreted human tRNA synthetase. <i>Journal of Biological Chemistry</i> , 2011 , 286, 11563-8	5.4	22
49	Binding of AR-1-144, a tri-imidazole DNA minor groove binder, to CCGG sequence analyzed by NMR spectroscopy. <i>FEBS Journal</i> , 1999 , 263, 646-55		22
48	Bi-allelic Mutations in Phe-tRNA Synthetase Associated with a Multi-system Pulmonary Disease Support Non-translational Function. <i>American Journal of Human Genetics</i> , 2018 , 103, 100-114	11	20
47	Mutational switching of a yeast tRNA synthetase into a mammalian-like synthetase cytokine. <i>Biochemistry</i> , 2002 , 41, 14232-7	3.2	19
46	CMT disease severity correlates with mutation-induced open conformation of histidyl-tRNA synthetase, not aminoacylation loss, in patient cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 19440-19448	11.5	16
45	Directed Evolution to Engineer Monobody for FRET Biosensor Assembly and Imaging at Live-Cell Surface. <i>Cell Chemical Biology</i> , 2018 , 25, 370-379.e4	8.2	16
44	Neuropilin 1 sequestration by neuropathogenic mutant glycyl-tRNA synthetase is permissive to vascular homeostasis. <i>Scientific Reports</i> , 2017 , 7, 9216	4.9	16
43	Structure of a tryptophanyl-tRNA synthetase containing an iron-sulfur cluster. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010 , 66, 1326-34		16
42	Mutational separation of aminoacylation and cytokine activities of human tyrosyl-tRNA synthetase. <i>Chemistry and Biology</i> , 2009 , 16, 531-9		15
41	Crystal structure of human Seryl-tRNA synthetase and Ser-SA complex reveals a molecular lever specific to higher eukaryotes. <i>Structure</i> , 2013 , 21, 2078-86	5.2	13
40	Structural disorder in expanding the functionome of aminoacyl-tRNA synthetases. <i>Chemistry and Biology</i> , 2013 , 20, 1093-9		13
39	Packaging HIV virion components through dynamic equilibria of a human tRNA synthetase. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 16273-9	3.4	13
38	Effect of mini-tyrosyl-tRNA synthetase on ischemic angiogenesis, leukocyte recruitment, and vascular permeability. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2008 , 295, R1138-46	3.2	13
37	Distinct ways of G:U recognition by conserved tRNA binding motifs. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 7527-7532	11.5	13
36	Two crystal structures reveal design for repurposing the C-Ala domain of human AlaRS. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 14300-14305	11.5	12
35	p23H implicated as cis/trans regulator of AlaXp-directed editing for mammalian cell homeostasis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 2723-8	11.5	12
34	An alternative conformation of human TrpRS suggests a role of zinc in activating non-enzymatic function. <i>RNA Biology</i> , 2018 , 15, 649-658	4.8	11

33	Regulated capture by exosomes of mRNAs for cytoplasmic tRNA synthetases. <i>Journal of Biological Chemistry</i> , 2013 , 288, 29223-8	5.4	11
32	Functional expansion of the tRNA world under stress. <i>Molecular Cell</i> , 2011 , 43, 500-2	17.6	11
31	Transcriptional dysregulation by a nucleus-localized aminoacyl-tRNA synthetase associated with Charcot-Marie-Tooth neuropathy. <i>Nature Communications</i> , 2019 , 10, 5045	17.4	10
30	Serum-circulating His-tRNA synthetase inhibits organ-targeted immune responses. <i>Cellular and Molecular Immunology</i> , 2021 , 18, 1463-1475	15.4	10
29	Uncovering of a short internal peptide activates a tRNA synthetase procytokine. <i>Journal of Biological Chemistry</i> , 2012 , 287, 20504-8	5.4	9
28	Crystallization and preliminary X-ray analysis of a native human tRNA synthetase whose allelic variants are associated with Charcot-Marie-Tooth disease. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2006 , 62, 1243-6		9
27	Cross-editing by a tRNA synthetase allows vertebrates to abundantly express mischargeable tRNA without causing mistranslation. <i>Nucleic Acids Research</i> , 2020 , 48, 6445-6457	20.1	7
26	Introduction of a leucine half-zipper engenders multiple high-quality crystals of a recalcitrant tRNA synthetase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2010 , 66, 243-50		6
25	Structural analysis of Z-Z DNA junctions with A:A and T:T mismatched base pairs by NMR. <i>Biochemistry</i> , 1997 , 36, 4258-67	3.2	6
24	Variant of human enzyme sequesters reactive intermediate. <i>Biochemistry</i> , 2005 , 44, 4216-21	3.2	6
23	Human diseases linked to cytoplasmic aminoacyl-tRNA synthetases. <i>The Enzymes</i> , 2020 , 48, 277-319	2.3	5
22	Alternative splicing creates two new architectures for human tyrosyl-tRNA synthetase. <i>Nucleic Acids Research</i> , 2016 , 44, 1247-55	20.1	5
21	X-shaped structure of bacterial heterotetrameric tRNA synthetase suggests cryptic prokaryote functions and a rationale for synthetase classifications. <i>Nucleic Acids Research</i> , 2021 , 49, 10106-10119	20.1	5
20	Studying nuclear functions of aminoacyl tRNA synthetases. <i>Methods</i> , 2017 , 113, 105-110	4.6	4
19	Phosphorylation of seryl-tRNA synthetase by ATM/ATR is essential for hypoxia-induced angiogenesis. <i>PLoS Biology</i> , 2020 , 18, e3000991	9.7	4
18	Glucose-sensitive acetylation of Seryl tRNA synthetase regulates lipid synthesis in breast cancer. <i>Signal Transduction and Targeted Therapy</i> , 2021 , 6, 303	21	4
17	Inhibitory mechanism of reveromycin A at the tRNA binding site of a class I synthetase. <i>Nature Communications</i> , 2021 , 12, 1616	17.4	3
16	The uniqueness of AlaRS and its human disease connections. <i>RNA Biology</i> , 2021 , 18, 1501-1511	4.8	2

15	Nucleus translocation of tRNA synthetase mediates late integrated stress response		2
14	Multi-Omics Database Analysis of Aminoacyl-tRNA Synthetases in Cancer. <i>Genes</i> , 2020 , 11,	4.2	2
13	CMT2N-causing aminoacylation domain mutants enable Nrp1 interaction with AlaRS. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	2
12	Novel functions of cytoplasmic aminoacyl-tRNA synthetases shaping the hallmarks of cancer. <i>The Enzymes</i> , 2020 , 48, 397-423	2.3	1
11	tRNA-derived G-quadruplex protects motor neurons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 18108-9	11.5	1
10	Perfecting the genetic code with an RNP complex. <i>Structure</i> , 2006 , 14, 1729-30	5.2	1
9	Extracellular tyrosyl-tRNA synthetase cleaved by plasma proteinases and stored in platelet Egranules: Potential role in monocyte activation. <i>Research and Practice in Thrombosis and Haemostasis</i> , 2020 , 4, 1167-1177	5.1	1
8	Extracellular Tyrosyl-tRNA Synthetase Is a Potent Stimulator of Thrombocytopoiesis. <i>Blood</i> , 2016 , 128, 1476-1476	2.2	
7	Novel Protein Agonist of Thrombopoiesis Acts Via a Physiocrine Pathway Distinct From That of Thrombopoietin. <i>Blood</i> , 2011 , 118, 2376-2376	2.2	
6	Phosphorylation of seryl-tRNA synthetase by ATM/ATR is essential for hypoxia-induced angiogenesis 2020 , 18, e3000991		
5	Phosphorylation of seryl-tRNA synthetase by ATM/ATR is essential for hypoxia-induced angiogenesis 2020 , 18, e3000991		
4	Phosphorylation of seryl-tRNA synthetase by ATM/ATR is essential for hypoxia-induced angiogenesis 2020 , 18, e3000991		
3	Phosphorylation of seryl-tRNA synthetase by ATM/ATR is essential for hypoxia-induced angiogenesis 2020 , 18, e3000991		
2	Phosphorylation of seryl-tRNA synthetase by ATM/ATR is essential for hypoxia-induced angiogenesis 2020 , 18, e3000991		
1	Phosphorylation of seryl-tRNA synthetase by ATM/ATR is essential for hypoxia-induced angiogenesis 2020 , 18, e3000991		