

William H McClain

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55 papers	1,792 citations	24 h-index	41 g-index
55 ext. papers	1,873 ext. citations	10.8 avg, IF	4.37 L-index

#	Paper	IF	Citations
55	The G x U wobble base pair. A fundamental building block of RNA structure crucial to RNA function in diverse biological systems. <i>EMBO Reports</i> , 2000 , 1, 18-23	6.5	318
54	Rules that govern tRNA identity in protein synthesis. <i>Journal of Molecular Biology</i> , 1993 , 234, 257-80	6.5	148
53	Cleavage of tRNA precursors by the RNA subunit of E. coli ribonuclease P (M1 RNA) is influenced by 3' proximal CCA in the substrates. <i>Cell</i> , 1984 , 38, 219-24	56.2	98
52	Nucleotides that contribute to the identity of Escherichia coli tRNA(Phe). <i>Journal of Molecular Biology</i> , 1988 , 202, 697-709	6.5	84
51	A mutant of escherichia coli defective in removing 3' terminal nucleotides from some transfer RNA precursor molecules. <i>Cell</i> , 1975 , 5, 389-400	56.2	75
50	Differences between transfer RNA molecules. <i>Journal of Molecular Biology</i> , 1987 , 194, 635-42	6.5	67
49	Transfer RNA identity. <i>FASEB Journal</i> , 1993 , 7, 72-8	0.9	60
48	Nucleotide alterations in the bacteriophage T4 glutamine transfer RNA that affect ochre suppressor activity. <i>Journal of Molecular Biology</i> , 1974 , 90, 677-89	6.5	56
47	Seven terminal steps in a biosynthetic pathway leading from DNA to transfer RNA. <i>Accounts of Chemical Research</i> , 1977 , 10, 418-425	24.3	54
46	Five steps in the conversion of a large precursor RNA into bacteriophage proline and serine transfer RNAs. <i>Journal of Molecular Biology</i> , 1975 , 99, 733-60	6.5	50
45	Rapid site-specific mutagenesis in plasmids. <i>Gene</i> , 1987 , 59, 285-90	3.8	47
44	Conditionally lethal mutants of bacteriophage T4 defective in production of a transfer RNA. <i>Journal of Molecular Biology</i> , 1973 , 81, 137-55	6.5	47
43	Transfer Ribonucleic Acid Nucleotidyl-transferase Plays an Essential Role in the Normal Growth of Escherichia coli and in the Biosynthesis of Some Bacteriophage T4 Transfer Ribonucleic Acids. <i>Journal of Biological Chemistry</i> , 1974 , 249, 6696-6699	5.4	46
42	An ochre suppressor of bacteriophage T4 that is associated with a transfer RNA. <i>Journal of Molecular Biology</i> , 1974 , 90, 665-76	6.5	42
41	Genetic perturbations that reveal tertiary conformation of tRNA precursor molecules. <i>Nature</i> , 1975 , 257, 106-10	50.4	41
40	The psu1+ amber suppressor gene of bacteriophage T4: identification of its amino acid and transfer RNA. <i>Journal of Molecular Biology</i> , 1973 , 81, 157-71	6.5	40
39	Nucleotide alterations in bacteriophage T4 serine transfer RNA that affect the conversion of precursor RNA into transfer RNA. <i>Journal of Molecular Biology</i> , 1975 , 99, 717-32	6.5	38

38	UAG suppressor coded by bacteriophage T4. <i>FEBS Letters</i> , 1970 , 6, 99-101	3.8	35
37	A statistical method for correlating tRNA sequence with amino acid specificity. <i>Nucleic Acids Research</i> , 1986 , 14, 375-80	20.1	30
36	Variants in clones of gene-machine-synthesized oligodeoxynucleotides. <i>Nucleic Acids Research</i> , 1986 , 14, 6770	20.1	29
35	A mutation of the wobble nucleotide of a bacteriophage T4 transfer RNA. <i>Journal of Molecular Biology</i> , 1975 , 99, 283-93	6.5	27
34	Rare transfer ribonucleic acid essential for phage growth. Nucleotide sequence comparison of normal and mutant T4 isoleucine-accepting transfer ribonucleic acid. <i>Biochemistry</i> , 1979 , 18, 3786-95	3.2	26
33	Distinctive acceptor-end structure and other determinants of Escherichia coli tRNA ^{Pro} identity. <i>Nucleic Acids Research</i> , 1994 , 22, 522-9	20.1	24
32	Cysteine transfer RNA of Escherichia coli: nucleotide sequence and unusual metabolic properties of the 3'-C-C-A terminus. <i>Journal of Molecular Biology</i> , 1977 , 117, 1061-79	6.5	24
31	Trials, travails and triumphs: an account of RNA catalysis in RNase P. <i>Journal of Molecular Biology</i> , 2010 , 397, 627-46	6.5	22
30	The reliability of in vivo structure-function analysis of tRNA aminoacylation. <i>Journal of Molecular Biology</i> , 1999 , 290, 391-409	6.5	21
29	Nucleotide sequence of a glycine transfer RNA coded by bacteriophage T4. <i>FEBS Letters</i> , 1973 , 37, 64-9	3.8	21
28	Evolution of the biosynthesis of 3'-terminal C-C-A residues in T-even bacteriophage transfer RNAs. <i>Journal of Molecular Biology</i> , 1978 , 119, 519-36	6.5	19
27	Recognition of acceptor-stem structure of tRNA(Asp) by Escherichia coli aspartyl-tRNA synthetase. <i>Rna</i> , 2003 , 9, 386-93	5.8	18
26	Searching tRNA sequences for relatedness to aminoacyl-tRNA synthetase families. <i>Journal of Molecular Evolution</i> , 1995 , 40, 482-6	3.1	18
25	An Escherichia coli ribonuclease which removes an extra nucleotide from a biosynthetic intermediate of bacteriophage T4 proline transfer RNA. <i>Nucleic Acids Research</i> , 1978 , 5, 4129-39	20.1	18
24	A role for ribonuclease III in synthesis of bacteriophage T4 transfer RNAs. <i>Biochemical and Biophysical Research Communications</i> , 1979 , 86, 718-24	3.4	17
23	The relationship of thermodynamic stability at a G x U recognition site to tRNA aminoacylation specificity. <i>Rna</i> , 1999 , 5, 1490-4	5.8	15
22	Surprising contribution to aminoacylation and translation of non-Watson-Crick pairs in tRNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 4570-5	11.5	13
21	A set of plasmids constitutively producing different RNA levels in Escherichia coli. <i>Journal of Molecular Biology</i> , 1999 , 290, 385-9	6.5	10

20	Hybrid transfer RNA genes in phage T4. <i>Cell</i> , 1984 , 38, 225-31	56.2	10
19	Plasmid systems to study RNA function in Escherichia coli. <i>Journal of Molecular Biology</i> , 2001 , 310, 543-86.5	9	
18	Functional compensation by particular nucleotide substitutions of a critical G*U wobble base-pair during aminoacylation of transfer RNA. <i>Journal of Molecular Biology</i> , 1999 , 286, 1025-32	6.5	9
17	An algorithm for discriminating sequences and its application to yeast transfer RNA. <i>Bioinformatics</i> , 1987 , 3, 177-81	7.2	8
16	Genetic analysis of structure and function in phage T4 tRNA ^{Ser} . <i>Journal of Molecular Biology</i> , 1988 , 203, 549-53	6.5	8
15	Three suppressor forms of bacteriophage T4 leucine transfer RNA. <i>Journal of Molecular Biology</i> , 1979 , 135, 1013-21	6.5	8
14	The tRNA Identity Problem: Past, Present, and Future335-347		8
13	Construction of an Escherichia coli knockout strain for functional analysis of tRNA(Asp). <i>Journal of Molecular Biology</i> , 2001 , 310, 537-42	6.5	6
12	Suppressor and novel mutants of bacteriophage T4 tRNA(Gly). <i>Journal of Molecular Biology</i> , 1987 , 193, 223-6	6.5	5
11	Genetic perturbations of RNA reveal structure-based recognition in protein-RNA interaction. <i>Journal of Molecular Biology</i> , 2002 , 324, 573-6	6.5	4
10	Specific duplications fostered by a DNA structure containing adjacent inverted repeat sequences. <i>Journal of Molecular Biology</i> , 1988 , 204, 27-40	6.5	4
9	Maturation Events Leading to Transfer RNA and Ribosomal RNA 1980 , 439-545		4
8	Aptamer redesigned tRNA is nonfunctional and degraded in cells. <i>Rna</i> , 2004 , 10, 7-11	5.8	2
7	Genetic conversion of G.C base-pairs to A.U base-pairs in a transfer RNA. <i>Journal of Molecular Biology</i> , 1987 , 197, 605-8	6.5	2
6	Characterization of bacteriophage T4 and D RNA, a low-molecular-weight RNA of unknown function. <i>Archives of Biochemistry and Biophysics</i> , 1981 , 210, 298-306	4.1	2
5	Phage-Induced Conversion of Host Valyl-tRNA Synthetase. <i>Novartis Foundation Symposium</i> , 191-205		2
4	Discovery of a mini-RNase P in archaea. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 22371-2	11.5	1
3	Structure-function analysis of tRNA(Gln) in an Escherichia coli knockout strain. <i>Rna</i> , 2004 , 10, 795-804	5.8	1

2	tRNA nucleotide 47: an evolutionary enigma. <i>Rna</i> , 1998 , 4, 928-36	5.8	1
1	RNA: yesterday, today and tomorrow. <i>Rna</i> , 2015 , 21, 541-3	5.8	