Dieter Soll

List of Publications by Year in Descending Order

207 papers	11,095 citations	50 h-index	100 g-index
230 ext. papers	12,811 ext. citations	11 avg, IF	6.34 L-index

#	Paper	IF	Citations
207	Using selenocysteine-specific reporters to screen for efficient tRNA variants.. *Methods in Enzymology*, **2022**, 662, 63-93	1.7	
206	Directed Evolution of Pyrrolysyl-tRNA Synthetase Generates a Hyperactive and Highly Selective Variant.. *Frontiers in Molecular Biosciences*, **2022**, 9, 850613	5.6	1
205	Indirect Routes to Aminoacyl-tRNA: The Diversity of Prokaryotic Cysteine Encoding Systems.. *Frontiers in Genetics*, **2021**, 12, 794509	4.5	0
204	Genetic Encoding of Three Distinct Noncanonical Amino Acids Using Reprogrammed Initiator and Nonsense Codons. *ACS Chemical Biology*, **2021**, 16, 766-774	4.9	6
203	Selective cysteine-to-selenocysteine changes in a [NiFe]-hydrogenase confirm a special position for catalysis and oxygen tolerance. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
202	Introducing Selenocysteine into Recombinant Proteins in Escherichia coli. *Current Protocols*, **2021**, 1, e54		4
201	Intein-based Design Expands Diversity of Selenocysteine Reporters. *Journal of Molecular Biology*, **2021**, 167199	6.5	1
200	Multiplex suppression of four quadruplet codons via tRNA directed evolution. *Nature Communications*, **2021**, 12, 5706	17.4	3
199	Initiating protein synthesis with noncanonical monomers in vitro and in vivo. *Methods in Enzymology* , **2021**, 656, 495-519	1.7	1
198	Hijacking Translation Initiation for Synthetic Biology. *ChemBioChem*, **2020**, 21, 1387-1396	3.8	7
197	The Nbp35/ApbC homolog acts as a nonessential [4Fe-4S] transfer protein in methanogenic archaea. *FEBS Letters*, **2020**, 594, 924-932	3.8	2
196	Initiation of Protein Synthesis with Non-Canonical Amino Acids In Vivo. *Angewandte Chemie*, **2020**, 132, 3146-3150	3.6	4
195	Initiation of Protein Synthesis with Non-Canonical Amino Acids In Vivo. *Angewandte Chemie - International Edition*, **2020**, 59, 3122-3126	16.4	21
194	Exploiting evolutionary trade-offs for posttreatment management of drug-resistant populations. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 17924-17931	11.5	7
193	Naturally Occurring tRNAs With Non-canonical Structures. *Frontiers in Microbiology*, **2020**, 11, 596914	5.7	6
192	Engineering aminoacyl-tRNA synthetases for use in synthetic biology. *The Enzymes*, **2020**, 48, 351-395	2.3	2
191	Using Genetic Code Expansion for Protein Biochemical Studies. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 598577	5.8	11

190	Archaeal Ribosomal Proteins Possess Nuclear Localization Signal-Type Motifs: Implications for the Origin of the Cell Nucleus. *Molecular Biology and Evolution*, **2020**, 37, 124-133	8.3	7
189	Plasticity and Constraints of tRNA Aminoacylation Define Directed Evolution of Aminoacyl-tRNA Synthetases. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	10
188	Aminoacyl-tRNA Synthetases and tRNAs for an Expanded Genetic Code: What Makes them Orthogonal?. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	15
187	Mechanistic insights into the slow peptide bond formation with D-amino acids in the ribosomal active site. *Nucleic Acids Research*, **2019**, 47, 2089-2100	20.1	18
186	Engineered Aminoacyl-tRNA Synthetases with Improved Selectivity toward Noncanonical Amino Acids. *ACS Chemical Biology*, **2019**, 14, 603-612	4.9	11
185	A cysteinyl-tRNA synthetase variant confers resistance against selenite toxicity and decreases selenocysteine misincorporation. *Journal of Biological Chemistry*, **2019**, 294, 12855-12865	5.4	9
184	Translation of Diverse Aramid- and 1,3-Dicarbonyl-peptides by Wild Type Ribosomes. *ACS Central Science*, **2019**, 5, 1289-1294	16.8	32
183	Revising the Structural Diversity of Ribosomal Proteins Across the Three Domains of Life. *Molecular Biology and Evolution*, **2018**, 35, 1588-1598	8.3	40
182	Eine einfache Methode zur Produktion von Selenoproteinen. *Angewandte Chemie*, **2018**, 130, 7333-7337	3.6	4
181	A Facile Method for Producing Selenocysteine-Containing Proteins. *Angewandte Chemie - International Edition*, **2018**, 57, 7215-7219	16.4	29
180	Challenges of site-specific selenocysteine incorporation into proteins by Escherichia coli. *RNA Biology*, **2018**, 15, 461-470	4.8	17
179	Drugging tRNA aminoacylation. *RNA Biology*, **2018**, 15, 667-677	4.8	28
178	Engineering posttranslational proofreading to discriminate nonstandard amino acids. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 619-624	11.5	26
177	Upgrading aminoacyl-tRNA synthetases for genetic code expansion. *Current Opinion in Chemical Biology*, **2018**, 46, 115-122	9.7	53
176	Effects of Heterologous tRNA Modifications on the Production of Proteins Containing Noncanonical Amino Acids. *Bioengineering*, **2018**, 5,	5.3	7
175	Transfer RNA function and evolution. *RNA Biology*, **2018**, 15, 423-426	4.8	10
174	Recoding of the selenocysteine UGA codon by cysteine in the presence of a non-canonical tRNA and elongation factor SelB. *RNA Biology*, **2018**, 15, 471-479	4.8	6
173	Error-prone protein synthesis in parasites with the smallest eukaryotic genome. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E6245-E6253	11.5	20

172	Versatility of Synthetic tRNAs in Genetic Code Expansion. *Genes*, **2018**, 9,	4.2	8
171	Loss of protein synthesis quality control in host-restricted organisms. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E11505-E11512	11.5	17
170	Muller's Ratchet and Ribosome Degeneration in the Obligate Intracellular Parasites. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	12
169	Lysine Acetylation Regulates Alanyl-tRNA Synthetase Activity in. *Genes*, **2018**, 9,	4.2	8
168	Designing seryl-tRNA synthetase for improved serylation of selenocysteine tRNAs. *FEBS Letters*, **2018**, 592, 3759-3768	3.8	5
167	RNA-Dependent Cysteine Biosynthesis in Bacteria and Archaea. *MBio*, **2017**, 8,	7.8	16
166	A genomically modified Escherichia coli strain carrying an orthogonal E. coli histidyl-tRNA synthetase-tRNA pair. *Biochimica Et Biophysica Acta - General Subjects*, **2017**, 1861, 3009-3015	4	3
165	The central role of tRNA in genetic code expansion. *Biochimica Et Biophysica Acta - General Subjects*, **2017**, 1861, 3001-3008	4	17
164	Crystal structures reveal an elusive functional domain of pyrrolysyl-tRNA synthetase. *Nature Chemical Biology*, **2017**, 13, 1261-1266	11.7	47
163	Continuous directed evolution of aminoacyl-tRNA synthetases. *Nature Chemical Biology*, **2017**, 13, 1253-1260	11.7	124
162	Rewriting the Genetic Code. *Annual Review of Microbiology*, **2017**, 71, 557-577	17.5	90
161	Bioinformatic Analysis Reveals Archaeal tRNA and tRNA Identities in Bacteria. *Life*, **2017**, 7,	3	8
160	Transfer RNAs with novel cloverleaf structures. *Nucleic Acids Research*, **2017**, 45, 2776-2785	20.1	16
159	A [3Fe-4S] cluster is required for tRNA thiolation in archaea and eukaryotes. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 12703-12708	11.5	48
158	Crystal structures of the human elongation factor eEFSec suggest a non-canonical mechanism for selenocysteine incorporation. *Nature Communications*, **2016**, 7, 12941	17.4	15
157	Insights into RNA binding by the anticancer drug cisplatin from the crystal structure of cisplatin-modified ribosome. *Nucleic Acids Research*, **2016**, 44, 4978-87	20.1	50
156	Facile Recoding of Selenocysteine in Nature. *Angewandte Chemie - International Edition*, **2016**, 55, 5337-41	16.4	43
155	Efficient Reassignment of a Frequent Serine Codon in Wild-Type Escherichia coli. *ACS Synthetic Biology*, **2016**, 5, 163-71	5.7	30

154	Pyrrolysyl-tRNA synthetase, an aminoacyl-tRNA synthetase for genetic code expansion. *Croatica Chemica Acta*, **2016**, 89, 163-174	0.8	16
153	Dual Genetic Encoding of Acetyl-lysine and Non-deacetylatable Thioacetyl-lysine Mediated by Flexizyme. *Angewandte Chemie - International Edition*, **2016**, 55, 4083-6	16.4	15
152	In Vivo Biosynthesis of a [illegible]Amino Acid-Containing Protein. *Journal of the American Chemical Society*, **2016**, 138, 5194-7	16.4	69
151	Emergent rules for codon choice elucidated by editing rare arginine codons in Escherichia coli. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E5588-97	11.5	30
150	A chemical biology route to site-specific authentic protein modifications. *Science*, **2016**, 354, 623-626	33.3	151
149	Expanding the genetic code of Escherichia coli with phosphotyrosine. *FEBS Letters*, **2016**, 590, 3040-7	3.8	44
148	Selenoprotein biosynthesis defect causes progressive encephalopathy with elevated lactate. *Neurology*, **2015**, 85, 306-15	6.5	42
147	A synthetic tRNA for EF-Tu mediated selenocysteine incorporation in vivo and in vitro. *FEBS Letters*, **2015**, 589, 2194-9	3.8	36
146	Codon Bias as a Means to Fine-Tune Gene Expression. *Molecular Cell*, **2015**, 59, 149-61	17.6	367
145	Genetic code flexibility in microorganisms: novel mechanisms and impact on physiology. *Nature Reviews Microbiology*, **2015**, 13, 707-721	22.2	77
144	Rationally evolving tRNAPyl for efficient incorporation of noncanonical amino acids. *Nucleic Acids Research*, **2015**, 43, e156	20.1	59
143	A tRNA-guided research journey from synthetic chemistry to synthetic biology. *Rna*, **2015**, 21, 742-4	5.8	2
142	Innentitelbild: Chemische Evolution eines bakteriellen Proteoms (Angew. Chem. 34/2015). *Angewandte Chemie*, **2015**, 127, 9862-9862	3.6	
141	Chemical Evolution of a Bacterial Proteome. *Angewandte Chemie - International Edition*, **2015**, 54, 10030-4	16.4	52
140	Chemische Evolution eines bakteriellen Proteoms. *Angewandte Chemie*, **2015**, 127, 10168-10172	3.6	8
139	Structural insights into the role of rRNA modifications in protein synthesis and ribosome assembly. *Nature Structural and Molecular Biology*, **2015**, 22, 342-344	17.6	148
138	Evolution of translation machinery in recoded bacteria enables multi-site incorporation of nonstandard amino acids. *Nature Biotechnology*, **2015**, 33, 1272-1279	44.5	172
137	Probing the active site tryptophan of Staphylococcus aureus thioredoxin with an analog. *Nucleic Acids Research*, **2015**, 43, 11061-7	20.1	12

136	Structure of the Pseudomonas aeruginosa transamidosome reveals unique aspects of bacterial tRNA-dependent asparagine biosynthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 382-7	11.5	28
135	Mutations in QARS, encoding glutaminyl-tRNA synthetase, cause progressive microcephaly, cerebral-cerebellar atrophy, and intractable seizures. *American Journal of Human Genetics*, **2014**, 94, 547-58	11	87
134	Identification and codon reading properties of 5-cyanomethyl uridine, a new modified nucleoside found in the anticodon wobble position of mutant haloarchaeal isoleucine tRNAs. *Rna*, **2014**, 20, 177-88	5.8	18
133	Dimer-dimer interaction of the bacterial selenocysteine synthase SelA promotes functional active-site formation and catalytic specificity. *Journal of Molecular Biology*, **2014**, 426, 1723-35	6.5	10
132	Reducing the genetic code induces massive rearrangement of the proteome. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 17206-11	11.5	9
131	Polyspecific pyrrolysyl-tRNA synthetases from directed evolution. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 16724-9	11.5	75
130	Exploring the substrate range of wild-type aminoacyl-tRNA synthetases. *ChemBioChem*, **2014**, 15, 1805-1809	3.8	29
129	Ancient translation factor is essential for tRNA-dependent cysteine biosynthesis in methanogenic archaea. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 10520-5	11.5	12
128	Recoding the genetic code with selenocysteine. *Angewandte Chemie - International Edition*, **2014**, 53, 319-23	16.4	60
127	Umkodierung des genetischen Codes mit Selenocystein. *Angewandte Chemie*, **2014**, 126, 325-330	3.6	8
126	Titelbild: Umkodierung des genetischen Codes mit Selenocystein (Angew. Chem. 1/2014). *Angewandte Chemie*, **2014**, 126, 1-1	3.6	124
125	Archaeal Tuc1/Ncs6 homolog required for wobble uridine tRNA thiolation is associated with ubiquitin-proteasome, translation, and RNA processing system homologs. *PLoS ONE*, **2014**, 9, e99104	3.7	25
124	Bacterial Aminoacyl-tRNA Synthetases: Genes and Regulation of Expression **2014**, 293-333		18
123	Commonly Used Abbreviations, Terminologies, and Nomenclature **2014**, 557-557		
122	Primary, Secondary, and Tertiary Structures of tRNAs **2014**, 93-126		51
121	Engineering the elongation factor Tu for efficient selenoprotein synthesis. *Nucleic Acids Research*, **2014**, 42, 9976-83	20.1	39
120	The putative tRNA 2-thiouridine synthetase Ncs6 is an essential sulfur carrier in Methanococcus maripaludis. *FEBS Letters*, **2014**, 588, 873-7	3.8	14
119	Transfer RNA misidentification scrambles sense codon recoding. *ChemBioChem*, **2013**, 14, 1967-72	3.8	32

118	Pyrrolysyl-tRNA synthetase variants reveal ancestral aminoacylation function. *FEBS Letters*, **2013**, 587, 3243-8	3.8	23
117	Upgrading protein synthesis for synthetic biology. *Nature Chemical Biology*, **2013**, 9, 594-8	11.7	114
116	Rewiring Translation for Elongation Factor Tu-Dependent Selenocysteine Incorporation. *Angewandte Chemie*, **2013**, 125, 1481-1485	3.6	9
115	R�ktitelbild: Rewiring Translation for Elongation Factor Tu-Dependent Selenocysteine Incorporation (Angew. Chem. 5/2013). *Angewandte Chemie*, **2013**, 125, 1638-1638	3.6	
114	Rewiring translation for elongation factor Tu-dependent selenocysteine incorporation. *Angewandte Chemie - International Edition*, **2013**, 52, 1441-5	16.4	49
113	Decameric SelA�RNA(Sec) ring structure reveals mechanism of bacterial selenocysteine formation. *Science*, **2013**, 340, 75-8	33.3	242
112	Structural basis of reverse nucleotide polymerization. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 20970-5	11.5	23
111	A facile strategy for selective incorporation of phosphoserine into histones. *Angewandte Chemie - International Edition*, **2013**, 52, 5771-5	16.4	71
110	Titelbild: A Facile Strategy for Selective Incorporation of Phosphoserine into Histones (Angew. Chem. 22/2013). *Angewandte Chemie*, **2013**, 125, 5761-5761	3.6	
109	A Facile Strategy for Selective Incorporation of Phosphoserine into Histones. *Angewandte Chemie*, **2013**, 125, 5883-5887	3.6	5
108	Suppression of amber codons in Caulobacter crescentus by the orthogonal Escherichia coli histidyl-tRNA synthetase/tRNAHis pair. *PLoS ONE*, **2013**, 8, e83630	3.7	5
107	The genetic code: Yesterday, today, and tomorrow **2012**, 17, 1136-1142		2
106	Near-cognate suppression of amber, opal and quadruplet codons competes with aminoacyl-tRNAPyl for genetic code expansion. *FEBS Letters*, **2012**, 586, 3931-7	3.8	58
105	N-acetyl lysyl-tRNA synthetases evolved by a CcdB-based selection possess N-acetyl lysine specificity in vitro and in vivo. *FEBS Letters*, **2012**, 586, 729-33	3.8	65
104	Expanding the genetic code of Escherichia coli with phosphoserine. *Science*, **2011**, 333, 1151-4	33.3	259
103	Change of tRNA identity leads to a divergent orthogonal histidyl-tRNA synthetase/tRNAHis pair. *Nucleic Acids Research*, **2011**, 39, 2286-93	20.1	22
102	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, 4028-33	11.5	152
101	Mutations disrupting selenocysteine formation cause progressive cerebello-cerebral atrophy. *American Journal of Human Genetics*, **2010**, 87, 538-44	11	111

100	Dual targeting of a tRNAAsp requires two different aspartyl-tRNA synthetases in Trypanosoma brucei. *Journal of Biological Chemistry*, **2009**, 284, 16210-16217	5.4	28
99	Pyrrolysyl-tRNA synthetase-tRNA(Pyl) structure reveals the molecular basis of orthogonality. *Nature*, **2009**, 457, 1163-7	50.4	133
98	The human SepSecS-tRNASec complex reveals the mechanism of selenocysteine formation. *Science*, **2009**, 325, 321-5	33.3	318
97	1SP7-03 tRNA recognition and molecular evolution of GatCAB(1SP7 Elucidation of Protein Functions at the Atomic Level with X-ray structural, Vibrational spectroscopic, Molecular biological and Theoretical analyses,The 47th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2009**, 49, S9	0	
96	Divergence of selenocysteine tRNA recognition by archaeal and eukaryotic O-phosphoseryl-tRNASec kinase. *Nucleic Acids Research*, **2008**, 36, 1871-80	20.1	30
95	Structural insights into RNA-dependent eukaryal and archaeal selenocysteine formation. *Nucleic Acids Research*, **2008**, 36, 1187-99	20.1	43
94	Natural expansion of the genetic code. *Nature Chemical Biology*, **2007**, 3, 29-35	11.7	437
93	Pyrrolysine is not hardwired for cotranslational insertion at UAG codons. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 3141-6	11.5	93
92	Structure of pyrrolysyl-tRNA synthetase, an archaeal enzyme for genetic code innovation. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 11268-73	11.5	156
91	The genetic code revisited--four decades after Francis Crick. *Nucleic Acids Symposium Series*, **2007**, 13-4		1
90	Recognition of pyrrolysine tRNA by the Desulfitobacterium hafniense pyrrolysyl-tRNA synthetase. *Nucleic Acids Research*, **2007**, 35, 1270-8	20.1	43
89	The amino-terminal domain of pyrrolysyl-tRNA synthetase is dispensable in vitro but required for in vivo activity. *FEBS Letters*, **2007**, 581, 3197-203	3.8	39
88	Adding pyrrolysine to the Escherichia coli genetic code. *FEBS Letters*, **2007**, 581, 5282-8	3.8	48
87	The genetic code - thawing the Ŗfrozen accidentŖ. *Journal of Biosciences*, **2006**, 31, 459-63	2.3	23
86	Emergence of the universal genetic code imprinted in an RNA record. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 18095-100	11.5	50
85	RNA-dependent conversion of phosphoserine forms selenocysteine in eukaryotes and archaea. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 18923-7	11.5	359
84	Mischarging of M. barkeri tRNAPyl with alanine and serine in vitro. *FASEB Journal*, **2006**, 20, A503	0.9	
83	Recognition in vitro of the suppressor tRNAPyl by the class II-like Pyrrolsyl-tRNA Synthetase. *FASEB Journal*, **2006**, 20, A503	0.9	

82	A Molecular Tunnel Required for Cooperation of an Asparaginase and a Glu-tRNAGln Kinase in Gln-tRNA Formation. *FASEB Journal*, **2006**, 20, A503	0.9	
81	RNA-Dependent Cysteine Biosynthesis in Archaea. *FASEB Journal*, **2006**, 20, A503	0.9	
80	Nanoarchaeum equitans creates functional tRNAs from separate genes for their 5R and 3Rhalves. *Nature*, **2005**, 433, 537-41	50.4	159
79	Aminoacyl-tRNA tRNA formation: an essential function in protein synthesis and its quality control. *Nucleic Acids Symposium Series*, **2004**, 283-4		2
78	An aminoacyl-tRNA synthetase that specifically activates pyrrolysine. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 12450-4	11.5	156
77	Trans-editing of mischarged tRNAs. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 15422-7	11.5	156
76	Coevolution of an aminoacyl-tRNA synthetase with its tRNA substrates. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 13863-8	11.5	72
75	A one-step method for in vitro production of tRNA transcripts. *Nucleic Acids Research*, **2002**, 30, e105	20.1	16
74	Indolmycin resistance of Streptomyces coelicolor A3(2) by induced expression of one of its two tryptophanyl-tRNA synthetases. *Journal of Biological Chemistry*, **2002**, 277, 23882-7	5.4	47
73	Regulation of HEMA1 expression by phytochrome and a plastid signal during de-etiolation in Arabidopsis thaliana. *Plant Journal*, **2001**, 25, 549-61	6.9	104
72	Protein phosphatase 2A: identification in Oryza sativa of the gene encoding the regulatory A subunit. *Plant Molecular Biology*, **2001**, 45, 107-12	4.6	4
71	A dual-specific Glu-tRNA(Gln) and Asp-tRNA(Asn) amidotransferase is involved in decoding glutamine and asparagine codons in Acidithiobacillus ferrooxidans. *FEBS Letters*, **2001**, 500, 129-31	3.8	28
70	Methanococcus jannaschii prolyl-cysteinyl-tRNA synthetase possesses overlapping amino acid binding sites. *Biochemistry*, **2001**, 40, 46-52	3.2	24
69	Domain-specific recruitment of amide amino acids for protein synthesis. *Nature*, **2000**, 407, 106-10	50.4	140
68	Transfer RNA identity change in anticodon variants of E. coli tRNA(Phe) in vivo. *Molecules and Cells*, **2000**, 10, 76-82	3.5	3
67	A mutant Escherichia coli tyrosyl-tRNA synthetase utilizes the unnatural amino acid azatyrosine more efficiently than tyrosine. *Journal of Biological Chemistry*, **2000**, 275, 40324-8	5.4	26
66	The heterotrimeric Thermus thermophilus Asp-tRNA(Asn) amidotransferase can also generate Gln-tRNA(Gln). *FEBS Letters*, **2000**, 476, 140-4	3.8	37
65	Aminoacyl-tRNA synthesis. *Annual Review of Biochemistry*, **2000**, 69, 617-50	29.1	1050

64	The RCN1-encoded A subunit of protein phosphatase 2A increases phosphatase activity in vivo. *Plant Journal*, **1999**, 20, 389-99	6.9	108
63	Cysteinyl-tRNA formation: the last puzzle of aminoacyl-tRNA synthesis. *FEBS Letters*, **1999**, 462, 302-6	3.8	24
62	Archaeal aminoacyl-tRNA synthesis: diversity replaces dogma. *Genetics*, **1999**, 152, 1269-76	4	33
61	Maize mitochondrial seryl-tRNA synthetase recognizes Escherichia coli tRNA(Ser) in vivo and in vitro. *Plant Molecular Biology*, **1998**, 38, 497-502	4.6	6
60	Retracing the evolution of amino acid specificity in glutaminyl-tRNA synthetase. *FEBS Letters*, **1998**, 434, 149-54	3.8	8
59	C-terminal truncation of yeast SerRS is toxic for Saccharomyces cerevisiae due to altered mechanism of substrate recognition. *FEBS Letters*, **1998**, 439, 235-40	3.8	10
58	The terminal adenosine of tRNA(Gln) mediates tRNA-dependent amino acid recognition by glutaminyl-tRNA synthetase. *Biochemistry*, **1998**, 37, 9836-42	3.2	17
57	Aminoacyl-tRNA synthesis: divergent routes to a common goal. *Trends in Biochemical Sciences*, **1997** , 22, 39-42	10.3	120
56	Escherichia coli tryptophanyl-tRNA synthetase mutants selected for tryptophan auxotrophy implicate the dimer interface in optimizing amino acid binding. *Biochemistry*, **1996**, 35, 32-40	3.2	21
55	Glutaminyl-tRNA synthetase: from genetics to molecular recognition. *Genes To Cells*, **1996**, 1, 421-7	2.3	12
54	A second and differentially expressed glutamyl-tRNA reductase gene from Arabidopsis thaliana. *Plant Molecular Biology*, **1996**, 30, 419-26	4.6	44
53	Homologous expression and purification of mutants of an essential protein by reverse epitope-tagging. *Nature Biotechnology*, **1996**, 14, 50-5	44.5	6
52	Protein-RNA molecular recognition. *Nature*, **1996**, 381, 656	50.4	8
51	tRNA-dependent asparagine formation. *Nature*, **1996**, 382, 589-90	50.4	145
50	RDistortedRRNA helix recognition. *Nature*, **1996**, 384, 422-422	50.4	
49	A novel root gravitropism mutant of Arabidopsis thaliana exhibiting altered auxin physiology. *Physiologia Plantarum*, **1995**, 93, 790-798	4.6	63
48	A 2-thiouridine derivative in tRNAGlu is a positive determinant for aminoacylation by Escherichia coli glutamyl-tRNA synthetase. *Biochemistry*, **1993**, 32, 3836-41	3.2	165
47	Molecular analysis of three maize 22 kDa auxin-binding protein genes--transient promoter expression and regulatory regions. *Plant Journal*, **1993**, 4, 423-32	6.9	43

46	Yeast seryl-tRNA synthetase expressed in Escherichia coli recognizes bacterial serine-specific tRNAs in vivo. *FEBS Journal*, **1993**, 214, 869-77		24
45	Identification of a 100-kDa protein associated with nuclear ribonuclease P activity in Schizosaccharomyces pombe. *FEBS Journal*, **1993**, 217, 501-7		24
44	Chloroplast tRNA(Asp): nucleotide sequence and variation of in vivo levels during plastid maturation. *Plant Molecular Biology*, **1992**, 20, 601-7	4.6	3
43	Anticodon and acceptor stem nucleotides in tRNA(Gln) are major recognition elements for E. coli glutaminyl-tRNA synthetase. *Nature*, **1991**, 352, 258-60	50.4	191
42	The Human Genome Project: a paradigm for information management in the life sciences. *FASEB Journal*, **1991**, 5, 35-9	0.9	23
41	The RNA component of RNase P in Schizosaccharomyces species. *FEBS Letters*, **1990**, 271, 189-93	3.8	20
40	The selenocysteine-inserting opal suppressor serine tRNA from E. coli is highly unusual in structure and modification. *Nucleic Acids Research*, **1989**, 17, 7159-65	20.1	76
39	Substrate structural requirements of Schizosaccharomyces pombe RNase P. *FEBS Letters*, **1989**, 251, 84-8	3.8	29
38	Protein biosynthesis in organelles requires misaminoacylation of tRNA. *Nature*, **1988**, 331, 187-90	50.4	218
37	tRNA specificity of a mischarging aminoacyl-tRNA synthetase: Glutamyl-tRNA synthetase from barley chloroplasts. *FEBS Letters*, **1988**, 228, 241-244	3.8	17
36	Simplified in vitro synthesis of mutated RNA molecules. An oligonucleotide promoter determines the initiation site of T7RNA polymerase on ss M13 phage DNA. *FEBS Letters*, **1987**, 212, 271-5	3.8	9
35	The RNA required in the first step of chlorophyll biosynthesis is a chloroplast glutamate tRNA. *Nature*, **1986**, 322, 281-4	50.4	256
34	The sup8 tRNALeu gene of Schizosaccharomyces pombe has an unusual intervening sequence and reduced pairing in the anticodon stem. *Molecular Genetics and Genomics*, **1984**, 197, 447-52		27
33	Organization of ribosomal DNA in yellow lupine (Lupinus luteus) and sequence of the 5.8 S RNA gene. *FEBS Letters*, **1983**, 152, 241-246	3.8	26
32	Arrangement of the ribosomal RNA genes in Schizosaccharomyces pombe. *FEBS Letters*, **1982**, 143, 129-32	3.8	14
31	Dimeric tRNA precursors in yeast. *Nature*, **1980**, 287, 750-2	50.4	85
30	N-(purin-6-ylcarbamoyl)threonine: biosynthesis in vitro in transfer RNA by an enzyme purified from Escherichia coli. *FEBS Letters*, **1974**, 39, 301-6	3.8	33
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