# Dieter Soll

## List of Publications by Year
## in descending order

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|---|---|---|---|
| 202 | 13,927 | 31949<br>53 | 25770<br>108 |
| papers | citations | h-index | g-index |
| 230 | 230 | 230 | 11525 |
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Intein-based Design Expands Diversity of Selenocysteine Reporters. Journal of Molecular Biology, 2022, 434, 167199. | 2.0 | 9 |
| 2 | Using selenocysteine-specific reporters to screen for efficient tRNASec variants. Methods in Enzymology, 2022, 662, 63-93. | 0.4 | 0 |
| 3 | Directed Evolution of Methanomethylophilus alvus Pyrrolysyl-tRNA Synthetase Generates a Hyperactive and Highly Selective Variant. Frontiers in Molecular Biosciences, 2022, 9, 850613. | 1.6 | 16 |
| 4 | Measuring the tolerance of the genetic code to altered codon size. ELife, 2022, 11, . | 2.8 | 13 |
| 5 | The tRNA discriminator base defines the mutual orthogonality of two distinct pyrrolysyl-tRNA synthetase/tRNAPyl pairs in the same organism. Nucleic Acids Research, 2022, 50, 4601-4615. | 6.5 | 7 |
| 6 | Introducing Selenocysteine into Recombinant Proteins in <i>Escherichia coli</i>. Current Protocols, 2021, 1, e54. | 1.3 | 11 |
| 7 | Genetic Encoding of Three Distinct Noncanonical Amino Acids Using Reprogrammed Initiator and Nonsense Codons. ACS Chemical Biology, 2021, 16, 766-774. | 1.6 | 39 |
| 8 | 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, . | 3.3 | 14 |
| 9 | Bacterial translation machinery for deliberate mistranslation of the genetic code. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 9 |
| 10 | Multiplex suppression of four quadruplet codons via tRNA directed evolution. Nature Communications, 2021, 12, 5706. | 5.8 | 25 |
| 11 | Initiating protein synthesis with noncanonical monomers in vitro and in vivo. Methods in Enzymology, 2021, 656, 495-519. | 0.4 | 4 |
| 12 | Indirect Routes to Aminoacyl-tRNA: The Diversity of Prokaryotic Cysteine Encoding Systems. Frontiers in Genetics, 2021, 12, 794509. | 1.1 | 4 |
| 13 | 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. | 3.5 | 17 |
| 14 | The Nbp35/ApbC homolog acts as a nonessential [4Feâ€4S] transfer protein in methanogenic archaea. FEBS Letters, 2020, 594, 924-932. | 1.3 | 4 |
| 15 | Initiation of Protein Synthesis with Nonâ€Canonical Amino Acids Inâ€…Vivo. Angewandte Chemie, 2020, 132, 3146-3150. | 1.6 | 6 |
| 16 | Initiation of Protein Synthesis with Nonâ€Canonical Amino Acids Inâ€…Vivo. Angewandte Chemie - International Edition, 2020, 59, 3122-3126. | 7.2 | 43 |
| 17 | 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. | 3.3 | 19 |
| 18 | Naturally Occurring tRNAs With Non-canonical Structures. Frontiers in Microbiology, 2020, 11, 596914. | 1.5 | 24 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 19 | Engineering aminoacyl-tRNA synthetases for use in synthetic biology. The Enzymes, 2020, 48, 351-395. | 0.7 | 16 |
| 20 | Using Genetic Code Expansion for Protein Biochemical Studies. Frontiers in Bioengineering and Biotechnology, 2020, 8, 598577. | 2.0 | 28 |
| 21 | Hijacking Translation Initiation for Synthetic Biology. ChemBioChem, 2020, 21, 1387-1396. | 1.3 | 18 |
| 22 | Thirty Years of Collaborations with Tom. journal of hand surgery Asian-Pacific volume, The, 2020, , 379-382. | 0.2 | 0 |
| 23 | A cysteinyl-tRNA synthetase variant confers resistance against selenite toxicity and decreases selenocysteine misincorporation. Journal of Biological Chemistry, 2019, 294, 12855-12865. | 1.6 | 18 |
| 24 | Translation of Diverse Aramid- and 1,3-Dicarbonyl-peptides by Wild Type Ribosomes <i>in Vitro</i>. ACS Central Science, 2019, 5, 1289-1294. | 5.3 | 54 |
| 25 | Plasticity and Constraints of tRNA Aminoacylation Define Directed Evolution of Aminoacyl-tRNA Synthetases. International Journal of Molecular Sciences, 2019, 20, 2294. | 1.8 | 15 |
| 26 | Aminoacyl-tRNA Synthetases and tRNAs for an Expanded Genetic Code: What Makes them Orthogonal?. International Journal of Molecular Sciences, 2019, 20, 1929. | 1.8 | 25 |
| 27 | Mechanistic insights into the slow peptide bond formation with D-amino acids in the ribosomal active site. Nucleic Acids Research, 2019, 47, 2089-2100. | 6.5 | 36 |
| 28 | Engineered Aminoacyl-tRNA Synthetases with Improved Selectivity toward Noncanonical Amino Acids. ACS Chemical Biology, 2019, 14, 603-612. | 1.6 | 23 |
| 29 | Revising the Structural Diversity of Ribosomal Proteins Across the Three Domains of Life. Molecular Biology and Evolution, 2018, 35, 1588-1598. | 3.5 | 66 |
| 30 | Eine einfache Methode zur Produktion von Selenoproteinen. Angewandte Chemie, 2018, 130, 7333-7337. | 1.6 | 5 |
| 31 | A Facile Method for Producing Selenocysteineâ€Containing Proteins. Angewandte Chemie - International Edition, 2018, 57, 7215-7219. | 7.2 | 47 |
| 32 | Challenges of site-specific selenocysteine incorporation into proteins by<i>Escherichia coli</i>. RNA Biology, 2018, 15, 461-470. | 1.5 | 26 |
| 33 | Drugging tRNA aminoacylation. RNA Biology, 2018, 15, 667-677. | 1.5 | 51 |
| 34 | 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. | 3.3 | 37 |
| 35 | Versatility of Synthetic tRNAs in Genetic Code Expansion. Genes, 2018, 9, 537. | 1.0 | 11 |
| 36 | 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. | 3.3 | 24 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 37 | Mullerâ€™s Ratchet and Ribosome Degeneration in the Obligate Intracellular Parasites Microsporidia. International Journal of Molecular Sciences, 2018, 19, 4125. | 1.8 | 22 |
| 38 | Lysine Acetylation Regulates Alanyl-tRNA Synthetase Activity in Escherichia coli. Genes, 2018, 9, 473. | 1.0 | 10 |
| 39 | Designing serylâ€•tRNA synthetase for improved serylation of selenocysteine tRNA s. FEBS Letters, 2018, 592, 3759-3768. | 1.3 | 6 |
| 40 | Upgrading aminoacyl-tRNA synthetases for genetic code expansion. Current Opinion in Chemical Biology, 2018, 46, 115-122. | 2.8 | 94 |
| 41 | Effects of Heterologous tRNA Modifications on the Production of Proteins Containing Noncanonical Amino Acids. Bioengineering, 2018, 5, 11. | 1.6 | 10 |
| 42 | Transfer RNA function and evolution. RNA Biology, 2018, 15, 423-426. | 1.5 | 15 |
| 43 | Recoding of the selenocysteine UGA codon by cysteine in the presence of a non-canonical tRNA<sup>Cys</sup>and elongation factor SelB. RNA Biology, 2018, 15, 471-479. | 1.5 | 8 |
| 44 | 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. | 3.3 | 30 |
| 45 | Transfer RNAs with novel cloverleaf structures. Nucleic Acids Research, 2017, 45, gkw898. | 6.5 | 26 |
| 46 | RNA-Dependent Cysteine Biosynthesis in Bacteria and Archaea. MBio, 2017, 8, . | 1.8 | 20 |
| 47 | A genomically modified Escherichia coli strain carrying an orthogonal E. coli histidyl-tRNA synthetaseâ€¢tRNA His pair. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 3009-3015. | 1.1 | 8 |
| 48 | The central role of tRNA in genetic code expansion. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 3001-3008. | 1.1 | 27 |
| 49 | Crystal structures reveal an elusive functional domain of pyrrolysyl-tRNA synthetase. Nature Chemical Biology, 2017, 13, 1261-1266. | 3.9 | 73 |
| 50 | Continuous directed evolution of aminoacyl-tRNA synthetases. Nature Chemical Biology, 2017, 13, 1253-1260. | 3.9 | 185 |
| 51 | Rewriting the Genetic Code. Annual Review of Microbiology, 2017, 71, 557-577. | 2.9 | 131 |
| 52 | Bioinformatic Analysis Reveals Archaeal tRNATyr and tRNATrp Identities in Bacteria. Life, 2017, 7, 8. | 1.1 | 13 |
| 53 | Dual Genetic Encoding of Acetylâ€lysine and Nonâ€deacetylatable Thioacetylâ€lysine Mediated by Flexizyme. Angewandte Chemie - International Edition, 2016, 55, 4083-4086. | 7.2 | 23 |
| 54 | <i>In Vivo</i> Biosynthesis of a Î²-Amino Acid-Containing Protein. Journal of the American Chemical Society, 2016, 138, 5194-5197. | 6.6 | 101 |

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|---|---|---|---|
| 55 | Emergent rules for codon choice elucidated by editing rare arginine codons in <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5588-97. | 3.3 | 48 |
| 56 | A chemical biology route to site-specific authentic protein modifications. Science, 2016, 354, 623-626. | 6.0 | 188 |
| 57 | Expanding the genetic code of <i>Escherichia coli</i> with phosphotyrosine. FEBS Letters, 2016, 590, 3040-3047. | 1.3 | 60 |
| 58 | 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. | 3.3 | 63 |
| 59 | Crystal structures of the human elongation factor eEFSec suggest a non-canonical mechanism for selenocysteine incorporation. Nature Communications, 2016, 7, 12941. | 5.8 | 22 |
| 60 | Insights into RNA binding by the anticancer drug cisplatin from the crystal structure of cisplatin-modified ribosome. Nucleic Acids Research, 2016, 44, 4978-4987. | 6.5 | 69 |
| 61 | Facile Recoding of Selenocysteine in Nature. Angewandte Chemie - International Edition, 2016, 55, 5337-5341. | 7.2 | 54 |
| 62 | Efficient Reassignment of a Frequent Serine Codon in Wild-Type <i>Escherichia coli</i>. ACS Synthetic Biology, 2016, 5, 163-171. | 1.9 | 34 |
| 63 | Pyrrolysyl-tRNA Synthetase, an Aminoacyl-tRNA Synthetase for Genetic Code Expansion. Croatica Chemica Acta, 2016, 89, 163-174. | 0.1 | 24 |
| 64 | Chemical Evolution of a Bacterial Proteome. Angewandte Chemie - International Edition, 2015, 54, 10030-10034. | 7.2 | 71 |
| 65 | Structural insights into the role of rRNA modifications in protein synthesis and ribosome assembly. Nature Structural and Molecular Biology, 2015, 22, 342-344. | 3.6 | 224 |
| 66 | Evolution of translation machinery in recoded bacteria enables multi-site incorporation of nonstandard amino acids. Nature Biotechnology, 2015, 33, 1272-1279. | 9.4 | 234 |
| 67 | Probing the active site tryptophan ofStaphylococcus aureusthioredoxin with an analog. Nucleic Acids Research, 2015, 43, 11061-11067. | 6.5 | 21 |
| 68 | Structure of the <i>Pseudomonas aeruginosa</i> 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, 382-387. | 3.3 | 33 |
| 69 | Selenoprotein biosynthesis defect causes progressive encephalopathy with elevated lactate. Neurology, 2015, 85, 306-315. | 1.5 | 52 |
| 70 | A synthetic tRNA for EFâ€Tu mediated selenocysteine incorporation <i>in vivo</i> and <i>in vitro</i>. FEBS Letters, 2015, 589, 2194-2199. | 1.3 | 47 |
| 71 | Codon Bias as a Means to Fine-Tune Gene Expression. Molecular Cell, 2015, 59, 149-161. | 4.5 | 554 |
| 72 | Genetic code flexibility in microorganisms: novel mechanisms and impact on physiology. Nature Reviews Microbiology, 2015, 13, 707-721. | 13.6 | 104 |

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| 73 | Rationally evolving tRNA<sup>Pyl</sup>for efficient incorporation of noncanonical amino acids. Nucleic Acids Research, 2015, 43, e156-e156. | 6.5 | 86 |
| 74 | A tRNA-guided research journey from synthetic chemistry to synthetic biology. Rna, 2015, 21, 742-744. | 1.6 | 2 |
| 75 | 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. | 1.1 | 32 |
| 76 | Engineering the elongation factor Tu for efficient selenoprotein synthesis. Nucleic Acids Research, 2014, 42, 9976-9983. | 6.5 | 49 |
| 77 | The putative tRNA 2â€thiouridine synthetase Ncs6 is an essential sulfur carrier in <i>Methanococcus maripaludis</i>. FEBS Letters, 2014, 588, 873-877. | 1.3 | 16 |
| 78 | Mutations in QARS, Encoding Glutaminyl-tRNA Synthetase, Cause Progressive Microcephaly, Cerebral-Cerebellar Atrophy, and Intractable Seizures. American Journal of Human Genetics, 2014, 94, 547-558. | 2.6 | 106 |
| 79 | 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, 177-188. | 1.6 | 35 |
| 80 | Dimerâ€"Dimer Interaction of the Bacterial Selenocysteine Synthase SelA Promotes Functional Active-Site Formation and Catalytic Specificity. Journal of Molecular Biology, 2014, 426, 1723-1735. | 2.0 | 17 |
| 81 | 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, 17206-17211. | 3.3 | 13 |
| 82 | Polyspecific pyrrolysyl-tRNA synthetases from directed evolution. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16724-16729. | 3.3 | 101 |
| 83 | Exploring the Substrate Range of Wildâ€Type Aminoacylâ€tRNA Synthetases. ChemBioChem, 2014, 15, 1805-1809. | 1.3 | 34 |
| 84 | 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, 10520-10525. | 3.3 | 17 |
| 85 | Recoding the Genetic Code with Selenocysteine. Angewandte Chemie - International Edition, 2014, 53, 319-323. | 7.2 | 72 |
| 86 | Transfer RNA Misidentification Scrambles Sense Codon Recoding. ChemBioChem, 2013, 14, 1967-1972. | 1.3 | 39 |
| 87 | Pyrrolysylâ€tRNA synthetase variants reveal ancestral aminoacylation function. FEBS Letters, 2013, 587, 3243-3248. | 1.3 | 30 |
| 88 | Upgrading protein synthesis for synthetic biology. Nature Chemical Biology, 2013, 9, 594-598. | 3.9 | 143 |
| 89 | RÃ¼cktitelbild: Rewiring Translation for Elongation Factor Tu-Dependent Selenocysteine Incorporation (Angew. Chem. 5/2013). Angewandte Chemie, 2013, 125, 1638-1638. | 1.6 | 0 |
| 90 | Rewiring Translation for Elongation Factor Tuâ€Dependent Selenocysteine Incorporation. Angewandte Chemie - International Edition, 2013, 52, 1441-1445. | 7.2 | 62 |

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|---|---|---|---|
| 91 | Decameric SelAâ€¢tRNA <sup>Sec</sup> Ring Structure Reveals Mechanism of Bacterial Selenocysteine Formation. Science, 2013, 340, 75-78. | 6.0 | 302 |
| 92 | Structural basis of reverse nucleotide polymerization. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20970-20975. | 3.3 | 25 |
| 93 | A Facile Strategy for Selective Incorporation of Phosphoserine into Histones. Angewandte Chemie - International Edition, 2013, 52, 5771-5775. | 7.2 | 87 |
| 94 | Suppression of Amber Codons in Caulobacter crescentus by the Orthogonal Escherichia coli Histidyl-tRNA Synthetase/tRNAHis Pair. PLoS ONE, 2013, 8, e83630. | 1.1 | 7 |
| 95 | The genetic code: Yesterday, today, and tomorrow. Resonance, 2012, 17, 1136-1142. | 0.2 | 2 |
| 96 | Nearâ€cognate suppression of amber, opal and quadruplet codons competes with aminoacylâ€tRNA<sup>Pyl</sup> for genetic code expansion. FEBS Letters, 2012, 586, 3931-3937. | 1.3 | 70 |
| 97 | <i>N</i>â€Acetyl lysylâ€tRNA synthetases evolved by a CcdBâ€based selection possess <i>N</i>â€acetyl lysine specificity in vitro and in vivo. FEBS Letters, 2012, 586, 729-733. | 1.3 | 83 |
| 98 | Expanding the Genetic Code of <i>Escherichia coli</i> with Phosphoserine. Science, 2011, 333, 1151-1154. | 6.0 | 316 |
| 99 | Change of tRNA identity leads to a divergent orthogonal histidyl-tRNA synthetase/tRNAHis pair. Nucleic Acids Research, 2011, 39, 2286-2293. | 6.5 | 23 |
| 100 | Mutations Disrupting Selenocysteine Formation Cause Progressive Cerebello-Cerebral Atrophy. American Journal of Human Genetics, 2010, 87, 538-544. | 2.6 | 131 |
| 101 | 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. | 3.3 | 192 |
| 102 | Dual Targeting of a tRNAAsp Requires Two Different Aspartyl-tRNA Synthetases in Trypanosoma brucei. Journal of Biological Chemistry, 2009, 284, 16210-16217. | 1.6 | 30 |
| 103 | Pyrrolysyl-tRNA synthetaseâ€“tRNAPyl structure reveals the molecular basis of orthogonality. Nature, 2009, 457, 1163-1167. | 13.7 | 161 |
| 104 | The Human SepSecS-tRNA <sup>Sec</sup> Complex Reveals the Mechanism of Selenocysteine Formation. Science, 2009, 325, 321-325. | 6.0 | 390 |
| 105 | 1SP7-03 tRNA recognition and molecular evolution of GatCAB(1SP7 Elucidation of Protein Functions at) Tj ETQq1 1 0.784314 rgBT /O<br>2009, 49, S9. | 0.0 | 0 |
| 106 | Divergence of selenocysteine tRNA recognition by archaeal and eukaryotic O -phosphoseryl-tRNA Sec kinase. Nucleic Acids Research, 2008, 36, 1871-1880. | 6.5 | 32 |
| 107 | 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, 3141-3146. | 3.3 | 112 |
| 108 | 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, 11268-11273. | 3.3 | 194 |

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|---|---|---|---|
| 109 | The Genetic Code Revisited Four Decades after Francis Crick. Nucleic Acids Symposium Series, 2007, 51, 13-14. | 0.3 | 1 |
| 110 | Structural insights into RNA-dependent eukaryal and archaeal selenocysteine formation. Nucleic Acids Research, 2007, 36, 1187-1199. | 6.5 | 48 |
| 111 | Recognition of pyrrolysine tRNA by the Desulfitobacterium hafniense pyrrolysyl-tRNA synthetase. Nucleic Acids Research, 2007, 35, 1270-1278. | 6.5 | 52 |
| 112 | The amino-terminal domain of pyrrolysyl-tRNA synthetase is dispensable in vitro but required for in vivo activity. FEBS Letters, 2007, 581, 3197-3203. | 1.3 | 54 |
| 113 | Adding pyrrolysine to the <i>Escherichia coli</i> genetic code. FEBS Letters, 2007, 581, 5282-5288. | 1.3 | 52 |
| 114 | Natural expansion of the genetic code. Nature Chemical Biology, 2007, 3, 29-35. | 3.9 | 527 |
| 115 | The genetic code - Thawing the â€˜frozen accidentâ€™. Journal of Biosciences, 2006, 31, 459-463. | 0.5 | 28 |
| 116 | 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, 18095-18100. | 3.3 | 55 |
| 117 | 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, 18923-18927. | 3.3 | 428 |
| 118 | Mischarging of <i>M. barkeri</i> tRNA <sup>Pyl</sup> with alanine and serine <i>in vitro</i>. FASEB Journal, 2006, 20, A503. | 0.2 | 0 |
| 119 | Recognition <i>in vitro</i> of the suppressor tRNA <sup>Pyl</sup> by the class IIâ€like Pyrrolsylâ€tRNA Synthetase. FASEB Journal, 2006, 20, A503. | 0.2 | 0 |
| 120 | A Molecular Tunnel Required for Cooperation of an Asparaginase and a Gluâ€tRNA <sup>Gln</sup> Kinase in Glnâ€tRNA Formation. FASEB Journal, 2006, 20, A503. | 0.2 | 0 |
| 121 | Saccharomyces cerevisiae imports the cytosolic pathway for Glnâ€tRNA synthesis into the mitochondrion. FASEB Journal, 2006, 20, . | 0.2 | 0 |
| 122 | RNAâ€Dependent Cysteine Biosynthesis in Archaea. FASEB Journal, 2006, 20, A503. | 0.2 | 0 |
| 123 | Nanoarchaeum equitans creates functional tRNAs from separate genes for their 5â€²- and 3â€²-halves. Nature, 2005, 433, 537-541. | 13.7 | 192 |
| 124 | Aminoacyl-tRNA tRNA formation: An essential function in protein synthesis and its quality control. Nucleic Acids Symposium Series, 2004, 48, 283-284. | 0.3 | 2 |
| 125 | An aminoacyl-tRNA synthetase that specifically activates pyrrolysine. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12450-12454. | 3.3 | 177 |
| 126 | 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, 13863-13868. | 3.3 | 81 |

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|---|---|---|---|
| 127 | Trans-editing of mischarged tRNAs. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15422-15427. | 3.3 | 167 |
| 128 | A one-step method for in vitro production of tRNA transcripts. Nucleic Acids Research, 2002, 30, 105e-105. | 6.5 | 23 |
| 129 | Indolmycin Resistance of Streptomyces coelicolor A3(2) by Induced Expression of One of Its Two Tryptophanyl-tRNA Synthetases. Journal of Biological Chemistry, 2002, 277, 23882-23887. | 1.6 | 50 |
| 130 | A dual-specific Glu-tRNAGln and Asp-tRNAAsn amidotransferase is involved in decoding glutamine and asparagine codons in Acidithiobacillus ferrooxidans. FEBS Letters, 2001, 500, 129-131. | 1.3 | 33 |
| 131 | Methanococcus jannaschii Prolyl-Cysteinyl-tRNA Synthetase Possesses Overlapping Amino Acid Binding Sites. Biochemistry, 2001, 40, 46-52. | 1.2 | 26 |
| 132 | Regulation of HEMA1 expression by phytochrome and a plastid signal during de-etiolation in Arabidopsis thaliana. Plant Journal, 2001, 25, 549-561. | 2.8 | 130 |
| 133 | Protein phosphatase 2A: identification in Oryza sativa of the gene encoding the regulatory A subunit. Plant Molecular Biology, 2001, 45, 107-112. | 2.0 | 4 |
| 134 | Domain-specific recruitment of amide amino acids for protein synthesis. Nature, 2000, 407, 106-110. | 13.7 | 152 |
| 135 | Transfer RNA Identity Change in Anticodon Variants of E. coli tRNAPhe in Vivo. Molecules and Cells, 2000, 10, 76-82. | 1.0 | 3 |
| 136 | A Mutant Escherichia coli Tyrosyl-tRNA Synthetase Utilizes the Unnatural Amino Acid Azatyrosine More Efficiently than Tyrosine. Journal of Biological Chemistry, 2000, 275, 40324-40328. | 1.6 | 32 |
| 137 | The heterotrimericThermus thermophilusAsp-tRNAAsnamidotransferase can also generate Gln-tRNAGln. FEBS Letters, 2000, 476, 140-144. | 1.3 | 41 |
| 138 | Aminoacyl-tRNA Synthesis. Annual Review of Biochemistry, 2000, 69, 617-650. | 5.0 | 1,243 |
| 139 | The RCN1-encoded A subunit of protein phosphatase 2A increases phosphatase activity in vivo. Plant Journal, 1999, 20, 389-399. | 2.8 | 119 |
| 140 | Cysteinyl-tRNA formation: the last puzzle of aminoacyl-tRNA synthesis. FEBS Letters, 1999, 462, 302-306. | 1.3 | 27 |
| 141 | Archaeal Aminoacyl-tRNA Synthesis: Diversity Replaces Dogma. Genetics, 1999, 152, 1269-1276. | 1.2 | 40 |
| 142 | Maize mitochondrial seryl-tRNA synthetase recognizes Escherichia coli tRNA(Ser) in vivo and in vitro. Plant Molecular Biology, 1998, 38, 497-502. | 2.0 | 8 |
| 143 | Retracing the evolution of amino acid specificity in glutaminyl-tRNA synthetase. FEBS Letters, 1998, 434, 149-154. | 1.3 | 10 |
| 144 | C-terminal truncation of yeast SerRS is toxic forSaccharomyces cerevisiaedue to altered mechanism of substrate recognition. FEBS Letters, 1998, 439, 235-240. | 1.3 | 11 |

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|---|---|---|---|
| 145 | The Terminal Adenosine of tRNAGlnMediates tRNA-Dependent Amino Acid Recognition by Glutaminyl-tRNA Synthetaseâ€. Biochemistry, 1998, 37, 9836-9842. | 1.2 | 19 |
| 146 | Aminoacyl-tRNA synthesis: divergent routes to a common goal. Trends in Biochemical Sciences, 1997, 22, 39-42. | 3.7 | 136 |
| 147 | Escherichia coliTryptophanyl-tRNA Synthetase Mutants Selected for Tryptophan Auxotrophy Implicate the Dimer Interface in Optimizing Amino Acid Bindingâ€. Biochemistry, 1996, 35, 32-40. | 1.2 | 27 |
| 148 | Glutaminylâ€tRNA synthetase: from genetics to molecular recognition. Genes To Cells, 1996, 1, 421-427. | 0.5 | 13 |
| 149 | A second and differentially expressed glutamyl-tRNA reductase gene from Arabidopsis thaliana. Plant Molecular Biology, 1996, 30, 419-426. | 2.0 | 48 |
| 150 | Homologous Expression and Purification of Mutants of an Essential Protein by Reverse Epitope-Tagging. Nature Biotechnology, 1996, 14, 50-55. | 9.4 | 10 |
| 151 | Protein-RNA molecular recognition. Nature, 1996, 381, 656-656. | 13.7 | 8 |
| 152 | tRNA-dependent asparagine formation. Nature, 1996, 382, 589-590. | 13.7 | 172 |
| 153 | 'Distorted' RNA helix recognition. Nature, 1996, 384, 422-422. | 13.7 | 0 |
| 154 | A novel root gravitropism mutant of Arabidopsis thaliana exhibiting altered auxin physiology. Physiologia Plantarum, 1995, 93, 790-798. | 2.6 | 76 |
| 155 | Molecular analysis of three maize 22 kDa auxin-binding protein genes - transient promoter expression and regulatory regions. Plant Journal, 1993, 4, 423-432. | 2.8 | 47 |
| 156 | Yeast seryl-tRNA synthetase expressed in Escherichia coli recognizes bacterial serine-specific tRNAs in vivo. FEBS Journal, 1993, 214, 869-877. | 0.2 | 27 |
| 157 | Identification of a 100-kDa protein associated with nuclear ribonuclease P activity in Schizosaccharomyces pombe. FEBS Journal, 1993, 217, 501-507. | 0.2 | 29 |
| 158 | A 2-thiouridine derivative in tRNAGlu is a positive determinant for aminoacylation by Escherichia coli glutamyl-tRNA synthetase. Biochemistry, 1993, 32, 3836-3841. | 1.2 | 176 |
| 159 | Chloroplast tRNAAsp: nucleotide sequence and variation of in vivo levels during plastid maturation. Plant Molecular Biology, 1992, 20, 601-607. | 2.0 | 4 |
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