Ronald R Breaker

List of Publications by Year
in descending order

218 papers	33,840 citations	2970 93 h-index	3822 178 g-index
232 all docs	232 docs citations	232 times ranked	13238 citing authors

#	Article	IF	Citations
1	A DNA enzyme that cleaves RNA. Chemistry and Biology, 1994, 1, 223-229.	6.2	1,242
2	Thiamine derivatives bind messenger RNAs directly to regulate bacterial gene expression. Nature, 2002, 419, 952-956.	13.7	1,075
3	Control of gene expression by a natural metabolite-responsive ribozyme. Nature, 2004, 428, 281-286.	13.7	847
4	Gene regulation by riboswitches. Nature Reviews Molecular Cell Biology, 2004, 5, 451-463.	16.1	799
5	Importance of the Debye Screening Length on Nanowire Field Effect Transistor Sensors. Nano Letters, 2007, 7, 3405-3409.	4.5	716
6	REGULATION OF BACTERIAL GENE EXPRESSION BY RIBOSWITCHES. Annual Review of Microbiology, 2005, 59, 487-517.	2.9	687
7	Genetic Control by a Metabolite Binding mRNA. Chemistry and Biology, 2002, 9, 1043-1049.	6.2	686
8	Riboswitches Control Fundamental Biochemical Pathways in Bacillus subtilis and Other Bacteria. Cell, 2003, 113, 577-586.	13.5	665
9	Riboswitches in Eubacteria Sense the Second Messenger Cyclic Di-GMP. Science, 2008, 321, 411-413.	6.0	654
10	An mRNA structure that controls gene expression by binding FMN. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 15908-15913.	3.3	599
11	Riboswitches and the RNA World. Cold Spring Harbor Perspectives in Biology, 2012, 4, a003566-a003566.	2.3	529
12	The Structural and Functional Diversity of Metabolite-Binding Riboswitches. Annual Review of Biochemistry, 2009, 78, 305-334.	5.0	506
13	Structural Basis for Discriminative Regulation of Gene Expression by Adenine- and Guanine-Sensing mRNAs. Chemistry and Biology, 2004, 11, 1729-1741.	6.2	505
14	Riboswitches as versatile gene control elements. Current Opinion in Structural Biology, 2005, 15, 342-348.	2.6	503
15	Relationship between internucleotide linkage geometry and the stability of RNA. Rna, 1999, 5, 1308-1325.	1.6	491
16	A Glycine-Dependent Riboswitch That Uses Cooperative Binding to Control Gene Expression. Science, 2004, 306, 275-279.	6.0	491
17	Kinetics of RNA Degradation by Specific Base Catalysis of Transesterification Involving the 2â€˜-Hydroxyl Group. Journal of the American Chemical Society, 1999, 121, 5364-5372.	6.6	479
18	Adenine riboswitches and gene activation by disruption of a transcription terminator. Nature Structural and Molecular Biology, 2004, 11, 29-35.	3.6	471

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19	Prospects for Riboswitch Discovery and Analysis. Molecular Cell, 2011, 43, 867-879.	4.5	445
20	New RNA motifs suggest an expanded scope for riboswitches in bacterial genetic control. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6421-6426.	3.3	432
21	The Speed of RNA Transcription and Metabolite Binding Kinetics Operate an FMN Riboswitch. Molecular Cell, 2005, 18, 49-60.	4.5	430
22	Riboswitches as antibacterial drug targets. Nature Biotechnology, 2006, 24, 1558-1564.	9.4	419
23	The distributions, mechanisms, and structures of metabolite-binding riboswitches. Genome Biology, 2007, 8, R239.	13.9	414
24	An mRNA structure that controls gene expression by binding S-adenosylmethionine. Nature Structural and Molecular Biology, 2003, 10, 701-707.	3.6	406
25	Structural basis for gene regulation by a thiamine pyrophosphate-sensing riboswitch. Nature, 2006, 441, 1167-1171.	13.7	404
26	A DNA enzyme with Mg2+-dependent RNA phosphoesterase activity. Chemistry and Biology, 1995, 2, 655-660.	6.2	393
27	Control of alternative RNA splicing and gene expression by eukaryotic riboswitches. Nature, 2007, 447, 497-500.	13.7	377
28	Riboswitch diversity and distribution. Rna, 2017, 23, 995-1011.	1.6	374
29	Metabolite-binding RNA domains are present in the genes of eukaryotes. Rna, 2003, 9, 644-647.	1.6	372
30	Widespread Genetic Switches and Toxicity Resistance Proteins for Fluoride. Science, 2012, 335, 233-235.	6.0	356
31	Comparative genomics reveals 104 candidate structured RNAs from bacteria, archaea, and their metagenomes. Genome Biology, 2010, 11, R31.	13.9	348
32	Rational design of allosteric ribozymes. Chemistry and Biology, 1997, 4, 453-459.	6.2	347
33	DNA enzymes. Nature Biotechnology, 1997, 15, 427-431.	9.4	340
34	Natural and engineered nucleic acids as tools to explore biology. Nature, 2004, 432, 838-845.	13.7	336
35	Engineering precision RNA molecular switches. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 3584-3589.	3.3	324
36	An Allosteric Self-Splicing Ribozyme Triggered by a Bacterial Second Messenger. Science, 2010, 329, 845-848.	6.0	309

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37	An mRNA structure in bacteria that controls gene expression by binding lysine. Genes and Development, 2003, 17, 2688-2697.	2.7	303
38	Coenzyme B12 riboswitches are widespread genetic control elements in prokaryotes. Nucleic Acids Research, 2004, 32, 143-150.	6.5	292
39	Identification of 22 candidate structured RNAs in bacteria using the CMfinder comparative genomics pipeline. Nucleic Acids Research, 2007, 35, 4809-4819.	6.5	292
40	In-Line Probing Analysis of Riboswitches. Methods in Molecular Biology, 2008, 419, 53-67.	0.4	289
41	Riboswitch Control of Gene Expression in Plants by Splicing and Alternative 3â€² End Processing of mRNAs. Plant Cell, 2007, 19, 3437-3450.	3.1	281
42	Engineered allosteric ribozymes as biosensor components. Current Opinion in Biotechnology, 2002, 13, 31-39.	3.3	270
43	The Kinetics of Ligand Binding by an Adenine-Sensing Riboswitch. Biochemistry, 2005, 44, 13404-13414.	1.2	264
44	Structural basis of ligand binding by a c-di-GMP riboswitch. Nature Structural and Molecular Biology, 2009, 16, 1218-1223.	3.6	257
45	Genetic Control by Metabolite-Binding Riboswitches. ChemBioChem, 2003, 4, 1024-1032.	1.3	254
46	Cleaving DNA with DNA. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 2233-2237.	3.3	249
47	Riboswitches in eubacteria sense the second messenger c-di-AMP. Nature Chemical Biology, 2013, 9, 834-839.	3.9	247
48	In VitroSelection of Catalytic Polynucleotides. Chemical Reviews, 1997, 97, 371-390.	23.0	243
49	Thiamine Pyrophosphate Riboswitches Are Targets for the Antimicrobial Compound Pyrithiamine. Chemistry and Biology, 2005, 12, 1325-1335.	6.2	237
50	In vitro selection of self-cleaving DNAs. Chemistry and Biology, 1996, 3, 1039-1046.	6.2	234
51	Tandem Riboswitch Architectures Exhibit Complex Gene Control Functions. Science, 2006, 314, 300-304.	6.0	232
52	An amino acid as a cofactor for a catalytic polynucleotide. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 6027-6031.	3.3	227
53	R2R - software to speed the depiction of aesthetic consensus RNA secondary structures. BMC Bioinformatics, 2011, 12, 3.	1.2	226
54	A riboswitch selective for the queuosine precursor preQ1 contains an unusually small aptamer domain. Nature Structural and Molecular Biology, 2007, 14, 308-317.	3.6	224

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55	A widespread self-cleaving ribozyme class is revealed by bioinformatics. Nature Chemical Biology, 2014, 10, 56-60.	3.9	217
56	Immobilized RNA switches for the analysis of complex chemical and biological mixtures. Nature Biotechnology, 2001, 19, 336-341.	9.4	214
57	Evidence for a second class of S-adenosylmethionine riboswitches and other regulatory RNA motifs in alpha-proteobacteria. Genome Biology, 2005, 6, R70.	13.9	213
58	6S RNA is a widespread regulator of eubacterial RNA polymerase that resembles an open promoter. Rna, 2005, 11, 774-784.	1.6	210
59	Production of RNA by a polymerase protein encapsulated within phospholipid vesicles. Journal of Molecular Evolution, 1994, 39, 555-559.	0.8	207
60	Antibacterial lysine analogs that target lysine riboswitches. , 2007, 3, 44-49.		205
61	Roseoflavin is a natural antibacterial compound that binds to FMN riboswitches and regulates gene expression. RNA Biology, 2009, 6, 187-194.	1.5	202
62	Computational design and experimental validation of oligonucleotide-sensing allosteric ribozymes. Nature Biotechnology, 2005, 23, 1424-1433.	9.4	199
63	Ribozyme speed limits. Rna, 2003, 9, 907-918.	1.6	191
64	Allosteric selection of ribozymes that respond to the second messengers cGMP and cAMP. Nature Structural Biology, 1999, 6, 1062-1071.	9.7	175
65	New classes of self-cleaving ribozymes revealed by comparative genomics analysis. Nature Chemical Biology, 2015, 11, 606-610.	3.9	174
66	Phosphorylating DNA with DNA. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 2746-2751.	3.3	170
67	Riboswitches that Sense S-adenosylhomocysteine and Activate Genes Involved in Coenzyme Recycling. Molecular Cell, 2008, 29, 691-702.	4.5	153
68	Bacterial Riboswitches Cooperatively Bind Ni 2+ or Co 2+ Ions and Control Expression of Heavy Metal Transporters. Molecular Cell, 2015, 57, 1088-1098.	4.5	147
69	Riboswitches and Translation Control. Cold Spring Harbor Perspectives in Biology, 2018, 10, a032797.	2.3	147
70	Deoxyribozymes: New players in the ancient game of biocatalysis. Current Opinion in Structural Biology, 1999, 9, 315-323.	2.6	143
71	A widespread riboswitch candidate that controls bacterial genes involved in molybdenum cofactor and tungsten cofactor metabolism. Molecular Microbiology, 2008, 68, 918-932.	1.2	142
72	Allosteric nucleic acid catalysts. Current Opinion in Structural Biology, 2000, 10, 318-325.	2.6	139

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73	Nucleic acid molecular switches. Trends in Biotechnology, 1999, 17, 469-476.	4.9	134
74	Small, Highly Active DNAs That Hydrolyze DNA. Journal of the American Chemical Society, 2013, 135, 9121-9129.	6.6	134
75	Capping DNA with DNAâ€. Biochemistry, 2000, 39, 3106-3114.	1.2	131
76	Guanine riboswitch variants from <i>Mesoplasma florum</i> selectively recognize 2â€²-deoxyguanosine. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 16092-16097.	3.3	129
77	Metabolism of Free Guanidine in Bacteria Is Regulated by a Widespread Riboswitch Class. Molecular Cell, 2017, 65, 220-230.	4.5	129
78	Identification of Hammerhead Ribozymes in All Domains of Life Reveals Novel Structural Variations. PLoS Computational Biology, 2011, 7, e1002031.	1.5	124
79	MOLECULAR BIOLOGY: Making Catalytic DNAs. Science, 2000, 290, 2095-2096.	6.0	123
80	Altering molecular recognition of RNA aptamers by allosteric selection. Journal of Molecular Biology, 2000, 298, 623-632.	2.0	119
81	A common speed limit for RNA-cleaving ribozymes and deoxyribozymes. Rna, 2003, 9, 949-957.	1.6	119
82	Detection of 224 candidate structured RNAs by comparative analysis of specific subsets of intergenic regions. Nucleic Acids Research, 2017, 45, 10811-10823.	6.5	116
83	Design and Antimicrobial Action of Purine Analogues That Bind Guanine Riboswitches. ACS Chemical Biology, 2009, 4, 915-927.	1.6	113
84	Ligand binding and gene control characteristics of tandem riboswitches in Bacillus anthracis. Rna, 2007, 13, 573-582.	1.6	110
85	Characterization of a DNA-Cleaving deoxyribozyme. Bioorganic and Medicinal Chemistry, 2001, 9, 2589-2600.	1.4	108
86	Eukaryotic resistance to fluoride toxicity mediated by a widespread family of fluoride export proteins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19018-19023.	3.3	108
87	Inventing and improving ribozyme function: Rational design versus iterative selection methods. Trends in Biotechnology, 1994, 12, 268-275.	4.9	106
88	Riboswitches that sense <i>S</i>-adenosylmethionine and <i>S</i>-adenosylhomocysteineThis paper is one of a selection of papers published in this Special Issue, entitled CSBMCB â€" Systems and Chemical Biology, and has undergone the Journal's usual peer review process.. Biochemistry and Cell Biology, 2008, 86, 157-168.	0.9	105
89	Complex Riboswitches. Science, 2008, 319, 1795-1797.	6.0	105
90	The aptamer core of SAM-IV riboswitches mimics the ligand-binding site of SAM-I riboswitches. Rna, 2008, 14, 822-828.	1.6	103

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91	Characteristics of the glmS ribozyme suggest only structural roles for divalent metal ions. Rna, 2006, 12, 607-619.	1.6	102
92	Confirmation of a second natural preQ₁ aptamer class in Streptococcaceae bacteria. Rna, 2008, 14, 685-695.	1.6	102
93	Exceptional structured noncoding RNAs revealed by bacterial metagenome analysis. Nature, 2009, 462, 656-659.	13.7	102
94	An Ancient Riboswitch Class in Bacteria Regulates Purine Biosynthesis and One-Carbon Metabolism. Molecular Cell, 2015, 57, 317-328.	4.5	102
95	Ligating DNA with DNA. Journal of the American Chemical Society, 2004, 126, 3454-3460.	6.6	100
96	New families of human regulatory RNA structures identified by comparative analysis of vertebrate genomes. Genome Research, 2011, 21, 1929-1943.	2.4	100
97	Control of bacterial exoelectrogenesis by c-AMP-GMP. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5389-5394.	3.3	98
98	Emergence of a replicating species from an in vitro RNA evolution reaction.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 6093-6097.	3.3	97
99	A variant riboswitch aptamer class for <i>S</i>-adenosylmethionine common in marine bacteria. Rna, 2009, 15, 2046-2056.	1.6	96
100	Eukaryotic TPP riboswitch regulation of alternative splicing involving long-distance base pairing. Nucleic Acids Research, 2013, 41, 3022-3031.	6.5	96
101	The lost language of the RNA World. Science Signaling, 2017, 10, .	1.6	95
102	Riboswitches for the alarmone ppGpp expand the collection of RNA-based signaling systems. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6052-6057.	3.3	94
103	Structural diversity of self-cleaving ribozymes. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 5784-5789.	3.3	93
104	Unique glycineâ€activated riboswitch linked to glycineâ€“serine auxotrophy in SAR11. Environmental Microbiology, 2009, 11, 230-238.	1.8	90
105	Purine sensing by riboswitches. Biology of the Cell, 2008, 100, 1-11.	0.7	87
106	The Expanding View of RNA and DNA Function. Chemistry and Biology, 2014, 21, 1059-1065.	6.2	87
107	Biochemical Validation of a Second Guanidine Riboswitch Class in Bacteria. Biochemistry, 2017, 56, 352-358.	1.2	87
108	A Eubacterial Riboswitch Class That Senses the Coenzyme Tetrahydrofolate. Chemistry and Biology, 2010, 17, 681-685.	6.2	86

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109	Bacterial aptamers that selectively bind glutamine. RNA Biology, 2011, 8, 82-89.	1.5	85
110	Design of allosteric hammerhead ribozymes activated by ligand-induced structure stabilization. Structure, 1999, 7, 783-791.	1.6	82
111	Mechanism for allosteric inhibition of an ATP-sensitive ribozyme. Nucleic Acids Research, 1998, 26, 4214-4221.	6.5	79
112	Structural, Functional, and Taxonomic Diversity of Three PreQ1 Riboswitch Classes. Chemistry and Biology, 2014, 21, 880-889.	6.2	78
113	A Computational Pipeline for High- Throughput Discovery of cis-Regulatory Noncoding RNA in Prokaryotes. PLoS Computational Biology, 2007, 3, e126.	1.5	77
114	A highly specialized flavin mononucleotide riboswitch responds differently to similar ligands and confers roseoflavin resistance to Streptomyces davawensis. Nucleic Acids Research, 2012, 40, 8662-8673.	6.5	75
115	Novel Riboswitch-Binding Flavin Analog That Protects Mice against Clostridium difficile Infection without Inhibiting Cecal Flora. Antimicrobial Agents and Chemotherapy, 2015, 59, 5736-5746.	1.4	75
116	Bioinformatic analysis of riboswitch structures uncovers variant classes with altered ligand specificity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2077-E2085.	3.3	75
117	Generating new ligand-binding RNAs by affinity maturation and disintegration of allosteric ribozymes. Rna, 2001, 7, 524-536.	1.6	71
118	Development and Application of a High-Throughput Assay for glmS Riboswitch Activators. RNA Biology, 2006, 3, 77-81.	1.5	71
119	Biochemical Validation of a Third Guanidine Riboswitch Class in Bacteria. Biochemistry, 2017, 56, 359-363.	1.2	70
120	Engineering ligand-responsive gene-control elements: lessons learned from natural riboswitches. Gene Therapy, 2009, 16, 1189-1201.	2.3	68
121	Molecular Recognition of cAMP by an RNA Aptamerâ€. Biochemistry, 2000, 39, 8983-8992.	1.2	66
122	Challenges of ligand identification for riboswitch candidates. RNA Biology, 2011, 8, 5-10.	1.5	61
123	Riboswitches: from ancient gene-control systems to modern drug targets. Future Microbiology, 2009, 4, 771-773.	1.0	60
124	Evidence for Widespread Gene Control Function by the <i>ydaO</i> Riboswitch Candidate. Journal of Bacteriology, 2010, 192, 3983-3989.	1.0	60
125	Engineered allosteric ribozymes that respond to specific divalent metal ions. Nucleic Acids Research, 2005, 33, 622-631.	6.5	59
126	Biochemical analysis of pistol self-cleaving ribozymes. Rna, 2015, 21, 1852-1858.	1.6	59

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127	Tandem riboswitches form a natural Boolean logic gate to control purine metabolism in bacteria. ELife, 2018, 7, .	2.8	59
128	Characteristics of Ligand Recognition by aglmS Self-Cleaving Ribozyme. Angewandte Chemie - International Edition, 2006, 45, 6689-6693.	7.2	58
129	Identification of candidate structured RNAs in the marine organism 'Candidatus Pelagibacter ubique'. BMC Genomics, 2009, 10, 268.	1.2	56
130	Mechanism for gene control by a natural allosteric group I ribozyme. Rna, 2011, 17, 1967-1972.	1.6	55
131	Catalytic DNA: in training and seeking employment. Nature Biotechnology, 1999, 17, 422-423.	9.4	53
132	Molecular-Recognition Characteristics of SAM-Binding Riboswitches. Angewandte Chemie - International Edition, 2006, 45, 964-968.	7.2	51
133	A glutamine riboswitch is a key element for the regulation of glutamine synthetase in cyanobacteria. Nucleic Acids Research, 2018, 46, 10082-10094.	6.5	51
134	Rapid synthesis of oligoribonucleotides using 2â€²-O-(o-nitrobenzyloxymethyl)-protected monomers. Bioorganic and Medicinal Chemistry Letters, 1992, 2, 1019-1024.	1.0	50
135	Self-Incorporation of coenzymes by ribozymes. Journal of Molecular Evolution, 1995, 40, 551-558.	0.8	50
136	Engineering high-speed allosteric hammerhead ribozymes. Biological Chemistry, 2007, 388, 779-786.	1.2	50
137	An expanded collection and refined consensus model of <i>glmS</i> ribozymes. Rna, 2011, 17, 728-736.	1.6	50
138	New Insight on the Response of Bacteria to Fluoride. Caries Research, 2012, 46, 78-81.	0.9	47
139	The Biochemical Landscape of Riboswitch Ligands. Biochemistry, 2022, 61, 137-149.	1.2	47
140	In vitro selection and characterization of cellulose-binding DNA aptamers. Nucleic Acids Research, 2007, 35, 6378-6388.	6.5	46
141	Engineered Allosteric Ribozymes That Sense the Bacterial Second Messenger Cyclic Diguanosyl 5â€²-Monophosphate. Analytical Chemistry, 2012, 84, 4935-4941.	3.2	45
142	A plant 5S ribosomal RNA mimic regulates alternative splicing of transcription factor IIIA pre-mRNAs. Nature Structural and Molecular Biology, 2009, 16, 541-549.	3.6	43
143	SAM-VI RNAs selectively bind <i>S</i>-adenosylmethionine and exhibit similarities to SAM-III riboswitches. RNA Biology, 2018, 15, 371-378.	1.5	42
144	Identification of Ligand Analogues that Control c-di-GMP Riboswitches. ACS Chemical Biology, 2012, 7, 1436-1443.	1.6	41

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145	Continuous in vitro Evolution of Bacteriophage RNA Polymerase Promoters. Biochemistry, 1994, 33, 11980-11986.	1.2	40
146	Genome-wide discovery of structured noncoding RNAs in bacteria. BMC Microbiology, 2019, 19, 66.	1.3	40
147	Large Noncoding RNAs in Bacteria. Microbiology Spectrum, 2018, 6, .	1.2	39
148	Biochemical analysis of hatchet self-cleaving ribozymes. Rna, 2015, 21, 1845-1851.	1.6	36
149	Identification of a large noncoding RNA in extremophilic eubacteria. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19490-19495.	3.3	34
150	Variant Bacterial Riboswitches Associated with Nucleotide Hydrolase Genes Sense Nucleoside Diphosphates. Biochemistry, 2019, 58, 401-410.	1.2	34
151	Former orphan riboswitches reveal unexplored areas of bacterial metabolism, signaling, and gene control processes. Rna, 2020, 26, 675-693.	1.6	34
152	The <i>yjdF</i> riboswitch candidate regulates gene expression by binding diverse azaaromatic compounds. Rna, 2016, 22, 530-541.	1.6	33
153	Challenges of ligand identification for the second wave of orphan riboswitch candidates. RNA Biology, 2018, 15, 377-390.	1.5	33
154	A bacterial riboswitch class for the thiamin precursor HMP-PP employs a terminator-embedded aptamer. ELife, 2019, 8, .	2.8	33
155	Biochemical Validation of a Fourth Guanidine Riboswitch Class in Bacteria. Biochemistry, 2020, 59, 4654-4662.	1.2	32
156	Fluoride enhances the activity of fungicides that destabilize cell membranes. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 3317-3322.	1.0	31
157	The Biology of Free Guanidine As Revealed by Riboswitches. Biochemistry, 2017, 56, 345-347.	1.2	31
158	Evidence that the <i>nadA</i> motif is a bacterial riboswitch for the ubiquitous enzyme cofactor NAD⁺. Rna, 2019, 25, 1616-1627.	1.6	30
159	FINDING NON-CODING RNAs THROUGH GENOME-SCALE CLUSTERING. Journal of Bioinformatics and Computational Biology, 2009, 07, 373-388.	0.3	28
160	Association of OLE RNA with bacterial membranes via an RNAâ€"protein interaction. Molecular Microbiology, 2011, 79, 21-34.	1.2	28
161	A universal adapter for chemical synthesis of DNA or RNA on any single type of solid support. Tetrahedron Letters, 1995, 36, 27-30.	0.7	26
162	Are engineered proteins getting competition from RNA?. Current Opinion in Biotechnology, 1996, 7, 442-448.	3.3	25

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163	Mechanistic Debris Generated by Twister Ribozymes. ACS Chemical Biology, 2017, 12, 886-891.	1.6	25
164	A bacterial riboswitch class senses xanthine and uric acid to regulate genes associated with purine oxidation. Rna, 2020, 26, 960-968.	1.6	24
165	OLE RNA protects extremophilic bacteria from alcohol toxicity. Nucleic Acids Research, 2012, 40, 6898-6907.	6.5	23
166	Production of single-stranded DNAs by self-cleavage of rolling-circle amplification products. BioTechniques, 2013, 54, 337-343.	0.8	23
167	A second riboswitch class for the enzyme cofactor NAD⁺. Rna, 2021, 27, 99-105.	1.6	23
168	Mechanism and Distribution of glmS Ribozymes. Methods in Molecular Biology, 2012, 848, 113-129.	0.4	22
169	Examination of the structural and functional versatility of glmS ribozymes by using in vitro selection. Nucleic Acids Research, 2006, 34, 4968-4975.	6.5	21
170	RNA Switches Out in the Cold. Molecular Cell, 2010, 37, 1-2.	4.5	21
171	Small Molecule Fluoride Toxicity Agonists. Chemistry and Biology, 2015, 22, 527-534.	6.2	21
172	Selection In Vitro<I> </I>of Allosteric Ribozymes. , 2004, 252, 145-164.		19
173	Integron attI1 Sites, Not Riboswitches, Associate with Antibiotic Resistance Genes. Cell, 2013, 153, 1417-1418.	13.5	19
174	Singlet glycine riboswitches bind ligand as well as tandem riboswitches. Rna, 2016, 22, 1728-1738.	1.6	19
175	Imaginary Ribozymes. ACS Chemical Biology, 2020, 15, 2020-2030.	1.6	19
176	In Vitro Selection of Kinase and Ligase Deoxyribozymes. Methods, 2001, 23, 179-190.	1.9	18
177	In Vitro Selection and Characterization of Cellulose-Binding RNA Aptamers Using isothermal Amplification. Nucleosides, Nucleotides and Nucleic Acids, 2008, 27, 949-966.	0.4	18
178	Rare variants of the FMN riboswitch class in <i>Clostridium difficile</i> and other bacteria exhibit altered ligand specificity. Rna, 2019, 25, 23-34.	1.6	18
179	Substrate specificity and reaction kinetics of an X-motif ribozyme. Rna, 2003, 9, 688-697.	1.6	17
180	Numerous small hammerhead ribozyme variants associated with Penelope-like retrotransposons cleave RNA as dimers. RNA Biology, 2017, 14, 1499-1507.	1.5	17

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181	Biochemical validation of a second class of tetrahydrofolate riboswitches in bacteria. Rna, 2019, 25, 1091-1097.	1.6	17
182	Identification of 15 candidate structured noncoding RNA motifs in fungi by comparative genomics. BMC Genomics, 2017, 18, 785.	1.2	16
183	Witnessing the structural evolution of an RNA enzyme. ELife, 2021, 10, .	2.8	14
184	Employing a ZTP Riboswitch to Detect Bacterial Folate Biosynthesis Inhibitors in a Small Molecule High-Throughput Screen. ACS Chemical Biology, 2019, 14, 2841-2850.	1.6	13
185	Comprehensive discovery of novel structured noncoding RNAs in 26 bacterial genomes. RNA Biology, 2021, 18, 2417-2432.	1.5	13
186	Variants of the guanine riboswitch class exhibit altered ligand specificities for xanthine, guanine, or 2â€²-deoxyguanosine. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	13
187	Improved genetic transformation methods for the model alkaliphile Bacillus halodurans C-125. Letters in Applied Microbiology, 2011, 52, 430-432.	1.0	11
188	The case of the missing allosteric ribozymes. Nature Chemical Biology, 2021, 17, 375-382.	3.9	11
189	Gramicidin D enhances the antibacterial activity of fluoride. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 2969-2971.	1.0	10
190	A second RNA-binding protein is essential for ethanol tolerance provided by the bacterial OLE ribonucleoprotein complex. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6319-E6328.	3.3	9
191	In Vitro Selection of Allosteric Ribozymes that Sense the Bacterial Second Messenger c-di-GMP. Methods in Molecular Biology, 2014, 1111, 209-220.	0.4	9
192	Search for 5â€²-leader regulatory RNA structures based on gene annotation aided by the RiboGap database. Methods, 2017, 117, 3-13.	1.9	8
193	Polynucleotide phosphorylase forms polymers from an ADP analog in which the 5â€² oxygen is replaced by a methylene group. Nucleic Acids Research, 1990, 18, 3085-3086.	6.5	7
194	RNA Second Messengers and Riboswitches: Relics from the RNA World?. Microbe Magazine, 2010, 5, 13-20.	0.4	7
195	Natural circularly permuted group II introns in bacteria produce RNA circles. IScience, 2021, 24, 103431.	1.9	7
196	Gene expression control: Harnessing RNA switches. Gene Therapy, 2005, 12, 725-726.	2.3	6
197	Disruption of the OLE ribonucleoprotein complex causes magnesium toxicity in Bacillus halodurans. Molecular Microbiology, 2019, 112, 1552-1563.	1.2	6
198	Bacillus halodurans OapB forms a high-affinity complex with the P13 region of the noncoding RNA OLE. Journal of Biological Chemistry, 2020, 295, 9326-9334.	1.6	6

#	Article	IF	Citations
199	A rare bacterial RNA motif is implicated in the regulation of thepurFgene whose encoded enzyme synthesizes phosphoribosylamine. Rna, 2020, 26, 1838-1846.	1.6	5
200	Ancient, giant riboswitches at atomic resolution. Nature Structural and Molecular Biology, 2012, 19, 1208-1209.	3.6	4
201	Riboswitches That Sense Cyclic Di-GMP. , 2014, , 215-229.		4
202	Large Noncoding RNAs in Bacteria. , 2018, , 515-526.		3
203	DIMPL: a bioinformatics pipeline for the discovery of structured noncoding RNA motifs in bacteria. Bioinformatics, 2022, 38, 533-535.	1.8	3
204	In vitro selection of deoxyribozymes with DNA capping activity. Nucleic Acids Symposium Series, 1999, 42, 237-238.	0.3	2
205	Selection for Catalytic Function with Nucleic Acids. Current Protocols in Nucleic Acid Chemistry, 2000, 00, Unit 9.4.	0.5	1
206	Structure of a bacterial OapB protein with its OLE RNA target gives insights into the architecture of the OLE ribonucleoprotein complex. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	1
207	In Vitro Selection of glmS Ribozymes. Methods in Molecular Biology, 2009, 540, 349-364.	0.4	1
208	Genomeâ€wide Discovery of Rare Riboswitches in Bacteria. FASEB Journal, 2019, 33, 778.8.	0.2	1
209	Riboswitches: Regulators of modern and ancient metabolism. Biochemist, 2006, 28, 11-15.	0.2	1
210	Genetic Control by Metabolite-Binding Riboswitches. ChemInform, 2003, 34, no.	0.1	0
211	Riboswitches: Natural Metabolite-binding RNAs Controlling Gene Expression. , 2006, , 191-207.		0
212	Riboswitches as Genetic Control Elements. , 2006, , 89-106.		0
213	Genetic control by riboswitches and ribozymes. FASEB Journal, 2006, 20, A455.	0.2	0
214	Riboswitches as new antibiotics targets. FASEB Journal, 2008, 22, 264.3.	0.2	0
215	A plant 5S rRNA mimic regulates alternative splicing of transcription factor IIIA preâ€mRNAs. FASEB Journal, 2009, 23, 665.4.	0.2	0
216	The large, noncoding OLE RNA is associated with membrane biochemistry. FASEB Journal, 2010, 24, 493.2.	0.2	0

#	Article	IF	Citations
217	High Throughput Validation of Orphan Riboswitch Candidates. FASEB Journal, 2018, 32, lb18.	0.2	0
218	PROSPECTS FOR RIBOZYME DISCOVERY AND ANALYSIS. , 2018, , .		0