Roland Karl Hartmann

List of Publications by Year
in descending order

106 papers	4,921 citations	136950 32 h-index	98798 67 g-index
113 all docs	113 docs citations	113 times ranked	6162 citing authors

#	Article	IF	Citations
1	Structural and Functional Insight into the Mechanism of Bacillus subtilis 6S-1 RNA Release from RNA Polymerase. Non-coding RNA, 2022, 8, 20.	2.6	1
2	Involvement of E. coli 6S RNA in Oxidative Stress Response. International Journal of Molecular Sciences, 2022, 23, 3653.	4.1	3
3	Regulation of VP30-Dependent Transcription by RNA Sequence and Structure in the Genomic Ebola Virus Promoter. Journal of Virology, 2021, 95, .	3.4	5
4	RNA secondary structure at the transcription start site influences EBOV transcription initiation and replication in a length- and stability-dependent manner. RNA Biology, 2021, 18, 523-536.	3.1	6
5	6S-2 RNA deletion in the undomesticated <i>B. subtilis</i> strain NCIB 3610 causes a biofilm derepression phenotype. RNA Biology, 2021, 18, 79-92.	3.1	9
6	Northern Blot Detection of Tiny RNAs. Methods in Molecular Biology, 2021, 2300, 41-58.	0.9	1
7	The rocaglate CR-31-B (âˆ’) inhibits SARS-CoV-2 replication at non-cytotoxic, low nanomolar concentrations in vitro and ex vivo. Antiviral Research, 2021, 186, 105012.	4.1	26
8	Structure and mechanistic features of the prokaryotic minimal RNase P. ELife, 2021, 10, .	6.0	15
9	Comparative study on tertiary contacts and folding of RNase P RNAs from a psychrophilic, a mesophilic/radiation-resistant, and a thermophilic bacterium. Rna, 2021, 27, 1204-1219.	3.5	1
10	RNase P Inhibitors Identified as Aggregators. Antimicrobial Agents and Chemotherapy, 2021, 65, e0030021.	3.2	3
11	Insights into 6S RNA in lactic acid bacteria (LAB). BMC Genomic Data, 2021, 22, 29.	1.7	1
12	Rapid preparation of 6S RNA-free B. subtilis ÏƒA-RNA polymerase and ÏƒA. Journal of Microbiological Methods, 2021, 190, 106324.	1.6	1
13	Identification and characterization of short leader and trailer RNAs synthesized by the Ebola virus RNA polymerase. PLoS Pathogens, 2021, 17, e1010002.	4.7	5
14	Comparison of broad-spectrum antiviral activities of the synthetic rocaglate CR-31-B (âˆ’) and the eIF4A-inhibitor Silvestrol. Antiviral Research, 2020, 175, 104706.	4.1	36
15	Redirection of miRNAâ€Argonaute Complexes to Specific Target Sites by Synthetic Adaptor Molecules. Chemistry and Biodiversity, 2020, 17, e2000272.	2.1	2
16	Similarities and differences between 6S RNAs from Bradyrhizobium japonicum and Sinorhizobium meliloti. Journal of Microbiology, 2020, 58, 945-956.	2.8	5
17	Hexamer phasing governs transcription initiation in the 3â€²-leader of Ebola virus. Rna, 2020, 26, 439-453.	3.5	10
18	Diversity and Evolution of RNase P. , 2020, , 255-299.		13

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19	Homologs of <i>aquifex aeolicus</i> proteinâ€only RNase P are not the major RNase P activities in the archaea <i>haloferax volcanii</i> and <i>methanosarcina mazei</i>. IUBMB Life, 2019, 71, 1109-1116.	3.4	10
20	Development of Biarylalkyl Carboxylic Acid Amides with Improved Antiâ€schistosomal Activity. ChemMedChem, 2019, 14, 1856-1862.	3.2	6
21	Insects in anthelminthics research: Lady beetle-derived harmonine affects survival, reproduction and stem cell proliferation of Schistosoma mansoni. PLoS Neglected Tropical Diseases, 2019, 13, e0007240.	3.0	14
22	Site-Specific Cleavage of RNAs Derived from the PIM1 3â€²-UTR by a Metal-Free Artificial Ribonuclease. Molecules, 2019, 24, 807.	3.8	9
23	Aquificae. , 2019, , .		1
24	Broad-spectrum antiviral activity of the eIF4A inhibitor silvestrol against corona- and picornaviruses. Antiviral Research, 2018, 150, 123-129.	4.1	160
25	2â€²-Fluoro-Pyrimidine-Modified RNA Aptamers Specific for Lipopolysaccharide Binding Protein (LBP). International Journal of Molecular Sciences, 2018, 19, 3883.	4.1	11
26	Protein-only RNase P function in Escherichia coli: viability, processing defects and differences between PRORP isoenzymes. Nucleic Acids Research, 2017, 45, 7441-7454.	14.5	21
27	Silvestrol: a potential future drug for acute Ebola and other viral infections. Future Virology, 2017, 12, 243-245.	1.8	1
28	Diverse Applications of Nanomedicine. ACS Nano, 2017, 11, 2313-2381.	14.6	976
29	Minimal and RNA-free RNase P in <i>Aquifex aeolicus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11121-11126.	7.1	46
30	6S RNA in Rhodobacter sphaeroides: 6S RNA and pRNA transcript levels peak in late exponential phase and gene deletion causes a high salt stress phenotype. RNA Biology, 2017, 14, 1627-1637.	3.1	13
31	The natural compound silvestrol is a potent inhibitor of Ebola virus replication. Antiviral Research, 2017, 137, 76-81.	4.1	76
32	Biarylalkyl Carboxylic Acid Derivatives as Novel Antischistosomal Agents. ChemMedChem, 2016, 11, 1459-1468.	3.2	13
33	Bacterial type B RNase P: functional characterization of the L5.1-L15.1 tertiary contact and antisense inhibition. Rna, 2016, 22, 1699-1709.	3.5	6
34	RNA Binding of Ebola Virus VP30 Is Essential for Activating Viral Transcription. Journal of Virology, 2016, 90, 7481-7496.	3.4	43
35	Analysis of the Cleavage Mechanism by Protein-Only RNase P Using Precursor tRNA Substrates with Modifications at the Cleavage Site. Journal of Molecular Biology, 2016, 428, 4917-4928.	4.2	9
36	RNA binding specificity of Ebola virus transcription factor VP30. RNA Biology, 2016, 13, 783-798.	3.1	29

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37	Substrate recognition and cleavage-site selection by a single-subunit protein-only RNase P. Nucleic Acids Research, 2016, 44, 2323-2336.	14.5	35
38	<i>Bacillus subtilis</i> 6S-2 RNA serves as a template for short transcripts in vivo. Rna, 2016, 22, 614-622.	3.5	13
39	Phenotypic characterization and complementation analysis of Bacillus subtilis 6S RNA single and double deletion mutants. Biochimie, 2015, 117, 87-99.	2.6	26
40	Structural and mechanistic characterization of 6S RNA from the hyperthermophilic bacterium Aquifex aeolicus. Biochimie, 2015, 117, 72-86.	2.6	11
41	Distribution of Ribonucleoprotein and Protein-Only RNase P in Eukarya. Molecular Biology and Evolution, 2015, 32, msv187.	8.9	56
42	Impact of RNA Isolation Protocols on RNA Detection by Northern Blotting. Methods in Molecular Biology, 2015, 1296, 29-38.	0.9	21
43	Improved Northern Blot Detection of Small RNAs Using EDC Crosslinking and DNA/LNA Probes. Methods in Molecular Biology, 2015, 1296, 41-51.	0.9	33
44	Dissemination of 6S RNA among Bacteria. RNA Biology, 2014, 11, 1467-1478.	3.1	40
45	Playing RNase P Evolution: Swapping the RNA Catalyst for a Protein Reveals Functional Uniformity of Highly Divergent Enzyme Forms. PLoS Genetics, 2014, 10, e1004506.	3.5	24
46	Supramolecular membrane-associated assemblies of RNA metabolic proteins in Escherichia coli. Biochemical Journal, 2014, 458, e1-e3.	3.7	5
47	Genomewide comparison and novel ncRNAs of Aquificales. BMC Genomics, 2014, 15, 522.	2.8	15
48	Mechanistic comparison of <i>Bacillus subtilis</i> 6S-1 and 6S-2 RNAsâ€"commonalities and differences. Rna, 2014, 20, 348-359.	3.5	32
49	Regulation of transcription by 6S RNAs. RNA Biology, 2014, 11, 508-521.	3.1	37
50	Structure of an A-form RNA duplex obtained by degradation of 6S RNA in a crystallization droplet. Acta Crystallographica Section F: Structural Biology Communications, 2013, 69, 634-639.	0.7	8
51	U1 Adaptors for the Therapeutic Knockdown of the Oncogene Pim-1 Kinase in Glioblastoma. Nucleic Acid Therapeutics, 2013, 23, 264-272.	3.6	9
52	Nuclear RNase P of Trypanosoma brucei: A Single Protein in Place of the Multicomponent RNA-Protein Complex. Cell Reports, 2012, 2, 19-25.	6.4	71
53	tRNA Processing by Proteinâ€Only versus RNAâ€Based RNase P: Kinetic Analysis Reveals Mechanistic Differences. ChemBioChem, 2012, 13, 2270-2276.	2.6	31
54	Characterization of RNase P RNA Activity. Methods in Molecular Biology, 2012, 848, 61-72.	0.9	8

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55	A pRNA-induced structural rearrangement triggers 6S-1 RNA release from RNA polymerase in<i>Bacillus subtilis</i>. EMBO Journal, 2012, 31, 1727-1738.	7.8	45
56	In vivo and in vitro analysis of 6S RNA-templated short transcripts in<i>Bacillus subtilis</i>. RNA Biology, 2011, 8, 839-849.	3.1	47
57	Archaealâ€Bacterial Chimeric RNase P RNAs: Towards Understanding RNA's Architecture, Function and Evolution. ChemBioChem, 2011, 12, 1536-1543.	2.6	7
58	A single Arabidopsis organellar protein has RNase P activity. Nature Structural and Molecular Biology, 2010, 17, 740-744.	8.2	203
59	Northern blot detection of endogenous small RNAs (Â14 nt) in bacterial total RNA extracts. Nucleic Acids Research, 2010, 38, e147-e147.	14.5	42
60	Analysis of bacterial RNase P RNA and protein interaction by a magnetic biosensor technique. Biochimie, 2010, 92, 772-778.	2.6	5
61	RNase P as a Drug Target. , 2010, , 235-256.		5
62	Minor changes largely restore catalytic activity of archaeal RNase P RNA from Methanothermobacter thermoautotrophicus. Nucleic Acids Research, 2009, 37, 231-242.	14.5	29
63	Investigation of catalysis by bacterial RNase P via LNA and other modifications at the scissile phosphodiester. Nucleic Acids Research, 2009, 37, 7638-7653.	14.5	7
64	tRNAdb 2009: compilation of tRNA sequences and tRNA genes. Nucleic Acids Research, 2009, 37, D159-D162.	14.5	751
65	Expanding RNA Silencing Approaches by U1 Adaptors. ChemBioChem, 2009, 10, 1599-1601.	2.6	4
66	Chapter 8 The Making of tRNAs and More â€“ RNase P and tRNase Z. Progress in Molecular Biology and Translational Science, 2009, 85, 319-368.	1.7	111
67	Escherichia coli RNase P RNA: Substrate Ribose Modifications at G+1, but Not Nucleotide âˆ’1/+73 Base Pairing, Affect the Transition State for Cleavage Chemistry. Journal of Molecular Biology, 2008, 379, 1-8.	4.2	7
68	5â€²-End maturation of tRNA in <i>Aquifex aeolicus</i>. Biological Chemistry, 2008, 389, 395-403.	2.5	24
69	The putative RNase P motif in the DEAD box helicase Hera is dispensable for efficient interaction with RNA and helicase activity. Nucleic Acids Research, 2008, 36, 5800-5811.	14.5	37
70	In vivo and in vitro investigation of bacterial type B RNase P interaction with tRNA 3â€²-CCA. Nucleic Acids Research, 2007, 35, 2060-2073.	14.5	33
71	Structural basis of a ribozyme's thermostability: P1 L9 interdomain interaction in RNase P RNA. Rna, 2007, 14, 127-133.	3.5	17
72	A 2â€²-methyl or 2â€²-methylene group at G+1 in precursor tRNA interferes with Mg2+ binding at the enzyme-substrate interface in E-S complexes of E. coli RNase P. Biological Chemistry, 2007, 388, 717-26.	2.5	8

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73	RNase P of the Cyanophora paradoxa cyanelle: A plastid ribozyme. Biochimie, 2007, 89, 1528-1538.	2.6	29
74	Locked Nucleic Acid Oligonucleotides. BioDrugs, 2007, 21, 235-243.	4.6	135
75	Function of heterologous and truncated RNase P proteins in <i>Bacillus subtilis</i>. Molecular Microbiology, 2007, 66, 801-813.	2.5	17
76	An important piece of the RNase P jigsaw solved. Trends in Biochemical Sciences, 2007, 32, 247-250.	7.5	9
77	Type A and B RNase P RNAs are interchangeable in vivo despite substantial biophysical differences. EMBO Reports, 2006, 7, 411-417.	4.5	51
78	The precursor tRNA 3'-CCA interaction with Escherichia coli RNase P RNA is essential for catalysis by RNase P in vivo. Rna, 2006, 12, 2135-2148.	3.5	48
79	Analysis of RNase P Protein (rnpA) Expression in Bacillus subtilis Utilizing Strains with Suppressible rnpA Expression. Journal of Bacteriology, 2006, 188, 6816-6823.	2.2	38
80	Thermostable RNase P RNAs lacking P18 identified in the Aquificales. Rna, 2006, 12, 1915-1921.	3.5	16
81	Antisense Inhibition of RNase P. Journal of Biological Chemistry, 2006, 281, 30613-30620.	3.4	46
82	6S RNA â€“ an ancient regulator of bacterial RNA polymerase rediscovered. Biological Chemistry, 2005, 386, 1273-1277.	2.5	33
83	Experimental RNomics in Aquifex aeolicus: identification of small non-coding RNAs and the putative 6S RNA homolog. Nucleic Acids Research, 2005, 33, 1949-1960.	14.5	53
84	Studies on Escherichia coli RNase P RNA with Zn2+ as the catalytic cofactor. Nucleic Acids Research, 2005, 33, 2464-2474.	14.5	22
85	The enigma of ribonuclease P evolution. Trends in Genetics, 2003, 19, 561-569.	6.7	136
86	Evaluation of Bacterial RNase P RNA as a Drug Target. ChemBioChem, 2003, 4, 1041-1048.	2.6	20
87	Antisense Inhibition of Escherichia coli RNase P RNA: Mechanistic Aspects. ChemBioChem, 2003, 4, 1049-1056.	2.6	16
88	An unusual mechanism of bacterial gene expression revealed for the RNase P protein of Thermus strains. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5724-5729.	7.1	27
89	Catalysis by RNase P RNA. Journal of Biological Chemistry, 2003, 278, 43394-43401.	3.4	55
90	Potential contact sites between the protein and RNA subunit in the Bacillus subtilis RNase P holoenzyme 1 1Edited by J. Karn. Journal of Molecular Biology, 2002, 315, 551-560.	4.2	31

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91	tRNA maturation in Aquifex aeolicus. Biochimie, 2002, 84, 713-722.	2.6	25
92	Selection of Hammerhead Ribozyme Variants with Low Mg2+ Requirement: Importance of Stem-Loop II. ChemBioChem, 2002, 3, 1066-1071.	2.6	41
93	NMR spectroscopic Evidence for Mn2+(Mg2+) Binding to a precursor-tRNA Microhelix Near the Potential RNase P Cleavage Site. Journal of Molecular Biology, 2001, 305, 181-189.	4.2	19
94	Correlation between Processing Efficiency for Ribonuclease P Minimal Substrates and Conformation of the Nucleotide â˜1 at the Cleavage Positionâ€. Biochemistry, 2001, 40, 3363-3369.	2.5	15
95	Purine N7 groups that are crucial to the interaction of Escherichia coli RNase P RNA with tRNA. Rna, 2001, 7, 958-968.	3.5	20
96	Exploring the minimal substrate requirements for trans-cleavage by RNase P holoenzymes from Escherichia coli and Bacillus subtilis. Molecular Microbiology, 2001, 41, 131-143.	2.5	41
97	Effects of phosphorothioate modifications on precursor tRNA processing by eukaryotic RNase P enzymes. Journal of Molecular Biology, 2000, 298, 559-565.	4.2	37
98	Differential role of the intermolecular base-pairs G292-C 75 and G293-C 74 in the reaction catalyzed by Escherichia coli RNase P RNA 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 2000, 299, 941-951.	4.2	75
99	Guanosine 2-NH2 groups of Escherichia coli RNase P RNA involved in intramolecular tertiary contacts and direct interactions with tRNA. Rna, 1999, 5, 102-116.	3.5	51
100	Role of metal ions in the hydrolysis reaction catalyzed by RNase P RNA from Bacillus subtilis. Journal of Molecular Biology, 1999, 290, 433-445.	4.2	89
101	Role of Metal Ions In The Cleavage Mechanism by The E. Coli Rnase P Holoenzyme. Nucleosides & Nucleotides, 1997, 16, 721-725.	0.5	8
102	Kinetics and Thermodynamics of the RNase P RNA Cleavage Reaction:Analysis of tRNA 3'-end Variants. Journal of Molecular Biology, 1995, 247, 161-172.	4.2	65
103	Lead-ion-induced cleavage of RNase P RNA. FEBS Journal, 1994, 219, 49-56.	0.2	79
104	Role of the D arm and the anticodon arm in tRNA recognition by eubacterial and eukaryotic RNase P enzymes. Biochemistry, 1993, 32, 13046-13053.	2.5	66
105	Cleavage efficiencies of model substrates for ribonuclease P fromEscherichia coliandThermus thermophilus. Nucleic Acids Research, 1992, 20, 5963-5970.	14.5	31
106	The sequence of the 6S RNA gene ofPseudomonas aeruginosa. Nucleic Acids Research, 1987, 15, 4583-4591.	14.5	29