Jennifer A Doudna

List of Publications by Year
in descending order

235 papers	76,560 citations	1606 105 h-index	1109 231 g-index
291 all docs	291 docs citations	291 times ranked	50863 citing authors

#	Article	IF	Citations
1	A Programmable Dual-RNAâ€"Guided DNA Endonuclease in Adaptive Bacterial Immunity. Science, 2012, 337, 816-821.	6.0	12,811
2	The new frontier of genome engineering with CRISPR-Cas9. Science, 2014, 346, 1258096.	6.0	4,828
3	Repurposing CRISPR as an RNA-Guided Platform for Sequence-Specific Control of Gene Expression. Cell, 2013, 152, 1173-1183.	13.5	4,090
4	CRISPR-Mediated Modular RNA-Guided Regulation of Transcription in Eukaryotes. Cell, 2013, 154, 442-451.	13.5	3,012
5	CRISPR-Cas12a target binding unleashes indiscriminate single-stranded DNase activity. Science, 2018, 360, 436-439.	6.0	2,355
6	RNA-programmed genome editing in human cells. ELife, 2013, 2, e00471.	2.8	1,830
7	RNA-guided genetic silencing systems in bacteria and archaea. Nature, 2012, 482, 331-338.	13.7	1,584
8	DNA interrogation by the CRISPR RNA-guided endonuclease Cas9. Nature, 2014, 507, 62-67.	13.7	1,573
9	High-throughput profiling of off-target DNA cleavage reveals RNA-programmed Cas9 nuclease specificity. Nature Biotechnology, 2013, 31, 839-843.	9.4	1,303
10	CRISPRâ€"Cas9 Structures and Mechanisms. Annual Review of Biophysics, 2017, 46, 505-529.	4.5	1,289
11	CRISPR-Cas guides the future of genetic engineering. Science, 2018, 361, 866-869.	6.0	1,024
12	Enhanced homology-directed human genome engineering by controlled timing of CRISPR/Cas9 delivery. ELife, 2014, 3, e04766.	2.8	968
13	Structures of Cas9 Endonucleases Reveal RNA-Mediated Conformational Activation. Science, 2014, 343, 1247997.	6.0	938
14	Enhanced proofreading governs CRISPRâ€"Cas9 targeting accuracy. Nature, 2017, 550, 407-410.	13.7	901
15	Biology and Applications of CRISPR Systems: Harnessing Natureâ€™s Toolbox for Genome Engineering. Cell, 2016, 164, 29-44.	13.5	889
16	Molecular Mechanisms of RNA Interference. Annual Review of Biophysics, 2013, 42, 217-239.	4.5	868
17	Structural Basis for Double-Stranded RNA Processing by Dicer. Science, 2006, 311, 195-198.	6.0	860
18	Two distinct RNase activities of CRISPR-C2c2 enable guide-RNA processing and RNA detection. Nature, 2016, 538, 270-273.	13.7	854

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19	Programmed DNA destruction by miniature CRISPR-Cas14 enzymes. Science, 2018, 362, 839-842.	6.0	757
20	Crystal structure of a hepatitis delta virus ribozyme. Nature, 1998, 395, 567-574.	13.7	747
21	Applications of CRISPR technologies in research and beyond. Nature Biotechnology, 2016, 34, 933-941.	9.4	735
22	The chemical repertoire of natural ribozymes. Nature, 2002, 418, 222-228.	13.7	656
23	A three-dimensional view of the molecular machinery of RNA interference. Nature, 2009, 457, 405-412.	13.7	651
24	Amplification-free detection of SARS-CoV-2 with CRISPR-Cas13a and mobile phone microscopy. Cell, 2021, 184, 323-333.e9.	13.5	613
25	Generation of knock-in primary human T cells using Cas9 ribonucleoproteins. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10437-10442.	3.3	600
26	Sequence- and Structure-Specific RNA Processing by a CRISPR Endonuclease. Science, 2010, 329, 1355-1358.	6.0	599
27	The promise and challenge of therapeutic genome editing. Nature, 2020, 578, 229-236.	13.7	599
28	Nanoparticle delivery of Cas9 ribonucleoprotein and donor DNA in vivo induces homology-directed DNA repair. Nature Biomedical Engineering, 2017, 1, 889-901.	11.6	566
29	A prudent path forward for genomic engineering and germline gene modification. Science, 2015, 348, 36-38.	6.0	541
30	Programmable RNA recognition and cleavage by CRISPR/Cas9. Nature, 2014, 516, 263-266.	13.7	533
31	Conformational control of DNA target cleavage by CRISPRâ€“Cas9. Nature, 2015, 527, 110-113.	13.7	514
32	Structures of a CRISPR-Cas9 R-loop complex primed for DNA cleavage. Science, 2016, 351, 867-871.	6.0	512
33	Phage-assisted evolution of an adenine base editor with improved Cas domain compatibility and activity. Nature Biotechnology, 2020, 38, 883-891.	9.4	502
34	Structural basis for CRISPR RNA-guided DNA recognition by Cascade. Nature Structural and Molecular Biology, 2011, 18, 529-536.	3.6	498
35	New CRISPRâ€“Cas systems from uncultivated microbes. Nature, 2017, 542, 237-241.	13.7	471
36	A Cas9â€“guide RNA complex preorganized for target DNA recognition. Science, 2015, 348, 1477-1481.	6.0	463

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37	Programmable RNA Tracking in Live Cells with CRISPR/Cas9. Cell, 2016, 165, 488-496.	13.5	455
38	RNA-guided complex from a bacterial immune system enhances target recognition through seed sequence interactions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10092-10097.	3.3	413
39	Tertiary Motifs in RNA Structure and Folding. Angewandte Chemie - International Edition, 1999, 38, 2326-2343.	7.2	393
40	Cas1â€“Cas2 complex formation mediates spacer acquisition during CRISPRâ€“Cas adaptive immunity. Nature Structural and Molecular Biology, 2014, 21, 528-534.	3.6	389
41	<i>In vitro</i> reconstitution of the human RISC-loading complex. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 512-517.	3.3	385
42	Insights into RNA structure and function from genome-wide studies. Nature Reviews Genetics, 2014, 15, 469-479.	7.7	384
43	Cornerstones of CRISPRâ€“Cas in drug discovery and therapy. Nature Reviews Drug Discovery, 2017, 16, 89-100.	21.5	370
44	Crystal Structure of the Ribonucleoprotein Core of the Signal Recognition Particle. Science, 2000, 287, 1232-1239.	6.0	369
45	Structures of the RNA-guided surveillance complex from a bacterial immune system. Nature, 2011, 477, 486-489.	13.7	355
46	CRISPR-CasÎ¦ from huge phages is a hypercompact genome editor. Science, 2020, 369, 333-337.	6.0	352
47	Expanding the Biologistâ€™s Toolkit with CRISPR-Cas9. Molecular Cell, 2015, 58, 568-574.	4.5	351
48	Multiplexed RNA structure characterization with selective 2â€²-hydroxyl acylation analyzed by primer extension sequencing (SHAPE-Seq). Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11063-11068.	3.3	346
49	CasX enzymes comprise a distinct family of RNA-guided genome editors. Nature, 2019, 566, 218-223.	13.7	346
50	Clades of huge phages from across Earthâ€™s ecosystems. Nature, 2020, 578, 425-431.	13.7	331
51	Mechanism of ribosome recruitment by hepatitis C IRES RNA. Rna, 2001, 7, 194-206.	1.6	329
52	Dynamics of CRISPR-Cas9 genome interrogation in living cells. Science, 2015, 350, 823-826.	6.0	301
53	Integrase-mediated spacer acquisition during CRISPRâ€“Cas adaptive immunity. Nature, 2015, 519, 193-198.	13.7	295
54	Disabling Cas9 by an anti-CRISPR DNA mimic. Science Advances, 2017, 3, e1701620.	4.7	289

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55	A magnesium ion core at the heart of a ribozyme domain. Nature Structural Biology, 1997, 4, 553-558.	9.7	281
56	Efficient genome editing in the mouse brain by local delivery of engineered Cas9 ribonucleoprotein complexes. Nature Biotechnology, 2017, 35, 431-434.	9.4	278
57	RNA Targeting by the Type III-A CRISPR-Cas Csm Complex of Thermus thermophilus. Molecular Cell, 2014, 56, 518-530.	4.5	267
58	A conformational switch controls hepatitis delta virus ribozyme catalysis. Nature, 2004, 429, 201-205.	13.7	266
59	Rational design of a split-Cas9 enzyme complex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2984-2989.	3.3	255
60	Metal-binding sites in the major groove of a large ribozyme domain. Structure, 1996, 4, 1221-1229.	1.6	246
61	Tunable protein synthesis by transcript isoforms in human cells. ELife, 2016, 5, .	2.8	238
62	CRISPR-Cpf1 mediates efficient homology-directed repair and temperature-controlled genome editing. Nature Communications, 2017, 8, 2024.	5.8	232
63	Mechanism of Foreign DNA Selection in a Bacterial Adaptive Immune System. Molecular Cell, 2012, 46, 606-615.	4.5	229
64	RNA Targeting by Functionally Orthogonal Type VI-A CRISPR-Cas Enzymes. Molecular Cell, 2017, 66, 373-383.e3.	4.5	229
65	A universal mode of helix packing in RNA. Nature Structural Biology, 2001, 8, 339-343.	9.7	228
66	Structural Basis for DNase Activity of a Conserved Protein Implicated in CRISPR-Mediated Genome Defense. Structure, 2009, 17, 904-912.	1.6	228
67	Ancient Origin of cGAS-STING Reveals Mechanism of Universal 2â€²,3â€² cGAMP Signaling. Molecular Cell, 2015, 59, 891-903.	4.5	224
68	Real-time observation of DNA recognition and rejection by the RNA-guided endonuclease Cas9. Nature Communications, 2016, 7, 12778.	5.8	221
69	Ribonuclease revisited: structural insights into ribonuclease III family enzymes. Current Opinion in Structural Biology, 2007, 17, 138-145.	2.6	217
70	Rapid assessment of SARS-CoV-2â€“evolved variants using virus-like particles. Science, 2021, 374, 1626-1632.	6.0	216
71	Structural insights into RNA processing by the human RISC-loading complex. Nature Structural and Molecular Biology, 2009, 16, 1148-1153.	3.6	215
72	Structure and Activity of the RNA-Targeting Type III-B CRISPR-Cas Complex of Thermus thermophilus. Molecular Cell, 2013, 52, 135-145.	4.5	212

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73	A Broad-Spectrum Inhibitor of CRISPR-Cas9. Cell, 2017, 170, 1224-1233.e15.	13.5	211
74	A conformational checkpoint between DNA binding and cleavage by CRISPR-Cas9. Science Advances, 2017, 3, eaao0027.	4.7	211
75	Dicer-TRBP Complex Formation Ensures Accurate Mammalian MicroRNA Biogenesis. Molecular Cell, 2015, 57, 397-407.	4.5	209
76	CasA mediates Cas3-catalyzed target degradation during CRISPR RNA-guided interference. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6618-6623.	3.3	206
77	ATAC-see reveals the accessible genome by transposase-mediated imaging and sequencing. Nature Methods, 2016, 13, 1013-1020.	9.0	199
78	Autoinhibition of Human Dicer by Its Internal Helicase Domain. Journal of Molecular Biology, 2008, 380, 237-243.	2.0	195
79	Nucleosome breathing and remodeling constrain CRISPR-Cas9 function. ELife, 2016, 5, .	2.8	193
80	RNA processing enables predictable programming of gene expression. Nature Biotechnology, 2012, 30, 1002-1006.	9.4	184
81	Profiling of engineering hotspots identifies an allosteric CRISPR-Cas9 switch. Nature Biotechnology, 2016, 34, 646-651.	9.4	180
82	Surveillance and Processing of Foreign DNA by the Escherichia coli CRISPR-Cas System. Cell, 2015, 163, 854-865.	13.5	177
83	Systematic discovery of natural CRISPR-Cas12a inhibitors. Science, 2018, 362, 236-239.	6.0	174
84	Use of Cis- and Trans-Ribozymes to Remove 5' and 3' Heterogeneities From Milligrams of In Vitro Transcribed RNA. Nucleic Acids Research, 1996, 24, 977-978.	6.5	173
85	Differential roles of human Dicer-binding proteins TRBP and PACT in small RNA processing. Nucleic Acids Research, 2013, 41, 6568-6576.	6.5	172
86	Foreign DNA capture during CRISPRâ€"Cas adaptive immunity. Nature, 2015, 527, 535-538.	13.7	169
87	Ribozyme Structures and Mechanisms. Annual Review of Biochemistry, 2000, 69, 597-615.	5.0	168
88	Rewriting a genome. Nature, 2013, 495, 50-51.	13.7	168
89	A Cas9 Ribonucleoprotein Platform for Functional Genetic Studies of HIV-Host Interactions in Primary Human T Cells. Cell Reports, 2016, 17, 1438-1452.	2.9	167
90	RNA-based recognition and targeting: sowing the seeds of specificity. Nature Reviews Molecular Cell Biology, 2017, 18, 215-228.	16.1	167

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91	An RNA-induced conformational change required for CRISPR RNA cleavage by the endoribonuclease Cse3. Nature Structural and Molecular Biology, 2011, 18, 680-687.	3.6	166
92	High-throughput biochemical profiling reveals sequence determinants of dCas9 off-target binding and unbinding. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5461-5466.	3.3	165
93	RNA-dependent RNA targeting by CRISPR-Cas9. ELife, 2018, 7, .	2.8	152
94	CRISPR Immunological Memory Requires a Host Factor for Specificity. Molecular Cell, 2016, 62, 824-833.	4.5	148
95	Ribozyme catalysis: not different, just worse. Nature Structural and Molecular Biology, 2005, 12, 395-402.	3.6	147
96	Limited cross-variant immunity from SARS-CoV-2 Omicron without vaccination. Nature, 2022, 607, 351-355.	13.7	143
97	A thermostable Cas9 with increased lifetime in human plasma. Nature Communications, 2017, 8, 1424.	5.8	142
98	The structural biology of CRISPR-Cas systems. Current Opinion in Structural Biology, 2015, 30, 100-111.	2.6	137
99	Accelerated RNA detection using tandem CRISPR nucleases. Nature Chemical Biology, 2021, 17, 982-988.	3.9	135
100	Mechanism of substrate selection by a highly specific CRISPR endoribonuclease. Rna, 2012, 18, 661-672.	1.6	133
101	Controlling CRISPR-Cas9 with ligand-activated and ligand-deactivated sgRNAs. Nature Communications, 2019, 10, 2127.	5.8	133
102	Widespread Translational Remodeling during Human Neuronal Differentiation. Cell Reports, 2017, 21, 2005-2016.	2.9	128
103	Receptor-Mediated Delivery of CRISPR-Cas9 Endonuclease for Cell-Type-Specific Gene Editing. Journal of the American Chemical Society, 2018, 140, 6596-6603.	6.6	127
104	Species- and site-specific genome editing in complex bacterial communities. Nature Microbiology, 2022, 7, 34-47.	5.9	127
105	Substrate-Specific Kinetics of Dicer-Catalyzed RNA Processing. Journal of Molecular Biology, 2010, 404, 392-402.	2.0	126
106	Structures of the CRISPR-Cmr complex reveal mode of RNA target positioning. Science, 2015, 348, 581-585.	6.0	126
107	Neutralizing immunity in vaccine breakthrough infections from the SARS-CoV-2 Omicron and Delta variants. Cell, 2022, 185, 1539-1548.e5.	13.5	126
108	Structure and Function of the Eukaryotic Ribosome. Cell, 2002, 109, 153-156.	13.5	123

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109	Structural Insights Into the Signal Recognition Particle. Annual Review of Biochemistry, 2004, 73, 539-557.	5.0	123
110	A bacterial Argonaute with noncanonical guide RNA specificity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4057-4062.	3.3	122
111	Structures of the CRISPR genome integration complex. Science, 2017, 357, 1113-1118.	6.0	120
112	Nontoxic nanopore electroporation for effective intracellular delivery of biological macromolecules. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7899-7904.	3.3	120
113	TRBP alters human precursor microRNA processing in vitro. Rna, 2012, 18, 2012-2019.	1.6	118
114	Guide-bound structures of an RNA-targeting A-cleaving CRISPRâ€“Cas13a enzyme. Nature Structural and Molecular Biology, 2017, 24, 825-833.	3.6	118
115	Cutting it close: CRISPR-associated endoribonuclease structure and function. Trends in Biochemical Sciences, 2015, 40, 58-66.	3.7	116
116	DNA capture by a CRISPR-Cas9â€“guided adenine base editor. Science, 2020, 369, 566-571.	6.0	114
117	Structure-Guided Reprogramming of Human cGAS Dinucleotide Linkage Specificity. Cell, 2014, 158, 1011-1021.	13.5	111
118	The chemistry of Cas9 and its CRISPR colleagues. Nature Reviews Chemistry, 2017, 1, .	13.8	111
119	CRISPR germline engineeringâ€”the community speaks. Nature Biotechnology, 2015, 33, 478-486.	9.4	110
120	Modeling and automation of sequencing-based characterization of RNA structure. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11069-11074.	3.3	109
121	Genome-resolved metagenomics reveals site-specific diversity of episymbiotic CPR bacteria and DPANN archaea in groundwater ecosystems. Nature Microbiology, 2021, 6, 354-365.	5.9	109
122	The Psychiatric Cell Map Initiative: A Convergent Systems Biological Approach to Illuminating Key Molecular Pathways in Neuropsychiatric Disorders. Cell, 2018, 174, 505-520.	13.5	108
123	RNA Binding and HEPN-Nuclease Activation Are Decoupled in CRISPR-Cas13a. Cell Reports, 2018, 24, 1025-1036.	2.9	108
124	Controlling and enhancing CRISPR systems. Nature Chemical Biology, 2021, 17, 10-19.	3.9	108
125	Multiple sensors ensure guide strand selection in human RNAi pathways. Rna, 2013, 19, 639-648.	1.6	107
126	Selective stalling of human translation through small-molecule engagement of the ribosome nascent chain. PLoS Biology, 2017, 15, e2001882.	2.6	104

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127	Disruption of the Î²1L Isoform of GABP Reverses Glioblastoma Replicative Immortality in a TERT Promoter Mutation-Dependent Manner. Cancer Cell, 2018, 34, 513-528.e8.	7.7	103
128	Crystal Structure of the HCV IRES Central Domain Reveals Strategy for Start-Codon Positioning. Structure, 2011, 19, 1456-1466.	1.6	102
129	Direct pKaMeasurement of the Active-Site Cytosine in a Genomic Hepatitis Delta Virus Ribozyme. Journal of the American Chemical Society, 2001, 123, 8447-8452.	6.6	100
130	Structural Insights into Group II Intron Catalysis and Branch-Site Selection. Science, 2002, 295, 2084-2088.	6.0	100
131	Deciphering Off-Target Effects in CRISPR-Cas9 through Accelerated Molecular Dynamics. ACS Central Science, 2019, 5, 651-662.	5.3	99
132	Broad-spectrum enzymatic inhibition of CRISPR-Cas12a. Nature Structural and Molecular Biology, 2019, 26, 315-321.	3.6	99
133	CRISPRâ€“Cas9 genome engineering of primary CD4+ T cells for the interrogation of HIVâ€“host factor interactions. Nature Protocols, 2019, 14, 1-27.	5.5	98
134	RNA FOLDS: Insights from Recent Crystal Structures. Annual Review of Biophysics and Biomolecular Structure, 1999, 28, 57-73.	18.3	97
135	Single-Stranded DNA Cleavage by Divergent CRISPR-Cas9 Enzymes. Molecular Cell, 2015, 60, 398-407.	4.5	94
136	A Unified Resource for Tracking Anti-CRISPR Names. CRISPR Journal, 2018, 1, 304-305.	1.4	94
137	Targeted delivery of CRISPR-Cas9 and transgenes enables complex immune cell engineering. Cell Reports, 2021, 35, 109207.	2.9	91
138	Csy4 relies on an unusual catalytic dyad to position and cleave CRISPR RNA. EMBO Journal, 2012, 31, 2824-2832.	3.5	90
139	Substrate-specific structural rearrangements of human Dicer. Nature Structural and Molecular Biology, 2013, 20, 662-670.	3.6	89
140	Applications of CRISPR-Cas Enzymes in Cancer Therapeutics and Detection. Trends in Cancer, 2018, 4, 499-512.	3.8	89
141	A nested double pseudoknot is required for self-cleavage activity of both the genomic and antigenomic hepatitis delta virus ribozymes. Rna, 1999, 5, 720-727.	1.6	85
142	The NIH Somatic Cell Genome Editing program. Nature, 2021, 592, 195-204.	13.7	84
143	Chemical and Biophysical Modulation of Cas9 for Tunable Genome Engineering. ACS Chemical Biology, 2016, 11, 681-688.	1.6	83
144	RNA-guided assembly of Rev-RRE nuclear export complexes. ELife, 2014, 3, e03656.	2.8	81

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145	RNA and DNA Targeting by a Reconstituted Thermus thermophilus Type III-A CRISPR-Cas System. PLoS ONE, 2017, 12, e0170552.	1.1	81
146	Massively parallel kinetic profiling of natural and engineered CRISPR nucleases. Nature Biotechnology, 2021, 39, 84-93.	9.4	80
147	CRISPR-Cas12a exploits R-loop asymmetry to form double-strand breaks. ELife, 2020, 9, .	2.8	80
148	Key role of the REC lobe during CRISPRâ€“Cas9 activation by â€˜sensingâ€™, â€˜regulatingâ€™, and â€˜lockingâ€™ the catalytic HNH domain. Quarterly Reviews of Biophysics, 2018, 51, .	2.4	79
149	Structural biology of CRISPRâ€“Cas immunity and genome editing enzymes. Nature Reviews Microbiology, 2022, 20, 641-656.	13.6	78
150	DNA Targeting by a Minimal CRISPR RNA-Guided Cascade. Molecular Cell, 2016, 63, 840-851.	4.5	75
151	Native Tandem and Ion Mobility Mass Spectrometry Highlight Structural and Modular Similarities in Clustered-Regularly-Interspaced Shot-Palindromic-Repeats (CRISPR)-associated Protein Complexes From Escherichia coli and Pseudomonas aeruginosa. Molecular and Cellular Proteomics, 2012, 11, 1430-1441.	2.5	74
152	Structural insights into RNA interference. Current Opinion in Structural Biology, 2010, 20, 90-97.	2.6	73
153	CRISPR-Cas9 Circular Permutants as Programmable Scaffolds for Genome Modification. Cell, 2019, 176, 254-267.e16.	13.5	73
154	Targeted gene knock-in by homology-directed genome editing using Cas9 ribonucleoprotein and AAV donor delivery. Nucleic Acids Research, 2017, 45, e98-e98.	6.5	72
155	RNAâ€“protein analysis using a conditional CRISPR nuclease. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5416-5421.	3.3	71
156	Autoinhibitory Interdomain Interactions and Subfamily-specific Extensions Redefine the Catalytic Core of the Human DEAD-box Protein DDX3. Journal of Biological Chemistry, 2016, 291, 2412-2421.	1.6	71
157	The P4â^'P6 Domain Directs Higher Order Folding of theTetrahymenaRibozyme Coreâ€. Biochemistry, 1997, 36, 3159-3169.	1.2	70
158	Protecting genome integrity during CRISPR immune adaptation. Nature Structural and Molecular Biology, 2016, 23, 876-883.	3.6	70
159	Machine learning predicts new anti-CRISPR proteins. Nucleic Acids Research, 2020, 48, 4698-4708.	6.5	70
160	The stem-loop binding protein forms a highly stable and specific complex with the 3â€² stem-loop of histone mRNAs. Rna, 2001, 7, 123-132.	1.6	68
161	Evolution of CRISPR RNA recognition and processing by Cas6 endonucleases. Nucleic Acids Research, 2014, 42, 1341-1353.	6.5	68
162	Genomes in Focus: Development and Applications of CRISPRâ€Cas9 Imaging Technologies. Angewandte Chemie - International Edition, 2018, 57, 4329-4337.	7.2	67

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163	Temperature-Responsive Competitive Inhibition of CRISPR-Cas9. Molecular Cell, 2019, 73, 601-610.e5.	4.5	67
164	An Essential GTPase Promotes Assembly of Preribosomal RNA Processing Complexes. Molecular Cell, 2005, 20, 633-643.	4.5	65
165	Assembly of an Exceptionally Stable RNA Tertiary Interface in a Group I Ribozyme. Biochemistry, 1999, 38, 2982-2990.	1.2	63
166	The P5abc Peripheral Element Facilitates Preorganization of the Tetrahymena Group I Ribozyme for Catalysis. Biochemistry, 2000, 39, 2639-2651.	1.2	62
167	Coordinated Activities of Human Dicer Domains in Regulatory RNA Processing. Journal of Molecular Biology, 2012, 422, 466-476.	2.0	62
168	ATP-independent diffusion of double-stranded RNA binding proteins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 151-156.	3.3	62
169	Engineering of monosized lipid-coated mesoporous silica nanoparticles for CRISPR delivery. Acta Biomaterialia, 2020, 114, 358-368.	4.1	62
170	Cas9 interrogates DNA in discrete steps modulated by mismatches and supercoiling. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5853-5860.	3.3	62
171	Medulloblastoma-associated DDX3 variant selectively alters the translational response to stress. Oncotarget, 2016, 7, 28169-28182.	0.8	62
172	Site-Specific Bioconjugation through Enzyme-Catalyzed Tyrosineâ€"Cysteine Bond Formation. ACS Central Science, 2020, 6, 1564-1571.	5.3	60
173	Hepatitis C virus 3â€²UTR regulates viral translation through direct interactions with the host translation machinery. Nucleic Acids Research, 2013, 41, 7861-7874.	6.5	59
174	Kinetic analysis of Cas12a and Cas13a RNA-Guided nucleases for development of improved CRISPR-Based diagnostics. IScience, 2021, 24, 102996.	1.9	57
175	Functional Overlap between eIF4G Isoforms in Saccharomyces cerevisiae. PLoS ONE, 2010, 5, e9114.	1.1	50
176	Inhibition of CRISPR-Cas9 ribonucleoprotein complex assembly by anti-CRISPR AcrIIC2. Nature Communications, 2019, 10, 2806.	5.8	50
177	Blueprint for a pop-up SARS-CoV-2 testing lab. Nature Biotechnology, 2020, 38, 791-797.	9.4	50
178	DNA interference states of the hypercompact CRISPRâ€"CasÎ¦ effector. Nature Structural and Molecular Biology, 2021, 28, 652-661.	3.6	50
179	Chemistry of Class 1 CRISPR-Cas effectors: Binding, editing, and regulation. Journal of Biological Chemistry, 2020, 295, 14473-14487.	1.6	49
180	A scoutRNA Is Required for Some Type V CRISPR-Cas Systems. Molecular Cell, 2020, 79, 416-424.e5.	4.5	49

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181	DNA recognition by an RNA-guided bacterial Argonaute. PLoS ONE, 2017, 12, e0177097.	1.1	49
182	Mutations in Cas9 Enhance the Rate of Acquisition of Viral Spacer Sequences during the CRISPR-Cas Immune Response. Molecular Cell, 2017, 65, 168-175.	4.5	47
183	Potent CRISPR-Cas9 inhibitors from<i>Staphylococcus</i>genomes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6531-6539.	3.3	47
184	Insights into HIV-1 proviral transcription from integrative structure and dynamics of the Tat:AFF4:P-TEFb:TAR complex. ELife, 2016, 5, .	2.8	43
185	Programmable RNA recognition using a CRISPR-associated Argonaute. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3368-3373.	3.3	41
186	Structural basis for AcrVA4 inhibition of specific CRISPR-Cas12a. ELife, 2019, 8, .	2.8	41
187	Target preference of Type III-A CRISPR-Cas complexes at the transcription bubble. Nature Communications, 2019, 10, 3001.	5.8	40
188	CRISPRâ€“Cas9-mediated nuclear transport and genomic integration of nanostructured genes in human primary cells. Nucleic Acids Research, 2022, 50, 1256-1268.	6.5	39
189	New tools provide a second look at HDV ribozyme structure, dynamics and cleavage. Nucleic Acids Research, 2014, 42, 12833-12846.	6.5	38
190	Human Molecular Genetics and Genomics â€” Important Advances and Exciting Possibilities. New England Journal of Medicine, 2021, 384, 1-4.	13.9	37
191	CRISPRâ€“Cas9 bends and twists DNA to read its sequence. Nature Structural and Molecular Biology, 2022, 29, 395-402.	3.6	37
192	Genome-editing revolution: My whirlwind year with CRISPR. Nature, 2015, 528, 469-471.	13.7	36
193	Reconstitution of selective HIV-1 RNA packaging in vitro by membrane-bound Gag assemblies. ELife, 2016, 5, .	2.8	36
194	GTP-dependent Formation of a Ribonucleoprotein Subcomplex Required for Ribosome Biogenesis. Journal of Molecular Biology, 2006, 356, 432-443.	2.0	35
195	Preface. Methods in Enzymology, 2014, 546, xix-xx.	0.4	29
196	Chimeric CRISPR-CasX enzymes and guide RNAs for improved genome editing activity. Molecular Cell, 2022, 82, 1199-1209.e6.	4.5	29
197	Quantification of Cas9 binding and cleavage across diverse guide sequences maps landscapes of target engagement. Science Advances, 2021, 7, .	4.7	28
198	Cancer-specific loss of <i>TERT</i> activation sensitizes glioblastoma to DNA damage. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	28

#	Article	IF	Citations
199	A functional map of HIV-host interactions in primary human T cells. Nature Communications, 2022, 13, 1752.	5.8	27
200	Genomic Engineering and the Future of Medicine. JAMA - Journal of the American Medical Association, 2015, 313, 791.	3.8	25
201	Comprehensive deletion landscape of CRISPR-Cas9 identifies minimal RNA-guided DNA-binding modules. Nature Communications, 2021, 12, 5664.	5.8	25
202	A naturally DNase-free CRISPR-Cas12c enzyme silences gene expression. Molecular Cell, 2022, 82, 2148-2160.e4.	4.5	25
203	Spacer Acquisition Rates Determine the Immunological Diversity of the Type II CRISPR-Cas Immune Response. Cell Host and Microbe, 2019, 25, 242-249.e3.	5.1	24
204	A Functional Mini-Integrase in a Two-Protein Type V-C CRISPR System. Molecular Cell, 2019, 73, 727-737.e3.	4.5	22
205	Optimizing COVID-19 control with asymptomatic surveillance testing in a university environment. Epidemics, 2021, 37, 100527.	1.5	21
206	Synthesis of Multi-Protein Complexes through Charge-Directed Sequential Activation of Tyrosine Residues. Journal of the American Chemical Society, 2021, 143, 13538-13547.	6.6	18
207	Evolutionarily Conserved Roles of the Dicer Helicase Domain in Regulating RNA Interference Processing. Journal of Biological Chemistry, 2014, 289, 28352-28362.	1.6	17
208	Chemical biology at the crossroads of molecular structure and mechanism. Nature Chemical Biology, 2005, 1, 300-303.	3.9	15
209	Genome editing: the end of the beginning. Genome Biology, 2015, 16, 292.	3.8	15
210	Launching a saliva-based SARS-CoV-2 surveillance testing program on a university campus. PLoS ONE, 2021, 16, e0251296.	1.1	15
211	Analog sensitive chemical inhibition of the <scp>DEAD</scp>â€box protein <scp>DDX</scp>3. Protein Science, 2016, 25, 638-649.	3.1	14
212	Robotic RNA extraction for SARS-CoV-2 surveillance using saliva samples. PLoS ONE, 2021, 16, e0255690.	1.1	14
213	CRISPR's unwanted anniversary. Science, 2019, 366, 777-777.	6.0	12
214	Structural coordination between active sites of a CRISPR reverse transcriptase-integrase complex. Nature Communications, 2021, 12, 2571.	5.8	12
215	Knocking out barriers to engineered cell activity. Science, 2020, 367, 976-977.	6.0	10
216	OUP accepted manuscript. Nucleic Acids Research, 2021, 49, 3546-3556.	6.5	9

#	Article	IF	Citations
217	A molecular contortionist. Nature, 1997, 388, 830-831.	13.7	8
218	Proteinâ€"nucleic acid interactions. Current Opinion in Structural Biology, 2003, 13, 3-5.	2.6	7
219	Genome im Fokus: Entwicklung und Anwendungen von CRISPRâ€Cas9â€Bildgebungstechnologien. Angewandte Chemie, 2018, 130, 4412-4420.	1.6	7
220	Roâ€™s Role in RNA Reconnaissance. Cell, 2005, 121, 495-496.	13.5	6
221	LuNER: Multiplexed SARS-CoV-2 detection in clinical swab and wastewater samples. PLoS ONE, 2021, 16, e0258263.	1.1	5
222	Reply to Nathamgari et al.: Nanopore electroporation for intracellular delivery of biological macromolecules. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22911-22911.	3.3	4
223	Get in LINE: Competition for Newly Minted Retrotransposon Proteins at the Ribosome. Molecular Cell, 2015, 60, 712-714.	4.5	3
224	Crystal structure of an RNA/DNA strand exchange junction. PLoS ONE, 2022, 17, e0263547.	1.1	3
225	Proteinâ€"nucleic acid interactions: unlocking mysteries old and new. Current Opinion in Structural Biology, 2005, 15, 65-67.	2.6	1
226	Foreign DNA capture during CRISPRâ€"Cas adaptive immunity. Nature, 2016, 534, S13-S14.	13.7	1
227	CRISPR System: From Adaptive Immunity to Genome Editing. Molecular Frontiers Journal, 2017, 01, 76-91.	0.9	0
228	The NAI Fellow Profile: An Interview with Dr. Jennifer Doudna. Technology and Innovation, 2019, 20, 475-481.	0.2	0
229	Structural Characterization and Identification of Postâ€Translational Modifications of Human Eukaryotic Initiation Factor 3 (eIF3) by FTICR Mass Spectrometry. FASEB Journal, 2006, 20, A528.	0.2	0
230	Structural Basis for RNA Processing by Dicer. FASEB Journal, 2006, 20, A423.	0.2	0
231	Getting the message: Mechanisms of protein synthesis initiation. FASEB Journal, 2008, 22, 247.1.	0.2	0
232	Preliminary in vitro functional analysis of the DEADâ€box protein DDX3. FASEB Journal, 2012, 26, 947.2.	0.2	0
233	Defending the Genome: Regulatory RNA in Humans and Bacteria. FASEB Journal, 2013, 27, 450.1.	0.2	0
234	CRISPR System: From Adaptive Immunity to Genome Editing. , 2019, , 81-116.		0

#	Article	IF	Citations
235	Attachment of a 32P-phosphate to the 3â€² Terminus of a DNA Oligonucleotide. Bio-protocol, 2020, 10, e3787.	0.2	0