Rachel Green

List of Publications by Year
in descending order

110 papers	12,687 citations	28272 55 h-index	30920 102 g-index
133 all docs	133 docs citations	133 times ranked	12576 citing authors

#	Article	IF	Citations
1	miRNA-Mediated Gene Silencing by Translational Repression Followed by mRNA Deadenylation and Decay. Science, 2012, 336, 237-240.	12.6	765
2	Inhibition of eukaryotic translation elongation by cycloheximide and lactimidomycin. Nature Chemical Biology, 2010, 6, 209-217.	8.0	757
3	A Parsimonious Model for Gene Regulation by miRNAs. Science, 2011, 331, 550-553.	12.6	442
4	Hypusine-containing protein eIF5A promotes translation elongation. Nature, 2009, 459, 118-121.	27.8	361
5	eIF5A Functions Globally in Translation Elongation and Termination. Molecular Cell, 2017, 66, 194-205.e5.	9.7	352
6	Ribosomopathies: Thereâ€™s strength in numbers. Science, 2017, 358, .	12.6	343
7	Dom34 Rescues Ribosomes in 3â€² Untranslated Regions. Cell, 2014, 156, 950-962.	28.9	342
8	Translation drives mRNA quality control. Nature Structural and Molecular Biology, 2012, 19, 594-601.	8.2	334
9	The Elongation, Termination, and Recycling Phases of Translation in Eukaryotes. Cold Spring Harbor Perspectives in Biology, 2012, 4, a013706-a013706.	5.5	328
10	Fidelity at the Molecular Level: Lessons from Protein Synthesis. Cell, 2009, 136, 746-762.	28.9	323
11	The Active Site of the Ribosome Is Composed of Two Layers of Conserved Nucleotides with Distinct Roles in Peptide Bond Formation and Peptide Release. Cell, 2004, 117, 589-599.	28.9	315
12	Dom34:Hbs1 Promotes Subunit Dissociation and Peptidyl-tRNA Drop-Off to Initiate No-Go Decay. Science, 2010, 330, 369-372.	12.6	274
13	Substrate-assisted catalysis of peptide bond formation by the ribosome. Nature Structural and Molecular Biology, 2004, 11, 1101-1106.	8.2	264
14	Ribosome Collisions Trigger General Stress Responses to Regulate Cell Fate. Cell, 2020, 182, 404-416.e14.	28.9	253
15	A base pair between tRNA and 23S rRNA in the peptidyl transferase centre of the ribosome. Nature, 1995, 377, 309-314.	27.8	250
16	High-Resolution Ribosome Profiling Defines Discrete Ribosome Elongation States and Translational Regulation during Cellular Stress. Molecular Cell, 2019, 73, 959-970.e5.	9.7	234
17	The DEAD-Box Protein Dhh1p Couples mRNA Decay and Translation by Monitoring Codon Optimality. Cell, 2016, 167, 122-132.e9.	28.9	232
18	Kinetic analysis reveals the ordered coupling of translation termination and ribosome recycling in yeast. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E1392-8.	7.1	225

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19	Visualization of the Hybrid State of tRNA Binding Promoted by Spontaneous Ratcheting of the Ribosome. Molecular Cell, 2008, 32, 190-197.	9.7	224
20	High-Precision Analysis of Translational Pausing by Ribosome Profiling in Bacteria Lacking EFP. Cell Reports, 2015, 11, 13-21.	6.4	219
21	Structural basis of highly conserved ribosome recycling in eukaryotes and archaea. Nature, 2012, 482, 501-506.	27.8	210
22	Quality control by the ribosome following peptide bond formation. Nature, 2009, 457, 161-166.	27.8	193
23	An Active Role for tRNA in Decoding Beyond Codon:Anticodon Pairing. Science, 2005, 308, 1178-1180.	12.6	192
24	Rli1/ABCE1 Recycles Terminating Ribosomes and Controls Translation Reinitiation in 3â€²UTRs InÂVivo. Cell, 2015, 162, 872-884.	28.9	184
25	Can Multidrug-Resistant Candidaauris Be Reliably Identified in Clinical Microbiology Laboratories?. Journal of Clinical Microbiology, 2017, 55, 638-640.	3.9	181
26	Roadblocks and resolutions in eukaryotic translation. Nature Reviews Molecular Cell Biology, 2018, 19, 526-541.	37.0	177
27	Precision genome editing using synthesis-dependent repair of Cas9-induced DNA breaks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10745-E10754.	7.1	175
28	Clarifying the Translational Pausing Landscape in Bacteria by Ribosome Profiling. Cell Reports, 2016, 14, 686-694.	6.4	161
29	A systematically-revised ribosome profiling method for bacteria reveals pauses at single-codon resolution. ELife, 2019, 8, .	6.0	161
30	Translation Elongation and Recoding in Eukaryotes. Cold Spring Harbor Perspectives in Biology, 2018, 10, a032649.	5.5	154
31	Ribosome pausing, arrest and rescue in bacteria and eukaryotes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160183.	4.0	149
32	The endonuclease Cue2 cleaves mRNAs at stalled ribosomes during No Go Decay. ELife, 2019, 8, .	6.0	139
33	Transformation of Chemically Competent E. coli. Methods in Enzymology, 2013, 529, 329-336.	1.0	129
34	One-dimensional SDS-Polyacrylamide Gel Electrophoresis (1D SDS-PAGE). Methods in Enzymology, 2014, 541, 151-159.	1.0	129
35	Stop codon context influences genome-wide stimulation of termination codon readthrough by aminoglycosides. ELife, 2020, 9, .	6.0	122
36	GIGYF2 and 4EHP Inhibit Translation Initiation of Defective Messenger RNAs to Assist Ribosome-Associated Quality Control. Molecular Cell, 2020, 79, 950-962.e6.	9.7	119

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37	Dynamic Regulation of a Ribosome Rescue Pathway in Erythroid Cells and Platelets. Cell Reports, 2016, 17, 1-10.	6.4	117
38	Mutational Analysis of S12 Protein and Implications for the Accuracy of Decoding by the Ribosome. Journal of Molecular Biology, 2007, 374, 1065-1076.	4.2	114
39	Molecular mechanism of translational stalling by inhibitory codon combinations and poly(A) tracts. EMBO Journal, 2020, 39, e103365.	7.8	113
40	Analysis of Dom34 and Its Function in No-Go Decay. Molecular Biology of the Cell, 2009, 20, 3025-3032.	2.1	108
41	Cryoelectron Microscopic Structures of Eukaryotic Translation Termination Complexes Containing eRF1-eRF3 or eRF1-ABCE1. Cell Reports, 2014, 8, 59-65.	6.4	105
42	Ribosomes slide on lysine-encoding homopolymeric A stretches. ELife, 2015, 4, .	6.0	98
43	Connections Underlying Translation and mRNA Stability. Journal of Molecular Biology, 2016, 428, 3558-3564.	4.2	97
44	EDF1 coordinates cellular responses to ribosome collisions. ELife, 2020, 9, .	6.0	96
45	Translational control by lysine-encoding A-rich sequences. Science Advances, 2015, 1, .	10.3	94
46	Two Distinct Components of Release Factor Function Uncovered by Nucleophile Partitioning Analysis. Molecular Cell, 2007, 28, 458-467.	9.7	90
47	Peptide Release on the Ribosome: Mechanism and Implications for Translational Control. Annual Review of Microbiology, 2008, 62, 353-373.	7.3	88
48	The interaction between C75 of tRNA and the A loop of the ribosome stimulates peptidyl transferase activity. Rna, 2006, 12, 33-39.	3.5	87
49	Coomassie Blue Staining. Methods in Enzymology, 2014, 541, 161-167.	1.0	77
50	Translation of poly(A) tails leads to precise mRNA cleavage. Rna, 2017, 23, 749-761.	3.5	77
51	Ribosome states signal RNA quality control. Molecular Cell, 2021, 81, 1372-1383.	9.7	75
52	Affinity purification of in vivo-assembled ribosomes for in vitro biochemical analysis. Methods, 2005, 36, 305-312.	3.8	74
53	Dom34-Hbs1 mediated dissociation of inactive 80S ribosomes promotes restart of translation after stress. EMBO Journal, 2014, 33, n/a-n/a.	7.8	74
54	Translational initiation in E. coli occurs at the correct sites genome-wide in the absence of mRNA-rRNA base-pairing. ELife, 2020, 9, .	6.0	73

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55	Assaying RNA structure with LASER-Seq. Nucleic Acids Research, 2019, 47, 43-55.	14.5	69
56	Translational control of stem cell function. Nature Reviews Molecular Cell Biology, 2021, 22, 671-690.	37.0	69
57	Slowed decay of mRNAs enhances platelet specific translation. Blood, 2017, 129, e38-e48.	1.4	68
58	Stop Codon Recognition by Release Factors Induces Structural Rearrangement of the Ribosomal Decoding Center that Is Productive for Peptide Release. Molecular Cell, 2007, 28, 533-543.	9.7	66
59	Regulated Ire1-dependent mRNA decay requires no-go mRNA degradation to maintain endoplasmic reticulum homeostasis in S. pombe. ELife, 2017, 6, .	6.0	64
60	Allosteric regulation of Argonaute proteins by miRNAs. Nature Structural and Molecular Biology, 2010, 17, 144-150.	8.2	60
61	Ribosome queuing enables non-AUG translation to be resistant to multiple protein synthesis inhibitors. Genes and Development, 2019, 33, 871-885.	5.9	60
62	A small molecule that induces translational readthrough of CFTR nonsense mutations by eRF1 depletion. Nature Communications, 2021, 12, 4358.	12.8	59
63	Mutational analysis reveals two independent molecular requirements during transfer RNA selection on the ribosome. Nature Structural and Molecular Biology, 2007, 14, 30-36.	8.2	55
64	Puromycin reactivity does not accurately localize translation at the subcellular level. ELife, 2020, 9, .	6.0	51
65	Ribosome collisions induce mRNA cleavage and ribosome rescue in bacteria. Nature, 2022, 603, 503-508.	27.8	50
66	Recognition of aminoacyl-tRNA: a common molecular mechanism revealed by cryo-EM. EMBO Journal, 2008, 27, 3322-3331.	7.8	49
67	An evolutionarily conserved ribosome-rescue pathway maintains epidermal homeostasis. Nature, 2018, 556, 376-380.	27.8	47
68	Peptide release on the ribosome depends critically on the 2â€² OH of the peptidylâ€"tRNA substrate. Rna, 2008, 14, 1526-1531.	3.5	41
69	Inhibition of Eukaryotic Translation by the Antitumor Natural Product Agelastatin A. Cell Chemical Biology, 2017, 24, 605-613.e5.	5.2	41
70	Regulation of Argonaute Slicer Activity by Guide RNA 3â€² End Interactions with the N-terminal Lobe. Journal of Biological Chemistry, 2013, 288, 7829-7840.	3.4	40
71	The Path to Perdition Is Paved with Protons. Cell, 2002, 110, 665-668.	28.9	36
72	Structure of a conserved RNA component of the peptidyl transferase centre. Nature Structural Biology, 1997, 4, 775-778.	9.7	35

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73	Distinct response of yeast ribosomes to a miscoding event during translation. Rna, 2011, 17, 925-932.	3.5	34
74	RF3:GTP promotes rapid dissociation of the class 1 termination factor. Rna, 2014, 20, 609-620.	3.5	34
75	Mechanisms that ensure speed and fidelity in eukaryotic translation termination. Science, 2021, 373, 876-882.	12.6	33
76	An expanded seed sequence definition accounts for full regulation of the <i>hid</i> 3â€² UTR by <i>bantam</i> miRNA. Rna, 2009, 15, 814-822.	3.5	32
77	Eukaryotic Release Factor 3 Is Required for Multiple Turnovers of Peptide Release Catalysis by Eukaryotic Release Factor 1. Journal of Biological Chemistry, 2013, 288, 29530-29538.	3.4	31
78	Peptidyl transferase activity catalyzed by protein-free 23S ribosomal RNA remains elusive. Rna, 1999, 5, 605-608.	3.5	30
79	In Vitro Transcription from Plasmid or PCR-amplified DNA. Methods in Enzymology, 2013, 530, 101-114.	1.0	29
80	Distinct Roles for Release Factor 1 and Release Factor 2 in Translational Quality Control. Journal of Biological Chemistry, 2014, 289, 17589-17596.	3.4	29
81	Nuclease-mediated depletion biases in ribosome footprint profiling libraries. Rna, 2020, 26, 1481-1488.	3.5	29
82	Visualization of codon-dependent conformational rearrangements during translation termination. Nature Structural and Molecular Biology, 2010, 17, 465-470.	8.2	28
83	Saccharomyces cerevisiae Ski7 Is a GTP-Binding Protein Adopting the Characteristic Conformation of Active Translational GTPases. Structure, 2015, 23, 1336-1343.	3.3	26
84	Translational repression of NMD targets by GIGYF2 and EIF4E2. PLoS Genetics, 2021, 17, e1009813.	3.5	25
85	Evolutionarily conserved inhibitory uORFs sensitize <i>Hox</i> mRNA translation to start codon selection stringency. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	25
86	Inhibition of eukaryotic translation elongation by the antitumor natural product Mycalamide B. Rna, 2011, 17, 1578-1588.	3.5	23
87	Live-cell imaging reveals kinetic determinants of quality control triggered by ribosome stalling. Molecular Cell, 2021, 81, 1830-1840.e8.	9.7	23
88	Polysome Analysis of Mammalian Cells. Methods in Enzymology, 2013, 530, 183-192.	1.0	19
89	Yeast translation elongation factor eEF3 promotes late stages of tRNA translocation. EMBO Journal, 2021, 40, e106449.	7.8	19
90	Ribosome recycling is not critical for translational coupling in Escherichia coli. ELife, 2020, 9, .	6.0	19

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91	Kinetic basis for global loss of fidelity arising from mismatches in the P-site codon:anticodon helix. Rna, 2010, 16, 1980-1989.	3.5	18
92	Rapid generation of hypomorphic mutations. Nature Communications, 2017, 8, 14112.	12.8	15
93	Synthesis at the Speed of Codons. Trends in Biochemical Sciences, 2015, 40, 717-718.	7.5	14
94	The ABC(E1)s of Ribosome Recycling and Reinitiation. Molecular Cell, 2017, 66, 578-580.	9.7	14
95	Functional elucidation of a key contact between tRNA and the large ribosomal subunit rRNA during decoding. Rna, 2010, 16, 2002-2013.	3.5	13
96	Directed hydroxyl radical probing reveals Upf1 binding to the 80S ribosomal E site rRNA at the L1 stalk. Nucleic Acids Research, 2018, 46, 2060-2073.	14.5	13
97	The ribosome revealed. , 1999, 6, 999-1003.		10
98	Bifunctional Nitrone-Conjugated Secondary Metabolite Targeting the Ribosome. Journal of the American Chemical Society, 2020, 142, 18369-18377.	13.7	7
99	In Vitro Synthesis of Proteins in Bacterial Extracts. Methods in Enzymology, 2014, 539, 3-15.	1.0	4
100	When stop makes sense. Science, 2016, 354, 1106-1106.	12.6	4
101	Not just Salk. Science, 2017, 357, 1105-1106.	12.6	4
102	Exploring the Mechanism of Dhh1-Mediated Translational Repression. Biophysical Journal, 2015, 108, 391a.	0.5	1
103	Studies on the Structure and Function of Ribosomes by Combined Use of Chemical Probing and X-Ray Crystallography. , 0, , 127-150.		1
104	Make or break: the ribosome as a regulator of mRNA decay. Cell Research, 2020, 30, 195-196.	12.0	0
105	Catalysis And Communication In Two Active Sites Of The Ribosome. FASEB Journal, 2007, 21, .	0.5	0
106	Conformational flexibility required for class I release factor function. FASEB Journal, 2007, 21, A647.	0.5	0
107	Mechanistic studies of ribosome function and potential implications for translational control. FASEB Journal, 2008, 22, 398.2.	0.5	0
108	Hypusineâ€containing Protein eIF5A Promotes Translation Elongation. FASEB Journal, 2010, 24, 79.2.	0.5	0

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109	mRNA surveillance is driven by translation. FASEB Journal, 2013, 27, 325.3.	0.5	0
110	Structural characterization of mRNA-tRNA translocation intermediates. journal of hand surgery Asian-Pacific volume, The, 2018, , 450-455.	0.4	0