# Rachel Green

List of Publications by Year
in descending order



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|---|---|---|---|
| 110 papers | 12,687 citations | 28190 55 h-index | 30848 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. | 6.0 | 765 |
| 2 | Inhibition of eukaryotic translation elongation by cycloheximide and lactimidomycin. Nature Chemical Biology, 2010, 6, 209-217. | 3.9 | 757 |
| 3 | A Parsimonious Model for Gene Regulation by miRNAs. Science, 2011, 331, 550-553. | 6.0 | 442 |
| 4 | Hypusine-containing protein eIF5A promotes translation elongation. Nature, 2009, 459, 118-121. | 13.7 | 361 |
| 5 | eIF5A Functions Globally in Translation Elongation and Termination. Molecular Cell, 2017, 66, 194-205.e5. | 4.5 | 352 |
| 6 | Ribosomopathies: Thereâ€™s strength in numbers. Science, 2017, 358, . | 6.0 | 343 |
| 7 | Dom34 Rescues Ribosomes in 3â€² Untranslated Regions. Cell, 2014, 156, 950-962. | 13.5 | 342 |
| 8 | Translation drives mRNA quality control. Nature Structural and Molecular Biology, 2012, 19, 594-601. | 3.6 | 334 |
| 9 | The Elongation, Termination, and Recycling Phases of Translation in Eukaryotes. Cold Spring Harbor Perspectives in Biology, 2012, 4, a013706-a013706. | 2.3 | 328 |
| 10 | Fidelity at the Molecular Level: Lessons from Protein Synthesis. Cell, 2009, 136, 746-762. | 13.5 | 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. | 13.5 | 315 |
| 12 | Dom34:Hbs1 Promotes Subunit Dissociation and Peptidyl-tRNA Drop-Off to Initiate No-Go Decay. Science, 2010, 330, 369-372. | 6.0 | 274 |
| 13 | Substrate-assisted catalysis of peptide bond formation by the ribosome. Nature Structural and Molecular Biology, 2004, 11, 1101-1106. | 3.6 | 264 |
| 14 | Ribosome Collisions Trigger General Stress Responses to Regulate Cell Fate. Cell, 2020, 182, 404-416.e14. | 13.5 | 253 |
| 15 | A base pair between tRNA and 23S rRNA in the peptidyl transferase centre of the ribosome. Nature, 1995, 377, 309-314. | 13.7 | 250 |
| 16 | High-Resolution Ribosome Profiling Defines Discrete Ribosome Elongation States and Translational Regulation during Cellular Stress. Molecular Cell, 2019, 73, 959-970.e5. | 4.5 | 234 |
| 17 | The DEAD-Box Protein Dhh1p Couples mRNA Decay and Translation by Monitoring Codon Optimality. Cell, 2016, 167, 122-132.e9. | 13.5 | 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. | 3.3 | 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. | 4.5 | 224 |
| 20 | High-Precision Analysis of Translational Pausing by Ribosome Profiling in Bacteria Lacking EFP. Cell Reports, 2015, 11, 13-21. | 2.9 | 219 |
| 21 | Structural basis of highly conserved ribosome recycling in eukaryotes and archaea. Nature, 2012, 482, 501-506. | 13.7 | 210 |
| 22 | Quality control by the ribosome following peptide bond formation. Nature, 2009, 457, 161-166. | 13.7 | 193 |
| 23 | An Active Role for tRNA in Decoding Beyond Codon:Anticodon Pairing. Science, 2005, 308, 1178-1180. | 6.0 | 192 |
| 24 | Rli1/ABCE1 Recycles Terminating Ribosomes and Controls Translation Reinitiation in 3â€²UTRs InÂVivo. Cell, 2015, 162, 872-884. | 13.5 | 184 |
| 25 | Can Multidrug-Resistant Candidaauris Be Reliably Identified in Clinical Microbiology Laboratories?. Journal of Clinical Microbiology, 2017, 55, 638-640. | 1.8 | 181 |
| 26 | Roadblocks and resolutions in eukaryotic translation. Nature Reviews Molecular Cell Biology, 2018, 19, 526-541. | 16.1 | 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. | 3.3 | 175 |
| 28 | Clarifying the Translational Pausing Landscape in Bacteria by Ribosome Profiling. Cell Reports, 2016, 14, 686-694. | 2.9 | 161 |
| 29 | A systematically-revised ribosome profiling method for bacteria reveals pauses at single-codon resolution. ELife, 2019, 8, . | 2.8 | 161 |
| 30 | Translation Elongation and Recoding in Eukaryotes. Cold Spring Harbor Perspectives in Biology, 2018, 10, a032649. | 2.3 | 154 |
| 31 | Ribosome pausing, arrest and rescue in bacteria and eukaryotes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160183. | 1.8 | 149 |
| 32 | The endonuclease Cue2 cleaves mRNAs at stalled ribosomes during No Go Decay. ELife, 2019, 8, . | 2.8 | 139 |
| 33 | Transformation of Chemically Competent E. coli. Methods in Enzymology, 2013, 529, 329-336. | 0.4 | 129 |
| 34 | One-dimensional SDS-Polyacrylamide Gel Electrophoresis (1D SDS-PAGE). Methods in Enzymology, 2014, 541, 151-159. | 0.4 | 129 |
| 35 | Stop codon context influences genome-wide stimulation of termination codon readthrough by aminoglycosides. ELife, 2020, 9, . | 2.8 | 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. | 4.5 | 119 |

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|---|---|---|---|
| 37 | Dynamic Regulation of a Ribosome Rescue Pathway in Erythroid Cells and Platelets. Cell Reports, 2016, 17, 1-10. | 2.9 | 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. | 2.0 | 114 |
| 39 | Molecular mechanism of translational stalling by inhibitory codon combinations and poly(A) tracts. EMBO Journal, 2020, 39, e103365. | 3.5 | 113 |
| 40 | Analysis of Dom34 and Its Function in No-Go Decay. Molecular Biology of the Cell, 2009, 20, 3025-3032. | 0.9 | 108 |
| 41 | Cryoelectron Microscopic Structures of Eukaryotic Translation Termination Complexes Containing eRF1-eRF3 or eRF1-ABCE1. Cell Reports, 2014, 8, 59-65. | 2.9 | 105 |
| 42 | Ribosomes slide on lysine-encoding homopolymeric A stretches. ELife, 2015, 4, . | 2.8 | 98 |
| 43 | Connections Underlying Translation and mRNA Stability. Journal of Molecular Biology, 2016, 428, 3558-3564. | 2.0 | 97 |
| 44 | EDF1 coordinates cellular responses to ribosome collisions. ELife, 2020, 9, . | 2.8 | 96 |
| 45 | Translational control by lysine-encoding A-rich sequences. Science Advances, 2015, 1, . | 4.7 | 94 |
| 46 | Two Distinct Components of Release Factor Function Uncovered by Nucleophile Partitioning Analysis. Molecular Cell, 2007, 28, 458-467. | 4.5 | 90 |
| 47 | Peptide Release on the Ribosome: Mechanism and Implications for Translational Control. Annual Review of Microbiology, 2008, 62, 353-373. | 2.9 | 88 |
| 48 | The interaction between C75 of tRNA and the A loop of the ribosome stimulates peptidyl transferase activity. Rna, 2006, 12, 33-39. | 1.6 | 87 |
| 49 | Coomassie Blue Staining. Methods in Enzymology, 2014, 541, 161-167. | 0.4 | 77 |
| 50 | Translation of poly(A) tails leads to precise mRNA cleavage. Rna, 2017, 23, 749-761. | 1.6 | 77 |
| 51 | Ribosome states signal RNA quality control. Molecular Cell, 2021, 81, 1372-1383. | 4.5 | 75 |
| 52 | Affinity purification of in vivo-assembled ribosomes for in vitro biochemical analysis. Methods, 2005, 36, 305-312. | 1.9 | 74 |
| 53 | Dom34-Hbs1 mediated dissociation of inactive 80S ribosomes promotes restart of translation after stress. EMBO Journal, 2014, 33, n/a-n/a. | 3.5 | 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, . | 2.8 | 73 |

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|---|---|---|---|
| 55 | Assaying RNA structure with LASER-Seq. Nucleic Acids Research, 2019, 47, 43-55. | 6.5 | 69 |
| 56 | Translational control of stem cell function. Nature Reviews Molecular Cell Biology, 2021, 22, 671-690. | 16.1 | 69 |
| 57 | Slowed decay of mRNAs enhances platelet specific translation. Blood, 2017, 129, e38-e48. | 0.6 | 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. | 4.5 | 66 |
| 59 | Regulated Ire1-dependent mRNA decay requires no-go mRNA degradation to maintain endoplasmic reticulum homeostasis in S. pombe. ELife, 2017, 6, . | 2.8 | 64 |
| 60 | Allosteric regulation of Argonaute proteins by miRNAs. Nature Structural and Molecular Biology, 2010, 17, 144-150. | 3.6 | 60 |
| 61 | Ribosome queuing enables non-AUG translation to be resistant to multiple protein synthesis inhibitors. Genes and Development, 2019, 33, 871-885. | 2.7 | 60 |
| 62 | A small molecule that induces translational readthrough of CFTR nonsense mutations by eRF1 depletion. Nature Communications, 2021, 12, 4358. | 5.8 | 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. | 3.6 | 55 |
| 64 | Puromycin reactivity does not accurately localize translation at the subcellular level. ELife, 2020, 9, . | 2.8 | 51 |
| 65 | Ribosome collisions induce mRNA cleavage and ribosome rescue in bacteria. Nature, 2022, 603, 503-508. | 13.7 | 50 |
| 66 | Recognition of aminoacyl-tRNA: a common molecular mechanism revealed by cryo-EM. EMBO Journal, 2008, 27, 3322-3331. | 3.5 | 49 |
| 67 | An evolutionarily conserved ribosome-rescue pathway maintains epidermal homeostasis. Nature, 2018, 556, 376-380. | 13.7 | 47 |
| 68 | Peptide release on the ribosome depends critically on the 2â€² OH of the peptidylâ€“tRNA substrate. Rna, 2008, 14, 1526-1531. | 1.6 | 41 |
| 69 | Inhibition of Eukaryotic Translation by the Antitumor Natural Product Agelastatin A. Cell Chemical Biology, 2017, 24, 605-613.e5. | 2.5 | 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. | 1.6 | 40 |
| 71 | The Path to Perdition Is Paved with Protons. Cell, 2002, 110, 665-668. | 13.5 | 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. | 1.6 | 34 |
| 74 | RF3:GTP promotes rapid dissociation of the class 1 termination factor. Rna, 2014, 20, 609-620. | 1.6 | 34 |
| 75 | Mechanisms that ensure speed and fidelity in eukaryotic translation termination. Science, 2021, 373, 876-882. | 6.0 | 33 |
| 76 | An expanded seed sequence definition accounts for full regulation of the hid 3â€² UTR by bantam miRNA. Rna, 2009, 15, 814-822. | 1.6 | 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. | 1.6 | 31 |
| 78 | Peptidyl transferase activity catalyzed by protein-free 23S ribosomal RNA remains elusive. Rna, 1999, 5, 605-608. | 1.6 | 30 |
| 79 | In Vitro Transcription from Plasmid or PCR-amplified DNA. Methods in Enzymology, 2013, 530, 101-114. | 0.4 | 29 |
| 80 | Distinct Roles for Release Factor 1 and Release Factor 2 in Translational Quality Control. Journal of Biological Chemistry, 2014, 289, 17589-17596. | 1.6 | 29 |
| 81 | Nuclease-mediated depletion biases in ribosome footprint profiling libraries. Rna, 2020, 26, 1481-1488. | 1.6 | 29 |
| 82 | Visualization of codon-dependent conformational rearrangements during translation termination. Nature Structural and Molecular Biology, 2010, 17, 465-470. | 3.6 | 28 |
| 83 | Saccharomyces cerevisiae Ski7 Is a GTP-Binding Protein Adopting the Characteristic Conformation of Active Translational GTPases. Structure, 2015, 23, 1336-1343. | 1.6 | 26 |
| 84 | Translational repression of NMD targets by GIGYF2 and EIF4E2. PLoS Genetics, 2021, 17, e1009813. | 1.5 | 25 |
| 85 | Evolutionarily conserved inhibitory uORFs sensitize Hox mRNA translation to start codon selection stringency. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 25 |
| 86 | Inhibition of eukaryotic translation elongation by the antitumor natural product Mycalamide B. Rna, 2011, 17, 1578-1588. | 1.6 | 23 |
| 87 | Live-cell imaging reveals kinetic determinants of quality control triggered by ribosome stalling. Molecular Cell, 2021, 81, 1830-1840.e8. | 4.5 | 23 |
| 88 | Polysome Analysis of Mammalian Cells. Methods in Enzymology, 2013, 530, 183-192. | 0.4 | 19 |
| 89 | Yeast translation elongation factor eEF3 promotes late stages of tRNA translocation. EMBO Journal, 2021, 40, e106449. | 3.5 | 19 |
| 90 | Ribosome recycling is not critical for translational coupling in Escherichia coli. ELife, 2020, 9, . | 2.8 | 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. | 1.6 | 18 |
| 92 | Rapid generation of hypomorphic mutations. Nature Communications, 2017, 8, 14112. | 5.8 | 15 |
| 93 | Synthesis at the Speed of Codons. Trends in Biochemical Sciences, 2015, 40, 717-718. | 3.7 | 14 |
| 94 | The ABC(E1)s of Ribosome Recycling and Reinitiation. Molecular Cell, 2017, 66, 578-580. | 4.5 | 14 |
| 95 | Functional elucidation of a key contact between tRNA and the large ribosomal subunit rRNA during decoding. Rna, 2010, 16, 2002-2013. | 1.6 | 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. | 6.5 | 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. | 6.6 | 7 |
| 99 | In Vitro Synthesis of Proteins in Bacterial Extracts. Methods in Enzymology, 2014, 539, 3-15. | 0.4 | 4 |
| 100 | When stop makes sense. Science, 2016, 354, 1106-1106. | 6.0 | 4 |
| 101 | Not just Salk. Science, 2017, 357, 1105-1106. | 6.0 | 4 |
| 102 | Exploring the Mechanism of Dhh1-Mediated Translational Repression. Biophysical Journal, 2015, 108, 391a. | 0.2 | 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. | 5.7 | 0 |
| 105 | Catalysis And Communication In Two Active Sites Of The Ribosome. FASEB Journal, 2007, 21, . | 0.2 | 0 |
| 106 | Conformational flexibility required for class I release factor function. FASEB Journal, 2007, 21, A647. | 0.2 | 0 |
| 107 | Mechanistic studies of ribosome function and potential implications for translational control. FASEB Journal, 2008, 22, 398.2. | 0.2 | 0 |
| 108 | Hypusineâ€containing Protein eIF5A Promotes Translation Elongation. FASEB Journal, 2010, 24, 79.2. | 0.2 | 0 |

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| 109 | mRNA surveillance is driven by translation. FASEB Journal, 2013, 27, 325.3. | 0.2 | 0 |
| 110 | Structural characterization of mRNA-tRNA translocation intermediates. journal of hand surgery Asian-Pacific volume, The, 2018, , 450-455. | 0.2 | 0 |