Jonathan D Dinman

List of Publications by Year
in descending order

134 papers	6,929 citations	47006 47 h-index	74163 75 g-index
140 all docs	140 docs citations	140 times ranked	6035 citing authors

#	Article	IF	Citations
1	A new system for naming ribosomal proteins. Current Opinion in Structural Biology, 2014, 24, 165-169.	5.7	481
2	rRNA Pseudouridylation Defects Affect Ribosomal Ligand Binding and Translational Fidelity from Yeast to Human Cells. Molecular Cell, 2011, 44, 660-666.	9.7	256
3	Trajectories of the ribosome as a Brownian nanomachine. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17492-17497.	7.1	218
4	Mechanisms and implications of programmed translational frameshifting. Wiley Interdisciplinary Reviews RNA, 2012, 3, 661-673.	6.4	178
5	Structural and functional conservation of the programmed â˜'1 ribosomal frameshift signal of SARS coronavirus 2 (SARS-CoV-2). Journal of Biological Chemistry, 2020, 295, 10741-10748.	3.4	163
6	A Three-Stemmed mRNA Pseudoknot in the SARS Coronavirus Frameshift Signal. PLoS Biology, 2005, 3, e172.	5.6	158
7	Translation Elongation and Recoding in Eukaryotes. Cold Spring Harbor Perspectives in Biology, 2018, 10, a032649.	5.5	154
8	Identification of functional, endogenous programmed â˜'1 ribosomal frameshift signals in the genome of Saccharomyces cerevisiae. Nucleic Acids Research, 2007, 35, 165-174.	14.5	145
9	An in vivo dual-luciferase assay system for studying translational recoding in the yeast Saccharomyces cerevisiae. Rna, 2003, 9, 1019-1024.	3.5	141
10	The 9-A solution: How mRNA pseudoknots promote efficient programmed -1 ribosomal frameshifting. Rna, 2003, 9, 168-174.	3.5	139
11	How Ribosomes Translate Cancer. Cancer Discovery, 2017, 7, 1069-1087.	9.4	131
12	Ribosomal frameshifting in the CCR5 mRNA is regulated by miRNAs and the NMD pathway. Nature, 2014, 512, 265-269.	27.8	130
13	Optimization of Ribosome Structure and Function by rRNA Base Modification. PLoS ONE, 2007, 2, e174.	2.5	123
14	Crystal structure of the 80S yeast ribosome. Current Opinion in Structural Biology, 2012, 22, 759-767.	5.7	120
15	Achieving a Golden Mean: Mechanisms by Which Coronaviruses Ensure Synthesis of the Correct Stoichiometric Ratios of Viral Proteins. Journal of Virology, 2010, 84, 4330-4340.	3.4	112
16	Kinetics of Ribosomal Pausing during Programmed â˜'1 Translational Frameshifting. Molecular and Cellular Biology, 2000, 20, 1095-1103.	2.3	106
17	Pokeweed Antiviral Protein Accesses Ribosomes by Binding to L3. Journal of Biological Chemistry, 1999, 274, 3859-3864.	3.4	101
18	Pathways to Specialized Ribosomes: The Brussels Lecture. Journal of Molecular Biology, 2016, 428, 2186-2194.	4.2	99

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19	An â€˜integrated modelâ€™ of programmed ribosomal frameshifting. Trends in Biochemical Sciences, 2002, 27, 448-454.	7.5	97
20	The 3â€² proximal translational enhancer of Turnip crinkle virus binds to 60S ribosomal subunits. Rna, 2008, 14, 2379-2393.	3.5	92
21	Systematic analysis of bicistronic reporter assay data. Nucleic Acids Research, 2004, 32, e160-e160.	14.5	90
22	Peptidyl-transferase inhibitors have antiviral properties by altering programmed -1 ribosomal frameshifting efficiencies: Development of model systems. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 6606-6611.	7.1	89
23	Ribosomopathies and the paradox of cellular hypo- to hyperproliferation. Blood, 2015, 125, 1377-1382.	1.4	83
24	Translating old drugs into new treatments: ribosomal frameshifting as a target for antiviral agents. Trends in Biotechnology, 1998, 16, 190-196.	9.3	81
25	The Mof2/Sui1 Protein Is a General Monitor of Translational Accuracy. Molecular and Cellular Biology, 1998, 18, 1506-1516.	2.3	81
26	The role of programmed-1 ribosomal frameshifting in coronavirus propagation. Frontiers in Bioscience - Landmark, 2008, Volume, 4873.	3.0	81
27	Programmed Ribosomal Frameshifting Generates a Copper Transporter and a Copper Chaperone from the Same Gene. Molecular Cell, 2017, 65, 207-219.	9.7	81
28	Torsional restraint: a new twist on frameshifting pseudoknots. Nucleic Acids Research, 2005, 33, 1825-1833.	14.5	80
29	The frameshift signal of HIV-1 involves a potential intramolecular triplex RNA structure. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5331-5336.	7.1	76
30	Spermidine deficiency increases +1 ribosomal frameshifting efficiency and inhibits Ty1 retrotransposition in Saccharomyces cerevisiae.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 172-176.	7.1	73
31	Bypass of the pre-60S ribosomal quality control as a pathway to oncogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5640-5645.	7.1	71
32	Human ribosomal protein L13a is dispensable for canonical ribosome function but indispensable for efficient rRNA methylation. Rna, 2007, 13, 2224-2237.	3.5	69
33	A Ribosomopathy Reveals Decoding Defective Ribosomes Driving Human Dysmorphism. American Journal of Human Genetics, 2017, 100, 506-522.	6.2	69
34	Ribosomal frameshifting in yeast viruses. Yeast, 1995, 11, 1115-1127.	1.7	68
35	Altering SARS Coronavirus Frameshift Efficiency Affects Genomic and Subgenomic RNA Production. Viruses, 2013, 5, 279-294.	3.3	67
36	Ribosomal Protein L3 Mutants Alter Translational Fidelity and Promote Rapid Loss of the Yeast Killer Virus. Molecular and Cellular Biology, 1999, 19, 384-391.	2.3	64

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37	Evaluation of Microwave-Accelerated Residue-Specific Acid Cleavage for Proteomic Applications. Journal of Proteome Research, 2008, 7, 579-586.	3.7	62
38	Ribosome Binding to a 5â€² Translational Enhancer Is Altered in the Presence of the 3â€² Untranslated Region in Cap-Independent Translation of Turnip Crinkle Virus. Journal of Virology, 2011, 85, 4638-4653.	3.4	62
39	Endogenous ribosomal frameshift signals operate as mRNA destabilizing elements through at least two molecular pathways in yeast. Nucleic Acids Research, 2011, 39, 2799-2808.	14.5	62
40	Identification of Functionally Important Amino Acids of Ribosomal Protein L3 by Saturation Mutagenesis. Molecular and Cellular Biology, 2005, 25, 10863-10874.	2.3	60
41	Ribosomal Protein L3: Gatekeeper to the A Site. Molecular Cell, 2007, 25, 877-888.	9.7	60
42	Identification of Putative Programmed â^'1 Ribosomal Frameshift Signals in Large DNA Databases. Genome Research, 1999, 9, 417-427.	5.5	60
43	Eukaryotic rpL10 drives ribosomal rotation. Nucleic Acids Research, 2014, 42, 2049-2063.	14.5	59
44	RNA dimerization plays a role in ribosomal frameshifting of the SARS coronavirus. Nucleic Acids Research, 2013, 41, 2594-2608.	14.5	56
45	Ribosomal protein L5 helps anchor peptidyl-tRNA to the P-site in Saccharomyces cerevisiae. Rna, 2001, 7, 1084-1096.	3.5	54
46	The Pokeweed Antiviral Protein Specifically Inhibits Ty 1 -Directed +1 Ribosomal Frameshifting and Retrotransposition in Saccharomyces cerevisiae. Journal of Virology, 1998, 72, 1036-1042.	3.4	52
47	PRFdb: A database of computationally predicted eukaryotic programmed -1 ribosomal frameshift signals. BMC Genomics, 2008, 9, 339.	2.8	51
48	New Targets for Antivirals: The Ribosomal A-Site and the Factors That Interact with It. Virology, 2002, 300, 60-70.	2.4	49
49	Venezuelan Equine Encephalitis Virus Induces Apoptosis through the Unfolded Protein Response Activation of EGR1. Journal of Virology, 2016, 90, 3558-3572.	3.4	48
50	Saturation Mutagenesis of 5S rRNA in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2001, 21, 8264-8275.	2.3	47
51	Comparative study of the effects of heptameric slippery site composition on -1 frameshifting among different eukaryotic systems. Rna, 2006, 12, 666-673.	3.5	45
52	Programmed â^'1 Ribosomal Frameshifting in coronaviruses: A therapeutic target. Virology, 2021, 554, 75-82.	2.4	45
53	Differentiating between Near- and Non-Cognate Codons in Saccharomyces cerevisiae. PLoS ONE, 2007, 2, e517.	2.5	45
54	Decreased peptidyltransferase activity correlates with increased programmed -1 ribosomal frameshifting and viral maintenance defects in the yeast Saccharomyces cerevisiae. Rna, 2003, 9, 982-992.	3.5	44

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55	Control of gene expression by translational recoding. Advances in Protein Chemistry and Structural Biology, 2012, 86, 129-149.	2.3	44
56	A programmed -1 ribosomal frameshift signal can function as a cis-acting mRNA destabilizing element. Nucleic Acids Research, 2004, 32, 784-790.	14.5	43
57	The many paths to frameshifting: kinetic modelling and analysis of the effects of different elongation steps on programmed â€“1 ribosomal frameshifting. Nucleic Acids Research, 2011, 39, 300-312.	14.5	42
58	Structural and functional analysis of 5S rRNA in Saccharomyces cerevisiae. Molecular Genetics and Genomics, 2005, 274, 235-247.	2.1	40
59	An Arc of Unpaired â€œHinge Basesâ€•Facilitates Information Exchange among Functional Centers of the Ribosome. Molecular and Cellular Biology, 2006, 26, 8992-9002.	2.3	40
60	Ribosomal protein L3 functions as a â€˜rocker switchâ€™ to aid in coordinating of large subunit-associated functions in eukaryotes and Archaea. Nucleic Acids Research, 2008, 36, 6175-6186.	14.5	40
61	The Kissing-Loop T-Shaped Structure Translational Enhancer of Pea Enation Mosaic Virus Can Bind Simultaneously to Ribosomes and a 5â€² Proximal Hairpin. Journal of Virology, 2013, 87, 11987-12002.	3.4	40
62	rRNA mutants in the yeast peptidyltransferase center reveal allosteric information networks and mechanisms of drug resistance. Nucleic Acids Research, 2008, 36, 1497-1507.	14.5	38
63	Reprogramming the genetic code: The emerging role of ribosomal frameshifting in regulating cellular gene expression. BioEssays, 2016, 38, 21-26.	2.5	38
64	Ablation of Programmed â^'1 Ribosomal Frameshifting in Venezuelan Equine Encephalitis Virus Results in Attenuated Neuropathogenicity. Journal of Virology, 2017, 91, .	3.4	38
65	Structural and Functional Characterization of Programmed Ribosomal Frameshift Signals in West Nile Virus Strains Reveals High Structural Plasticity Among cis-Acting RNA Elements. Journal of Biological Chemistry, 2016, 291, 15788-15795.	3.4	37
66	The Upf3 protein is a component of the surveillance complex that monitors both translation and mRNA turnover and affects viral propagation. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 8721-8726.	7.1	36
67	Mutations in the MOF2/SUI1 gene affect both translation and nonsense-mediated mRNA decay. Rna, 1999, 5, 794-804.	3.5	35
68	The Eukaryotic Ribosome: Current Status and Challenges. Journal of Biological Chemistry, 2009, 284, 11761-11765.	3.4	35
69	A molecular clamp ensures allosteric coordination of peptidyltransfer and ligand binding to the ribosomal A-site. Nucleic Acids Research, 2010, 38, 7800-7813.	14.5	34
70	Integration of Residue-Specific Acid Cleavage into Proteomic Workflows. Journal of Proteome Research, 2007, 6, 4525-4527.	3.7	33
71	Major sperm protein genes from Onchocerca volvulus. Molecular and Biochemical Parasitology, 1989, 36, 119-126.	1.1	32
72	Evidence against a direct role for the Upf proteins in frameshifting or nonsense codon readthrough. Rna, 2004, 10, 1721-1729.	3.5	32

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73	A new kinetic model reveals the synergistic effect of E-, P- and A-sites on +1 ribosomal frameshifting. Nucleic Acids Research, 2008, 36, 2619-2629.	14.5	31
74	Ribosomal Protein L3: Influence on Ribosome Structure and Function. RNA Biology, 2004, 1, 58-64.	3.1	30
75	Yeast ribosomal protein L10 helps coordinate tRNA movement through the large subunit. Nucleic Acids Research, 2008, 36, 6187-6198.	14.5	30
76	Delayed rRNA Processing Results in Significant Ribosome Biogenesis and Functional Defects. Molecular and Cellular Biology, 2003, 23, 1602-1613.	2.3	29
77	Cell cycle control (and more) by programmed â˜1 ribosomal frameshifting: implications for disease and therapeutics. Cell Cycle, 2015, 14, 172-178.	2.6	29
78	Programmed Ribosomal Frameshifting Goes beyond Viruses. Microbe Magazine, 2006, 1, 521-527.	0.4	29
79	Specific Effects of Ribosome-Tethered Molecular Chaperones on Programmed â˜1 Ribosomal Frameshifting. Eukaryotic Cell, 2006, 5, 762-770.	3.4	28
80	Ribosomal protein gene RPL9 variants can differentially impair ribosome function and cellular metabolism. Nucleic Acids Research, 2020, 48, 770-787.	14.5	28
81	Cloning and Characterization of a Human Genotoxic and Endoplasmic Reticulum Stress-inducible cDNA That Encodes Translation Initiation Factor 1(eIF1A121/SUI1). Journal of Biological Chemistry, 1999, 274, 16487-16493.	3.4	27
82	Yeast telomere maintenance is globally controlled by programmed ribosomal frameshifting and the nonsense-mediated mRNA decay pathway. Translation, 2013, 1, e24418.	2.9	27
83	High throughput structural analysis of yeast ribosomes using hSHAPE. RNA Biology, 2011, 8, 478-487.	3.1	26
84	Single-Molecule Measurements of the CCR5 mRNA Unfolding Pathways. Biophysical Journal, 2014, 106, 244-252.	0.5	26
85	Small molecule inhibitors of Ago2 decrease Venezuelan equine encephalitis virus replication. Antiviral Research, 2014, 112, 26-37.	4.1	26
86	Ty1 Retrotransposition and Programmed +1 Ribosomal Frameshifting Require the Integrity of the Protein Synthetic Translocation Step. Virology, 2001, 286, 216-224.	2.4	25
87	Structure/function analysis of yeast ribosomal protein L2. Nucleic Acids Research, 2008, 36, 1826-1835.	14.5	25
88	Subtractional Heterogeneity: A Crucial Step toward Defining Specialized Ribosomes. Molecular Cell, 2017, 67, 3-4.	9.7	25
89	A flexible loop in yeast ribosomal protein L11 coordinates P-site tRNA binding. Nucleic Acids Research, 2010, 38, 8377-8389.	14.5	24
90	An Extensive Network of Information Flow through the B1b/c Intersubunit Bridge of the Yeast Ribosome. PLoS ONE, 2011, 6, e20048.	2.5	24

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91	Mutations of highly conserved bases in the peptidyltransferase center induce compensatory rearrangements in yeast ribosomes. Rna, 2011, 17, 855-864.	3.5	23
92	Ribosomal Lesions Promote Oncogenic Mutagenesis. Cancer Research, 2019, 79, 320-327.	0.9	22
93	Identifying Inhibitors of â˜1 Programmed Ribosomal Frameshifting in a Broad Spectrum of Coronaviruses. Viruses, 2022, 14, 177.	3.3	21
94	Functional and structural characterization of the chikungunya virus translational recoding signals. Journal of Biological Chemistry, 2018, 293, 17536-17545.	3.4	20
95	A C-Terminal Deletion Mutant of Pokeweed Antiviral Protein Inhibits Programmed +1 Ribosomal Frameshifting and Ty1 Retrotransposition without Depurinating the Sarcin/Ricin Loop of rRNA. Virology, 2001, 279, 292-301.	2.4	19
96	5S rRNA: Structure and Function from Head to Toe. International Journal of Biomedical Science, 2005, 1, 2-7.	0.1	18
97	Enhanced purity, activity and structural integrity of yeast ribosomes purified using a general chromatographic method. RNA Biology, 2010, 7, 354-360.	3.1	17
98	The Functional Role of eL19 and eB12 Intersubunit Bridge in the Eukaryotic Ribosome. Journal of Molecular Biology, 2016, 428, 2203-2216.	4.2	17
99	Crystal Structures of the uL3 Mutant Ribosome: Illustration of the Importance of Ribosomal Proteins for Translation Efficiency. Journal of Molecular Biology, 2016, 428, 2195-2202.	4.2	17
100	Tracking fluctuation hotspots on the yeast ribosome through the elongation cycle. Nucleic Acids Research, 2017, 45, 4958-4971.	14.5	17
101	EGR1 upregulation following Venezuelan equine encephalitis virus infection is regulated by ERK and PERK pathways contributing to cell death. Virology, 2020, 539, 121-128.	2.4	16
102	Molecular cloning of a gene expressed during early embryonic development in Onchocerca volvulus. Molecular and Biochemical Parasitology, 1995, 69, 161-171.	1.1	14
103	Translational recoding signals: Expanding the synthetic biology toolbox. Journal of Biological Chemistry, 2019, 294, 7537-7545.	3.4	14
104	A rapid, inexpensive yeast-based dual-fluorescence assay of programmedâ€"1 ribosomal frameshifting for high-throughput screening. Nucleic Acids Research, 2011, 39, e97-e97.	14.5	13
105	Ribosomal protein uS19 mutants reveal its role in coordinating ribosome structure and function. Translation, 2015, 3, e1117703.	2.9	13
106	The Expanding Riboverse. Cells, 2019, 8, 1205.	4.1	13
107	CCR 5 RNA Pseudoknots: Residue and Siteâ€Specific Labeling correlate Internal Motions with microRNA Binding. Chemistry - A European Journal, 2018, 24, 5462-5468.	3.3	12
108	EGR1 Upregulation during Encephalitic Viral Infections Contributes to Inflammation and Cell Death. Viruses, 2022, 14, 1210.	3.3	12

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109	<i>De Novo</i> variants in <i>EEF2</i> cause a neurodevelopmental disorder with benign external hydrocephalus. Human Molecular Genetics, 2021, 29, 3892-3899.	2.9	11
110	Onchocerca volvulus: Molecular cloning, primary structure, and expression of a microfilarial surface-associated antigen. Experimental Parasitology, 1990, 71, 176-188.	1.2	10
111	Still Searching for Specialized Ribosomes. Developmental Cell, 2019, 48, 744-746.	7.0	10
112	XIV. Yeast sequencing reports. Sequence ofMKT1, needed for propagation of M2 satellite dsRNA of the L-A virus ofSaccharomyces cerevisiae. Yeast, 1994, 10, 1477-1479.	1.7	9
113	The case for the involvement of the Upf3p in programmed âˆ'1 ribosomal frameshifting. Rna, 2000, 6, 1685-1686.	3.5	8
114	5S rRNA: Structure and Function from Head to Toe. International Journal of Biomedical Science, 2005, 1, 1-7.	0.1	8
115	Mutants That Affect Recoding. Nucleic Acids and Molecular Biology, 2010, , 321-344.	0.2	7
116	The central core region of yeast ribosomal protein L11 is important for subunit joining and translational fidelity. Molecular Genetics and Genomics, 2011, 285, 505-516.	2.1	6
117	Evolution of a helper virus-derived, ribosome binding translational enhancer in an untranslated satellite RNA of Turnip crinkle virus. Virology, 2011, 419, 10-16.	2.4	5
118	Ribosomes in the balance: structural equilibrium ensures translational fidelity and proper gene expression. Nucleic Acids Research, 2014, 42, 13384-13392.	14.5	5
119	Activation of the unfolded protein response in sarcoma cells treated with rapamycin or temsirolimus. PLoS ONE, 2017, 12, e0185089.	2.5	5
120	Slippery ribosomes prefer shapeshifting mRNAs. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19225-19227.	7.1	5
121	PERK Is Critical for Alphavirus Nonstructural Protein Translation. Viruses, 2021, 13, 892.	3.3	5
122	Improved Purification of the Double-Stranded RNA from Killer Strains of Yeast. BioTechniques, 2000, 28, 64-65.	1.8	4
123	Chromatographic Purification of Highly Active Yeast Ribosomes. Journal of Visualized Experiments, 2011, , .	0.3	3
124	Scaring Ribosomes Shiftless. Biochemistry, 2019, 58, 1831-1832.	2.5	3
125	Programmed â€"1 Ribosomal Frameshifting in SARS Coronavirus. , 2010, , 63-72.		3
126	Efficient expression of the 15-kDa form of infectious pancreatic necrosis virus VP5 by suppression of a UGA codon. Virus Research, 2006, 122, 61-68.	2.2	2

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127	Two Ribosomes Are Better Than One... Sometimes. Molecular Cell, 2020, 79, 541-543.	9.7	2
128	Trajectories of the ribosome as a Brownian nanomachine. journal of hand surgery Asian-Pacific volume, The, 2018, , 463-475.	0.4	2
129	Shapeshifting RNAs guide innate immunity. Journal of Biological Chemistry, 2018, 293, 16125-16126.	3.4	1
130	Expanding the Ribosomal Universe. Structure, 2009, 17, 1547-1548.	3.3	0
131	Entry signals control development. Nature, 2015, 517, 24-25.	27.8	0
132	Characterization of breast tumor metabolites reâ€editing macrophage function. FASEB Journal, 2008, 22, 1076.22.	0.5	0
133	Structural Analyses of the Ribosome by Chemical Modification Methods. , 2012, , 69-81.		0
134	Effect of 3`-Azido-3`-Deoxythymidine (AZT) on Telomerase Activity and Proliferation of HO-8910 Cell Line of Ovarian Cancer. International Journal of Biomedical Science, 2006, 2, 41.	0.1	0