Evgeny Nudler

List of Publications by Year
in descending order

138 papers	13,904 citations	20759 60 h-index	22764 112 g-index
149 all docs	149 docs citations	149 times ranked	12202 citing authors

#	Article	IF	Citations
1	A Decade of Riboswitches. Cell, 2013, 152, 17-24.	13.5	877
2	Sensing Small Molecules by Nascent RNA. Cell, 2002, 111, 747-756.	13.5	624
3	H ₂ S: A Universal Defense Against Antibiotics in Bacteria. Science, 2011, 334, 986-990.	6.0	614
4	The riboswitch control of bacterial metabolism. Trends in Biochemical Sciences, 2004, 29, 11-17.	3.7	505
5	Cooperation Between Translating Ribosomes and RNA Polymerase in Transcription Elongation. Science, 2010, 328, 504-508.	6.0	475
6	The RNAâ€“DNA Hybrid Maintains the Register of Transcription by Preventing Backtracking of RNA Polymerase. Cell, 1997, 89, 33-41.	13.5	423
7	Endogenous Nitric Oxide Protects Bacteria Against a Wide Spectrum of Antibiotics. Science, 2009, 325, 1380-1384.	6.0	346
8	The Mechanism of Intrinsic Transcription Termination. Molecular Cell, 1999, 3, 495-504.	4.5	341
9	RNA-mediated response to heat shock in mammalian cells. Nature, 2006, 440, 556-560.	13.7	327
10	A Ratchet Mechanism of Transcription Elongation and Its Control. Cell, 2005, 120, 183-193.	13.5	311
11	Linking RNA Polymerase Backtracking to Genome Instability in E.Âcoli. Cell, 2011, 146, 533-543.	13.5	296
12	Termination Factor Rho and Its Cofactors NusA and NusG Silence Foreign DNA in <i>E. coli</i>. Science, 2008, 320, 935-938.	6.0	266
13	NO-mediated cytoprotection: Instant adaptation to oxidative stress in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13855-13860.	3.3	250
14	Transcription-replication encounters, consequences and genomic instability. Nature Structural and Molecular Biology, 2013, 20, 412-418.	3.6	230
15	The riboswitch-mediated control of sulfur metabolism in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5052-5056.	3.3	229
16	RNA Polymerase Backtracking in Gene Regulation and Genome Instability. Cell, 2012, 149, 1438-1445.	13.5	214
17	UvrD facilitates DNA repair by pulling RNA polymerase backwards. Nature, 2014, 505, 372-377.	13.7	210
18	Cooperation Between RNA Polymerase Molecules in Transcription Elongation. Science, 2003, 300, 801-805.	6.0	201

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19	Transcription termination and anti-termination in E. coli. Genes To Cells, 2002, 7, 755-768.	0.5	189
20	<i>Bacillus anthracis</i> -derived nitric oxide is essential for pathogen virulence and survival in macrophages. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1009-1013.	3.3	183
21	Riboswitch control of Rho-dependent transcription termination. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5376-5381.	3.3	182
22	Transcription through the roadblocks: the role of RNA polymerase cooperation. EMBO Journal, 2003, 22, 4719-4727.	3.5	173
23	sRNA-Mediated Control of Transcription Termination in E.Âcoli. Cell, 2016, 167, 111-121.e13.	13.5	173
24	Extensive functional overlap between Ïƒ factors in Escherichia coli. Nature Structural and Molecular Biology, 2006, 13, 806-814.	3.6	163
25	Bacterial Nitric Oxide Extends the Lifespan of C.Âelegans. Cell, 2013, 152, 818-830.	13.5	163
26	An allosteric mechanism of Rho-dependent transcription termination. Nature, 2010, 463, 245-249.	13.7	158
27	Riboswitch-dependent gene regulation and its evolution in the plant kingdom. Genes and Development, 2007, 21, 2874-2879.	2.7	156
28	Mechanism of H ₂ S-mediated protection against oxidative stress in <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6022-6027.	3.3	156
29	Control of Intrinsic Transcription Termination by N and NusA. Cell, 2001, 107, 437-449.	13.5	150
30	Structural basis of ER-associated protein degradation mediated by the Hrd1 ubiquitin ligase complex. Science, 2020, 368, .	6.0	143
31	The translation elongation factor eEF1A1 couples transcription to translation during heat shock response. ELife, 2014, 3, e03164.	2.8	140
32	Coupling between transcription termination and RNA polymerase inchworming. Cell, 1995, 81, 351-357.	13.5	138
33	Catalysis of S-nitrosothiols formation by serum albumin: The mechanism and implication in vascular control. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5913-5918.	3.3	134
34	Bacterial Nitric-oxide Synthases Operate without a Dedicated Redox Partner. Journal of Biological Chemistry, 2008, 283, 13140-13147.	1.6	134
35	RNA Polymerase Active Center: The Molecular Engine of Transcription. Annual Review of Biochemistry, 2009, 78, 335-361.	5.0	132
36	Transcription inactivation through local refolding of the RNA polymerase structure. Nature, 2009, 457, 332-335.	13.7	131

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37	RNA polymerase holoenzyme: structure, function and biological implications. Current Opinion in Microbiology, 2003, 6, 93-100.	2.3	129
38	Targeting eEF1A by a<i>Legionella pneumophila</i>effector leads to inhibition of protein synthesis and induction of host stress response. Cellular Microbiology, 2009, 11, 911-926.	1.1	128
39	Purification of Bacterial RNA Polymerase: Tools and Protocols. Methods in Molecular Biology, 2015, 1276, 13-29.	0.4	123
40	Rates and mechanisms of bacterial mutagenesis from maximum-depth sequencing. Nature, 2016, 534, 693-696.	13.7	118
41	Structural Basis of Dot1L Stimulation by Histone H2B Lysine 120ÂUbiquitination. Molecular Cell, 2019, 74, 1010-1019.e6.	4.5	115
42	An Allosteric Path to Transcription Termination. Molecular Cell, 2007, 28, 991-1001.	4.5	114
43	RNA polymerase: the vehicle of transcription. Trends in Microbiology, 2008, 16, 126-134.	3.5	114
44	RNA polymerase and the ribosome: the close relationship. Current Opinion in Microbiology, 2013, 16, 112-117.	2.3	114
45	Isolation and Characterization of Ïƒ70-Retaining Transcription Elongation Complexes from Escherichia coli. Cell, 2001, 106, 443-451.	13.5	113
46	Inhibitors of bacterial H ₂ S biogenesis targeting antibiotic resistance and tolerance. Science, 2021, 372, 1169-1175.	6.0	112
47	ppGpp couples transcription to DNA repair in <i>E. coli</i>. Science, 2016, 352, 993-996.	6.0	109
48	Therapeutic Effect of Exogenous Hsp70 in Mouse Models of Alzheimer's Disease. Journal of Alzheimer's Disease, 2013, 38, 425-435.	1.2	106
49	Transcription elongation: structural basis and mechanisms. Journal of Molecular Biology, 1999, 288, 1-12.	2.0	103
50	Glycogen controls Caenorhabditis elegans lifespan and resistance to oxidative stress. Nature Communications, 2017, 8, 15868.	5.8	99
51	Thermodynamic and kinetic modeling of transcriptional pausing. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4439-4444.	3.3	98
52	Structure of RNA polymerase bound to ribosomal 30S subunit. ELife, 2017, 6, .	2.8	87
53	Methicillin-resistant Staphylococcus aureus Bacterial Nitric-oxide Synthase Affects Antibiotic Sensitivity and Skin Abscess Development. Journal of Biological Chemistry, 2013, 288, 6417-6426.	1.6	85
54	The Ratcheted and Ratchetable Structural States of RNA Polymerase Underlie Multiple Transcriptional Functions. Molecular Cell, 2015, 57, 408-421.	4.5	85

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55	Exogenous Hsp70 delays senescence and improves cognitive function in aging mice. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 16006-16011.	3.3	84
56	Paf1C regulates RNA polymerase II progression by modulating elongation rate. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14583-14592.	3.3	83
57	Assessment of nitric oxide signals by triiodide chemiluminescence. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2157-2162.	3.3	82
58	Structure of the Cdc48 ATPase with its ubiquitin-binding cofactor Ufd1â€“Npl4. Nature Structural and Molecular Biology, 2018, 25, 616-622.	3.6	82
59	Histidine-tagged RNA polymerase of Escherichia coli and transcription in solid phase. Methods in Enzymology, 1996, 274, 326-334.	0.4	79
60	Design of Peptoid-peptide Macrocycles to Inhibit the Î²-catenin TCF Interaction in Prostate Cancer. Nature Communications, 2018, 9, 4396.	5.8	66
61	Functional regions of the Nâ€terminal domain of the antiterminator RfaH. Molecular Microbiology, 2010, 76, 286-301.	1.2	63
62	Flipping Riboswitches. Cell, 2006, 126, 19-22.	13.5	62
63	Transcription regulatory elements are punctuation marks for DNA replication. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7276-7281.	3.3	62
64	H ₂ S, a Bacterial Defense Mechanism against the Host Immune Response. Infection and Immunity, 2019, 87, .	1.0	62
65	Pre-termination Transcription Complex: Structure and Function. Molecular Cell, 2021, 81, 281-292.e8.	4.5	62
66	The elongation factor RfaH and the initiation factor Ïƒ bind to the same site on the transcription elongation complex. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 865-870.	3.3	60
67	Mechanistic insights into transcription coupled DNA repair. DNA Repair, 2017, 56, 42-50.	1.3	55
68	Structures of monomeric and dimeric PRC2:EZH1 reveal flexible modules involved in chromatin compaction. Nature Communications, 2021, 12, 714.	5.8	54
69	Basic mechanism of transcription by RNA polymerase II. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2013, 1829, 20-28.	0.9	52
70	The Molecular Architecture of Native BBSome Obtained by an Integrated Structural Approach. Structure, 2019, 27, 1384-1394.e4.	1.6	51
71	Bacteriophage T4 Alc protein: A transcription termination factor sensing local modification of DNA. Cell, 1993, 75, 147-154.	13.5	50
72	A Unified Model of Transcription Elongation: What Have We Learned from Single-Molecule Experiments?. Biophysical Journal, 2011, 100, 1157-1166.	0.2	50

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73	Phosphorylation of Ser8 promotes zinc-induced dimerization of the amyloid-Î² metal-binding domain. Molecular BioSystems, 2014, 10, 2590-2596.	2.9	49
74	Bacterial gasotransmitters: an innate defense against antibiotics. Current Opinion in Microbiology, 2014, 21, 13-17.	2.3	47
75	Dietary thiols accelerate aging of C. elegans. Nature Communications, 2021, 12, 4336.	5.8	44
76	Mechanism of biofilm-mediated stress resistance and lifespan extension in C. elegans. Scientific Reports, 2017, 7, 7137.	1.6	43
77	Rethinking transcription coupled DNA repair. Current Opinion in Microbiology, 2015, 24, 15-20.	2.3	42
78	Natural RNA Polymerase Aptamers Regulate Transcription in E. coli. Molecular Cell, 2017, 67, 30-43.e6.	4.5	42
79	Trigger loop folding determines transcription rate of <i>Escherichia coliâ€™s</i> RNA polymerase. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 743-748.	3.3	41
80	New HSF1 inducer as a therapeutic agent in a rodent model of Parkinson's disease. Experimental Neurology, 2018, 306, 199-208.	2.0	41
81	The structure of a virus-encoded nucleosome. Nature Structural and Molecular Biology, 2021, 28, 413-417.	3.6	40
82	Cryo-EM structure of the human CSTâ€“PolÎ±/primase complex in a recruitment state. Nature Structural and Molecular Biology, 2022, 29, 813-819.	3.6	40
83	Macromolecular micromovements: how RNA polymerase translocates. Current Opinion in Structural Biology, 2009, 19, 701-707.	2.6	37
84	Methods of Walking with the RNA Polymerase. Methods in Enzymology, 2003, 371, 160-169.	0.4	35
85	Gene Control by Large Noncoding RNAs. Science's STKE: Signal Transduction Knowledge Environment, 2006, 2006, pe40-pe40.	4.1	35
86	Control of Plasma Nitric Oxide Bioactivity by Perfluorocarbons. Circulation, 2004, 110, 3573-3580.	1.6	32
87	Tagetitoxin Inhibits RNA Polymerase through Trapping of the Trigger Loop. Journal of Biological Chemistry, 2011, 286, 40395-40400.	1.6	31
88	The RNA polymerase bridge helix YFI motif in catalysis, fidelity and translocation. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2013, 1829, 187-198.	0.9	31
89	Riboswitches in regulation of Rho-dependent transcription termination. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2014, 1839, 974-977.	0.9	29
90	Crucial role and mechanism of transcription-coupled DNA repair in bacteria. Nature, 2022, 604, 152-159.	13.7	29

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91	Hsp70 chaperone rescues C6 rat glioblastoma cells from oxidative stress by sequestration of aggregating GAPDH. Biochemical and Biophysical Research Communications, 2016, 470, 766-771.	1.0	28
92	Dynamics of endogenous Hsp70 synthesis in the brain of olfactory bulbectomized mice. Cell Stress and Chaperones, 2013, 18, 109-118.	1.2	26
93	Template Switching by RNA Polymerase II In Vivo. Molecular Cell, 2002, 10, 1495-1502.	4.5	25
94	A Magic Spot in Genome Maintenance. Trends in Genetics, 2017, 33, 58-67.	2.9	24
95	RNA polymerase stalls in a post-translocated register and can hyper-translocate. Transcription, 2012, 3, 260-269.	1.7	23
96	Rho-dependent transcription termination: a revisionist view. Transcription, 2021, 12, 171-181.	1.7	23
97	TRAF6 functions as a tumor suppressor in myeloid malignancies by directly targeting MYC oncogenic activity. Cell Stem Cell, 2022, 29, 298-314.e9.	5.2	23
98	Protein S-Nitrosylation: Enzymatically Controlled, but Intrinsically Unstable, Post-translational Modification. Molecular Cell, 2018, 69, 351-353.	4.5	22
99	Transcription factor YcjW controls the emergency H2S production in E. coli. Nature Communications, 2019, 10, 2868.	5.8	22
100	Pervasive Transcription-coupled DNA repair in E. coli. Nature Communications, 2022, 13, 1702.	5.8	22
101	Allosteric Activation of SARS-CoV-2 RNA-Dependent RNA Polymerase by Remdesivir Triphosphate and Other Phosphorylated Nucleotides. MBio, 2021, 12, e0142321.	1.8	20
102	Isolation and Characterization of the Heat Shock RNA 1. Methods in Molecular Biology, 2009, 540, 265-279.	0.4	20
103	CydDC functions as a cytoplasmic cystine reductase to sensitize <i>Escherichia coli</i> to oxidative stress and aminoglycosides. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 23565-23570.	3.3	19
104	Upregulation of cystathionine Î²â€synthase and p70S6K/S6 in neonatal hypoxic ischemic brain injury. Brain Pathology, 2017, 27, 449-458.	2.1	16
105	Extracellular GAPDH Promotes Alzheimer Disease Progression by Enhancing Amyloid-Î² Aggregation and Cytotoxicity. , 2021, 12, 1223.		16
106	Analysing the fitness cost of antibiotic resistance to identify targets for combination antimicrobials. Nature Microbiology, 2021, 6, 1410-1423.	5.9	16
107	Inheritance of repressed chromatin domains during S phase requires the histone chaperone NPM1. Science Advances, 2022, 8, eabm3945.	4.7	15
108	Adaptive Mutations In RNA-Based Regulatory Mechanisms: Computational and Experimental Investigations. Israel Journal of Ecology and Evolution, 2006, 52, 263-279.	0.2	14

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109	S-Nitrosylation Signaling in <i>Escherichia coli</i>. Science Signaling, 2012, 5, pe26.	1.6	14
110	Analysis of the Intrinsic Transcription Termination Mechanism and Its Control. Methods in Enzymology, 2003, 371, 369-382.	0.4	13
111	Glycogen at the Crossroad of Stress Resistance, Energy Maintenance, and Pathophysiology of Aging. BioEssays, 2018, 40, e1800033.	1.2	13
112	iRAPs curb antisense transcription in E. coli. Nucleic Acids Research, 2019, 47, 10894-10905.	6.5	12
113	Reactive oxygen species as the long arm of bactericidal antibiotics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9696-9698.	3.3	12
114	Unfolding the Bridge between Transcription and Translation. Cell, 2012, 150, 243-245.	13.5	11
115	S-nitrosylation of peroxiredoxin 1 contributes to viability of lung epithelial cells during Bacillus anthracis infection. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 3019-3029.	1.1	11
116	Variation in FPOP Measurements Is Primarily Caused by Poor Peptide Signal Intensity. Journal of the American Society for Mass Spectrometry, 2018, 29, 1901-1907.	1.2	11
117	Clamping the clamp of RNA polymerase. EMBO Journal, 2011, 30, 1190-1191.	3.5	9
118	Antibiotic killing through oxidized nucleotides. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1967-1969.	3.3	9
119	Jamming the ratchet of transcription. Nature Structural and Molecular Biology, 2008, 15, 777-779.	3.6	8
120	Transcriptional Approaches to Riboswitch Studies. Methods in Molecular Biology, 2009, 540, 39-51.	0.4	7
121	Looking for a promoter in 3D. Nature Structural and Molecular Biology, 2013, 20, 141-142.	3.6	7
122	PIM1 phosphorylation of the androgen receptor and 14-3-3 Î¶ regulates gene transcription in prostate cancer. Communications Biology, 2021, 4, 1221.	2.0	7
123	Characterization of Proteinâ€"Nucleic Acid Interactions that are Required for Transcription Processivity. Methods in Enzymology, 2003, 371, 179-190.	0.4	5
124	Ratcheting of RNA polymerase toward structural principles of RNA polymerase operations. Transcription, 2015, 6, 56-60.	1.7	5
125	Exposure to DMSO during infancy alters neurochemistry, social interactions, and brain morphology in longâ€evans rats. Brain and Behavior, 2021, 11, e02146.	1.0	5
126	Modular RNA Heats Up. Molecular Cell, 2008, 29, 415-417.	4.5	4

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127	Towards the unified principles of transcription termination. EMBO Journal, 2020, 39, e104112.	3.5	4
128	Unbiased proteomic mapping of the LINE-1 promoter using CRISPR Cas9. Mobile DNA, 2021, 12, 21.	1.3	4
129	Site-specific photolabile roadblocks for the study of transcription elongation in biologically complex systems. Communications Biology, 2022, 5, 457.	2.0	4
130	Response to Klyuyev and Vassylyev: On the mechanism of tagetitoxin inhibition of transcription. Transcription, 2012, 3, 51-55.	1.7	3
131	The very hungry bactericidal antibiotics. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	3
132	Strategies and Methods of Transcription-Coupled Repair Studies In Vitro and In Vivo. Methods in Enzymology, 2017, 591, 287-306.	0.4	2
133	Reading of the nonâ€template DNA by transcription elongation factors. Molecular Microbiology, 2018, 109, 417-421.	1.2	2
134	MPTH-24. CYSTATHIONE Î²-SYNTHASE EXPRESSION IN ASTROCYTOMAS INCREASES WITH HISTOPATHOLOGICAL GRADE. Neuro-Oncology, 2016, 18, vi111-vi111.	0.6	0
135	CBMT-21. ALTERATIONS OF CYSTEINE METABOLISM IN GENETIC VARIANTS OF HIGH GRADE GLIOMAS. Neuro-Oncology, 2018, 20, vi37-vi37.	0.6	0
136	A New Look at Transcriptionâ€Coupled DNA Repair. FASEB Journal, 2015, 29, 490.2.	0.2	0
137	Uncovering Caprin1's biological role to understand it's function in autism. FASEB Journal, 2019, 33, 460.8.	0.2	0
138	Dynamics of Mismatch and Alternative Excision-Dependent Repair in Replicating Bacillus subtilis DNA Examined Under Conditions of Neutral Selection. Frontiers in Microbiology, 0, 13, .	1.5	0