

# Matthew S Sachs

## List of Publications by Year in descending order

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70  
papers

7,614  
citations

109137

35  
h-index

95083

68  
g-index

116  
all docs

116  
docs citations

116  
times ranked

7610  
citing authors

#	ARTICLE	IF	CITATIONS
1	The genome sequence of the filamentous fungus <i>Neurospora crassa</i> . <i>Nature</i> , 2003, 422, 859-868.	13.7	1,528
2	Sequencing of <i>Aspergillus nidulans</i> and comparative analysis with <i>A. fumigatus</i> and <i>A. oryzae</i> . <i>Nature</i> , 2005, 438, 1105-1115.	13.7	1,250
3	Lessons from the Genome Sequence of <i>Neurospora crassa</i> : Tracing the Path from Genomic Blueprint to Multicellular Organism. <i>Microbiology and Molecular Biology Reviews</i> , 2004, 68, 1-108.	2.9	572
4	Codon Usage Influences the Local Rate of Translation Elongation to Regulate Co-translational Protein Folding. <i>Molecular Cell</i> , 2015, 59, 744-754.	4.5	476
5	Non-optimal codon usage affects expression, structure and function of clock protein FRQ. <i>Nature</i> , 2013, 495, 111-115.	13.7	357
6	Early nonsense: mRNA decay solves a translational problem. <i>Nature Reviews Molecular Cell Biology</i> , 2006, 7, 415-425.	16.1	235
7	Enabling a Community to Dissect an Organism: Overview of the <i>Neurospora</i> Functional Genomics Project. <i>Advances in Genetics</i> , 2007, 57, 49-96.	0.8	191
8	Redundancy of the Two Dicer Genes in Transgene-Induced Posttranscriptional Gene Silencing in <i>Neurospora crassa</i> . <i>Molecular and Cellular Biology</i> , 2004, 24, 2536-2545.	1.1	183
9	The Antidepressant Sertraline Provides a Promising Therapeutic Option for Neurotropic Cryptococcal Infections. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 3758-3766.	1.4	157
10	Ribosome Occupancy of the Yeast CPA1 Upstream Open Reading Frame Termination Codon Modulates Nonsense-Mediated mRNA Decay. <i>Molecular Cell</i> , 2005, 20, 449-460.	4.5	144
11	Site-Specific Release of Nascent Chains from Ribosomes at a Sense Codon. <i>Molecular and Cellular Biology</i> , 2008, 28, 4227-4239.	1.1	143
12	Initiation context modulates autoregulation of eukaryotic translation initiation factor 1 (eIF1). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 18056-18060.	3.3	125
13	Developmental expression of genes involved in conidiation and amino acid biosynthesis in <i>Neurospora crassa</i> . <i>Developmental Biology</i> , 1991, 148, 117-128.	0.9	107
14	Evolutionary Roles of Upstream Open Reading Frames in Mediating Gene Regulation in Fungi. <i>Annual Review of Microbiology</i> , 2009, 63, 385-409.	2.9	105
15	Stringency of start codon selection modulates autoregulation of translation initiation factor eIF5. <i>Nucleic Acids Research</i> , 2012, 40, 2898-2906.	6.5	99
16	Genome-Wide Characterization of Light-Regulated Genes in <i>Neurospora crassa</i> . <i>G3: Genes, Genomes, Genetics</i> , 2014, 4, 1731-1745.	0.8	82
17	A nascent polypeptide domain that can regulate translation elongation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 4059-4064.	3.3	78
18	Transcriptional Profiling of Cross Pathway Control in <i>Neurospora crassa</i> and Comparative Analysis of the Gcn4 and CPC1 Regulons. <i>Eukaryotic Cell</i> , 2007, 6, 1018-1029.	3.4	73

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19	Reconstruction and Validation of a Genome-Scale Metabolic Model for the Filamentous Fungus <i>Neurospora crassa</i> Using FARM. <i>PLoS Computational Biology</i> , 2013, 9, e1003126.	1.5	70
20	Ribosome Reinitiation Directs Gene-specific Translation and Regulates the Integrated Stress Response. <i>Journal of Biological Chemistry</i> , 2015, 290, 28257-28271.	1.6	68
21	Arginine-specific Regulation Mediated by the <i>Neurospora crassa</i> arg-2 Upstream Open Reading Frame in a Homologous, Cell-free in Vitro Translation System. <i>Journal of Biological Chemistry</i> , 1997, 272, 255-261.	1.6	66
22	A Highly Conserved Mechanism of Regulated Ribosome Stalling Mediated by Fungal Arginine Attenuator Peptides That Appears Independent of the Charging Status of Arginyl-tRNAs. <i>Journal of Biological Chemistry</i> , 1999, 274, 37565-37574.	1.6	63
23	Toeprint analysis of the positioning of translation apparatus components at initiation and termination codons of fungal mRNAs. <i>Methods</i> , 2002, 26, 105-114.	1.9	63
24	Conserved Upstream Open Reading Frame Nascent Peptides That Control Translation. <i>Annual Review of Genetics</i> , 2020, 54, 237-264.	3.2	62
25	Downstream control of upstream open reading frames. <i>Genes and Development</i> , 2006, 20, 915-921.	2.7	61
26	Ribosome Elongation Stall Directs Gene-specific Translation in the Integrated Stress Response. <i>Journal of Biological Chemistry</i> , 2016, 291, 6546-6558.	1.6	57
27	The Evolutionarily Conserved Eukaryotic Arginine Attenuator Peptide Regulates the Movement of Ribosomes That Have Translated It. <i>Molecular and Cellular Biology</i> , 1998, 18, 7528-7536.	1.1	56
28	A High-Density Single Nucleotide Polymorphism Map for <i>Neurospora crassa</i> . <i>Genetics</i> , 2009, 181, 767-781.	1.2	54
29	Characterization of Chromosome Ends in the Filamentous Fungus <i>Neurospora crassa</i> . <i>Genetics</i> , 2009, 181, 1129-1145.	1.2	52
30	The <i>Neurospora crassa</i> Genome: Cosmid Libraries Sorted by Chromosome. <i>Genetics</i> , 2001, 157, 979-990.	1.2	51
31	The <i>Neurospora</i> Transcription Factor ADV-1 Transduces Light Signals and Temporal Information to Control Rhythmic Expression of Genes Involved in Cell Fusion. <i>G3: Genes, Genomes, Genetics</i> , 2017, 7, 129-142.	0.8	47
32	The Arginine Attenuator Peptide Interferes with the Ribosome Peptidyl Transferase Center. <i>Molecular and Cellular Biology</i> , 2012, 32, 2396-2406.	1.1	46
33	Circadian clock regulation of mRNA translation through eukaryotic elongation factor eEF-2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9605-9610.	3.3	46
34	The Stringency of Start Codon Selection in the Filamentous Fungus <i>Neurospora crassa</i> . <i>Journal of Biological Chemistry</i> , 2013, 288, 9549-9562.	1.6	45
35	Nascent polypeptide sequences that influence ribosome function. <i>Current Opinion in Microbiology</i> , 2011, 14, 160-166.	2.3	42
36	Interactions of the TnaC nascent peptide with rRNA in the exit tunnel enable the ribosome to respond to free tryptophan. <i>Nucleic Acids Research</i> , 2014, 42, 1245-1256.	6.5	41

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37	eRF1 mediates codon usage effects on mRNA translation efficiency through premature termination at rare codons. <i>Nucleic Acids Research</i> , 2019, 47, 9243-9258.	6.5	41
38	Regulatory protein that inhibits both synthesis and use of the target protein controls flagellar phase variation in <i>Salmonella enterica</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 11340-11345.	3.3	36
39	The Use of Fungal In Vitro Systems for Studying Translational Regulation. <i>Methods in Enzymology</i> , 2007, 429, 203-225.	0.4	36
40	Dissection of a co-translational nascent chain separation event. <i>Biochemical Society Transactions</i> , 2008, 36, 712-716.	1.6	36
41	Structure and function of the yeast listerin (Ltn1) conserved N-terminal domain in binding to stalled 60S ribosomal subunits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E4151-60.	3.3	34
42	Expression of herpes virus thymidine kinase in <i>Neurospora crassa</i> . <i>Nucleic Acids Research</i> , 1997, 25, 2389-2395.	6.5	32
43	Arginine Changes the Conformation of the Arginine Attenuator Peptide Relative to the Ribosome Tunnel. <i>Journal of Molecular Biology</i> , 2012, 416, 518-533.	2.0	32
44	Circadian clock control of eIF2 $\gamma$ phosphorylation is necessary for rhythmic translation initiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 10935-10945.	3.3	32
45	Evolutionarily Conserved Features of the Arginine Attenuator Peptide Provide the Necessary Requirements for Its Function in Translational Regulation. <i>Journal of Biological Chemistry</i> , 2000, 275, 26710-26719.	1.6	32
46	A UV-Induced Mutation in <i>Neurospora</i> That Affects Translational Regulation in Response to Arginine. <i>Genetics</i> , 1996, 142, 117-127.	1.2	32
47	Translation factor control of ribosome conformation during start codon selection. <i>Genes and Development</i> , 2007, 21, 1280-1287.	2.7	31
48	Control of mRNA Stability in Fungi by NMD, EJC and CBC Factors Through 3' UTR Introns. <i>Genetics</i> , 2015, 200, 1133-1148.	1.2	28
49	her-2 upstream open reading frame effects on the use of downstream initiation codons. <i>Biochemical and Biophysical Research Communications</i> , 2006, 350, 834-841.	1.0	26
50	Sequence Requirements for Ribosome Stalling by the Arginine Attenuator Peptide. <i>Journal of Biological Chemistry</i> , 2010, 285, 40933-40942.	1.6	25
51	Synaptic vesicles contain small ribonucleic acids (sRNAs) including transfer RNA fragments (trfRNA) and microRNAs (miRNA). <i>Scientific Reports</i> , 2015, 5, 14918.	1.6	25
52	Translation Initiation from Conserved Non-AUG Codons Provides Additional Layers of Regulation and Coding Capacity. <i>MBio</i> , 2017, 8, .	1.8	25
53	Posttranscriptional Control of Gene Expression in Filamentous Fungi. <i>Fungal Genetics and Biology</i> , 1998, 23, 117-125.	0.9	21
54	A Nascent Peptide Signal Responsive to Endogenous Levels of Polyamines Acts to Stimulate Regulatory Frameshifting on Antizyme mRNA. <i>Journal of Biological Chemistry</i> , 2015, 290, 17863-17878.	1.6	21

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55	Evolutionary changes in the fungal carbamoyl-phosphate synthetase small subunit gene and its associated upstream open reading frame. <i>Fungal Genetics and Biology</i> , 2007, 44, 93-104.	0.9	20
56	Structural basis for the tryptophan sensitivity of TnaC-mediated ribosome stalling. <i>Nature Communications</i> , 2021, 12, 5340.	5.8	20
57	Preparation of a <i>Saccharomyces cerevisiae</i> Cell-Free Extract for In Vitro Translation. <i>Methods in Enzymology</i> , 2014, 539, 17-28.	0.4	19
58	Structure of the translating <i>Neurospora</i> ribosome arrested by cycloheximide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	18
59	Crucial elements that maintain the interactions between the regulatory TnaC peptide and the ribosome exit tunnel responsible for Trp inhibition of ribosome function. <i>Nucleic Acids Research</i> , 2012, 40, 2247-2257.	6.5	17
60	Developmental and Photoregulation of Three <i>Neurospora crassa</i> Carotenogenic Genes during Conidiation Induced by Desiccation. <i>Fungal Genetics and Biology</i> , 1997, 21, 101-108.	0.9	14
61	The cell free protein synthesis system from the model filamentous fungus <i>Neurospora crassa</i> . <i>Methods</i> , 2018, 137, 11-19.	1.9	12
62	<i>Neurospora crassa</i> supersuppressor mutants are amber codon-specific. <i>Fungal Genetics and Biology</i> , 2002, 36, 167-175.	0.9	11
63	E-site drug specificity of the human pathogen <i>Candida albicans</i> ribosome. <i>Science Advances</i> , 2022, 8, .	4.7	10
64	BIOCHEMISTRY: Sense and Sensitivity–Controlling the Ribosome. <i>Science</i> , 2002, 297, 1820-1821.	6.0	7
65	Draft de novo transcriptome assembly and proteome characterization of the electric lobe of <i>Tetodonarce californica</i> : a molecular tool for the study of cholinergic neurotransmission in the electric organ. <i>BMC Genomics</i> , 2017, 18, 611.	1.2	7
66	The Antidepressant Sertraline Induces the Formation of Supersized Lipid Droplets in the Human Pathogen <i>Cryptococcus neoformans</i> . <i>Journal of Fungi (Basel, Switzerland)</i> , 2022, 8, 642.	1.5	7
67	DNA Repair in <i>Neurospora</i> . , 0, , 503-538.		6
68	A recommendation for naming proteins in <i>Neurospora</i> . <i>Fungal Genetics Reports</i> , 1996, 43, 72.	0.6	2
69	Synaptic vesicles isolated from the electric organ of <i>Torpedo californica</i> and from the central nervous system of <i>Mus musculus</i> contain small ribonucleic acids (sRNAs). <i>Genomics Data</i> , 2017, 12, 52-53.	1.3	1
70	Information on Individual Loci. , 2001, , 7-197.		1