

Patricia J Kiley

List of Publications by Year in descending order

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86
papers

6,087
citations

71102

41
h-index

71685

76
g-index

92
all docs

92
docs citations

92
times ranked

4507
citing authors

#	ARTICLE	IF	CITATIONS
1	IscR, an Fe-S cluster-containing transcription factor, represses expression of Escherichia coli genes encoding Fe-S cluster assembly proteins. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 14895-14900.	7.1	382
2	The role of Fe-S proteins in sensing and regulation in bacteria. Current Opinion in Microbiology, 2003, 6, 181-185.	5.1	331
3	Iron-sulfur cluster disassembly in the FNR protein of Escherichia coli by O ₂ : [4Fe-4S] to [2Fe-2S] conversion with loss of biological activity. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 6087-6092.	7.1	323
4	Oxygen sensing by the global regulator, FNR: the role of the iron-sulfur cluster. FEMS Microbiology Reviews, 1998, 22, 341-352.	8.6	294
5	DNA Binding and Dimerization of the Fe-S-containing FNR Protein from Escherichia coli Are Regulated by Oxygen. Journal of Biological Chemistry, 1996, 271, 2762-2768.	3.4	284
6	The cysteine desulfurase, IscS, has a major role in in vivo Fe-S cluster formation in Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 9009-9014.	7.1	274
7	IscR-dependent gene expression links iron-sulphur cluster assembly to the control of O ₂ -regulated genes in Escherichia coli. Molecular Microbiology, 2006, 60, 1058-1075.	2.5	264
8	Genome-Wide Expression Analysis Indicates that FNR of Escherichia coli K-12 Regulates a Large Number of Genes of Unknown Function. Journal of Bacteriology, 2005, 187, 1135-1160.	2.2	238
9	Association of a polynuclear iron-sulfur center with a mutant FNR protein enhances DNA binding.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 2499-2503.	7.1	200
10	Fe-S proteins in sensing and regulatory functions. Current Opinion in Chemical Biology, 1999, 3, 152-157.	6.1	195
11	Genome-scale Analysis of Escherichia coli FNR Reveals Complex Features of Transcription Factor Binding. PLoS Genetics, 2013, 9, e1003565.	3.5	158
12	Identification of a contact site for different transcription activators in region 4 of the Escherichia coli RNA polymerase σ 70 subunit 1 Edited by R. Ebricht. Journal of Molecular Biology, 1998, 284, 1353-1365.	4.2	153
13	The Bacterial Response Regulator ArcA Uses a Diverse Binding Site Architecture to Regulate Carbon Oxidation Globally. PLoS Genetics, 2013, 9, e1003839.	3.5	132
14	Correcting direct effects of ethanol on translation and transcription machinery confers ethanol tolerance in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2576-85.	7.1	126
15	Regulation of iron-sulphur cluster homeostasis through transcriptional control of the IscR pathway by [2Fe-S] ²⁺ IscR in Escherichia coli. Molecular Microbiology, 2013, 87, 478-492.	2.5	112
16	Mossbauer spectroscopy as a tool for the study of activation/inactivation of the transcription regulator FNR in whole cells of Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 13431-13435.	7.1	108
17	Sequence-Specific Binding to a Subset of IscR-Regulated Promoters Does Not Require IscR Fe-S Cluster Ligation. Journal of Molecular Biology, 2009, 387, 28-41.	4.2	105
18	Studies of IscR reveal a unique mechanism for metal-dependent regulation of DNA binding specificity. Nature Structural and Molecular Biology, 2013, 20, 740-747.	8.2	104

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19	Kinetic Analysis of the Oxidative Conversion of the [4Fe-4S] ₂₊ Cluster of FNR to a [2Fe-2S] ₂₊ Cluster. <i>Journal of Bacteriology</i> , 2004, 186, 8018-8025.	2.2	96
20	Fe-S proteins that regulate gene expression. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 1284-1293.	4.1	95
21	Iron-containing transcription factors and their roles as sensors. <i>Current Opinion in Chemical Biology</i> , 2011, 15, 335-341.	6.1	92
22	Characterization of light-harvesting mutants of <i>Rhodospseudomonas sphaeroides</i> . I. Measurement of the efficiency of energy transfer from light-harvesting complexes to the reaction center. <i>Archives of Biochemistry and Biophysics</i> , 1985, 236, 130-139.	3.0	90
23	Exploiting Thiol Modifications. <i>PLoS Biology</i> , 2004, 2, e400.	5.6	89
24	Characterization of the [2Fe-2S] Cluster of <i>Escherichia coli</i> Transcription Factor IscR. <i>Biochemistry</i> , 2012, 51, 4453-4462.	2.5	85
25	Substitution of Leucine 28 with Histidine in the <i>Escherichia coli</i> Transcription Factor FNR Results in Increased Stability of the [4Fe-4S] ₂₊ Cluster to Oxygen. <i>Journal of Biological Chemistry</i> , 2000, 275, 6234-6240.	3.4	75
26	O ₂ availability impacts iron homeostasis in <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12261-12266.	7.1	72
27	Superoxide Destroys the [2Fe-2S] ₂₊ Cluster of FNR from <i>Escherichia coli</i> . <i>Biochemistry</i> , 2004, 43, 791-798.	2.5	69
28	Characterization of the Dimerization Domain in the FNR Transcription Factor. <i>Journal of Biological Chemistry</i> , 2001, 276, 45744-45750.	3.4	67
29	Impact of Anaerobiosis on Expression of the Iron-Responsive Fur and RyhB Regulons. <i>MBio</i> , 2015, 6, e01947-15.	4.1	67
30	ClpXP-dependent Proteolysis of FNR upon Loss of its O ₂ -sensing [4Fe-4S] Cluster. <i>Journal of Molecular Biology</i> , 2005, 354, 220-232.	4.2	65
31	Fnr, NarP, and NarL Regulation of <i>Escherichia coli</i> K-12 napF (Periplasmic Nitrate Reductase) Operon Transcription In Vitro. <i>Journal of Bacteriology</i> , 1998, 180, 4192-4198.	2.2	65
32	Two-pronged survival strategy for the major cystic fibrosis pathogen, <i>Pseudomonas aeruginosa</i> , lacking the capacity to degrade nitric oxide during anaerobic respiration. <i>EMBO Journal</i> , 2007, 26, 3662-3672.	7.8	63
33	Reconstruction of the Core and Extended Regulons of Global Transcription Factors. <i>PLoS Genetics</i> , 2010, 6, e1001027.	3.5	62
34	Regulated Stochasticity in a Bacterial Signaling Network Permits Tolerance to a Rapid Environmental Change. <i>Cell</i> , 2018, 173, 196-207.e14.	28.9	61
35	How Is Fe-S Cluster Formation Regulated?. <i>Annual Review of Microbiology</i> , 2015, 69, 505-526.	7.3	60
36	In vitro Analysis of a Constitutively Active Mutant Form of the <i>Escherichia coli</i> Global Transcription Factor FNR. <i>Journal of Molecular Biology</i> , 1995, 245, 351-361.	4.2	59

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37	The Impact of O ₂ on the Fe-S Cluster Biogenesis Requirements of Escherichia coli FNR. Journal of Molecular Biology, 2008, 384, 798-811.	4.2	57
38	Complex Physiology and Compound Stress Responses during Fermentation of Alkali-Pretreated Corn Stover Hydrolysate by an Escherichia coli Ethanologen. Applied and Environmental Microbiology, 2012, 78, 3442-3457.	3.1	57
39	IscR Is Essential for Yersinia pseudotuberculosis Type III Secretion and Virulence. PLoS Pathogens, 2014, 10, e1004194.	4.7	53
40	Redox control of gene expression involving iron-sulfur proteins. Change of oxidation-state or assembly/disassembly of Fe-S clusters?. FEBS Letters, 1996, 382, 218-219.	2.8	49
41	Aromatic inhibitors derived from ammonia-pretreated lignocellulose hinder bacterial ethanogenesis by activating regulatory circuits controlling inhibitor efflux and detoxification. Frontiers in Microbiology, 2014, 5, 402.	3.5	46
42	FNR-dependent activation of the class II dmsA and narG promoters of Escherichia coli requires FNR-activating regions 1 and 3. Molecular Microbiology, 2000, 38, 817-827.	2.5	40
43	Regulation of FNR Dimerization by Subunit Charge Repulsion. Journal of Biological Chemistry, 2006, 281, 33268-33275.	3.4	39
44	Evolution of the metabolic and regulatory networks associated with oxygen availability in two phytopathogenic enterobacteria. BMC Genomics, 2012, 13, 110.	2.8	39
45	Coordinate Regulation of the Suf and Isc Fe-S Cluster Biogenesis Pathways by IscR Is Essential for Viability of Escherichia coli. Journal of Bacteriology, 2014, 196, 4315-4323.	2.2	39
46	A shared mechanism of SoxR activation by redox-cycling compounds. Molecular Microbiology, 2011, 79, 1119-1122.	2.5	35
47	Reassessing the Structure and Function Relationship of the O ₂ -Sensing Transcription Factor FNR. Antioxidants and Redox Signaling, 2018, 29, 1830-1840.	5.4	34
48	Control of hmu Heme Uptake Genes in Yersinia pseudotuberculosis in Response to Iron Sources. Frontiers in Cellular and Infection Microbiology, 2018, 8, 47.	3.9	34
49	Contributions of [4Fe-4S]-FNR and Integration Host Factor to fnr Transcriptional Regulation. Journal of Bacteriology, 2007, 189, 3036-3043.	2.2	32
50	Defining bacterial regulons using ChIP-seq. Methods, 2015, 86, 80-88.	3.8	32
51	The puf operon region of Rhodobacter sphaeroides. Photosynthesis Research, 1988, 19, 39-61.	2.9	30
52	Characterization of activating region 3 from Escherichia coli FNR. Journal of Molecular Biology, 2002, 315, 275-283.	4.2	24
53	Phage integration alters the respiratory strategy of its host. ELife, 2019, 8, .	6.0	24
54	On the role of the light-harvesting B880 in the correct insertion of the reaction center of Rhodobacter capsulatus and Rhodobacter sphaeroides. FEBS Letters, 1987, 215, 171-174.	2.8	22

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55	Elevated Expression of a Functional Suf Pathway in Escherichia coli BL21(DE3) Enhances Recombinant Production of an Iron-Sulfur Cluster-Containing Protein. <i>Journal of Bacteriology</i> , 2020, 202, .	2.2	22
56	Tailoring a Global Iron Regulon to a Uropathogen. <i>MBio</i> , 2020, 11, .	4.1	21
57	Techniques for Studying the Oxygen-Sensitive Transcription Factor FNR from Escherichia coli. <i>Methods in Enzymology</i> , 2003, 370, 300-312.	1.0	20
58	Identification and Unusual Properties of the Master Regulator FNR in the Extreme Acidophile <i>Acidithiobacillus ferrooxidans</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 1642.	3.5	19
59	A Markerless Method for Genome Engineering in <i>Zymomonas mobilis</i> ZM4. <i>Frontiers in Microbiology</i> , 2019, 10, 2216.	3.5	19
60	Oxygen sensing by the global regulator, FNR: the role of the iron-sulfur cluster. <i>FEMS Microbiology Reviews</i> , 1998, 22, 341-352.	8.6	19
61	Additional Determinants within Escherichia coli FNR Activating Region 1 and RNA Polymerase $\hat{\pm}$ Subunit Required for Transcription Activation. <i>Journal of Bacteriology</i> , 2005, 187, 1724-1731.	2.2	16
62	Chapter 42 Techniques to Isolate O ₂ -Sensitive Proteins. <i>Methods in Enzymology</i> , 2009, 463, 787-805.	1.0	16
63	dPeak: High Resolution Identification of Transcription Factor Binding Sites from PET and SET ChIP-Seq Data. <i>PLoS Computational Biology</i> , 2013, 9, e1003246.	3.2	15
64	The Influence of Repressor DNA Binding Site Architecture on Transcriptional Control. <i>MBio</i> , 2014, 5, e01684-14.	4.1	15
65	Model-driven analysis of mutant fitness experiments improves genome-scale metabolic models of <i>Zymomonas mobilis</i> ZM4. <i>PLoS Computational Biology</i> , 2020, 16, e1008137.	3.2	12
66	Design principles of a conditional futile cycle exploited for regulation. <i>Molecular BioSystems</i> , 2015, 11, 1841-1849.	2.9	10
67	Iron availability and oxygen tension regulate the <i>Yersinia</i> Ysc type III secretion system to enable disseminated infection. <i>PLoS Pathogens</i> , 2019, 15, e1008001.	4.7	10
68	Systems Metabolic Engineering of <i>Escherichia coli</i> Improves Coconversion of Lignocellulose-Derived Sugars. <i>Biotechnology Journal</i> , 2019, 14, e1800441.	3.5	9
69	Transcriptome Changes Associated with Anaerobic Growth in <i>Yersinia intermedia</i> (ATCC29909). <i>PLoS ONE</i> , 2013, 8, e76567.	2.5	8
70	The essential <i>Rhodobacter sphaeroides</i> CenKR two-component system regulates cell division and envelope biosynthesis. <i>PLoS Genetics</i> , 2022, 18, e1010270.	3.5	7
71	Dissecting the Role of the N-Terminal Region of the <i>Escherichia coli</i> Global Transcription Factor FNR. <i>Journal of Bacteriology</i> , 2008, 190, 8230-8233.	2.2	6
72	Improving Mobilization of Foreign DNA into <i>Zymomonas mobilis</i> Strain ZM4 by Removal of Multiple Restriction Systems. <i>Applied and Environmental Microbiology</i> , 2021, 87, e0080821.	3.1	6

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73	Global Approaches for Finding Small RNA and Small Open Reading Frame Functions. Journal of Bacteriology, 2010, 192, 26-28.	2.2	4
74	Genome Scale Analysis Reveals IscR Directly and Indirectly Regulates Virulence Factor Genes in Pathogenic Yersinia. MBio, 2021, 12, e0063321.	4.1	4
75	13. Sensing the cellular Fe-S cluster demand: a structural, functional, and phylogenetic overview of Escherichia coli IscR. , 2014, , 325-346.		3
76	Global Responses of Bacteria to Oxygen Deprivation. , 2014, , 175-189.		3
77	Bridges and Chasms: Summary of the IMAGE 2 Meeting in Montreal, Canada, 30 April to 3 May 2007. Journal of Bacteriology, 2008, 190, 792-797.	2.2	1
78	Minor Alterations in Core Promoter Element Positioning Reveal Functional Plasticity of a Bacterial Transcription Factor. MBio, 2021, 12, e0275321.	4.1	1
79	Creation of Markerless Genome Modifications in a Nonmodel Bacterium by Fluorescence-Aided Recombineering. Methods in Molecular Biology, 2022, 2479, 53-70.	0.9	1
80	Mössbauer studies of the FNR transcription factor in whole Escherichia coli cells. , 0, , 153-160.		0
81	4 Sensing the cellular Fe-S cluster demand: a structural, functional, and phylogenetic overview of Escherichia coli IscR. , 2017, , 75-96.		0
82	The puf operon region of Rhodobacter sphaeroides. , 1988, , 137-159.		0
83	Title is missing!. , 2019, 15, e1008001.		0
84	Title is missing!. , 2019, 15, e1008001.		0
85	Title is missing!. , 2019, 15, e1008001.		0
86	Title is missing!. , 2019, 15, e1008001.		0