Sean Crosson

List of Publications by Year
in descending order

78 papers	4,761 citations	109321 35 h-index	106344 65 g-index
99 all docs	99 docs citations	99 times ranked	4863 citing authors

#	Article	IF	Citations
1	The LOV Domain Family:â€‰ Photoresponsive Signaling Modules Coupled to Diverse Output Domains. Biochemistry, 2003, 42, 2-10.	2.5	387
2	Ligand-Binding PAS Domains in a Genomic, Cellular, and Structural Context. Annual Review of Microbiology, 2011, 65, 261-286.	7.3	369
3	Photoexcited Structure of a Plant Photoreceptor Domain Reveals a Light-Driven Molecular Switch. Plant Cell, 2002, 14, 1067-1075.	6.6	358
4	Function, structure and mechanism of bacterial photosensory LOV proteins. Nature Reviews Microbiology, 2011, 9, 713-723.	28.6	217
5	Primary Reactions of the LOV2 Domain of Phototropin, a Plant Blue-Light Photoreceptor. Biochemistry, 2003, 42, 3385-3392.	2.5	214
6	Bacterial lifestyle shapes stringent response activation. Trends in Microbiology, 2013, 21, 174-180.	7.7	210
7	Evolving New Protein-Protein Interaction Specificity through Promiscuous Intermediates. Cell, 2015, 163, 594-606.	28.9	167
8	The Genetic Basis of Laboratory Adaptation in <i>Caulobacter crescentus</i>. Journal of Bacteriology, 2010, 192, 3678-3688.	2.2	166
9	A photosensory two-component system regulates bacterial cell attachment. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18241-18246.	7.1	164
10	The Coding and Noncoding Architecture of the Caulobacter crescentus Genome. PLoS Genetics, 2014, 10, e1004463.	3.5	136
11	Data publication with the structural biology data grid supports live analysis. Nature Communications, 2016, 7, 10882.	12.8	113
12	The LOV2 Domain of Phototropin:Â A Reversible Photochromic Switch. Journal of the American Chemical Society, 2004, 126, 4512-4513.	13.7	102
13	Photoregulation in prokaryotes. Current Opinion in Microbiology, 2008, 11, 168-178.	5.1	93
14	Interaction specificity, toxicity and regulation of a paralogous set of ParE/RelEâ€family toxinâ€“antitoxin systems. Molecular Microbiology, 2010, 77, 236-251.	2.5	93
15	ppGpp and Polyphosphate Modulate Cell Cycle Progression in Caulobacter crescentus. Journal of Bacteriology, 2012, 194, 28-35.	2.2	84
16	A Cell Cycle and Nutritional Checkpoint Controlling Bacterial Surface Adhesion. PLoS Genetics, 2014, 10, e1004101.	3.5	81
17	Conserved modular design of an oxygen sensory/signaling network with species-specific output. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8018-8023.	7.1	80
18	The complex logic of stringent response regulation in <i>Caulobacter crescentus</i>: starvation signalling in an oligotrophic environment. Molecular Microbiology, 2011, 80, 695-714.	2.5	79

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19	A Conserved Mode of Protein Recognition and Binding in a ParDâ˘'ParE Toxinâ˘'Antitoxin Complex. Biochemistry, 2010, 49, 2205-2215.	2.5	76
20	The LovK-LovR Two-Component System Is a Regulator of the General Stress Pathway in Caulobacter crescentus. Journal of Bacteriology, 2012, 194, 3038-3049.	2.2	76
21	Activation of Bacteroides fragilis toxin by a novel bacterial protease contributes to anaerobic sepsis in mice. Nature Medicine, 2016, 22, 563-567.	30.7	76
22	Molecular Structure and Function of the Novel BrnT/BrnA Toxin-Antitoxin System of Brucella abortus. Journal of Biological Chemistry, 2012, 287, 12098-12110.	3.4	75
23	An Analysis of the Solution Structure and Signaling Mechanism of LovK, a Sensor Histidine Kinase Integrating Light and Redox Signals. Biochemistry, 2010, 49, 6761-6770.	2.5	70
24	The Brucella abortus General Stress Response System Regulates Chronic Mammalian Infection and Is Controlled by Phosphorylation and Proteolysis. Journal of Biological Chemistry, 2013, 288, 13906-13916.	3.4	65
25	Identification of the PhoB Regulon and Role of PhoU in the Phosphate Starvation Response of Caulobacter crescentus. Journal of Bacteriology, 2016, 198, 187-200.	2.2	65
26	General Stress Signaling in the Alphaproteobacteria. Annual Review of Genetics, 2015, 49, 603-625.	7.6	63
27	Brucella abortus Induces a Warburg Shift in Host Metabolism That Is Linked to Enhanced Intracellular Survival of the Pathogen. Journal of Bacteriology, 2017, 199, .	2.2	61
28	Tightly Regulated and Heritable Division Control in Single Bacterial Cells. Biophysical Journal, 2008, 95, 2063-2072.	0.5	56
29	A structural model of antiâ€antiâ€ïƒ inhibition by a twoâ€component receiver domain: the PhyR stress response regulator. Molecular Microbiology, 2010, 78, 290-304.	2.5	52
30	Structural asymmetry in a conserved signaling system that regulates division, replication, and virulence of an intracellular pathogen. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3709-18.	7.1	52
31	Virulence Regulation with Venus Flytrap Domains: Structure and Function of the Periplasmic Moiety of the Sensor-Kinase BvgS. PLoS Pathogens, 2015, 11, e1004700.	4.7	51
32	The Photobiology of Microbial Pathogenesis. PLoS Pathogens, 2009, 5, e1000470.	4.7	48
33	The <scp><i>B</i></scp><i>rucella abortus</i> virulence regulator, <scp>LovhK</scp>, is a sensor kinase in the general stress response signalling pathway. Molecular Microbiology, 2014, 94, 913-925.	2.5	48
34	Structural basis of a protein partner switch that regulates the general stress response of Î±-proteobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1415-23.	7.1	42
35	Brucella abortus Cell Cycle and Infection Are Coordinated. Trends in Microbiology, 2015, 23, 812-821.	7.7	41
36	Chromosome replication and segregation govern the biogenesis and inheritance of inorganic polyphosphate granules. Molecular Biology of the Cell, 2013, 24, 3177-3186.	2.1	37

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37	Genome-scale fitness profile of <i>Caulobacter crescentus</i> grown in natural freshwater. ISME Journal, 2019, 13, 523-536.	9.8	35
38	Atypical modes of bacterial histidine kinase signaling. Molecular Microbiology, 2017, 103, 197-202.	2.5	28
39	Bridging the Timescales of Single-Cell and Population Dynamics. Physical Review X, 2018, 8, .	8.9	28
40	Genetic and Computational Identification of a Conserved Bacterial Metabolic Module. PLoS Genetics, 2008, 4, e1000310.	3.5	26
41	Structure and function of HWE/HisKA2-family sensor histidine kinases. Current Opinion in Microbiology, 2017, 36, 47-54.	5.1	26
42	A Genome-Wide Analysis of Adhesion in <i>Caulobacter crescentus</i> Identifies New Regulatory and Biosynthetic Components for Holdfast Assembly. MBio, 2019, 10, .	4.1	24
43	Experimental evolution of diverse Escherichia coli metabolic mutants identifies genetic loci for convergent adaptation of growth rate. PLoS Genetics, 2018, 14, e1007284.	3.5	24
44	Periplasmic protein EipA determines envelope stress resistance and virulence in <i>Brucella abortus</i>. Molecular Microbiology, 2019, 111, 637-661.	2.5	21
45	Electronic and Protein Structural Dynamics of a Photosensory Histidine Kinase. Biochemistry, 2010, 49, 4752-4759.	2.5	20
46	Early-Life Microbial Restitution Reduces Colitis Risk Promoted by Antibiotic-Induced Gut Dysbiosis in Interleukin 10â€“/â€“ Mice. Gastroenterology, 2021, 161, 940-952.e15.	1.3	20
47	Next-Generation High-Throughput Functional Annotation of Microbial Genomes. MBio, 2016, 7, .	4.1	19
48	Intergenerational continuity of cell shape dynamics in Caulobacter crescentus. Scientific Reports, 2015, 5, 9155.	3.3	17
49	Activation Mechanism of the <i>Bacteroides fragilis</i> Cysteine Peptidase, Fragipain. Biochemistry, 2016, 55, 4077-4084.	2.5	17
50	Gene network analysis identifies a central post-transcriptional regulator of cellular stress survival. ELife, 2018, 7, .	6.0	17
51	Flagellar Perturbations Activate Adhesion through Two Distinct Pathways in <i>Caulobacter crescentus</i>. MBio, 2021, 12, .	4.1	17
52	Regulation of bacterial surface attachment by a network of sensory transduction proteins. PLoS Genetics, 2019, 15, e1008022.	3.5	16
53	A Carbonic Anhydrase Pseudogene Sensitizes Select <i>Brucella</i> Lineages to Low CO ₂ Tension. Journal of Bacteriology, 2019, 201, .	2.2	16
54	Composition of the Holdfast Polysaccharide from <i>Caulobacter crescentus</i>. Journal of Bacteriology, 2019, 201, .	2.2	15

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55	The ChvG-ChvI and NtrY-NtrX Two-Component Systems Coordinately Regulate Growth of Caulobacter crescentus. Journal of Bacteriology, 2021, 203, e0019921.	2.2	15
56	<i>myo</i> -Inositol and <scp>d</scp> -Ribose Ligand Discrimination in an ABC Periplasmic Binding Protein. Journal of Bacteriology, 2013, 195, 2379-2388.	2.2	14
57	WrpA Is an Atypical Flavodoxin Family Protein under Regulatory Control of the Brucella abortus General Stress Response System. Journal of Bacteriology, 2016, 198, 1281-1293.	2.2	14
58	Conserved ABC Transport System Regulated by the General Stress Response Pathways of Alpha- and Gammaproteobacteria. Journal of Bacteriology, 2017, 199, .	2.2	14
59	Feedback Control of a Two-Component Signaling System by an Fe-S-Binding Receiver Domain. MBio, 2020, 11, .	4.1	14
60	Structured and Dynamic Disordered Domains Regulate the Activity of a Multifunctional Anti-Ïƒ Factor. MBio, 2015, 6, e00910.	4.1	13
61	<i>Brucella</i>Periplasmic Protein EipB Is a Molecular Determinant of Cell Envelope Integrity and Virulence. Journal of Bacteriology, 2019, 201, .	2.2	12
62	Proper Control of Caulobacter crescentus Cell Surface Adhesion Requires the General Protein Chaperone DnaK. Journal of Bacteriology, 2016, 198, 2631-2642.	2.2	10
63	Quantification of<i>Brucella abortus</i>population structure in a natural host. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	10
64	A dual-targeting approach to inhibit Brucella abortus replication in human cells. Scientific Reports, 2016, 6, 35835.	3.3	9
65	Allosteric control of a bacterial stress response system by an antiâ€Ïƒ factor. Molecular Microbiology, 2018, 107, 164-179.	2.5	9
66	A Genetic Oscillator and the Regulation of Cell Cycle Progression inCaulobacter crescentus. Cell Cycle, 2004, 3, 1252-1254.	2.6	8
67	A Bacterial Pathogen Sees the Light. Science, 2007, 317, 1041-1042.	12.6	8
68	Brucella abortus Î” rpoE1 confers protective immunity against wild type challenge in a mouse model of brucellosis. Vaccine, 2016, 34, 5073-5081.	3.8	8
69	Regulation of the <i>Erythrobacter litoralis</i> DSM 8509 general stress response by visible light. Molecular Microbiology, 2019, 112, 442-460.	2.5	7
70	Extreme Antagonism Arising from Gene-Environment Interactions. Biophysical Journal, 2020, 119, 2074-2086.	0.5	6
71	Molecular control of gene expression by Brucella BaaR, an IclR-type transcriptional repressor. Journal of Biological Chemistry, 2018, 293, 7437-7456.	3.4	5
72	Brucella ovis Cysteine Biosynthesis Contributes to Peroxide Stress Survival and Fitness in the Intracellular Niche. Infection and Immunity, 2021, 89, .	2.2	5

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73	LOV-Domain Structure, Dynamics, and Diversity. , 2005, , 323-336.		4
74	Coherent Feedforward Regulation of Gene Expression by Caulobacter Ïƒ ^T and GsrN during Hyperosmotic Stress. Journal of Bacteriology, 2018, 200, .	2.2	4
75	The DUF1013 protein TrcR tracks with RNA polymerase to control the bacterial cell cycle and protect against antibiotics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	1
76	Cell biology of micro-organisms and the evolution of the eukaryotic cell. Molecular Biology of the Cell, 2012, 23, 974-974.	2.1	0
77	Classic Spotlight: Studies of the Stringent Response. Journal of Bacteriology, 2016, 198, 1710-1710.	2.2	0
78	Editorial overview: Microbial cell regulation across multiple scales. Current Opinion in Microbiology, 2021, 63, 179-180.	5.1	0