Sean Crosson

List of Publications by Citations

77 papers	3,680 citations	34 h-index	60 g-index
99 ext. papers	4,431 ext. citations	7.9 avg, IF	5.69 L-index

#	Paper	IF	Citations
77	The LOV domain family: photoresponsive signaling modules coupled to diverse output domains. *Biochemistry*, **2003**, 42, 2-10	3.2	352
76	Photoexcited structure of a plant photoreceptor domain reveals a light-driven molecular switch. *Plant Cell*, **2002**, 14, 1067-75	11.6	328
75	Ligand-binding PAS domains in a genomic, cellular, and structural context. *Annual Review of Microbiology*, **2011**, 65, 261-86	17.5	268
74	Primary reactions of the LOV2 domain of phototropin, a plant blue-light photoreceptor. *Biochemistry*, **2003**, 42, 3385-92	3.2	200
73	Function, structure and mechanism of bacterial photosensory LOV proteins. *Nature Reviews Microbiology*, **2011**, 9, 713-23	22.2	168
72	Bacterial lifestyle shapes stringent response activation. *Trends in Microbiology*, **2013**, 21, 174-80	12.4	148
71	A photosensory two-component system regulates bacterial cell attachment. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 18241-6	11.5	136
70	The genetic basis of laboratory adaptation in Caulobacter crescentus. *Journal of Bacteriology*, **2010**, 192, 3678-88	3.5	124
69	The coding and noncoding architecture of the Caulobacter crescentus genome. *PLoS Genetics*, **2014**, 10, e1004463	6	101
68	Evolving new protein-protein interaction specificity through promiscuous intermediates. *Cell*, **2015**, 163, 594-606	56.2	99
67	Photoregulation in prokaryotes. *Current Opinion in Microbiology*, **2008**, 11, 168-78	7.9	83
66	The LOV2 domain of phototropin: a reversible photochromic switch. *Journal of the American Chemical Society*, **2004**, 126, 4512-3	16.4	83
65	Data publication with the structural biology data grid supports live analysis. *Nature Communications*, **2016**, 7, 10882	17.4	78
64	Cell biology of micro-organisms and the evolution of the eukaryotic cell. *Molecular Biology of the Cell*, **2012**, 23, 974-974	3.5	78
63	Interaction specificity, toxicity and regulation of a paralogous set of ParE/RelE-family toxin-antitoxin systems. *Molecular Microbiology*, **2010**, 77, 236-51	4.1	77
62	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, 8018-23	11.5	71
61	ppGpp and polyphosphate modulate cell cycle progression in Caulobacter crescentus. *Journal of Bacteriology*, **2012**, 194, 28-35	3.5	66

60	A conserved mode of protein recognition and binding in a ParD-ParE toxin-antitoxin complex. *Biochemistry*, **2010**, 49, 2205-15	3.2	61
59	The complex logic of stringent response regulation in Caulobacter crescentus: starvation signalling in an oligotrophic environment. *Molecular Microbiology*, **2011**, 80, 695-714	4.1	58
58	An analysis of the solution structure and signaling mechanism of LovK, a sensor histidine kinase integrating light and redox signals. *Biochemistry*, **2010**, 49, 6761-70	3.2	58
57	The LovK-LovR two-component system is a regulator of the general stress pathway in Caulobacter crescentus. *Journal of Bacteriology*, **2012**, 194, 3038-49	3.5	58
56	Activation of Bacteroides fragilis toxin by a novel bacterial protease contributes to anaerobic sepsis in mice. *Nature Medicine*, **2016**, 22, 563-7	50.5	55
55	A cell cycle and nutritional checkpoint controlling bacterial surface adhesion. *PLoS Genetics*, **2014**, 10, e1004101	6	52
54	Tightly regulated and heritable division control in single bacterial cells. *Biophysical Journal*, **2008**, 95, 2063-72	2.9	49
53	The Brucella abortus general stress response system regulates chronic mammalian infection and is controlled by phosphorylation and proteolysis. *Journal of Biological Chemistry*, **2013**, 288, 13906-16	5.4	47
52	A structural model of anti-anti-□nhibition by a two-component receiver domain: the PhyR stress response regulator. *Molecular Microbiology*, **2010**, 78, 290-304	4.1	45
51	General Stress Signaling in the Alphaproteobacteria. *Annual Review of Genetics*, **2015**, 49, 603-25	14.5	44
50	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	11.5	43
49	The photobiology of microbial pathogenesis. *PLoS Pathogens*, **2009**, 5, e1000470	7.6	42
48	Molecular structure and function of the novel BrnT/BrnA toxin-antitoxin system of Brucella abortus. *Journal of Biological Chemistry*, **2012**, 287, 12098-110	5.4	42
47	Structural basis of a protein partner switch that regulates the general stress response of □proteobacteria. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, E1415-23	11.5	38
46	Identification of the PhoB Regulon and Role of PhoU in the Phosphate Starvation Response of Caulobacter crescentus. *Journal of Bacteriology*, **2016**, 198, 187-200	3.5	36
45	Brucella abortus Induces a Warburg Shift in Host Metabolism That Is Linked to Enhanced Intracellular Survival of the Pathogen. *Journal of Bacteriology*, **2017**, 199,	3.5	36
44	The Brucella abortus virulence regulator, LovhK, is a sensor kinase in the general stress response signalling pathway. *Molecular Microbiology*, **2014**, 94, 913-25	4.1	35
43	Chromosome replication and segregation govern the biogenesis and inheritance of inorganic polyphosphate granules. *Molecular Biology of the Cell*, **2013**, 24, 3177-86	3.5	28

42	Virulence regulation with Venus flytrap domains: structure and function of the periplasmic moiety of the sensor-kinase BvgS. *PLoS Pathogens*, **2015**, 11, e1004700	7.6	26
41	Brucella abortus Cell Cycle and Infection Are Coordinated. *Trends in Microbiology*, **2015**, 23, 812-821	12.4	24
40	Genetic and computational identification of a conserved bacterial metabolic module. *PLoS Genetics*, **2008**, 4, e1000310	6	24
39	Atypical modes of bacterial histidine kinase signaling. *Molecular Microbiology*, **2017**, 103, 197-202	4.1	18
38	Electronic and protein structural dynamics of a photosensory histidine kinase. *Biochemistry*, **2010**, 49, 4752-9	3.2	18
37	Genome-scale fitness profile of Caulobacter crescentus grown in natural freshwater. *ISME Journal*, **2019**, 13, 523-536	11.9	18
36	Experimental evolution of diverse Escherichia coli metabolic mutants identifies genetic loci for convergent adaptation of growth rate. *PLoS Genetics*, **2018**, 14, e1007284	6	17
35	Next-Generation High-Throughput Functional Annotation of Microbial Genomes. *MBio*, **2016**, 7,	7.8	16
34	A Genome-Wide Analysis of Adhesion in Identifies New Regulatory and Biosynthetic Components for Holdfast Assembly. *MBio*, **2019**, 10,	7.8	14
33	Structure and function of HWE/HisKA2-family sensor histidine kinases. *Current Opinion in Microbiology*, **2017**, 36, 47-54	7.9	13
32	Bridging the Timescales of Single-Cell and Population Dynamics. *Physical Review X*, **2018**, 8,	9.1	13
31	WrpA Is an Atypical Flavodoxin Family Protein under Regulatory Control of the Brucella abortus General Stress Response System. *Journal of Bacteriology*, **2016**, 198, 1281-93	3.5	12
30	myo-inositol and D-ribose ligand discrimination in an ABC periplasmic binding protein. *Journal of Bacteriology*, **2013**, 195, 2379-88	3.5	12
29	Gene network analysis identifies a central post-transcriptional regulator of cellular stress survival. *ELife*, **2018**, 7,	8.9	12
28	Conserved ABC Transport System Regulated by the General Stress Response Pathways of Alpha- and Gammaproteobacteria. *Journal of Bacteriology*, **2017**, 199,	3.5	11
27	Activation Mechanism of the Bacteroides fragilis Cysteine Peptidase, Fragipain. *Biochemistry*, **2016**, 55, 4077-84	3.2	11
26	Intergenerational continuity of cell shape dynamics in Caulobacter crescentus. *Scientific Reports*, **2015**, 5, 9155	4.9	10
25	Structured and Dynamic Disordered Domains Regulate the Activity of a Multifunctional Anti-□ Factor. *MBio*, **2015**, 6, e00910	7.8	10

24	Periplasmic protein EipA determines envelope stress resistance and virulence in Brucella abortus. *Molecular Microbiology*, **2019**, 111, 637-661	4.1	10
23	Feedback Control of a Two-Component Signaling System by an Fe-S-Binding Receiver Domain. *MBio* , **2020**, 11,	7.8	8
22	Composition of the Holdfast Polysaccharide from. *Journal of Bacteriology*, **2019**, 201,	3.5	7
21	Microbiology. A bacterial pathogen sees the light. *Science*, **2007**, 317, 1041-2	33.3	7
20	A genetic oscillator and the regulation of cell cycle progression in Caulobacter crescentus. *Cell Cycle*, **2004**, 3, 1252-4	4.7	7
19	Proper Control of Caulobacter crescentus Cell Surface Adhesion Requires the General Protein Chaperone DnaK. *Journal of Bacteriology*, **2016**, 198, 2631-42	3.5	7
18	A Carbonic Anhydrase Pseudogene Sensitizes Select Lineages to Low CO Tension. *Journal of Bacteriology*, **2019**, 201,	3.5	7
17	Flagellar Perturbations Activate Adhesion through Two Distinct Pathways in. *MBio*, **2021**, 12,	7.8	7
16	Periplasmic Protein EipB Is a Molecular Determinant of Cell Envelope Integrity and Virulence. *Journal of Bacteriology*, **2019**, 201,	3.5	5
15	Brucella abortus □poE1 confers protective immunity against wild type challenge in a mouse model of brucellosis. *Vaccine*, **2016**, 34, 5073-5081	4.1	5
14	A dual-targeting approach to inhibit Brucella abortus replication in human cells. *Scientific Reports*, **2016**, 6, 35835	4.9	5
13	Regulation of bacterial surface attachment by a network of sensory transduction proteins. *PLoS Genetics*, **2019**, 15, e1008022	6	4
12	Allosteric control of a bacterial stress response system by an anti-□factor. *Molecular Microbiology*, **2018**, 107, 164-179	4.1	4
11	LOV-Domain Structure, Dynamics, and Diversity **2005**, 323-336		4
10	Quantification of population structure in a natural host. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
9	Early-Life Microbial Restitution Reduces Colitis Risk Promoted by Antibiotic-Induced Gut Dysbiosis in Interleukin 10 Mice. *Gastroenterology*, **2021**, 161, 940-952.e15	13.3	4
8	Regulation of the Erythrobacter litoralis DSM 8509 general stress response by visible light. *Molecular Microbiology*, **2019**, 112, 442-460	4.1	3
7	Molecular control of gene expression by BaaR, an IclR-type transcriptional repressor. *Journal of Biological Chemistry*, **2018**, 293, 7437-7456	5.4	3

6	Coherent Feedforward Regulation of Gene Expression by Caulobacter σ and GsrN during Hyperosmotic Stress. *Journal of Bacteriology*, **2018**, 200,	3.5	3
5	Quantification of Brucella abortus population structure in a natural host		3
4	Gene network analysis identifies a central post-transcriptional regulator of cellular stress survival		2
3	Brucella ovis Cysteine Biosynthesis Contributes to Peroxide Stress Survival and Fitness in the Intracellular Niche. *Infection and Immunity*, **2021**, 89,	3.7	2
2	Extreme Antagonism Arising from Gene-Environment Interactions. *Biophysical Journal*, **2020**, 119, 2074-2086	2.9	1
1	The ChvG-ChvI and NtrY-NtrX Two-Component Systems Coordinately Regulate Growth of Caulobacter crescentus. *Journal of Bacteriology*, **2021**, 203, e0019921	3.5	1