Mark Goulian

List of Publications by Year
in descending order

66 papers	5,042 citations	117625 34 h-index	102487 66 g-index
71 all docs	71 docs citations	71 times ranked	6562 citing authors

#	Article	IF	Citations
1	Specificity in Two-Component Signal Transduction Pathways. Annual Review of Genetics, 2007, 41, 121-145.	7.6	629
2	Rewiring the Specificity of Two-Component Signal Transduction Systems. Cell, 2008, 133, 1043-1054.	28.9	418
3	Superresolution imaging of ribosomes and RNA polymerase in live Escherichia coli cells. Molecular Microbiology, 2012, 85, 21-38.	2.5	413
4	Robustness and the cycle of phosphorylation and dephosphorylation in a two-component regulatory system. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 691-696.	7.1	220
5	Signal Transduction in Histidine Kinases: Insights from New Structures. Structure, 2015, 23, 981-994.	3.3	213
6	Feedback Inhibition in the PhoQ/PhoP Signaling System by a Membrane Peptide. PLoS Genetics, 2009, 5, e1000788.	3.5	194
7	Amyloid-DNA Composites of Bacterial Biofilms Stimulate Autoimmunity. Immunity, 2015, 42, 1171-1184.	14.3	181
8	Microbes vs. chemistry in the origin of the anaerobic gut lumen. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4170-4175.	7.1	176
9	A role for bacterial urease in gut dysbiosis and Crohnâ€™s disease. Science Translational Medicine, 2017, 9, .	12.4	171
10	Mucosal penetration primes Vibrio cholerae for host colonization by repressing quorum sensing. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9769-9774.	7.1	161
11	The Escherichia coli CpxA-CpxR Envelope Stress Response System Regulates Expression of the Porins OmpF and OmpC. Journal of Bacteriology, 2005, 187, 5723-5731.	2.2	151
12	Two-component signaling circuit structure and properties. Current Opinion in Microbiology, 2010, 13, 184-189.	5.1	143
13	Crossâ€talk suppression between the CpxAâ€“CpxR and EnvZâ€“OmpR twoâ€component systems in E.â€ƒcoli. Molecular Microbiology, 2008, 70, 494-506.	2.5	128
14	Cys-Scanning Disulfide Crosslinking and Bayesian Modeling Probe the Transmembrane Signaling Mechanism of the Histidine Kinase, PhoQ. Structure, 2014, 22, 1239-1251.	3.3	103
15	Self-Sorting and Coassembly of Fluorinated, Hydrogenated, and Hybrid Janus Dendrimers into Dendrimersomes. Journal of the American Chemical Society, 2016, 138, 12655-12663.	13.7	83
16	Membrane protein expression triggers chromosomal locus repositioning in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7445-7450.	7.1	78
17	Systematically Altering Bacterial SOS Activity under Stress Reveals Therapeutic Strategies for Potentiating Antibiotics. MSphere, 2016, 1, .	2.9	74
18	High stimulus unmasks positive feedback in an autoregulated bacterial signaling circuit. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17457-17462.	7.1	72

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19	Bacterial colonization reprograms the neonatal gut metabolome. Nature Microbiology, 2020, 5, 838-847.	13.3	70
20	Bioactive cell-like hybrids coassembled from (glyco)dendrimersomes with bacterial membranes. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1134-41.	7.1	69
21	Escherichia coli Isolate for Studying Colonization of the Mouse Intestine and Its Application to Two-Component Signaling Knockouts. Journal of Bacteriology, 2014, 196, 1723-1732.	2.2	66
22	Regulated Stochasticity in a Bacterial Signaling Network Permits Tolerance to a Rapid Environmental Change. Cell, 2018, 173, 196-207.e14.	28.9	61
23	Changing the Specificity of a Bacterial Chemoreceptor. Journal of Molecular Biology, 2006, 355, 923-932.	4.2	59
24	Antimicrobial peptides trigger a division block in Escherichia coli through stimulation of a signalling system. Nature Communications, 2016, 7, 12340.	12.8	52
25	Encoding biological recognition in a bicomponent cell-membrane mimic. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5376-5382.	7.1	51
26	Bioactive cell-like hybrids from dendrimersomes with a human cell membrane and its components. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 744-752.	7.1	49
27	Perturbation of the Oxidizing Environment of the Periplasm Stimulates the PhoQ/PhoP System in Escherichia coli. Journal of Bacteriology, 2012, 194, 1457-1463.	2.2	47
28	Stimulus-dependent differential regulation in the Escherichia coli PhoQâ€“PhoP system. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 16305-16310.	7.1	46
29	Bacterial spore detection and analysis using hyperpolarized ¹²⁹Xe chemical exchange saturation transfer (Hyper-CEST) NMR. Chemical Science, 2014, 5, 3197-3203.	7.4	42
30	Biofilm-associated bacterial amyloids dampen inflammation in the gut: oral treatment with curli fibres reduces the severity of hapten-induced colitis in mice. Npj Biofilms and Microbiomes, 2015, 1, .	6.4	42
31	Evolving a robust signal transduction pathway from weak crossâ€talk. Molecular Systems Biology, 2010, 6, 452.	7.2	41
32	Transmembrane polar interactions are required for signaling in the Escherichia coli sensor kinase PhoQ. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8141-8146.	7.1	41
33	tRNA Methylation Is a Global Determinant of Bacterial Multi-drug Resistance. Cell Systems, 2019, 8, 302-314.e8.	6.2	41
34	Imaging OmpR localization in Escherichia coli. Molecular Microbiology, 2006, 59, 1767-1778.	2.5	40
35	Chromosome-Membrane Interactions in Bacteria. Annual Review of Genetics, 2015, 49, 115-129.	7.6	40
36	Continuous Control in Bacterial Regulatory Circuits. Journal of Bacteriology, 2004, 186, 7618-7625.	2.2	39

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37	Non-equilibrium repressor binding kinetics link DNA damage dose to transcriptional timing within the SOS gene network. PLoS Genetics, 2018, 14, e1007405.	3.5	37
38	Robust control in bacterial regulatory circuits. Current Opinion in Microbiology, 2004, 7, 198-202.	5.1	36
39	Differential Thiol-Based Switches Jump-Start Vibrio cholerae Pathogenesis. Cell Reports, 2016, 14, 347-354.	6.4	36
40	Microbial Nanoculture as an Artificial Microniche. Scientific Reports, 2016, 6, 30578.	3.3	30
41	Singleâ€Cell Analysis of Gene Expression by Fluorescence Microscopy. Methods in Enzymology, 2007, 423, 458-475.	1.0	27
42	Films of Bacteria at Interfaces (FBI): Remodeling of Fluid Interfaces by Pseudomonas aeruginosa. Scientific Reports, 2017, 7, 17864.	3.3	26
43	Functional Determinants of a Small Protein Controlling a Broadly Conserved Bacterial Sensor Kinase. Journal of Bacteriology, 2020, 202, .	2.2	26
44	Self-interrupted synthesis of sterically hindered aliphatic polyamide dendrimers. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2275-E2284.	7.1	25
45	Phage integration alters the respiratory strategy of its host. ELife, 2019, 8, .	6.0	24
46	Oxygen-Dependent Cell-to-Cell Variability in the Output of the Escherichia coli Tor Phosphorelay. Journal of Bacteriology, 2015, 197, 1976-1987.	2.2	23
47	Natural variation of a sensor kinase controlling a conserved stress response pathway in Escherichia coli. PLoS Genetics, 2017, 13, e1007101.	3.5	23
48	Engineered singleâ€•and multiâ€cell chemotaxis pathways in E. coli. Molecular Systems Biology, 2009, 5, 283.	7.2	21
49	A commensal-encoded genotoxin drives restriction of Vibrio cholerae colonization and host gut microbiome remodeling. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2121180119.	7.1	20
50	Colistin Resistance-Mediated Bacterial Surface Modification Sensitizes Phage Infection. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	19
51	The SOS Response Mediates Sustained Colonization of the Mammalian Gut. Infection and Immunity, 2019, 87, .	2.2	17
52	Characterizing Cross-Talk In Vivo. Methods in Enzymology, 2010, 471, 1-16.	1.0	16
53	A network of regulators promotes dehydration tolerance in Escherichia coli. Environmental Microbiology, 2018, 20, 1283-1295.	3.8	16
54	The Architecture of a Prototypical Bacterial Signaling Circuit Enables a Single Point Mutation to Confer Novel Network Properties. PLoS Genetics, 2013, 9, e1003706.	3.5	15

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55	Fluorescence Correlation Spectroscopy Measurements of the Membrane Protein TetA in Escherichia coli Suggest Rapid Diffusion at Short Length Scales. PLoS ONE, 2012, 7, e48600.	2.5	12
56	Thiol-based functional mimicry of phosphorylation of the two-component system response regulator ArcA promotes pathogenesis in enteric pathogens. Cell Reports, 2021, 37, 110147.	6.4	11
57	A simple system for converting lacZ to gfp reporter fusions in diverse bacteria. Gene, 2006, 372, 219-226.	2.2	10
58	Imaging OmpR Binding to Native Chromosomal Loci in Escherichia coli. Journal of Bacteriology, 2010, 192, 4045-4053.	2.2	9
59	A bacterial signaling system regulates noise to enable bet hedging. Current Genetics, 2019, 65, 65-70.	1.7	9
60	Effects of Regulatory Network Organization and Environment on PmrD Connector Activity and Polymyxin Resistance in Klebsiella pneumoniae and Escherichia coli. Antimicrobial Agents and Chemotherapy, 2021, 65, .	3.2	9
61	The Phosphohistidine Phosphatase SixA Targets a Phosphotransferase System. MBio, 2018, 9, .	4.1	8
62	Deciphering the Role of Colicins during Colonization of the Mammalian Gut by Commensal E. coli. Microorganisms, 2020, 8, 664.	3.6	6
63	A Small-Molecule Inducible Synthetic Circuit for Control of the SOS Gene Network without DNA Damage. ACS Synthetic Biology, 2017, 6, 2067-2076.	3.8	4
64	Bacterial Killing Activity of Polymorphonuclear Myeloid-Derived Suppressor Cells Isolated From Tumor-Bearing Dogs. Frontiers in Immunology, 2019, 10, 2371.	4.8	3
65	The phosphohistidine phosphatase SixA dephosphorylates the phosphocarrier NPr. Journal of Biological Chemistry, 2021, 296, 100090.	3.4	2
66	tRNA Methylation Controls Bacterial Multiâ€Ðrug Resistance. FASEB Journal, 2018, 32, 105.1.	0.5	0