

Zemer Gitai

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

5,555
citations

136950

32
h-index

168389

53
g-index

77
all docs

77
docs citations

77
times ranked

5925
citing authors

#	ARTICLE	IF	CITATIONS
1	The Mechanical World of Bacteria. <i>Cell</i> , 2015, 161, 988-997.	28.9	422
2	The bacterial actin MreB rotates, and rotation depends on cell-wall assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 15822-15827.	7.1	391
3	MreB Actin-Mediated Segregation of a Specific Region of a Bacterial Chromosome. <i>Cell</i> , 2005, 120, 329-341.	28.9	354
4	Enzyme clustering accelerates processing of intermediates through metabolic channeling. <i>Nature Biotechnology</i> , 2014, 32, 1011-1018.	17.5	340
5	Type IV pili mechanochemically regulate virulence factors in <i>Pseudomonas aeruginosa</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 7563-7568.	7.1	320
6	An actin-like gene can determine cell polarity in bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 8643-8648.	7.1	288
7	Rod-like bacterial shape is maintained by feedback between cell curvature and cytoskeletal localization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E1025-34.	7.1	236
8	Mitochondrial translation requires folate-dependent tRNA methylation. <i>Nature</i> , 2018, 554, 128-132.	27.8	213
9	A Dual-Mechanism Antibiotic Kills Gram-Negative Bacteria and Avoids Drug Resistance. <i>Cell</i> , 2020, 181, 1518-1532.e14.	28.9	202
10	Human SHMT inhibitors reveal defective glycine import as a targetable metabolic vulnerability of diffuse large B-cell lymphoma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11404-11409.	7.1	190
11	Surface attachment induces <i>Pseudomonas aeruginosa</i> virulence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 16860-16865.	7.1	187
12	Light-based control of metabolic flux through assembly of synthetic organelles. <i>Nature Chemical Biology</i> , 2019, 15, 589-597.	8.0	176
13	Human CTP synthase filament structure reveals the active enzyme conformation. <i>Nature Structural and Molecular Biology</i> , 2017, 24, 507-514.	8.2	161
14	Large-scale filament formation inhibits the activity of CTP synthetase. <i>ELife</i> , 2014, 3, e03638.	6.0	159
15	The New Bacterial Cell Biology: Moving Parts and Subcellular Architecture. <i>Cell</i> , 2005, 120, 577-586.	28.9	155
16	How to Build a Bacterial Cell: MreB as the Foreman of <i>E. coli</i> Construction. <i>Cell</i> , 2018, 172, 1294-1305.	28.9	144
17	RodZ links MreB to cell wall synthesis to mediate MreB rotation and robust morphogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 12510-12515.	7.1	129
18	<i>C. elegans</i> interprets bacterial non-coding RNAs to learn pathogenic avoidance. <i>Nature</i> , 2020, 586, 445-451.	27.8	124

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19	Escherichia coli translation strategies differ across carbon, nitrogen and phosphorus limitation conditions. <i>Nature Microbiology</i> , 2018, 3, 939-947.	13.3	111
20	The curved shape of <i>Caulobacter crescentus</i> enhances surface colonization in flow. <i>Nature Communications</i> , 2014, 5, 3824.	12.8	95
21	Surface association and the MreB cytoskeleton regulate pilus production, localization and function in <i>Pseudomonas aeruginosa</i> . <i>Molecular Microbiology</i> , 2010, 76, 1411-1426.	2.5	88
22	MreB Orientation Correlates with Cell Diameter in <i>Escherichia coli</i> . <i>Biophysical Journal</i> , 2016, 111, 1035-1043.	0.5	88
23	A Periplasmic Polymer Curves <i>Vibrio cholerae</i> and Promotes Pathogenesis. <i>Cell</i> , 2017, 168, 172-185.e15.	28.9	78
24	Flow Directs Surface-Attached Bacteria to Twitch Upstream. <i>Biophysical Journal</i> , 2012, 103, 146-151.	0.5	70
25	A scaffold protein connects type IV pili with the Chp chemosensory system to mediate activation of virulence signaling in <i>Pseudomonas aeruginosa</i> . <i>Molecular Microbiology</i> , 2016, 101, 590-605.	2.5	69
26	<i>De novo</i> morphogenesis in <i>ScpL</i> forms via geometric control of cell growth. <i>Molecular Microbiology</i> , 2014, 93, 883-896.	2.5	68
27	Mode of action and resistance studies unveil new roles for tropodithietic acid as an anticancer agent and the β -glutamyl cycle as a proton sink. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1630-1635.	7.1	67
28	Microfluidic-based transcriptomics reveal force-independent bacterial rheosensing. <i>Nature Microbiology</i> , 2019, 4, 1274-1281.	13.3	53
29	Colonization, Competition, and Dispersal of Pathogens in Fluid Flow Networks. <i>Current Biology</i> , 2015, 25, 1201-1207.	3.9	49
30	MreB polymers and curvature localization are enhanced by RodZ and predict <i>E. coli</i> 's cylindrical uniformity. <i>Nature Communications</i> , 2018, 9, 2797.	12.8	48
31	New fluorescence microscopy methods for microbiology: sharper, faster, and quantitative. <i>Current Opinion in Microbiology</i> , 2009, 12, 341-346.	5.1	47
32	The choreographed dynamics of bacterial chromosomes. <i>Trends in Microbiology</i> , 2005, 13, 221-228.	7.7	42
33	The role of the Cer1 transposon in horizontal transfer of transgenerational memory. <i>Cell</i> , 2021, 184, 4697-4712.e18.	28.9	41
34	Competitive binding of independent extension and retraction motors explains the quantitative dynamics of type IV pili. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	35
35	Surface association sensitizes <i>Pseudomonas aeruginosa</i> to quorum sensing. <i>Nature Communications</i> , 2019, 10, 4118.	12.8	34
36	Modeling microbial metabolic trade-offs in a chemostat. <i>PLoS Computational Biology</i> , 2020, 16, e1008156.	3.2	29

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37	Diversification and specialization of the bacterial cytoskeleton. <i>Current Opinion in Cell Biology</i> , 2007, 19, 5-12.	5.4	28
38	Inhibition of <i>Escherichia coli</i> CTP Synthetase by NADH and Other Nicotinamides and Their Mutual Interactions with CTP and GTP. <i>Biochemistry</i> , 2016, 55, 5554-5565.	2.5	27
39	Mechanical Genomic Studies Reveal the Role of d -Alanine Metabolism in <i>Pseudomonas aeruginosa</i> Cell Stiffness. <i>MBio</i> , 2018, 9, .	4.1	24
40	Post-transcriptional gene regulation by an Hfq-independent small RNA in <i>Caulobacter crescentus</i> . <i>Nucleic Acids Research</i> , 2018, 46, 10969-10982.	14.5	18
41	Monitoring mammalian mitochondrial translation with MitoRiboSeq. <i>Nature Protocols</i> , 2021, 16, 2802-2825.	12.0	16
42	<i>Pseudomonas aeruginosa</i> distinguishes surfaces by stiffness using retraction of type IV pili. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2119434119.	7.1	16
43	Plasmid Segregation: A New Class of Cytoskeletal Proteins Emerges. <i>Current Biology</i> , 2006, 16, R133-R136.	3.9	13
44	<i>Acinetobacter baylyi</i> regulates type IV pilus synthesis by employing two extension motors and a motor protein inhibitor. <i>Nature Communications</i> , 2021, 12, 3744.	12.8	13
45	Cytotoxic alkyl-quinolones mediate surface-induced virulence in <i>Pseudomonas aeruginosa</i> . <i>PLoS Pathogens</i> , 2020, 16, e1008867.	4.7	12
46	GCN2 adapts protein synthesis to scavenging-dependent growth. <i>Cell Systems</i> , 2022, 13, 158-172.e9.	6.2	12
47	CrvA and CrvB form a curvature-inducing module sufficient to induce cell-shape complexity in Gram-negative bacteria. <i>Nature Microbiology</i> , 2021, 6, 910-920.	13.3	11
48	Evidence for biosurfactant-induced flow in corners and bacterial spreading in unsaturated porous media. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, e2111060118.	7.1	10
49	Algal p-coumaric acid induces oxidative stress and siderophore biosynthesis in the bacterial symbiont <i>Phaeobacter inhibens</i> . <i>Cell Chemical Biology</i> , 2022, 29, 670-679.e5.	5.2	9
50	Both clinical and environmental <i>Caulobacter</i> species are virulent in the <i>Galleria mellonella</i> infection model. <i>PLoS ONE</i> , 2020, 15, e0230006.	2.5	7
51	<i>Pseudomonas aeruginosa</i> detachment from surfaces via a self-made small molecule. <i>Journal of Biological Chemistry</i> , 2021, 296, 100279.	3.4	7
52	Bacterial Evolution: Rewiring Modules to Get in Shape. <i>Current Biology</i> , 2014, 24, R522-R524.	3.9	4
53	AimB Is a Small Protein Regulator of Cell Size and MreB Assembly. <i>Biophysical Journal</i> , 2020, 119, 593-604.	0.5	3
54	Isolation and Purification of Actin Homolog MreB from <i>Caulobacter crescentus</i> . <i>FASEB Journal</i> , 2010, 24, lb140.	0.5	0

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55	The effect of antibiotics on protein diffusion in the Escherichia coli cytoplasmic membrane. PLoS ONE, 2017, 12, e0185810.	2.5	0
56	Modeling microbial metabolic trade-offs in a chemostat. , 2020, 16, e1008156.		0
57	Modeling microbial metabolic trade-offs in a chemostat. , 2020, 16, e1008156.		0
58	Modeling microbial metabolic trade-offs in a chemostat. , 2020, 16, e1008156.		0
59	Modeling microbial metabolic trade-offs in a chemostat. , 2020, 16, e1008156.		0
60	Cytotoxic alkyl-quinolones mediate surface-induced virulence in Pseudomonas aeruginosa. , 2020, 16, e1008867.		0
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64	Cytotoxic alkyl-quinolones mediate surface-induced virulence in Pseudomonas aeruginosa. , 2020, 16, e1008867.		0