David Z Rudner

List of Publications by Year
in descending order

69 papers	6,633 citations	87888 38 h-index	95266 68 g-index
78 all docs	78 docs citations	78 times ranked	4860 citing authors

#	Article	IF	Citations
1	Genetic Evidence for Signal Transduction within the Bacillus subtilis GerA Germinant Receptor. Journal of Bacteriology, 2022, 204, JB0047021.	2.2	11
2	The WalR-WalK Signaling Pathway Modulates the Activities of both CwlO and LytE through Control of the Peptidoglycan Deacetylase PdaC in Bacillus subtilis. Journal of Bacteriology, 2022, 204, JB0053321.	2.2	11
3	WhyD tailors surface polymers to prevent premature bacteriolysis and direct cell elongation in Streptococcus pneumoniae. ELife, 2022, 11, .	6.0	3
4	The SpoVA membrane complex is required for dipicolinic acid import during sporulation and export during germination. Genes and Development, 2022, 36, 634-646.	5.9	17
5	Chromosome Segregation and Peptidoglycan Remodeling Are Coordinated at a Highly Stabilized Septal Pore to Maintain Bacterial Spore Development. Developmental Cell, 2021, 56, 36-51.e5.	7.0	13
6	Respiratory chain components are required for peptidoglycan recognition protein-induced thiol depletion and killing in Bacillus subtilis and Escherichia coli. Scientific Reports, 2021, 11, 64.	3.3	3
7	XerD unloads bacterial SMC complexes at the replication terminus. Molecular Cell, 2021, 81, 756-766.e8.	9.7	27
8	FisB relies on homo-oligomerization and lipid binding to catalyze membrane fission in bacteria. PLoS Biology, 2021, 19, e3001314.	5.6	9
9	Dormant spores sense amino acids through the B subunits of their germination receptors. Nature Communications, 2021, 12, 6842.	12.8	22
10	SwsB and SafA Are Required for CwlJ-Dependent Spore Germination in <i>Bacillus subtilis</i>. Journal of Bacteriology, 2020, 202, .	2.2	10
11	Barcoded microbial system for high-resolution object provenance. Science, 2020, 368, 1135-1140.	12.6	27
12	Structural coordination of polymerization and crosslinking by a SEDSâ€“bPBP peptidoglycan synthase complex. Nature Microbiology, 2020, 5, 813-820.	13.3	91
13	A dynamic, ring-forming MucB / RseB-like protein influences spore shape in Bacillus subtilis. PLoS Genetics, 2020, 16, e1009246.	3.5	5
14	SweC and SweD are essential co-factors of the FtsEX-CwlO cell wall hydrolase complex in Bacillus subtilis. PLoS Genetics, 2019, 15, e1008296.	3.5	37
15	RNA polymerases as moving barriers to condensin loop extrusion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20489-20499.	7.1	105
16	A switch in surface polymer biogenesis triggers growth-phase-dependent and antibiotic-induced bacteriolysis. ELife, 2019, 8, .	6.0	47
17	Homeostatic control of cell wall hydrolysis by the WalRK two-component signaling pathway in Bacillus subtilis. ELife, 2019, 8, .	6.0	52
18	Phosphorylation-dependent activation of the cell wall synthase PBP2a in <i>Streptococcus pneumoniae</i> by MacP. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2812-2817.	7.1	62

#	Article	IF	Citations
19	Structure of the peptidoglycan polymerase RodA resolved by evolutionary coupling analysis. Nature, 2018, 556, 118-121.	27.8	110
20	Evidence that regulation of intramembrane proteolysis is mediated by substrate gating during sporulation in Bacillus subtilis. PLoS Genetics, 2018, 14, e1007753.	3.5	11
21	Structural characterization of the sporulation protein GerM from Bacillus subtilis. Journal of Structural Biology, 2018, 204, 481-490.	2.8	8
22	InÂVivo Evidence for ATPase-Dependent DNA Translocation by the Bacillus subtilis SMC Condensin Complex. Molecular Cell, 2018, 71, 841-847.e5.	9.7	66
23	<i>Bacillus subtilis</i> SMC complexes juxtapose chromosome arms as they travel from origin to terminus. Science, 2017, 355, 524-527.	12.6	267
24	Construction and Analysis of Two Genome-Scale Deletion Libraries for Bacillus subtilis. Cell Systems, 2017, 4, 291-305.e7.	6.2	457
25	The <i>Bacillus subtilis</i> germinant receptor GerA triggers premature germination in response to morphological defects during sporulation. Molecular Microbiology, 2017, 105, 689-704.	2.5	23
26	CozE is a member of the MreCD complex that directs cell elongation in Streptococcus pneumoniae. Nature Microbiology, 2017, 2, 16237.	13.3	70
27	The nucleoid occlusion factor Noc controls DNA replication initiation in Staphylococcus aureus. PLoS Genetics, 2017, 13, e1006908.	3.5	43
28	A two-step transport pathway allows the mother cell to nurture the developing spore in Bacillus subtilis. PLoS Genetics, 2017, 13, e1007015.	3.5	32
29	A ring-shaped conduit connects the mother cell and forespore during sporulation in <i>Bacillus subtilis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11585-11590.	7.1	24
30	SEDS proteins are a widespread family of bacterial cell wall polymerases. Nature, 2016, 537, 634-638.	27.8	448
31	GerM is required to assemble the basal platform of the SpoIIIAâ€“SpoIIQ transenvelope complex during sporulation in <i>Bacillus subtilis</i>. Molecular Microbiology, 2016, 102, 260-273.	2.5	27
32	Saltâ€sensitivity of Ïƒ^H and Spo0A prevents sporulation of <scp><i>B</i></scp><i>acillus subtilis</i> at high osmolarity avoiding death during cellular differentiation. Molecular Microbiology, 2016, 100, 108-124.	2.5	25
33	High-Throughput Genetic Screens Identify a Large and Diverse Collection of New Sporulation Genes in Bacillus subtilis. PLoS Biology, 2016, 14, e1002341.	5.6	87
34	An experimentally supported model of the <i>Bacillus subtilis</i> global transcriptional regulatory network. Molecular Systems Biology, 2015, 11, 839.	7.2	186
35	Condensin promotes the juxtaposition of DNA flanking its loading site in <i>Bacillus subtilis</i>. Genes and Development, 2015, 29, 1661-1675.	5.9	215
36	MurJ and a novel lipid II flippase are required for cell wall biogenesis in <i>Bacillus subtilis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6437-6442.	7.1	166

#	Article	IF	Citations
37	Condensation and localization of the partitioning protein ParB on the bacterial chromosome. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8809-8814.	7.1	96
38	Spatial organization of bacterial chromosomes. Current Opinion in Microbiology, 2014, 22, 66-72.	5.1	51
39	<i>Bacillus subtilis</i> chromosome organization oscillates between two distinct patterns. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12877-12882.	7.1	116
40	ParB spreading requires DNA bridging. Genes and Development, 2014, 28, 1228-1238.	5.9	177
41	The SMC Condensin Complex Is Required for Origin Segregation in Bacillus subtilis. Current Biology, 2014, 24, 287-292.	3.9	109
42	<scp>FtsEX</scp> is required for <scp>CwlO</scp> peptidoglycan hydrolase activity during cell wall elongation in <i><scp>B</scp>acillus subtilis</i>. Molecular Microbiology, 2013, 89, 1069-1083.	2.5	145
43	Organization and segregation of bacterial chromosomes. Nature Reviews Genetics, 2013, 14, 191-203.	16.3	252
44	CtpB Assembles a Gated Protease Tunnel Regulating Cell-Cell Signaling during Spore Formation in Bacillus subtilis. Cell, 2013, 155, 647-658.	28.9	31
45	FisB mediates membrane fission during sporulation in <i>Bacillus subtilis</i>. Genes and Development, 2013, 27, 322-334.	5.9	47
46	Peptidoglycan hydrolysis is required for assembly and activity of the transenvelope secretion complex during sporulation in <i><scp>B</scp>acillus subtilis</i>. Molecular Microbiology, 2013, 89, 1039-1052.	2.5	28
47	RefZ Facilitates the Switch from Medial to Polar Division during Spore Formation in Bacillus subtilis. Journal of Bacteriology, 2012, 194, 4608-4618.	2.2	23
48	Coupled, Circumferential Motions of the Cell Wall Synthesis Machinery and MreB Filaments in <i>B. subtilis</i>. Science, 2011, 333, 222-225.	12.6	505
49	Nucleoid occlusion prevents cell division during replication fork arrest in Bacillus subtilis. Molecular Microbiology, 2010, 78, 866-882.	2.5	47
50	A highly coordinated cell wall degradation machine governs spore morphogenesis in <i>Bacillus subtilis</i>. Genes and Development, 2010, 24, 411-422.	5.9	91
51	Protein Subcellular Localization in Bacteria. Cold Spring Harbor Perspectives in Biology, 2010, 2, a000307-a000307.	5.5	163
52	Novel Secretion Apparatus Maintains Spore Integrity and Developmental Gene Expression in Bacillus subtilis. PLoS Genetics, 2009, 5, e1000566.	3.5	93
53	SirA enforces diploidy by inhibiting the replication initiator DnaA during spore formation in <i>Bacillus subtilis</i>. Molecular Microbiology, 2009, 73, 963-974.	2.5	72
54	Recruitment of SMC by ParB-parS Organizes the Origin Region and Promotes Efficient Chromosome Segregation. Cell, 2009, 137, 697-707.	28.9	275

#	Article	IF	Citations
55	SpoIIQ Anchors Membrane Proteins on Both Sides of the Sporulation Septum in Bacillus subtilis. Journal of Biological Chemistry, 2008, 283, 4975-4982.	3.4	34
56	SpoIIIE strips proteins off the DNA during chromosome translocation. Genes and Development, 2008, 22, 1786-1795.	5.9	63
57	SpoIVB and CtpB Are Both Forespore Signals in the Activation of the Sporulation Transcription Factor Ïƒ K in Bacillus subtilis. Journal of Bacteriology, 2007, 189, 6021-6027.	2.2	37
58	The ATPase SpoIIIE Transports DNA across Fused Septal Membranes during Sporulation in Bacillus subtilis. Cell, 2007, 131, 1301-1312.	28.9	112
59	Perturbations to engulfment trigger a degradative response that prevents cell-cell signalling during sporulation in Bacillus subtilis. Molecular Microbiology, 2007, 64, 500-511.	2.5	21
60	A Branched Pathway Governing the Activation of a Developmental Transcription Factor by Regulated Intramembrane Proteolysis. Molecular Cell, 2006, 23, 25-35.	9.7	63
61	Subcellular localization of a sporulation membrane protein is achieved through a network of interactions along and across the septum. Molecular Microbiology, 2005, 55, 1767-1781.	2.5	109
62	Defining a Centromere-like Element in Bacillus subtilis by Identifying the Binding Sites for the Chromosome-Anchoring Protein RacA. Molecular Cell, 2005, 17, 773-782.	9.7	93
63	The Program of Gene Transcription for a Single Differentiating Cell Type during Sporulation in Bacillus subtilis. PLoS Biology, 2004, 2, e328.	5.6	308
64	RacA, a Bacterial Protein That Anchors Chromosomes to the Cell Poles. Science, 2003, 299, 532-536.	12.6	287
65	A Second PDZ-Containing Serine Protease Contributes to Activation of the Sporulation Transcription Factor Ïƒ K in Bacillus subtilis. Journal of Bacteriology, 2003, 185, 6051-6056.	2.2	33
66	A sporulation membrane protein tethers the pro-sigma K processing enzyme to its inhibitor and dictates its subcellular localization. Genes and Development, 2002, 16, 1007-1018.	5.9	115
67	Evidence that subcellular localization of a bacterial membrane protein is achieved by diffusion and capture. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 8701-8706.	7.1	122
68	Morphological Coupling in Development. Developmental Cell, 2001, 1, 733-742.	7.0	89
69	Intercompartmental Signal Transduction during Sporulation in <i>Bacillus subtilis</i>. , 0, , 1-12.		0