

# Daniel B Kearns

## List of Publications by Year in descending order

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106  
papers

8,847  
citations

61857

43  
h-index

48187

88  
g-index

122  
all docs

122  
docs citations

122  
times ranked

7173  
citing authors

#	ARTICLE	IF	CITATIONS
1	A field guide to bacterial swarming motility. <i>Nature Reviews Microbiology</i> , 2010, 8, 634-644.	13.6	1,180
2	A major protein component of the <i>Bacillus subtilis</i> biofilm matrix. <i>Molecular Microbiology</i> , 2006, 59, 1229-1238.	1.2	605
3	A master regulator for biofilm formation by <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2004, 55, 739-749.	1.2	506
4	Regulation of flagellar motility during biofilm formation. <i>FEMS Microbiology Reviews</i> , 2013, 37, 849-871.	3.9	447
5	Swarming motility in undomesticated <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2004, 49, 581-590.	1.2	444
6	Cell population heterogeneity during growth of <i>Bacillus subtilis</i> . <i>Genes and Development</i> , 2005, 19, 3083-3094.	2.7	320
7	A Molecular Clutch Disables Flagella in the <i>Bacillus subtilis</i> Biofilm. <i>Science</i> , 2008, 320, 1636-1638.	6.0	275
8	Targets of the master regulator of biofilm formation in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2006, 59, 1216-1228.	1.2	256
9	Genes governing swarming in <i>Bacillus subtilis</i> and evidence for a phase variation mechanism controlling surface motility. <i>Molecular Microbiology</i> , 2004, 52, 357-369.	1.2	248
10	MinJ (YvjD) is a topological determinant of cell division in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2008, 70, 1166-1179.	1.2	233
11	Tracing the Domestication of a Biofilm-Forming Bacterium. <i>Journal of Bacteriology</i> , 2011, 193, 2027-2034.	1.0	194
12	Plasmid-Encoded ComI Inhibits Competence in the Ancestral 3610 Strain of <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2013, 195, 4085-4093.	1.0	189
13	Microbe-Associated Molecular Patterns-Triggered Root Responses Mediate Beneficial Rhizobacterial Recruitment in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2012, 160, 1642-1661.	2.3	157
14	The Structure and Regulation of Flagella in <i>Bacillus subtilis</i> . <i>Annual Review of Genetics</i> , 2014, 48, 319-340.	3.2	134
15	A novel regulatory protein governing biofilm formation in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2008, 68, 1117-1127.	1.2	129
16	The cell biology of peritrichous flagella in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2013, 87, 211-229.	1.2	126
17	Bacillaene and Sporulation Protect <i>Bacillus subtilis</i> from Predation by <i>Myxococcus xanthus</i> . <i>Applied and Environmental Microbiology</i> , 2014, 80, 5603-5610.	1.4	119
18	Identification of Poly-N-acetylglucosamine as a Major Polysaccharide Component of the <i>Bacillus subtilis</i> Biofilm Matrix. <i>Journal of Biological Chemistry</i> , 2015, 290, 19261-19272.	1.6	118

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19	The EpsE Flagellar Clutch Is Bifunctional and Synergizes with EPS Biosynthesis to Promote <i>Bacillus subtilis</i> Biofilm Formation. <i>PLoS Genetics</i> , 2010, 6, e1001243.	1.5	111
20	CsrA-FlhW interaction governs flagellin homeostasis and a checkpoint on flagellar morphogenesis in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2011, 82, 447-461.	1.2	104
21	Role of the $\sigma^D$ -Dependent Autolysins in <i>Bacillus subtilis</i> Population Heterogeneity. <i>Journal of Bacteriology</i> , 2009, 191, 5775-5784.	1.0	101
22	Functional Characterization of Core Components of the <i>Bacillus subtilis</i> Cyclic-Di-GMP Signaling Pathway. <i>Journal of Bacteriology</i> , 2013, 195, 4782-4792.	1.0	96
23	<i>Pseudomonas aeruginosa</i> Exhibits Directed Twitching Motility Up Phosphatidylethanolamine Gradients. <i>Journal of Bacteriology</i> , 2001, 183, 763-767.	1.0	92
24	Chemotaxis in a gliding bacterium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 11957-11962.	3.3	90
25	A structural model of flagellar filament switching across multiple bacterial species. <i>Nature Communications</i> , 2017, 8, 960.	5.8	90
26	Protection from Intestinal Inflammation by Bacterial Exopolysaccharides. <i>Journal of Immunology</i> , 2014, 192, 4813-4820.	0.4	83
27	Bacteria and bacterial envelope components enhance mammalian reovirus thermostability. <i>PLoS Pathogens</i> , 2017, 13, e1006768.	2.1	83
28	Selective Penicillin-Binding Protein Imaging Probes Reveal Substructure in Bacterial Cell Division. <i>ACS Chemical Biology</i> , 2012, 7, 1746-1753.	1.6	82
29	Swarming motility and the control of master regulators of flagellar biosynthesis. <i>Molecular Microbiology</i> , 2012, 83, 14-23.	1.2	81
30	Adaptor-mediated Lon proteolysis restricts <i>Bacillus subtilis</i> hyperflagellation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 250-255.	3.3	78
31	A Plasmid-Encoded Phosphatase Regulates <i>Bacillus subtilis</i> Biofilm Architecture, Sporulation, and Genetic Competence. <i>Journal of Bacteriology</i> , 2013, 195, 2437-2448.	1.0	69
32	Gene position in a long operon governs motility development in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2010, 76, 273-285.	1.2	65
33	Laboratory Strains of <i>Bacillus subtilis</i> Do Not Exhibit Swarming Motility. <i>Journal of Bacteriology</i> , 2009, 191, 7129-7133.	1.0	64
34	Predation by <i>Myxococcus xanthus</i> Induces <i>Bacillus subtilis</i> To Form Spore-Filled Megastructures. <i>Applied and Environmental Microbiology</i> , 2015, 81, 203-210.	1.4	63
35	FlgM Is Secreted by the Flagellar Export Apparatus in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2015, 197, 81-91.	1.0	60
36	An Extracellular Matrix-Associated Zinc Metalloprotease Is Required for Dilauroyl Phosphatidylethanolamine Chemotactic Excitation in <i>Myxococcus xanthus</i> . <i>Journal of Bacteriology</i> , 2002, 184, 1678-1684.	1.0	58

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37	Genetic Requirements for Potassium Ion-Dependent Colony Spreading in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2005, 187, 8462-8469.	1.0	58
38	Engineering of <i>Bacillus subtilis</i> Strains To Allow Rapid Characterization of Heterologous Diguanylate Cyclases and Phosphodiesterases. <i>Applied and Environmental Microbiology</i> , 2014, 80, 6167-6174.	1.4	57
39	A phase diagram for bacterial swarming. <i>Communications Physics</i> , 2020, 3, .	2.0	56
40	Lipid chemotaxis and signal transduction in <i>Myxococcus xanthus</i> . <i>Trends in Microbiology</i> , 2001, 9, 126-129.	3.5	55
41	FliW and FliS Function Independently To Control Cytoplasmic Flagellin Levels in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2013, 195, 297-306.	1.0	55
42	Defects in the Flagellar Motor Increase Synthesis of Poly- $\beta$ -Glutamate in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2014, 196, 740-753.	1.0	55
43	Functional Regulators of Bacterial Flagella. <i>Annual Review of Microbiology</i> , 2019, 73, 225-246.	2.9	51
44	Translation Control of Swarming Proficiency in <i>Bacillus subtilis</i> by 5-Amino-pentanolylated Elongation Factor P. <i>Journal of Biological Chemistry</i> , 2016, 291, 10976-10985.	1.6	50
45	SlrA/SinR/SlrR inhibits motility gene expression upstream of a hypersensitive and hysteretic switch at the level of $\sigma^D$ in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2012, 83, 1210-1228.	1.2	49
46	DegU $\phi$ phosphate activates expression of the anti- $\sigma$ factor FlgM in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2011, 81, 1092-1108.	1.2	44
47	<i>RemA</i> is a DNA-binding protein that activates biofilm matrix gene expression in <i>Bacillus subtilis</i> . <i>Molecular Microbiology</i> , 2013, 88, 984-997.	1.2	44
48	Preparation, Imaging, and Quantification of Bacterial Surface Motility Assays. <i>Journal of Visualized Experiments</i> , 2015, , .	0.2	44
49	Effect of Cell Aspect Ratio on Swarming Bacteria. <i>Physical Review Letters</i> , 2017, 118, 158002.	2.9	44
50	MotI (DgrA) acts as a molecular clutch on the flagellar stator protein MotA in <i>Bacillus subtilis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13537-13542.	3.3	44
51	Molecular Characterization of the Flagellar Hook in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2012, 194, 4619-4629.	1.0	43
52	Complete Genome Sequence of Undomesticated <i>Bacillus subtilis</i> Strain NCIB 3610. <i>Genome Announcements</i> , 2017, 5, .	0.8	42
53	A defined medium to investigate sliding motility in a <i>Bacillus subtilis</i> flagella-less mutant. <i>BMC Microbiology</i> , 2006, 6, 31.	1.3	41
54	Global analysis of mRNA decay intermediates in <i>Bacillus subtilis</i> wild-type and polynucleotide phosphorylase deletion strains. <i>Molecular Microbiology</i> , 2014, 94, 41-55.	1.2	41

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55	FliW antagonizes CsrA RNA binding by a noncompetitive allosteric mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9870-9875.	3.3	41
56	Biosurfactant-Mediated Membrane Depolarization Maintains Viability during Oxygen Depletion in <i>Bacillus subtilis</i> . <i>Current Biology</i> , 2020, 30, 1011-1022.e6.	1.8	41
57	Modified mariner Transposons for Random Inducible-Expression Insertions and Transcriptional Reporter Fusion Insertions in <i>Bacillus subtilis</i> . <i>Applied and Environmental Microbiology</i> , 2012, 78, 778-785.	1.4	39
58	RemA (YlzA) and RemB (YaaB) Regulate Extracellular Matrix Operon Expression and Biofilm Formation in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2009, 191, 3981-3991.	1.0	38
59	Multi-species integrative biclustering. <i>Genome Biology</i> , 2010, 11, R96.	13.9	38
60	Novel Genes That Influence Development in <i>Streptomyces coelicolor</i> . <i>Journal of Bacteriology</i> , 2004, 186, 3570-3577.	1.0	34
61	Division of labour during <i>Bacillus subtilis</i> biofilm formation. <i>Molecular Microbiology</i> , 2008, 67, 229-231.	1.2	33
62	Ultrastructural analysis of bacteriophage $\phi$ 29 during infection of <i>Bacillus subtilis</i> . <i>Journal of Structural Biology</i> , 2017, 197, 163-171.	1.3	29
63	EF-P Posttranslational Modification Has Variable Impact on Polyproline Translation in <i>Bacillus subtilis</i> . <i>MBio</i> , 2018, 9, .	1.8	29
64	Harnessing $\beta$ -Lactam Antibiotics for Illumination of the Activity of Penicillin-Binding Proteins in <i>Bacillus subtilis</i> . <i>ACS Chemical Biology</i> , 2020, 15, 1242-1251.	1.6	29
65	NusG is an intrinsic transcription termination factor that stimulates motility and coordinates gene expression with NusA. <i>ELife</i> , 2021, 10, .	2.8	27
66	Expression of multiple <i>Bacillus subtilis</i> genes is controlled by decay of <i>slrA</i> mRNA from Rho-dependent 3' ends. <i>Nucleic Acids Research</i> , 2016, 44, 3364-3372.	6.5	26
67	Carbonyl reduction by YmfI in <i>Bacillus subtilis</i> prevents accumulation of an inhibitory EF-P modification state. <i>Molecular Microbiology</i> , 2017, 106, 236-251.	1.2	26
68	FliS/flagellin/FliW heterotrimer couples type III secretion and flagellin homeostasis. <i>Scientific Reports</i> , 2018, 8, 11552.	1.6	23
69	The Solution Structures and Interaction of SinR and SinI: Elucidating the Mechanism of Action of the Master Regulator Switch for Biofilm Formation in <i>Bacillus subtilis</i> . <i>Journal of Molecular Biology</i> , 2020, 432, 343-357.	2.0	23
70	SwrD (YlzI) Promotes Swarming in <i>Bacillus subtilis</i> by Increasing Power to Flagellar Motors. <i>Journal of Bacteriology</i> , 2018, 200, .	1.0	22
71	Translation elongation factor P (EF-P). <i>FEMS Microbiology Reviews</i> , 2020, 44, 208-218.	3.9	21
72	Noc Corrals Migration of FtsZ Protofilaments during Cytokinesis in <i>Bacillus subtilis</i> . <i>MBio</i> , 2021, 12, .	1.8	19

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73	Assembly Order of Flagellar Rod Subunits in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2018, 200, .	1.0	18
74	Organization of the Flagellar Switch Complex of <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2019, 201, .	1.0	18
75	Noncontact Cohesive Swimming of Bacteria in Two-Dimensional Liquid Films. <i>Physical Review Letters</i> , 2017, 119, 018101.	2.9	17
76	Functional Activation of the Flagellar Type III Secretion Export Apparatus. <i>PLoS Genetics</i> , 2015, 11, e1005443.	1.5	15
77	Suppressor mutations in ribosomal proteins and <i>FliY</i> restore <i>Bacillus subtilis</i> swarming motility in the absence of EF-P. <i>PLoS Genetics</i> , 2019, 15, e1008179.	1.5	15
78	Growing <i>Bacillus subtilis</i> tendrils sense and avoid each other. <i>FEMS Microbiology Letters</i> , 2009, 298, 12-19.	0.7	14
79	Viscous drag on the flagellum activates <i>Bacillus subtilis</i> entry into the $\epsilon$ -state. <i>Molecular Microbiology</i> , 2017, 106, 367-380.	1.2	14
80	Transcriptional Regulation and Mechanism of SigN (ZpdN), a pBS32-Encoded Sigma Factor in <i>Bacillus subtilis</i> . <i>MBio</i> , 2019, 10, .	1.8	14
81	You get what you select for: better swarming through more flagella. <i>Trends in Microbiology</i> , 2013, 21, 508-509.	3.5	13
82	Bacterial Swarmer Enriched During Intestinal Stress Ameliorate Damage. <i>Gastroenterology</i> , 2021, 161, 211-224.	0.6	13
83	<i>csrT</i> Represents a New Class of <i>csrA</i> -Like Regulatory Genes Associated with Integrative Conjugative Elements of <i>Legionella pneumophila</i> . <i>Journal of Bacteriology</i> , 2016, 198, 553-564.	1.0	12
84	[10] Directed movement and surface-borne motility of myxococcus and pseudomonas. <i>Methods in Enzymology</i> , 2001, 336, 94-102.	0.4	10
85	The C-Terminal Region of <i>Bacillus subtilis</i> SwrA Is Required for Activity and Adaptor-Dependent LonA Proteolysis. <i>Journal of Bacteriology</i> , 2018, 200, .	1.0	10
86	Catabolite regulation in a diauxic strain and a nondiauxic strain of <i>Streptococcus bovis</i> . <i>Current Microbiology</i> , 1996, 33, 216-219.	1.0	9
87	The Min System Disassembles FtsZ Foci and Inhibits Polar Peptidoglycan Remodeling in <i>Bacillus subtilis</i> . <i>MBio</i> , 2020, 11, .	1.8	9
88	Role for Cell-Surface Collagen of <i>Streptococcus pyogenes</i> in Infections. <i>ACS Infectious Diseases</i> , 2020, 6, 1836-1843.	1.8	9
89	Tn <i>FLX</i> : a Third-Generation <i>mariner</i> -Based Transposon System for <i>Bacillus subtilis</i> . <i>Applied and Environmental Microbiology</i> , 2020, 86, .	1.4	9
90	The Microbial Olympics 2016. <i>Nature Microbiology</i> , 2016, 1, 16122.	5.9	7

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91	The Canonical Twin-Arginine Translocase Components Are Not Required for Secretion of Folded Green Fluorescent Protein from the Ancestral Strain of <i>Bacillus subtilis</i> . <i>Applied and Environmental Microbiology</i> , 2014, 80, 3219-3232.	1.4	6
92	The Large pBS32/pLS32 Plasmid of Ancestral <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2020, 202, .	1.0	6
93	RnhP is a plasmidâ€borne RNase HI that contributes to genome maintenance in the ancestral strain <i>Bacillus subtilis</i> NCIB 3610. <i>Molecular Microbiology</i> , 2021, 115, 99-115.	1.2	6
94	The Division Defect of a <i>Bacillus subtilis</i> minD noc Double Mutant Can Be Suppressed by Spx-Dependent and Spx-Independent Mechanisms. <i>Journal of Bacteriology</i> , 2021, 203, e0024921.	1.0	5
95	SmiA is a hybrid priming/scaffolding adaptor for the LonA protease in <i>Bacillus subtilis</i> . <i>Journal of Biological Chemistry</i> , 2022, 298, 102045.	1.6	5
96	Identification of Genes Required for Swarming Motility in <i>Bacillus subtilis</i> Using Transposon Mutagenesis and High-Throughput Sequencing (TnSeq). <i>Journal of Bacteriology</i> , 2022, 204, .	1.0	5
97	MICROBIOLOGY: Bright Insight into Bacterial Gliding. <i>Science</i> , 2007, 315, 773-774.	6.0	4
98	New inhibitors of colony spreading in <i>Bacillus subtilis</i> and <i>Bacillus anthracis</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 5583-5588.	1.0	4
99	Structural and functional characterization of the bacterial biofilm activator RemA. <i>Nature Communications</i> , 2021, 12, 5707.	5.8	4
100	Inducer Expulsion Is Not a Determinant of Diauxic Growth in <i>Streptococcus bovis</i> . <i>Current Microbiology</i> , 1996, 32, 221-224.	1.0	3
101	CwlQ Is Required for Swarming Motility but Not Flagellar Assembly in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2021, 203, .	1.0	3
102	Flagellar Stators Activate a Diguanylate Cyclase To Inhibit Flagellar Stators. <i>Journal of Bacteriology</i> , 2019, 201, .	1.0	2
103	Contact with the CsrA Core Is Required for Allosteric Inhibition by FliW in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2020, 203, .	1.0	1
104	Molecular and Cell Biological Analysis of SwrB in <i>Bacillus subtilis</i> . <i>Journal of Bacteriology</i> , 2021, 203, e0022721.	1.0	0
105	Filling in the gaps for the master regulator of biofilm formation in <i>Bacillus subtilis</i> : A structural and biochemical look at SinR and SinI. <i>FASEB Journal</i> , 2019, 33, .	0.2	0
106	Tn <i>FLXopen</i> : Markerless Transposons for Functional Fluorescent Fusion Proteins and Protein Interaction Prediction. <i>Microbiology Spectrum</i> , 2022, , e0242821.	1.2	0