Laub Mt

List of Publications by Year
in descending order

78 papers	8,061 citations	76031 42 h-index	78623 77 g-index
97 all docs	97 docs citations	97 times ranked	7908 citing authors

#	Article	IF	Citations
1	<i>Escherichia coli</i> SymE is a DNAâ€binding protein that can condense the nucleoid. Molecular Microbiology, 2022, 117, 851-870.	1.2	8
2	Co-evolution of interacting proteins through non-contacting and non-specific mutations. Nature Ecology and Evolution, 2022, 6, 590-603.	3.4	23
3	Robust and tunable signal processing in mammalian cells via engineered covalent modification cycles. Nature Communications, 2022, 13, 1720.	5.8	14
4	Toxin-Antitoxin Systems as Phage Defense Elements. Annual Review of Microbiology, 2022, 76, 21-43.	2.9	85
5	A Silent Operon of Photorhabdus luminescens Encodes a Prodrug Mimic of GTP. MBio, 2022, 13, e0070022.	1.8	7
6	ssDNA is an allosteric regulator of the <i>C. crescentus</i> SOS-independent DNA damage response transcription activator, DriD. Genes and Development, 2022, 36, 618-633.	2.7	11
7	The DarTG toxin-antitoxin system provides phage defence by ADP-ribosylating viral DNA. Nature Microbiology, 2022, 7, 1028-1040.	5.9	78
8	Mucin Glycans Signal through the Sensor Kinase RetS to Inhibit Virulence-Associated Traits in Pseudomonas aeruginosa. Current Biology, 2021, 31, 90-102.e7.	1.8	45
9	Characterizing the portability of phage-encoded homologous recombination proteins. Nature Chemical Biology, 2021, 17, 394-402.	3.9	36
10	Two-Component Signaling Systems Regulate Diverse Virulence-Associated Traits in Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2021, 87, .	1.4	15
11	Shutoff of host transcription triggers a toxin-antitoxin system to cleave phage RNA and abort infection. Molecular Cell, 2021, 81, 2361-2373.e9.	4.5	72
12	High-resolution, genome-wide mapping of positive supercoiling in chromosomes. ELife, 2021, 10, .	2.8	34
13	Evolution towards Virulence in a <i>Burkholderia</i> Two-Component System. MBio, 2021, 12, e0182321.	1.8	3
14	Activation of a signaling pathway by the physical translocation of a chromosome. Developmental Cell, 2021, 56, 2145-2159.e7.	3.1	12
15	Global Analysis of the Specificities and Targets of Endoribonucleases from Escherichia coli Toxin-Antitoxin Systems. MBio, 2021, 12, e0201221.	1.8	15
16	ppGpp Coordinates Nucleotide and Amino-Acid Synthesis in E. coli During Starvation. Molecular Cell, 2020, 80, 29-42.e10.	4.5	50
17	Constraints on the expansion of paralogous protein families. Current Biology, 2020, 30, R460-R464.	1.8	11
18	Stress Can Induce Transcription of Toxin-Antitoxin Systems without Activating Toxin. Molecular Cell, 2020, 79, 280-292.e8.	4.5	87

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19	A Simple, Cost-Effective, and Robust Method for rRNA Depletion in RNA-Sequencing Studies. MBio, 2020, 11, .	1.8	72
20	A CRISPR Interference System for Efficient and Rapid Gene Knockdown in Caulobacter crescentus. MBio, 2020, 11, .	1.8	24
21	Uncovering the basis of protein-protein interaction specificity with a combinatorially complete library. ELife, 2020, 9, .	2.8	48
22	The Stringent Response Inhibits DNA Replication Initiation in E. coli by Modulating Supercoiling of <i>oriC</i>. MBio, 2019, 10, .	1.8	41
23	An interbacterial toxin inhibits target cell growth by synthesizing (p)ppApp. Nature, 2019, 575, 674-678.	13.7	118
24	Mechanisms of Resistance to the Contact-Dependent Bacteriocin CdzC/D in <i>Caulobacter crescentus</i>. Journal of Bacteriology, 2019, 201, .	1.0	11
25	Unique Patterns and Biogeochemical Relevance of Two-Component Sensing in Marine Bacteria. MSystems, 2019, 4, .	1.7	29
26	Concerns about â€œStress-Induced MazF-Mediated Proteins in Escherichia coliâ€ MBio, 2019, 10, .	1.8	6
27	Engineering orthogonal signalling pathways reveals the sparse occupancy of sequence space. Nature, 2019, 574, 702-706.	13.7	57
28	Affinity-based capture and identification of protein effectors of the growth regulator ppGpp. Nature Chemical Biology, 2019, 15, 141-150.	3.9	159
29	Structural insights into the unique mechanism of transcription activation by Caulobacter crescentus GcrA. Nucleic Acids Research, 2018, 46, 3245-3256.	6.5	20
30	Flexibility and constraint: Evolutionary remodeling of the sporulation initiation pathway in Firmicutes. PLoS Genetics, 2018, 14, e1007470.	1.5	13
31	A Bacterial Chromosome Structuring Protein Binds Overtwisted DNA to Stimulate Type II Topoisomerases and Enable DNA Replication. Cell, 2018, 175, 583-597.e23.	13.5	53
32	Global Analysis of the E.Âcoli Toxin MazF Reveals Widespread Cleavage of mRNA and the Inhibition of rRNA Maturation and Ribosome Biogenesis. Molecular Cell, 2018, 70, 868-880.e10.	4.5	106
33	Constriction Rate Modulation Can Drive Cell Size Control and Homeostasis in C.Âcrescentus. IScience, 2018, 4, 180-189.	1.9	25
34	<i>Bacillus subtilis</i> SMC complexes juxtapose chromosome arms as they travel from origin to terminus. Science, 2017, 355, 524-527.	6.0	267
35	SMC Progressively Aligns Chromosomal Arms in Caulobacter crescentus but Is Antagonized by Convergent Transcription. Cell Reports, 2017, 20, 2057-2071.	2.9	121
36	Unsupervised Extraction of Stable Expression Signatures from Public Compendia with an Ensemble of Neural Networks. Cell Systems, 2017, 5, 63-71.e6.	2.9	84

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37	Global analysis of double-strand break processing reveals in vivo properties of the helicase-nuclease complex AddAB. PLoS Genetics, 2017, 13, e1006783.	1.5	16
38	Contact-dependent killing by Caulobacter crescentus via cell surface-associated, glycine zipper proteins. ELife, 2017, 6, .	2.8	65
39	Keeping Signals Straight: How Cells Process Information and Make Decisions. PLoS Biology, 2016, 14, e1002519.	2.6	9
40	Transcription rate and transcript length drive formation of chromosomal interaction domain boundaries. EMBO Journal, 2016, 35, 1582-1595.	3.5	108
41	ClpAP is an auxiliary protease for DnaA degradation in <i>Caulobacter crescentus</i>. Molecular Microbiology, 2016, 102, 1075-1085.	1.2	31
42	The small membrane protein MgrB regulates PhoQ bifunctionality to control PhoP target gene expression dynamics. Molecular Microbiology, 2016, 102, 430-445.	1.2	51
43	Identification of the PhoB Regulon and Role of PhoU in the Phosphate Starvation Response of Caulobacter crescentus. Journal of Bacteriology, 2016, 198, 187-200.	1.0	65
44	Bacterial Chromosome Organization and Segregation. Annual Review of Cell and Developmental Biology, 2015, 31, 171-199.	4.0	264
45	Pervasive degeneracy and epistasis in a protein-protein interface. Science, 2015, 347, 673-677.	6.0	167
46	Temporal and evolutionary dynamics of two-component signaling pathways. Current Opinion in Microbiology, 2015, 24, 7-14.	2.3	67
47	Rapid pairing and resegregation of distant homologous loci enables double-strand break repair in bacteria. Journal of Cell Biology, 2015, 210, 385-400.	2.3	52
48	Condensin promotes the juxtaposition of DNA flanking its loading site in <i>Bacillus subtilis</i>. Genes and Development, 2015, 29, 1661-1675.	2.7	215
49	The bacterial cell cycle regulator GcrA is a Ïƒ⁷⁰ cofactor that drives gene expression from a subset of methylated promoters. Genes and Development, 2015, 29, 2272-2286.	2.7	67
50	Evolving New Protein-Protein Interaction Specificity through Promiscuous Intermediates. Cell, 2015, 163, 594-606.	13.5	167
51	Nutritional Control of DNA Replication Initiation through the Proteolysis and Regulated Translation of DnaA. PLoS Genetics, 2015, 11, e1005342.	1.5	60
52	A DNA Damage-Induced, SOS-Independent Checkpoint Regulates Cell Division in Caulobacter crescentus. PLoS Biology, 2014, 12, e1001977.	2.6	110
53	Permanent genetic memory with >1-byte capacity. Nature Methods, 2014, 11, 1261-1266.	9.0	202
54	New approaches to understanding the spatial organization of bacterial genomes. Current Opinion in Microbiology, 2014, 22, 15-21.	2.3	30

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55	Determinants of specificity in two-component signal transduction. Current Opinion in Microbiology, 2013, 16, 156-162.	2.3	126
56	High-Resolution Mapping of the Spatial Organization of a Bacterial Chromosome. Science, 2013, 342, 731-734.	6.0	531
57	A Bacterial Toxin Inhibits DNA Replication Elongation through a Direct Interaction with the Î² Sliding Clamp. Molecular Cell, 2013, 52, 617-628.	4.5	175
58	Spatial tethering of kinases to their substrates relaxes evolutionary constraints on specificity. Molecular Microbiology, 2012, 86, 1393-1403.	1.2	24
59	Polarity and cell fate asymmetry in Caulobacter crescentus. Current Opinion in Microbiology, 2012, 15, 744-750.	2.3	96
60	Adaptive Mutations that Prevent Crosstalk Enable the Expansion of Paralogous Signaling Protein Families. Cell, 2012, 150, 222-232.	13.5	114
61	Evolution of Two-Component Signal Transduction Systems. Annual Review of Microbiology, 2012, 66, 325-347.	2.9	549
62	Determinants of Homodimerization Specificity in Histidine Kinases. Journal of Molecular Biology, 2011, 413, 222-235.	2.0	38
63	Modularity of the Bacterial Cell Cycle Enables Independent Spatial and Temporal Control of DNA Replication. Current Biology, 2011, 21, 1092-1101.	1.8	72
64	A DNA damage checkpoint in <i>Caulobacter crescentus</i> inhibits cell division through a direct interaction with FtsW. Genes and Development, 2011, 25, 1328-1343.	2.7	124
65	Systematic Dissection and Trajectory-Scanning Mutagenesis of the Molecular Interface That Ensures Specificity of Two-Component Signaling Pathways. PLoS Genetics, 2010, 6, e1001220.	1.5	117
66	A Cell-Type-Specific Protein-Protein Interaction Modulates Transcriptional Activity of a Master Regulator in Caulobacter crescentus. Molecular Cell, 2010, 39, 455-467.	4.5	87
67	Rewiring the Specificity of Two-Component Signal Transduction Systems. Cell, 2008, 133, 1043-1054.	13.5	418
68	Phosphotransfer Profiling: Systematic Mapping of Twoâ€Component Signal Transduction Pathways and Phosphorelays. Methods in Enzymology, 2007, 423, 531-548.	0.4	63
69	Systems Biology of <i>Caulobacter</i>. Annual Review of Genetics, 2007, 41, 429-441.	3.2	110
70	Specificity in Two-Component Signal Transduction Pathways. Annual Review of Genetics, 2007, 41, 121-145.	3.2	629
71	A phosphorelay system controls stalk biogenesis during cell cycle progression inCaulobacter crescentus. Molecular Microbiology, 2006, 59, 386-401.	1.2	95
72	Two-Component Signal Transduction Pathways Regulating Growth and Cell Cycle Progression in a Bacterium: A System-Level Analysis. PLoS Biology, 2005, 3, e334.	2.6	378

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73	Cell-cycle progression and the generation of asymmetry in Caulobacter crescentus. Nature Reviews Microbiology, 2004, 2, 325-337.	13.6	151
74	Functions of the CckA histidine kinase in Caulobacter cell cycle control. Molecular Microbiology, 2003, 47, 1279-1290.	1.2	96
75	Genes directly controlled by CtrA, a master regulator of the Caulobacter cell cycle. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4632-4637.	3.3	363
76	Toggles and oscillators: new genetic circuit designs. BioEssays, 2000, 22, 507-509.	1.2	36
77	The Role of Two-Component Signal Transduction Systems in Bacterial Stress Responses. , 0, , 45-58.		9
78	Ancestral reconstruction of duplicated signaling proteins reveals the evolution of signaling specificity. ELife, 0, 11, .	2.8	13