Christine Jacobs-Wagner

List of Publications by Year
in descending order

77 papers	7,849 citations	66343 42 h-index	82547 72 g-index
87 all docs	87 docs citations	87 times ranked	7355 citing authors

#	Article	IF	Citations
1	The Bacterial Cytoplasm Has Glass-like Properties and Is Fluidized by Metabolic Activity. Cell, 2014, 156, 183-194.	28.9	643
2	A Constant Size Extension Drives Bacterial Cell Size Homeostasis. Cell, 2014, 159, 1433-1446.	28.9	480
3	Highâ€throughput, subpixel precision analysis of bacterial morphogenesis and intracellular spatioâ€temporal dynamics. Molecular Microbiology, 2011, 80, 612-627.	2.5	447
4	Bacterial cell shape. Nature Reviews Microbiology, 2005, 3, 601-610.	28.6	437
5	Oufti: an integrated software package for highâ€accuracy, highâ€throughput quantitative microscopy analysis. Molecular Microbiology, 2016, 99, 767-777.	2.5	341
6	Spatial organization of the flow of genetic information in bacteria. Nature, 2010, 466, 77-81.	27.8	334
7	The Bacterial Cytoskeleton. Cell, 2003, 115, 705-713.	28.9	321
8	A Self-Associating Protein Critical for Chromosome Attachment, Division, and Polar Organization in Caulobacter. Cell, 2008, 134, 956-968.	28.9	286
9	Ultra-High Resolution 3D Imaging of Whole Cells. Cell, 2016, 166, 1028-1040.	28.9	247
10	Pathogen-mediated manipulation of arthropod microbiota to promote infection. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E781-E790.	7.1	207
11	The tubulin homologue FtsZ contributes to cell elongation by guiding cell wall precursor synthesis in Caulobacter crescentus. Molecular Microbiology, 2007, 64, 938-952.	2.5	203
12	Evidence for a DNA-relay mechanism in ParABS-mediated chromosome segregation. ELife, 2014, 3, e02758.	6.0	197
13	A Landmark Protein Essential for Establishing and Perpetuating the Polarity of a Bacterial Cell. Cell, 2006, 124, 1011-1023.	28.9	163
14	Cell cycle coordination and regulation of bacterial chromosome segregation dynamics by polarly localized proteins. EMBO Journal, 2010, 29, 3068-3081.	7.8	163
15	How do bacteria localize proteins to the cell pole?. Journal of Cell Science, 2014, 127, 11-9.	2.0	157
16	Subcellular Organization: A Critical Feature of Bacterial Cell Replication. Cell, 2018, 172, 1271-1293.	28.9	157
17	RodZ, a component of the bacterial core morphogenic apparatus. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1239-1244.	7.1	156
18	Bacterial cell curvature through mechanical control of cell growth. EMBO Journal, 2009, 28, 1208-1219.	7.8	147

#	Article	IF	Citations
19	Cytokinesis Monitoring during Development. Cell, 2004, 118, 579-590.	28.9	127
20	The Bacterial Cytoskeleton. Annual Review of Genetics, 2010, 44, 365-392.	7.6	117
21	De novo design of self-assembling helical protein filaments. Science, 2018, 362, 705-709.	12.6	112
22	MreB Drives <i>De N</i> <i>ovo</i> Rod Morphogenesis in <i>Caulobacter crescentus</i> via Remodeling of the Cell Wall. Journal of Bacteriology, 2010, 192, 1671-1684.	2.2	103
23	G1-arrested newborn cells are the predominant infectious form of the pathogen Brucella abortus. Nature Communications, 2014, 5, 4366.	12.8	100
24	<i>Borrelia burgdorferi</i>peptidoglycan is a persistent antigen in patients with Lyme arthritis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13498-13507.	7.1	97
25	The Asymmetric Spatial Distribution of Bacterial Signal Transduction Proteins Coordinates Cell Cycle Events. Developmental Cell, 2003, 5, 149-159.	7.0	93
26	Nucleoid Size Scaling and Intracellular Organization of Translation across Bacteria. Cell, 2019, 177, 1632-1648.e20.	28.9	91
27	Spatiotemporal control of PopZ localization through cell cycleâ€“coupled multimerization. Journal of Cell Biology, 2013, 201, 827-841.	5.2	87
28	Spatial and Temporal Control of Differentiation and Cell Cycle Progression inCaulobacter crescentus. Annual Review of Microbiology, 2003, 57, 225-247.	7.3	83
29	Transferred interbacterial antagonism genes augment eukaryotic innate immune function. Nature, 2015, 518, 98-101.	27.8	82
30	Long-Distance Cooperative and Antagonistic RNA Polymerase Dynamics via DNA Supercoiling. Cell, 2019, 179, 106-119.e16.	28.9	77
31	Skin and bones: the bacterial cytoskeleton, cell wall, and cell morphogenesis. Journal of Cell Biology, 2007, 179, 381-387.	5.2	73
32	Bacterial intermediate filaments: in vivo assembly, organization, and dynamics of crescentin. Genes and Development, 2009, 23, 1131-1144.	5.9	71
33	The asymmetric distribution of the essential histidine kinase PdhS indicates a differentiation event in Brucella abortus. EMBO Journal, 2007, 26, 1444-1455.	7.8	70
34	Genomewide phenotypic analysis of growth, cell morphogenesis, and cell cycle events in <i>Escherichia coli</i>. Molecular Systems Biology, 2018, 14, e7573.	7.2	69
35	DNA-relay mechanism is sufficient to explain ParA-dependent intracellular transport and patterning of single and multiple cargos. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E7268-E7276.	7.1	66
36	The evolution of new lipoprotein subunits of the bacterial outer membrane BAM complex. Molecular Microbiology, 2012, 84, 832-844.	2.5	65

#	Article	IF	Citations
37	The reducible complexity of a mitochondrial molecular machine. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15791-15795.	7.1	64
38	A Modular BAM Complex in the Outer Membrane of the Î±-Proteobacterium Caulobacter crescentus. PLoS ONE, 2010, 5, e8619.	2.5	62
39	A protein critical for cell constriction in the Gramâ€negative bacterium <i>Caulobacter crescentus</i> localizes at the division site through its peptidoglycanâ€binding LysM domains. Molecular Microbiology, 2010, 77, 74-89.	2.5	56
40	Crosstalk between the tricarboxylic acid cycle and peptidoglycan synthesis in Caulobacter crescentus through the homeostatic control of Î±-ketoglutarate. PLoS Genetics, 2017, 13, e1006978.	3.5	55
41	Mycofumigation by the Volatile Organic Compound-Producing Fungus Muscodor albus Induces Bacterial Cell Death through DNA Damage. Applied and Environmental Microbiology, 2015, 81, 1147-1156.	3.1	53
42	Osmolality-Dependent Relocation of Penicillin-Binding Protein PBP2 to the Division Site in Caulobacter crescentus. Journal of Bacteriology, 2012, 194, 3116-3127.	2.2	52
43	Exploration into the spatial and temporal mechanisms of bacterial polarity. Trends in Microbiology, 2007, 15, 101-108.	7.7	50
44	Transcriptomic and phylogenetic analysis of a bacterial cell cycle reveals strong associations between gene co-expression and evolution. BMC Genomics, 2013, 14, 450.	2.8	50
45	Polar Localization of the CckA Histidine Kinase and Cell Cycle Periodicity of the Essential Master Regulator CtrA in <i>Caulobacter crescentus</i>. Journal of Bacteriology, 2010, 192, 539-552.	2.2	49
46	Replication fork passage drives asymmetric dynamics of a critical nucleoidâ€associated protein in <i>Caulobacter</i>. EMBO Journal, 2017, 36, 301-318.	7.8	47
47	Lyme disease and relapsing fever<i>Borrelia</i>elongate through zones of peptidoglycan synthesis that mark division sites of daughter cells. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9162-9170.	7.1	42
48	Subcellular Protein Localization by Using a Genetically Encoded Fluorescent Amino Acid. ChemBioChem, 2011, 12, 1818-1821.	2.6	41
49	Cellular organization of the transfer of genetic information. Current Opinion in Microbiology, 2013, 16, 171-176.	5.1	41
50	Interconnecting solvent quality, transcription, and chromosome folding in Escherichia coli. Cell, 2021, 184, 3626-3642.e14.	28.9	41
51	Localization of PBP3 in <i>Caulobacter crescentus</i> is highly dynamic and largely relies on its functional transpeptidase domain. Molecular Microbiology, 2008, 70, 634-651.	2.5	36
52	The Slow Mobility of the ParA Partitioning Protein Underlies Its Steady-State Patterning in Caulobacter. Biophysical Journal, 2016, 110, 2790-2799.	0.5	36
53	Processivity of peptidoglycan synthesis provides a built-in mechanism for the robustness of straight-rod cell morphology. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10086-10091.	7.1	35
54	InÂVivo Biochemistry in Bacterial Cells Using FRAP: Insight into theÂTranslation Cycle. Biophysical Journal, 2012, 103, 1848-1859.	0.5	34

#	Article	IF	Citations
55	Proximity labeling reveals non-centrosomal microtubule-organizing center components required for microtubule growth and localization. Current Biology, 2021, 31, 3586-3600.e11.	3.9	31
56	Regulatory proteins with a sense of direction: cell cycle signalling network in Caulobacter. Molecular Microbiology, 2003, 51, 7-13.	2.5	29
57	Mutations in the Lipopolysaccharide Biosynthesis Pathway Interfere with Crescentin-Mediated Cell Curvature in <i>Caulobacter crescentus</i>. Journal of Bacteriology, 2010, 192, 3368-3378.	2.2	28
58	Growth Medium-Dependent Glycine Incorporation into the Peptidoglycan of Caulobacter crescentus. PLoS ONE, 2013, 8, e57579.	2.5	27
59	Effects of mRNA Degradation and Site-Specific Transcriptional Pausing on Protein Expression Noise. Biophysical Journal, 2018, 114, 1718-1729.	0.5	27
60	Fluorescent Proteins, Promoters, and Selectable Markers for Applications in the Lyme Disease Spirochete Borrelia burgdorferi. Applied and Environmental Microbiology, 2018, 84, .	3.1	26
61	PflI, a Protein Involved in Flagellar Positioning in <i>Caulobacter crescentus</i>. Journal of Bacteriology, 2008, 190, 1718-1729.	2.2	22
62	Localization of GroEL determined by in vivo incorporation of a fluorescent amino acid. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 6067-6070.	2.2	22
63	The domain organization of the bacterial intermediate filamentâ€like protein crescentin is important for assembly and function. Cytoskeleton, 2011, 68, 205-219.	2.0	22
64	Caulobacter crescentus: model system extraordinaire. Current Biology, 2020, 30, R1151-R1158.	3.9	22
65	A CRISPR Interference Platform for Selective Downregulation of Gene Expression in Borrelia burgdorferi. Applied and Environmental Microbiology, 2021, 87, .	3.1	16
66	A Tick Antivirulence Protein Potentiates Antibiotics against Staphylococcus aureus. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	12
67	Origin of exponential growth in nonlinear reaction networks. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27795-27804.	7.1	9
68	A human secretome library screen reveals a role for Peptidoglycan Recognition Protein 1 in Lyme borreliosis. PLoS Pathogens, 2020, 16, e1009030.	4.7	9
69	Suppression of Amber Codons in Caulobacter crescentus by the Orthogonal Escherichia coli Histidyl-tRNA Synthetase/tRNAHis Pair. PLoS ONE, 2013, 8, e83630.	2.5	7
70	Bacterial Evolution: What Goes Around Comes Around. Current Biology, 2015, 25, R496-R498.	3.9	4
71	A metabolic assembly line in bacteria. Nature Cell Biology, 2010, 12, 731-733.	10.3	3
72	Probing Spatial Organization of mRNA in Bacterial Cells using 3D Super-Resolution Microscopy. Biophysical Journal, 2012, 102, 278a.	0.5	1

#	Article	IF	Citations
73	Christine Jacobs-Wagner: Drawing the bacterial organizational chart. Journal of Cell Biology, 2010, 189, 390-391.	5.2	0
74	Function and Regulation of the Bacterial Cytoskeleton. Biophysical Journal, 2010, 98, 3a.	0.5	0
75	Combinatorial Origin of Protein Expression Noise. Biophysical Journal, 2018, 114, 395a.	0.5	0
76	Christine Jacobs-Wagner. Current Biology, 2021, 31, R882-R883.	3.9	0
77	Nucleoid Size Scaling and Intracellular Organization of Translation Across Bacteria. SSRN Electronic Journal, 0, , .	0.4	0