Maarten Fauvart

List of Publications by Year
in descending order

81 papers	4,526 citations	172207 29 h-index	114278 63 g-index
82 all docs	82 docs citations	82 times ranked	5549 citing authors

#	Article	IF	Citations
1	Living on a surface: swarming and biofilm formation. Trends in Microbiology, 2008, 16, 496-506.	3.5	402
2	Role of persister cells in chronic infections: clinical relevance and perspectives on anti-persister therapies. Journal of Medical Microbiology, 2011, 60, 699-709.	0.7	356
3	Formation, physiology, ecology, evolution and clinical importance of bacterial persisters. FEMS Microbiology Reviews, 2017, 41, 219-251.	3.9	291
4	Obg and Membrane Depolarization Are Part of a Microbial Bet-Hedging Strategy that Leads to Antibiotic Tolerance. Molecular Cell, 2015, 59, 9-21.	4.5	261
5	Bacterial persistence promotes the evolution of antibiotic resistance by increasing survival and mutation rates. ISME Journal, 2019, 13, 1239-1251.	4.4	223
6	Frequency of antibiotic application drives rapid evolutionary adaptation of Escherichia coli persistence. Nature Microbiology, 2016, 1, 16020.	5.9	210
7	The Universally Conserved Prokaryotic GTPases. Microbiology and Molecular Biology Reviews, 2011, 75, 507-542.	2.9	175
8	Fighting bacterial persistence: Current and emerging anti-persister strategies and therapeutics. Drug Resistance Updates, 2018, 38, 12-26.	6.5	167
9	Novel persistence genes in<i>Pseudomonas aeruginosa</i>identified by high-throughput screening. FEMS Microbiology Letters, 2009, 297, 73-79.	0.7	166
10	Rhizobial secreted proteins as determinants of host specificity in the rhizobiumÃ¢Â€Â“legume symbiosis. FEMS Microbiology Letters, 2008, 285, 1-9.	0.7	139
11	Quorum signal molecules as biosurfactants affecting swarming in Rhizobium etli. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14965-14970.	3.3	135
12	Experimental Design, Population Dynamics, and Diversity in Microbial Experimental Evolution. Microbiology and Molecular Biology Reviews, 2018, 82, .	2.9	132
13	New-found fundamentals of bacterial persistence. Trends in Microbiology, 2012, 20, 577-585.	3.5	126
14	Bacterial Heterogeneity and Antibiotic Survival: Understanding and Combatting Persistence and Heteroresistance. Molecular Cell, 2019, 76, 255-267.	4.5	123
15	Antibiotics: Combatting Tolerance To Stop Resistance. MBio, 2019, 10, .	1.8	103
16	Efficacy of Artilysin Art-175 against Resistant and Persistent Acinetobacter baumannii. Antimicrobial Agents and Chemotherapy, 2016, 60, 3480-3488.	1.4	99
17	Adaptive tuning of mutation rates allows fast response to lethal stress in Escherichia coli. ELife, 2017, 6, .	2.8	86
18	<i>In Vitro</i> Emergence of High Persistence upon Periodic Aminoglycoside Challenge in the ESKAPE Pathogens. Antimicrobial Agents and Chemotherapy, 2016, 60, 4630-4637.	1.4	75

#	ARTICLE	IF	CITATIONS
19	Stress response regulators identified through genome-wide transcriptome analysis of the (p)ppGpp-dependent response in Rhizobium etli. Genome Biology, 2011, 12, R17.	13.9	74
20	Covalent immobilization of antimicrobial agents on titanium prevents<i>Staphylococcus aureus</i>and<i>Candida albicans</i>colonization and biofilm formation. Journal of Antimicrobial Chemotherapy, 2016, 71, 936-945.	1.3	68
21	Effects of co-inoculation of native Rhizobium and Pseudomonas strains on growth parameters and yield of two contrasting Phaseolus vulgaris L. genotypes under Cuban soil conditions. European Journal of Soil Biology, 2014, 62, 105-112.	1.4	67
22	An integrative view of cell cycle control in Escherichia coli. FEMS Microbiology Reviews, 2018, 42, 116-136.	3.9	63
23	Surface tension gradient control of bacterial swarming in colonies of Pseudomonas aeruginosa. Soft Matter, 2012, 8, 70-76.	1.2	57
24	Bacterial Obg proteins: GTPases at the nexus of protein and DNA synthesis. Critical Reviews in Microbiology, 2014, 40, 207-224.	2.7	54
25	Neonatal Thyroid-Stimulating Hormone Concentrations in Belgium: A Useful Indicator for Detecting Mild Iodine Deficiency?. PLoS ONE, 2012, 7, e47770.	1.1	44
26	Genome-wide detection of predicted non-coding RNAs in Rhizobium etli expressed during free-living and host-associated growth using a high-resolution tiling array. BMC Genomics, 2010, 11, 53.	1.2	42
27	Fitness tradeâ€offs explain low levels of persister cells in the opportunistic pathogen <i>PseudomonasÂaeruginosa</i>. Molecular Ecology, 2015, 24, 1572-1583.	2.0	38
28	High-throughput time-resolved morphology screening in bacteria reveals phenotypic responses to antibiotics. Communications Biology, 2019, 2, 269.	2.0	35
29	Pseudomonas aeruginosa fosfomycin resistance mechanisms affect non-inherited fluoroquinolone tolerance. Journal of Medical Microbiology, 2011, 60, 329-336.	0.7	33
30	Elucidation of the Mode of Action of a New Antibacterial Compound Active against Staphylococcus aureus and Pseudomonas aeruginosa. PLoS ONE, 2016, 11, e0155139.	1.1	30
31	Antibacterial activity of a new broadâ€spectrum antibiotic covalently bound to titanium surfaces. Journal of Orthopaedic Research, 2016, 34, 2191-2198.	1.2	29
32	Genetic Determinants of Swarming in Rhizobium etli. Microbial Ecology, 2008, 55, 54-64.	1.4	28
33	A Comparative Transcriptome Analysis of <i>Rhizobium etli</i> Bacteroids: Specific Gene Expression During Symbiotic Nongrowth. Molecular Plant-Microbe Interactions, 2011, 24, 1553-1561.	1.4	28
34	Canonical and nonâ€canonical EcfG sigma factors control the general stress response in <i>Rhizobium etli</i>. MicrobiologyOpen, 2013, 2, 976-987.	1.2	25
35	A putative de-<i>N</i>-acetylase of the PIG-L superfamily affects fluoroquinolone tolerance in<i>Pseudomonas aeruginosa</i>. Pathogens and Disease, 2014, 71, 39-54.	0.8	25
36	Repurposing Toremifene for Treatment of Oral Bacterial Infections. Antimicrobial Agents and Chemotherapy, 2017, 61, .	1.4	25

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37	Single-cell transfection technologies for cell therapies and gene editing. Journal of Controlled Release, 2021, 330, 963-975.	4.8	25
38	Genomic analysis of cyclic-di-GMP-related genes in rhizobial type strains and functional analysis in Rhizobium etli. Applied Microbiology and Biotechnology, 2014, 98, 4589-4602.	1.7	23
39	Rhizobium etli HrpW is a pectin-degrading enzyme and differs from phytopathogenic homologues in enzymically crucial tryptophan and glycine residues. Microbiology (United Kingdom), 2009, 155, 3045-3054.	0.7	22
40	A Single-Amino-Acid Substitution in Obg Activates a New Programmed Cell Death Pathway in Escherichia coli. MBio, 2015, 6, e01935-15.	1.8	22
41	Mutations in respiratory complex I promote antibiotic persistence through alterations in intracellular acidity and protein synthesis. Nature Communications, 2022, 13, 546.	5.8	21
42	Structural and biochemical analysis of Escherichia coli ObgE, a central regulator of bacterial persistence. Journal of Biological Chemistry, 2017, 292, 5871-5883.	1.6	20
43	Should we develop screens for multi-drug antibiotic tolerance?. Expert Review of Anti-Infective Therapy, 2016, 14, 613-616.	2.0	19
44	A Historical Perspective on Bacterial Persistence. Methods in Molecular Biology, 2016, 1333, 3-13.	0.4	19
45	Rapid and sensitive detection of viral nucleic acids using silicon microchips. Analyst, The, 2018, 143, 2596-2603.	1.7	19
46	Pleiotropic effects of a rel mutation on stress survival of Rhizobium etli CNPAF512. BMC Microbiology, 2008, 8, 219.	1.3	18
47	Multiplex SNP genotyping in whole blood using an integrated microfluidic lab-on-a-chip. Lab on A Chip, 2016, 16, 4012-4019.	3.1	17
48	Image-Based Dynamic Phenotyping Reveals Genetic Determinants of Filamentation-Mediated Î²-Lactam Tolerance. Frontiers in Microbiology, 2020, 11, 374.	1.5	17
49	Identification and characterization of an anti-pseudomonal dichlorocarbazol derivative displaying anti-biofilm activity. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 5404-5408.	1.0	16
50	Identification of 1-((2,4-Dichlorophenethyl)Amino)-3-Phenoxypropan-2-ol, a Novel Antibacterial Compound Active against Persisters of Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2017, 61, .	1.4	16
51	<i>In vitro</i> activity of the antiasthmatic drug zafirlukast against the oral pathogens <i>Porphyromonas gingivalis</i> and <i>Streptococcus mutans</i>. FEMS Microbiology Letters, 2017, 364, fnx005.	0.7	15
52	Reactive oxygen species do not contribute to ObgE*-mediated programmed cell death. Scientific Reports, 2016, 6, 33723.	1.6	14
53	A Mutant Isoform of ObgE Causes Cell Death by Interfering with Cell Division. Frontiers in Microbiology, 2017, 8, 1193.	1.5	14
54	GTP Binding Is Necessary for the Activation of a Toxic Mutant Isoform of the Essential GTPase ObgE. International Journal of Molecular Sciences, 2020, 21, 16.	1.8	13

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55	Ultra-fast, sensitive and quantitative on-chip detection of group B streptococci in clinical samples. Talanta, 2019, 192, 220-225.	2.9	12
56	Identification of a novel glyoxylate reductase supports phylogeny-based enzymatic substrate specificity prediction. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2007, 1774, 1092-1098.	1.1	10
57	Genome Sequence of Rhizobium etli CNPAF512, a Nitrogen-Fixing Symbiont Isolated from Bean Root Nodules in Brazil. Journal of Bacteriology, 2011, 193, 3158-3159.	1.0	10
58	The <i>Escherichia</i>â€ƒ<i>coli</i> GTPase ObgE modulates hydroxyl radical levels in response to DNA replication fork arrest. FEBS Journal, 2012, 279, 3692-3704.	2.2	9
59	Antibacterial Activity of 1-[(2,4-Dichlorophenethyl)amino]-3-Phenoxypropan-2-ol against Antibiotic-Resistant Strains of Diverse Bacterial Pathogens, Biofilms and in Pre-clinical Infection Models. Frontiers in Microbiology, 2017, 8, 2585.	1.5	9
60	1-((2,4-Dichlorophenethyl)Amino)-3-Phenoxypropan-2-ol Kills Pseudomonas aeruginosa through Extensive Membrane Damage. Frontiers in Microbiology, 2018, 9, 129.	1.5	9
61	Model-Driven Controlled Alteration of Nanopillar Cap Architecture Reveals its Effects on Bactericidal Activity. Microorganisms, 2020, 8, 186.	1.6	9
62	Repurposing AM404 for the treatment of oral infections by <scp><i>Porphyromonas gingivalis</i></scp>. Clinical and Experimental Dental Research, 2017, 3, 69-76.	0.8	8
63	Multiplex STR amplification sensitivity in a silicon microchip. Scientific Reports, 2018, 8, 9853.	1.6	8
64	Membrane depolarization-triggered responsive diversification leads to antibiotic tolerance. Microbial Cell, 2015, 2, 299-301.	1.4	8
65	TheRhizobium etli optoperon is required for symbiosis and stress resistance. Environmental Microbiology, 2007, 9, 1665-1674.	1.8	7
66	Biochemical determinants of ObgEâ€mediated persistence. Molecular Microbiology, 2019, 112, 1593-1608.	1.2	7
67	Interaction of an IHF-like protein with the Rhizobium etli nifA promoter. FEMS Microbiology Letters, 2007, 271, 20-26.	0.7	6
68	Draft genome sequence of Acinetobacter baumannii strain NCTC 13423, a multidrug-resistant clinical isolate. Standards in Genomic Sciences, 2016, 11, 57.	1.5	6
69	The Putative De-N-acetylase DnpA Contributes to Intracellular and Biofilm-Associated Persistence of Pseudomonas aeruginosa Exposed to Fluoroquinolones. Frontiers in Microbiology, 2018, 9, 1455.	1.5	6
70	Membrane localization and topology of the DnpA protein control fluoroquinolone tolerance in<i>Pseudomonas aeruginosa</i>. FEMS Microbiology Letters, 2016, 363, fnw184.	0.7	5
71	Stabbed while Sleeping: Synthetic Retinoid Antibiotics Kill Bacterial Persister Cells. Molecular Cell, 2018, 70, 763-764.	4.5	5
72	Silicon ÂµPCR Chip for Forensic STR Profiling with Hybeacon Probe Melting Curves. Scientific Reports, 2019, 9, 7341.	1.6	5

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73	The bacterial cell cycle checkpoint protein Obg and its role in programmed cell death. Microbial Cell, 2016, 3, 255-256.	1.4	5
74	Adult human liver mesenchymal progenitor cells express phenylalanine hydroxylase. Journal of Pediatric Endocrinology and Metabolism, 2014, 27, 863-8.	0.4	3
75	The Role of Biosurfactants in Bacterial Systems. Biological and Medical Physics Series, 2015, , 189-204.	0.3	3
76	Development and validation of a glass-silicon microdroplet-based system to measure sulfite concentrations in beverages. Analytical and Bioanalytical Chemistry, 2019, 411, 1127-1134.	1.9	3
77	STRide probes: Single-labeled short tandem repeat identification probes. Biosensors and Bioelectronics, 2021, 180, 113135.	5.3	3
78	A Whole-Cell-Based High-Throughput Screening Method to Identify Molecules Targeting Pseudomonas aeruginosa Persister Cells. Methods in Molecular Biology, 2016, 1333, 113-120.	0.4	2
79	QueSTR probes: Quencher-labeled RNase H2-dependent probes for Short Tandem Repeat genotyping. Sensors and Actuators B: Chemical, 2022, 361, 131714.	4.0	2
80	Identification of novel persistence genes in Pseudomonas aeruginosa in the combat against emerging antimicrobial resistance. Communications in Agricultural and Applied Biological Sciences, 2009, 74, 51-6.	0.0	1
81	Draft genome sequence of Enterococcus faecium strain LMG 8148. Standards in Genomic Sciences, 2016, 11, 63.	1.5	0