

# Douwe Molenaar

## List of Publications by Year in descending order

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115  
papers

11,040  
citations

29994

54  
h-index

32761

100  
g-index

125  
all docs

125  
docs citations

125  
times ranked

10684  
citing authors

#	ARTICLE	IF	CITATIONS
1	Genetic Elements Orchestrating <i>Lactobacillus crispatus</i> Glycogen Metabolism in the Vagina. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5590.	1.8	7
2	Proteome constraints reveal targets for improving microbial fitness in nutrient-rich environments. <i>Molecular Systems Biology</i> , 2021, 17, e10093.	3.2	46
3	High biodiversity in a benzene-degrading nitrate-reducing culture is sustained by a few primary consumers. <i>Communications Biology</i> , 2021, 4, 530.	2.0	11
4	Using Functional Annotations to Study Pairwise Interactions in Urinary Tract Infection Communities. <i>Genes</i> , 2021, 12, 1221.	1.0	5
5	Steering microbiomes by organic amendments towards climate-smart agricultural soils. <i>Biology and Fertility of Soils</i> , 2021, 57, 1053-1074.	2.3	13
6	Searching for principles of microbial physiology. <i>FEMS Microbiology Reviews</i> , 2020, 44, 821-844.	3.9	49
7	Macrophage ATP citrate lyase deficiency stabilizes atherosclerotic plaques. <i>Nature Communications</i> , 2020, 11, 6296.	5.8	70
8	Transthyretin-Binding Activity of Complex Mixtures Representing the Composition of Thyroid-Hormone Disrupting Contaminants in House Dust and Human Serum. <i>Environmental Health Perspectives</i> , 2020, 128, 17015.	2.8	36
9	A systematic assessment of current genome-scale metabolic reconstruction tools. <i>Genome Biology</i> , 2019, 20, 158.	3.8	150
10	Finding Functional Differences Between Species in a Microbial Community: Case Studies in Wine Fermentation and Kefir Culture. <i>Frontiers in Microbiology</i> , 2019, 10, 1347.	1.5	229
11	Vanishing white matter: deregulated integrated stress response as therapy target. <i>Annals of Clinical and Translational Neurology</i> , 2019, 6, 1407-1422.	1.7	60
12	Microbial Communities in Sediments From Four Mildly Acidic Ephemeral Salt Lakes in the Yilgarn Craton (Australia) – Terrestrial Analogs to Ancient Mars. <i>Frontiers in Microbiology</i> , 2019, 10, 779.	1.5	15
13	Taxonomic and Functional Characterization of the Microbial Community During Spontaneous in vitro Fermentation of Riesling Must. <i>Frontiers in Microbiology</i> , 2019, 10, 697.	1.5	30
14	Comparative genomics of human <i>Lactobacillus crispatus</i> isolates reveals genes for glycosylation and glycogen degradation: implications for in vivo dominance of the vaginal microbiota. <i>Microbiome</i> , 2019, 7, 49.	4.9	84
15	New Insights Into Cinnamoyl Esterase Activity of <i>Oenococcus oeni</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 2597.	1.5	9
16	Adaption to glucose limitation is modulated by the pleotropic regulator CcpA, independent of selection pressure strength. <i>BMC Evolutionary Biology</i> , 2019, 19, 15.	3.2	19
17	A benzene-degrading nitrate-reducing microbial consortium displays aerobic and anaerobic benzene degradation pathways. <i>Scientific Reports</i> , 2018, 8, 4490.	1.6	74
18	Naturally Fermented Milk From Northern Senegal: Bacterial Community Composition and Probiotic Enrichment With <i>Lactobacillus rhamnosus</i> . <i>Frontiers in Microbiology</i> , 2018, 9, 2218.	1.5	50

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19	Training for translation between disciplines: a philosophy for life and data sciences curricula. <i>Bioinformatics</i> , 2018, 34, i4-i12.	1.8	5
20	Experimental evolution and the adjustment of metabolic strategies in lactic acid bacteria. <i>FEMS Microbiology Reviews</i> , 2017, 41, S201-S219.	3.9	57
21	Nonhierarchical Flux Regulation Exposes the Fitness Burden Associated with Lactate Production in <i>Synechocystis</i> sp. PCC6803. <i>ACS Synthetic Biology</i> , 2017, 6, 395-401.	1.9	26
22	Systems biology of lactic acid bacteria: For food and thought. <i>Current Opinion in Systems Biology</i> , 2017, 6, 7-13.	1.3	60
23	Public goods and metabolic strategies. <i>Current Opinion in Microbiology</i> , 2016, 31, 109-115.	2.3	39
24	Molecular assessment of bacterial vaginosis by <i>Lactobacillus</i> abundance and species diversity. <i>BMC Infectious Diseases</i> , 2016, 16, 180.	1.3	68
25	Binding proteins enhance specific uptake rate by increasing the substrate transporter encounter rate. <i>FEBS Journal</i> , 2015, 282, 2394-2407.	2.2	23
26	Amino acid analysis using chromatography-mass spectrometry: An inter platform comparison study. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2015, 114, 398-407.	1.4	60
27	Genome-Wide Transposon Mutagenesis Indicates that <i>Mycobacterium marinum</i> Customizes Its Virulence Mechanisms for Survival and Replication in Different Hosts. <i>Infection and Immunity</i> , 2015, 83, 1778-1788.	1.0	72
28	How fast-growing bacteria robustly tune their ribosome concentration to approximate growth rate maximization. <i>FEBS Journal</i> , 2015, 282, 2029-2044.	2.2	185
29	Protein costs do not explain evolution of metabolic strategies and regulation of ribosomal content: does protein investment explain an anaerobic bacterial ratchet effect?. <i>Molecular Microbiology</i> , 2015, 97, 77-92.	1.2	57
30	How Biochemical Constraints of Cellular Growth Shape Evolutionary Adaptations in Metabolism. <i>Genetics</i> , 2013, 194, 505-512.	1.2	40
31	Vesicle trafficking via the Spitzenkörper during hyphal tip growth in <i>Rhizoctonia solani</i> . <i>Antonie Van Leeuwenhoek</i> , 2013, 103, 921-931.	0.7	9
32	Availability of public goods shapes the evolution of competing metabolic strategies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14302-14307.	3.3	169
33	Genome Instability in <i>Lactobacillus rhamnosus</i> GG. <i>Applied and Environmental Microbiology</i> , 2013, 79, 2233-2239.	1.4	75
34	Bioinformatics and Systems Biology: bridging the gap between heterogeneous student backgrounds. <i>Briefings in Bioinformatics</i> , 2013, 14, 589-598.	3.2	12
35	Microbial domestication signatures of <i>Lactococcus lactis</i> can be reproduced by experimental evolution. <i>Genome Research</i> , 2012, 22, 115-124.	2.4	154
36	Standardized Assay Medium To Measure <i>Lactococcus lactis</i> Enzyme Activities while Mimicking Intracellular Conditions. <i>Applied and Environmental Microbiology</i> , 2012, 78, 134-143.	1.4	66

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37	Metabolic shifts: a fitness perspective for microbial cell factories. <i>Biotechnology Letters</i> , 2012, 34, 2147-2160.	1.1	61
38	PhenoLink - a web-tool for linking phenotype to -omics data for bacteria: application to gene-trait matching for <i>Lactobacillus plantarum</i> strains. <i>BMC Genomics</i> , 2012, 13, 170.	1.2	46
39	Exploring Metabolic Pathway Reconstruction and Genome-Wide Expression Profiling in <i>Lactobacillus reuteri</i> to Define Functional Probiotic Features. <i>PLoS ONE</i> , 2011, 6, e18783.	1.1	147
40	High local substrate availability stabilizes a cooperative trait. <i>ISME Journal</i> , 2011, 5, 929-932.	4.4	47
41	Functional analysis of the role of CggR (central glycolytic gene regulator) in <i>Lactobacillus plantarum</i> by transcriptome analysis. <i>Microbial Biotechnology</i> , 2011, 4, 345-356.	2.0	9
42	Genome-scale diversity and niche adaptation analysis of <i>Lactococcus lactis</i> by comparative genome hybridization using multi-strain arrays. <i>Microbial Biotechnology</i> , 2011, 4, 383-402.	2.0	76
43	AmtB-mediated NH <sub>3</sub> transport in prokaryotes must be active and as a consequence regulation of transport by GlnK is mandatory to limit futile cycling of NH <sub>4</sub> <sup>+</sup> /NH <sub>3</sub> . <i>FEBS Letters</i> , 2011, 585, 23-28.	1.3	47
44	Functional identification in <i>Lactobacillus reuteri</i> of a PocR-like transcription factor regulating glycerol utilization and vitamin B12 synthesis. <i>Microbial Cell Factories</i> , 2011, 10, 55.	1.9	38
45	Systems biology of lactic acid bacteria: a critical review. <i>Microbial Cell Factories</i> , 2011, 10, S11.	1.9	64
46	Volatile Compound Fingerprinting of Mixed-Culture Fermentations. <i>Applied and Environmental Microbiology</i> , 2011, 77, 6233-6239.	1.4	41
47	Identification of <i>Lactobacillus plantarum</i> genes modulating the cytokine response of human peripheral blood mononuclear cells. <i>BMC Microbiology</i> , 2010, 10, 293.	1.3	162
48	Convergence in probiotic <i>Lactobacillus</i> gut-adaptive responses in humans and mice. <i>ISME Journal</i> , 2010, 4, 1481-1484.	4.4	95
49	Phenotypic and genomic diversity of <i>Lactobacillus plantarum</i> strains isolated from various environmental niches. <i>Environmental Microbiology</i> , 2010, 12, 758-773.	1.8	262
50	Complete Genome Sequence of <i>Lactococcus lactis</i> subsp. <i>lactis</i> KF147, a Plant-Associated Lactic Acid Bacterium. <i>Journal of Bacteriology</i> , 2010, 192, 2649-2650.	1.0	105
51	The SOS response of <i>Listeria monocytogenes</i> is involved in stress resistance and mutagenesis. <i>Microbiology (United Kingdom)</i> , 2010, 156, 374-384.	0.7	84
52	Īf 54-mediated control of the mannose phosphotransferase system in <i>Lactobacillus plantarum</i> impacts on carbohydrate metabolism. <i>Microbiology (United Kingdom)</i> , 2010, 156, 695-707.	0.7	24
53	Gene Expression Analysis Reveals a Gene Set Discriminatory to Different Metals in Soil. <i>Toxicological Sciences</i> , 2010, 115, 34-40.	1.4	31
54	Involvement of the Mannose Phosphotransferase System of <i>Lactobacillus plantarum</i> WCFS1 in Peroxide Stress Tolerance. <i>Applied and Environmental Microbiology</i> , 2010, 76, 3748-3752.	1.4	37

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55	Physiological responses to folate overproduction in <i>Lactobacillus plantarum</i> WCFS1. <i>Microbial Cell Factories</i> , 2010, 9, 100.	1.9	19
56	Mixed-Culture Transcriptome Analysis Reveals the Molecular Basis of Mixed-Culture Growth in <i>Streptococcus thermophilus</i> and <i>Lactobacillus bulgaricus</i> . <i>Applied and Environmental Microbiology</i> , 2010, 76, 7775-7784.	1.4	194
57	PanCGH: a genotype-calling algorithm for pangenome CGH data. <i>Bioinformatics</i> , 2009, 25, 309-314.	1.8	26
58	Large Intergenic Cruciform-Like Supermotifs in the <i>Lactobacillus plantarum</i> Genome. <i>Journal of Bacteriology</i> , 2009, 191, 3420-3423.	1.0	4
59	Shifts in growth strategies reflect tradeoffs in cellular economics. <i>Molecular Systems Biology</i> , 2009, 5, 323.	3.2	535
60	Effect of Amino Acid Availability on Vitamin B 12 Production in <i>Lactobacillus reuteri</i> . <i>Applied and Environmental Microbiology</i> , 2009, 75, 3930-3936.	1.4	26
61	Regulatory Phenotyping Reveals Important Diversity within the Species <i>Lactococcus lactis</i> . <i>Applied and Environmental Microbiology</i> , 2009, 75, 5687-5694.	1.4	26
62	The pivotal regulator GlnB of <i>Escherichia coli</i> is engaged in subtle and context-dependent control. <i>FEBS Journal</i> , 2009, 276, 3324-3340.	2.2	9
63	Development and application of the human intestinal tract chip, a phylogenetic microarray: analysis of universally conserved phylotypes in the abundant microbiota of young and elderly adults. <i>Environmental Microbiology</i> , 2009, 11, 1736-1751.	1.8	420
64	Lifestyle of <i>Lactobacillus plantarum</i> in the mouse caecum. <i>Environmental Microbiology</i> , 2009, 11, 2747-2757.	1.8	99
65	A high-throughput cheese manufacturing model for effective cheese starter culture screening. <i>Journal of Dairy Science</i> , 2009, 92, 5868-5882.	1.4	38
66	Crystal ball 2009. <i>Environmental Microbiology Reports</i> , 2009, 1, 3-26.	1.0	5
67	Two Homologous Agr-Like Quorum-Sensing Systems Cooperatively Control Adherence, Cell Morphology, and Cell Viability Properties in <i>Lactobacillus plantarum</i> WCFS1. <i>Journal of Bacteriology</i> , 2008, 190, 7655-7665.	1.0	34
68	Genome-Scale Genotype-Phenotype Matching of Two <i>Lactococcus lactis</i> Isolates from Plants Identifies Mechanisms of Adaptation to the Plant Niche. <i>Applied and Environmental Microbiology</i> , 2008, 74, 424-436.	1.4	112
69	Improvement of <i>Lactobacillus plantarum</i> Aerobic Growth as Directed by Comprehensive Transcriptome Analysis. <i>Applied and Environmental Microbiology</i> , 2008, 74, 4776-4778.	1.4	49
70	Identification of the $\sigma^B$ Regulon of <i>Bacillus cereus</i> and Conservation of $\sigma^B$ -Regulated Genes in Low-GC-Content Gram-Positive Bacteria. <i>Journal of Bacteriology</i> , 2007, 189, 4384-4390.	1.0	53
71	The micro-Petri dish, a million-well growth chip for the culture and high-throughput screening of microorganisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 18217-18222.	3.3	255
72	Identification of Prebiotic Fructooligosaccharide Metabolism in <i>Lactobacillus plantarum</i> WCFS1 through Microarrays. <i>Applied and Environmental Microbiology</i> , 2007, 73, 1753-1765.	1.4	210

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73	Expression of Plant Flavor Genes in <i>Lactococcus lactis</i> . <i>Applied and Environmental Microbiology</i> , 2007, 73, 1544-1552.	1.4	36
74	Thioredoxin reductase is a key factor in the oxidative stress response of <i>Lactobacillus plantarum</i> WCFS1. <i>Microbial Cell Factories</i> , 2007, 6, 29.	1.9	110
75	Dichotomy in post-genomic microbiology. <i>Nature Biotechnology</i> , 2007, 25, 848-849.	9.4	4
76	DNA micro-array-based identification of bile-responsive genes in <i>Lactobacillus plantarum</i> . <i>Journal of Applied Microbiology</i> , 2006, 100, 728-738.	1.4	139
77	Natural diversity and adaptive responses of <i>Lactococcus lactis</i> . <i>Current Opinion in Biotechnology</i> , 2006, 17, 183-190.	3.3	97
78	Introducing glutathione biosynthetic capability into <i>Lactococcus lactis</i> subsp. <i>cremoris</i> NZ9000 improves the oxidative-stress resistance of the host. <i>Metabolic Engineering</i> , 2006, 8, 662-671.	3.6	31
79	<i>Lactobacillus plantarum</i> gene clusters encoding putative cell-surface protein complexes for carbohydrate utilization are conserved in specific gram-positive bacteria. <i>BMC Genomics</i> , 2006, 7, 126.	1.2	96
80	Analysis of Growth of <i>Lactobacillus plantarum</i> WCFS1 on a Complex Medium Using a Genome-scale Metabolic Model. <i>Journal of Biological Chemistry</i> , 2006, 281, 40041-40048.	1.6	261
81	Functional ingredient production: application of global metabolic models. <i>Current Opinion in Biotechnology</i> , 2005, 16, 190-197.	3.3	35
82	Metabolic models for rational improvement of lactic acid bacteria as cell factories. <i>Journal of Applied Microbiology</i> , 2005, 98, 1326-1331.	1.4	33
83	Unity in organisation and regulation of catabolic operons in <i>Lactobacillus plantarum</i> , <i>Lactococcus lactis</i> and <i>Listeria monocytogenes</i> . <i>Systematic and Applied Microbiology</i> , 2005, 28, 187-195.	1.2	34
84	Using <i>Lactococcus lactis</i> for glutathione overproduction. <i>Applied Microbiology and Biotechnology</i> , 2005, 67, 83-90.	1.7	45
85	An agr -Like Two-Component Regulatory System in <i>Lactobacillus plantarum</i> Is Involved in Production of a Novel Cyclic Peptide and Regulation of Adherence. <i>Journal of Bacteriology</i> , 2005, 187, 5224-5235.	1.0	144
86	Exploring <i>Lactobacillus plantarum</i> Genome Diversity by Using Microarrays. <i>Journal of Bacteriology</i> , 2005, 187, 6119-6127.	1.0	229
87	Biodiversity-Based Identification and Functional Characterization of the Mannose-Specific Adhesin of <i>Lactobacillus plantarum</i> . <i>Journal of Bacteriology</i> , 2005, 187, 6128-6136.	1.0	272
88	Visualization for genomics: the Microbial Genome Viewer. <i>Bioinformatics</i> , 2004, 20, 1812-1814.	1.8	67
89	Complete genome sequence of <i>Lactobacillus plantarum</i> WCFS1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 1990-1995.	3.3	1,326
90	Glutathione Protects <i>Lactococcus lactis</i> against Oxidative Stress. <i>Applied and Environmental Microbiology</i> , 2003, 69, 5739-5745.	1.4	139

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91	Trehalose degradation and glucose efflux precede cell ejection during germination of heat-resistant ascospores of <i>Talaromyces macrosporus</i> . <i>Archives of Microbiology</i> , 2002, 178, 1-7.	1.0	43
92	Functions of the Membrane-Associated and Cytoplasmic Malate Dehydrogenases in the Citric Acid Cycle of <i>Corynebacterium glutamicum</i> . <i>Journal of Bacteriology</i> , 2000, 182, 6884-6891.	1.0	121
93	Functions of the Membrane-Associated and Cytoplasmic Malate Dehydrogenases in the Citric Acid Cycle of <i>Escherichia coli</i> . <i>Journal of Bacteriology</i> , 2000, 182, 6892-6899.	1.0	97
94	Another Unusual Type of Citric Acid Cycle Enzyme in <i>Helicobacter pylori</i> : the Malate:Quinone Oxidoreductase. <i>Journal of Bacteriology</i> , 2000, 182, 3204-3209.	1.0	86
95	A heat shock following electroporation induces highly efficient transformation of <i>Corynebacterium glutamicum</i> with xenogeneic plasmid DNA. <i>Applied Microbiology and Biotechnology</i> , 1999, 52, 541-545.	1.7	406
96	Biochemical and genetic characterization of the membrane-associated malate dehydrogenase (acceptor) from <i>Corynebacterium glutamicum</i> . <i>FEBS Journal</i> , 1998, 254, 395-403.	0.2	101
97	An alternative P II protein in the regulation of glutamine synthetase in <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 1996, 21, 133-146.	1.2	205
98	DNA supercoiling depends on the phosphorylation potential in <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 1996, 20, 351-360.	1.2	111
99	Molecular biology for flux control. <i>Biochemical Society Transactions</i> , 1995, 23, 367-370.	1.6	7
100	An additional PII in <i>Escherichia coli</i> : a new regulatory protein in the glutamine synthetase cascade. <i>FEMS Microbiology Letters</i> , 1995, 132, 153-157.	0.7	57
101	Defining control coefficients in non-ideal metabolic pathways. <i>Biophysical Chemistry</i> , 1995, 56, 215-226.	1.5	47
102	An additional PII in <i>Escherichia coli</i> : a new regulatory protein in the glutamine synthetase cascade. <i>FEMS Microbiology Letters</i> , 1995, 132, 153-157.	0.7	9
103	Nark is a nitrite-extrusion system involved in anaerobic nitrate respiration by <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 1994, 12, 579-586.	1.2	87
104	Proton motive force-driven and ATP-dependent drug extrusion systems in multidrug-resistant <i>Lactococcus lactis</i> . <i>Journal of Bacteriology</i> , 1994, 176, 6957-6964.	1.0	108
105	Generation of a proton motive force by histidine decarboxylation and electrogenic histidine/histamine antiport in <i>Lactobacillus buchneri</i> . <i>Journal of Bacteriology</i> , 1993, 175, 2864-2870.	1.0	218
106	Characteristics and osmoregulatory roles of uptake systems for proline and glycine betaine in <i>Lactococcus lactis</i> . <i>Journal of Bacteriology</i> , 1993, 175, 5438-5444.	1.0	98
107	The efflux of a fluorescent probe is catalyzed by an ATP-driven extrusion system in <i>Lactococcus lactis</i> . <i>Journal of Bacteriology</i> , 1992, 174, 3118-3124.	1.0	87
108	Mechanism of Na(+)-dependent citrate transport in <i>Klebsiella pneumoniae</i> . <i>Journal of Bacteriology</i> , 1992, 174, 4893-4898.	1.0	37

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109	Continuous measurement of the cytoplasmic pH in <i>Lactococcus lactis</i> with a fluorescent pH indicator. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1991, 1115, 75-83.	1.1	113
110	Malolactic fermentation: electrogenic malate uptake and malate/lactate antiport generate metabolic energy. <i>Journal of Bacteriology</i> , 1991, 173, 6030-6037.	1.0	153
111	Mechanism and energetics of a citrate-transport system of <i>Klebsiella pneumoniae</i> . <i>FEBS Journal</i> , 1991, 195, 71-77.	0.2	37
112	Functional Reconstitution of Photosynthetic Reaction Centre Complexes from <i>Rhodospseudomonas Palustris</i> . , 1989, , 352-361.		0
113	Light Driven Amino Acid Uptake in Membrane Vesicles of <i>Streptococcus Cremoris</i> Fused with Liposomes Containing Bacterial Reaction Centers. , 1989, , 291-295.		0
114	Characterization of protonmotive force generation in liposomes reconstituted from phosphatidylethanolamine, reaction centers with light-harvesting complexes isolated from <i>Rhodospseudomonas palustris</i> . <i>Biochemistry</i> , 1988, 27, 2014-2023.	1.2	33
115	Light-driven amino acid uptake in <i>Streptococcus cremoris</i> or <i>Clostridium acetobutylicum</i> membrane vesicles fused with liposomes containing bacterial reaction centers. <i>Journal of Bacteriology</i> , 1988, 170, 1820-1824.	1.0	27