Kunihiko Nishino

List of Publications by Year
in descending order

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95 papers	6,440 citations	66343 42 h-index	69250 77 g-index
104 all docs	104 docs citations	104 times ranked	5609 citing authors

#	Article	IF	Citations
1	Analysis of a Complete Library of Putative Drug Transporter Genes in Escherichia coli. Journal of Bacteriology, 2001, 183, 5803-5812.	2.2	580
2	Virulence and drug resistance roles of multidrug efflux systems of Salmonella enterica serovar Typhimurium. Molecular Microbiology, 2006, 59, 126-141.	2.5	342
3	Novel Macrolide-Specific ABC-Type Efflux Transporter in Escherichia coli. Journal of Bacteriology, 2001, 183, 5639-5644.	2.2	330
4	Structures of the multidrug exporter AcrB reveal a proximal multisite drug-binding pocket. Nature, 2011, 480, 565-569.	27.8	304
5	Structural basis for the inhibition of bacterial multidrug exporters. Nature, 2013, 500, 102-106.	27.8	249
6	The Putative Response Regulator BaeR Stimulates Multidrug Resistance of Escherichia coli via a Novel Multidrug Exporter System, MdtABC. Journal of Bacteriology, 2002, 184, 4161-4167.	2.2	242
7	Dissecting the PhoP regulatory network of Escherichia coli and Salmonella enterica. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 2862-2867.	7.1	209
8	AcrAB Multidrug Efflux Pump Regulation in Salmonella enterica serovar Typhimurium by RamA in Response to Environmental Signals. Journal of Biological Chemistry, 2008, 283, 24245-24253.	3.4	185
9	Regulation of Multidrug Efflux Systems Involved in Multidrug and Metal Resistance of Salmonella enterica Serovar Typhimurium. Journal of Bacteriology, 2007, 189, 9066-9075.	2.2	170
10	Comprehensive Studies of Drug Resistance Mediated by Overexpression of Response Regulators of Two-Component Signal Transduction Systems in Escherichia coli. Journal of Bacteriology, 2003, 185, 1851-1856.	2.2	151
11	Mechanisms of antibiotic resistance. Frontiers in Microbiology, 2015, 6, 34.	3.5	150
12	EvgA of the Two-Component Signal Transduction System Modulates Production of the YhiUV Multidrug Transporter in Escherichia coli. Journal of Bacteriology, 2002, 184, 2319-2323.	2.2	134
13	Regulation and physiological function of multidrug efflux pumps in Escherichia coli and Salmonella. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 834-843.	2.3	132
14	Roles of TolC-Dependent Multidrug Transporters of Escherichia coli in Resistance to Î²-Lactams. Antimicrobial Agents and Chemotherapy, 2003, 47, 3030-3033.	3.2	130
15	Genome-Wide Analyses of Escherichia coli Gene Expression Responsive to the BaeSR Two-Component Regulatory System. Journal of Bacteriology, 2005, 187, 1763-1772.	2.2	121
16	Â-Lactam resistance modulated by the overexpression of response regulators of two-component signal transduction systems in Escherichia coli. Journal of Antimicrobial Chemotherapy, 2003, 52, 576-582.	3.0	112
17	Effects of Efflux Transporter Genes on Susceptibility of Escherichia coli to Tigecycline (GAR-936). Antimicrobial Agents and Chemotherapy, 2004, 48, 2179-2184.	3.2	111
18	Overexpression of the Response Regulator evgA of the Two-Component Signal Transduction System Modulates Multidrug Resistance Conferred by Multidrug Resistance Transporters. Journal of Bacteriology, 2001, 183, 1455-1458.	2.2	108

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19	Growth Phase-Dependent Expression of Drug Exporters in Escherichia coli and Its Contribution to Drug Tolerance. Journal of Bacteriology, 2006, 188, 5693-5703.	2.2	106
20	Role of Histone-Like Protein H-NS in Multidrug Resistance of Escherichia coli. Journal of Bacteriology, 2004, 186, 1423-1429.	2.2	103
21	TolC dependency of multidrug efflux systems in Salmonella enterica serovar Typhimurium. Journal of Antimicrobial Chemotherapy, 2010, 65, 1372-1376.	3.0	98
22	The crystal structure of multidrug-resistance regulator RamR with multiple drugs. Nature Communications, 2013, 4, 2078.	12.8	98
23	AcrB, AcrD, and MdtABC Multidrug Efflux Systems Are Involved in Enterobactin Export in Escherichia coli. PLoS ONE, 2014, 9, e108642.	2.5	98
24	Identification of a Spermidine Excretion Protein Complex (MdtJI) in Escherichia coli. Journal of Bacteriology, 2008, 190, 872-878.	2.2	96
25	Evaluation of Multidrug Efflux Pump Inhibitors by a New Method Using Microfluidic Channels. PLoS ONE, 2011, 6, e18547.	2.5	95
26	Multiple entry pathways within the efflux transporter AcrB contribute to multidrug recognition. Nature Communications, 2018, 9, 124.	12.8	87
27	Effects of indole on drug resistance and virulence of Salmonella enterica serovar Typhimurium revealed by genome-wide analyses. Gut Pathogens, 2012, 4, 5.	3.4	84
28	The Multidrug Efflux Pump MdtEF Protects against Nitrosative Damage during the Anaerobic Respiration in Escherichia coli. Journal of Biological Chemistry, 2011, 286, 26576-26584.	3.4	77
29	Identification of the lipopolysaccharide modifications controlled by the Salmonella PmrA/PmrB system mediating resistance to Fe(III) and Al(III). Molecular Microbiology, 2006, 61, 645-654.	2.5	76
30	Global Analysis of Genes Regulated by EvgA of the Two-Component Regulatory System in Escherichia coli. Journal of Bacteriology, 2003, 185, 2667-2672.	2.2	75
31	AcrS/EnvR Represses Expression of theacrABMultidrug Efflux Genes inEscherichia coli. Journal of Bacteriology, 2008, 190, 6276-6279.	2.2	74
32	Membrane topology of ABC-type macrolide antibiotic exporter MacB inEscherichia coli. FEBS Letters, 2003, 546, 241-246.	2.8	69
33	Regulation of the AcrAB multidrug efflux pump in Salmonella enterica serovar Typhimurium in response to indole and paraquat. Microbiology (United Kingdom), 2011, 157, 648-655.	1.8	66
34	Effect of Drug Transporter Genes on Cysteine Export and Overproduction in Escherichia coli. Applied and Environmental Microbiology, 2006, 72, 4735-4742.	3.1	64
35	Antibacterial and Antifungal Activities of New Acylated Derivatives of Epigallocatechin Gallate. Frontiers in Microbiology, 2012, 3, 53.	3.5	63
36	CRP Regulator Modulates Multidrug Resistance of Escherichia coli by Repressing the mdtEF Multidrug Efflux Genes. Journal of Antibiotics, 2008, 61, 120-127.	2.0	57

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37	The AraC-family regulator GadX enhances multidrug resistance in Escherichia coli by activating expression of mdtEF multidrug efflux genes. Journal of Infection and Chemotherapy, 2008, 14, 23-29.	1.7	54
38	A Microfluidic Channel Method for Rapid Drug-Susceptibility Testing of Pseudomonas aeruginosa. PLoS ONE, 2016, 11, e0148797.	2.5	54
39	Function and Inhibitory Mechanisms of Multidrug Efflux Pumps. Frontiers in Microbiology, 2021, 12, 737288.	3.5	52
40	Native CRISPR-Cas-Mediated Genome Editing Enables Dissecting and Sensitizing Clinical Multidrug-Resistant P.Âaeruginosa. Cell Reports, 2019, 29, 1707-1717.e3.	6.4	51
41	Berberine Is a Novel Type Efflux Inhibitor Which Attenuates the MexXY-Mediated Aminoglycoside Resistance in Pseudomonas aeruginosa. Frontiers in Microbiology, 2016, 7, 1223.	3.5	49
42	Impact of the RNA chaperone Hfq on multidrug resistance in Escherichia coli. Journal of Antimicrobial Chemotherapy, 2010, 65, 853-858.	3.0	48
43	A single-cell drug efflux assay in bacteria by using a directly accessible femtoliter droplet array. Lab on A Chip, 2012, 12, 3923.	6.0	48
44	Indole enhances acid resistance in Escherichia coli. Microbial Pathogenesis, 2010, 49, 90-94.	2.9	45
45	Ever-Adapting RND Efflux Pumps in Gram-Negative Multidrug-Resistant Pathogens: A Race against Time. Antibiotics, 2021, 10, 774.	3.7	44
46	AcrB-AcrA Fusion Proteins That Act as Multidrug Efflux Transporters. Journal of Bacteriology, 2016, 198, 332-342.	2.2	43
47	Effect of NlpE Overproduction on Multidrug Resistance in Escherichia coli. Antimicrobial Agents and Chemotherapy, 2010, 54, 2239-2243.	3.2	42
48	Effect of overexpression of small non-coding DsrA RNA on multidrug efflux in Escherichia coli. Journal of Antimicrobial Chemotherapy, 2011, 66, 291-296.	3.0	40
49	Bile-mediated activation of the acrAB and tolC multidrug efflux genes occurs mainly through transcriptional derepression of ramA in Salmonella enterica serovar Typhimurium. Journal of Antimicrobial Chemotherapy, 2014, 69, 2400-2406.	3.0	39
50	Design of a large-scale femtoliter droplet array for single-cell analysis of drug-tolerant and drug-resistant bacteria. Frontiers in Microbiology, 2013, 4, 300.	3.5	38
51	Crystal structure of the multidrug resistance regulator RamR complexed with bile acids. Scientific Reports, 2019, 9, 177.	3.3	34
52	H-NS Modulates Multidrug Resistance of Salmonella enterica Serovar Typhimurium by Repressing Multidrug Efflux Genes acrEF. Antimicrobial Agents and Chemotherapy, 2009, 53, 3541-3543.	3.2	33
53	Streptococcus pneumoniae Invades Erythrocytes and Utilizes Them to Evade Human Innate Immunity. PLoS ONE, 2013, 8, e77282.	2.5	30
54	Roles of Salmonella multidrug efflux pumps in tigecycline resistance. Journal of Antimicrobial Chemotherapy, 2011, 66, 105-110.	3.0	28

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55	Effect of methylglyoxal on multidrug-resistant Pseudomonas aeruginosa. Frontiers in Microbiology, 2014, 5, 180.	3.5	27
56	Crystal structures of multidrug efflux pump MexB bound with high-molecular-mass compounds. Scientific Reports, 2019, 9, 4359.	3.3	26
57	N -Acetyl- d -Glucosamine Induces the Expression of Multidrug Exporter Genes, mdtEF , via Catabolite Activation in Escherichia coli. Journal of Bacteriology, 2006, 188, 5851-5858.	2.2	25
58	AcrA dependency of the AcrD efflux pump in Salmonella enterica serovar Typhimurium. Journal of Antibiotics, 2011, 64, 433-437.	2.0	25
59	The Golgin Protein Giantin Regulates Interconnections Between Golgi Stacks. Frontiers in Cell and Developmental Biology, 2019, 7, 160.	3.7	24
60	Phylogenetic and functional characterisation of the Haemophilus influenzae multidrug efflux pump AcrB. Communications Biology, 2019, 2, 340.	4.4	22
61	Role of xenobiotic transporters in bacterial drug resistance and virulence. IUBMB Life, 2008, 60, 569-574.	3.4	21
62	A Microfluidic Device for Simple and Rapid Evaluation of Multidrug Efflux Pump Inhibitors. Frontiers in Microbiology, 2012, 3, 40.	3.5	21
63	Impact of Hfq on the Intrinsic Drug Resistance of Salmonella Enterica Serovar Typhimurium. Frontiers in Microbiology, 2012, 3, 205.	3.5	21
64	Cooperation of the multidrug efflux pump and lipopolysaccharides in the intrinsic antibiotic resistance of Salmonella enterica serovar Typhimurium. Journal of Antimicrobial Chemotherapy, 2013, 68, 1066-1070.	3.0	19
65	Multidrug efflux pumps contribute to Escherichia coli biofilm maintenance. International Journal of Antimicrobial Agents, 2015, 45, 439-441.	2.5	19
66	Role of the AraCâ€“XylS family regulator YdeO in multi-drug resistance of Escherichia coli. Journal of Antibiotics, 2009, 62, 251-257.	2.0	18
67	Phenotype microarray analysis of the drug efflux systems in Salmonella enterica serovar Typhimurium. Journal of Infection and Chemotherapy, 2016, 22, 780-784.	1.7	17
68	Salmonella enterica serovar Typhimurium multidrug efflux pumps EmrAB and AcrEF support the major efflux system AcrAB in decreased susceptibility to triclosan. International Journal of Antimicrobial Agents, 2014, 44, 179-180.	2.5	16
69	Effects of Natural Mutations in the ramRA Locus on Invasiveness of Epidemic Fluoroquinolone-Resistant Salmonella enterica Serovar Typhimurium Isolates. Journal of Infectious Diseases, 2013, 207, 794-802.	4.0	15
70	Covalently linking the Escherichia coli global anaerobic regulator FNR in tandem allows it to function as an oxygen stable dimer. Biochemical and Biophysical Research Communications, 2012, 419, 43-48.	2.1	13
71	Hoisting-Loop in Bacterial Multidrug Exporter AcrB Is a Highly Flexible Hinge That Enables the Large Motion of the Subdomains. Frontiers in Microbiology, 2017, 8, 2095.	3.5	13
72	13-(2-Methylbenzyl) Berberine Is a More Potent Inhibitor of MexXY-Dependent Aminoglycoside Resistance than Berberine. Antibiotics, 2019, 8, 212.	3.7	11

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73	Evaluation of efflux pump inhibitors of MexAB- or MexXY-OprM in Pseudomonas aeruginosa using nucleic acid dyes. Journal of Infection and Chemotherapy, 2022, 28, 595-601.	1.7	10
74	Alternative explanation for indole-induced antibiotic tolerance in Salmonella. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4569-E4569.	7.1	9
75	Development of a structure determination method using a multidrug-resistance regulator protein as a framework. Biochemical and Biophysical Research Communications, 2019, 518, 402-408.	2.1	9
76	Antimicrobial Drug Efflux Pumps in Salmonella. , 2016, , 261-279.		6
77	Virulence and Drug Resistance Roles of Multidrug Efflux Pumps in <i>Escherichia coli</i> and <i>Salmonella</i>. Bioscience and Microflora, 2008, 27, 75-85.	0.5	5
78	An efflux inhibitor of the MacAB pump in Salmonella enterica serovar Typhimurium. Microbiology and Immunology, 2020, 64, 182-188.	1.4	5
79	Large-Scale Femtoliter Droplet Array for Single Cell Efflux Assay of Bacteria. Methods in Molecular Biology, 2018, 1700, 331-341.	0.9	4
80	Proximal Binding Pocket Arg717 Substitutions in Escherichia coli AcrB Cause Clinically Relevant Divergencies in Resistance Profiles. Antimicrobial Agents and Chemotherapy, 2022, 66, e0239221.	3.2	4
81	Regulation of the Expression of Bacterial Multidrug Exporters by Two-Component Signal Transduction Systems. Methods in Molecular Biology, 2018, 1700, 239-251.	0.9	3
82	Single-Cell Detection and Collection of Persister Bacteria in a Directly Accessible Femtoliter Droplet Array. Methods in Molecular Biology, 2016, 1333, 101-109.	0.9	2
83	Mutations in the Phenicol Exporter Gene fexA Impact Resistance Levels in Three Bacterial Hosts According to Susceptibility Testing and Protein Modeling. Frontiers in Microbiology, 2021, 12, 794435.	3.5	1
84	Analysis of multidrug efflux transporters in resistance to fatty acid salts reveals a TolC-independent function of EmrAB in Salmonella enterica. PLoS ONE, 2022, 17, e0266806.	2.5	1
85	1P348 Single Cell Measurement of Efflux Activity of Multidrug Transporters Enclosed in Femtoliter Chamber Array(New biophysical techniques and instrumentation,Poster Presentations). Seibutsu Butsuri, 2007, 47, S110.	0.1	0
86	2P124 X-ray structural analysis of RamR, the regulator of the multidrug efflux pump AcrAB in Salmonella enterica(The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S104.	0.1	0
87	1PT117 Structural study on inhibitor specifity of bacterial multidrug efflux pumps(The 50th Annual) Tj ETQq1 1 0.784314 rgBT /Overl	0.1	0
88	3PT115 Structures of the multidrug exporter AcrB reveal a proximal multisite drug-binding pocket(The) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	0
89	Multidrug Efflux Pumps and Development of Therapeutic Strategies to Control Infectious Diseases. , 2012, , 269-279.		0
90	1P035 Structural basis for the inhibition of bacterial multidrug exporters(01B. Protein:Structure) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	0.1	0

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91	1P102 AcrB-AcrA fusion protein indicates that multi-drug efflux transporter complex AcrAB coupling ratio is 1:1(03.Membrane proteins,Poster,The 51st Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2013, 53, S122.	0.1	0
92	2SEA-06 Regulation and physiological function of bacterial multidrug transporters(2SEA Which is) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	0
93	Analysis of the Dynamics of a Multi-Drug Exporter AcrB in the Absence and Presence of Substrates. Biophysical Journal, 2017, 112, 509a.	0.5	0
94	Identification of Genetic Variants via Bacterial Respiration Gas Analysis. Frontiers in Microbiology, 2020, 11, 581571.	3.5	0
95	Identification of Bacterial Drug-Resistant Cells by the Convolutional Neural Network in Transmission Electron Microscope Images. Frontiers in Microbiology, 2022, 13, 839718.	3.5	0