Akihito Yamaguchi

List of Publications by Year
in descending order

89 papers	8,162 citations	61984 43 h-index	51608 86 g-index
90 all docs	90 docs citations	90 times ranked	5353 citing authors

#	Article	IF	Citations
1	Phylogenetic and functional characterisation of the Haemophilus influenzae multidrug efflux pump AcrB. Communications Biology, 2019, 2, 340.	4.4	22
2	Crystal structures of multidrug efflux pump MexB bound with high-molecular-mass compounds. Scientific Reports, 2019, 9, 4359.	3.3	26
3	Multiple entry pathways within the efflux transporter AcrB contribute to multidrug recognition. Nature Communications, 2018, 9, 124.	12.8	87
4	MFSD2B is a sphingosine 1-phosphate transporter in erythroid cells. Scientific Reports, 2018, 8, 4969.	3.3	65
5	Crystallographic Analysis of Drug and Inhibitor-Binding Structure of RND-Type Multidrug Exporter AcrB in Physiologically Relevant Asymmetric Crystals. Methods in Molecular Biology, 2018, 1700, 25-36.	0.9	0
6	Molecular mechanisms of AcrB-mediated multidrug export. Research in Microbiology, 2018, 169, 372-383.	2.1	41
7	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
8	Fluorescence-based rapid measurement of sphingosine-1-phosphate transport activity in erythrocytes. Journal of Lipid Research, 2016, 57, 2088-2094.	4.2	11
9	AcrB-AcrA Fusion Proteins That Act as Multidrug Efflux Transporters. Journal of Bacteriology, 2016, 198, 332-342.	2.2	43
10	Structural basis of RND-type multidrug exporters. Frontiers in Microbiology, 2015, 6, 327.	3.5	137
11	Î²-Lactam Selectivity of Multidrug Transporters AcrB and AcrD Resides in the Proximal Binding Pocket. Journal of Biological Chemistry, 2014, 289, 10680-10690.	3.4	66
12	Molecular and physiological functions of sphingosine 1-phosphate transporters. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 759-765.	2.4	82
13	Structural basis for the inhibition of bacterial multidrug exporters. Nature, 2013, 500, 102-106.	27.8	249
14	Mouse SPNS2 Functions as a Sphingosine-1-Phosphate Transporter in Vascular Endothelial Cells. PLoS ONE, 2012, 7, e38941.	2.5	179
15	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
16	Evaluation of Multidrug Efflux Pump Inhibitors by a New Method Using Microfluidic Channels. PLoS ONE, 2011, 6, e18547.	2.5	95
17	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
18	Structures of the multidrug exporter AcrB reveal a proximal multisite drug-binding pocket. Nature, 2011, 480, 565-569.	27.8	304

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19	The Sphingosine 1-Phosphate Transporter, SPNS2, Functions as a Transporter of the Phosphorylated Form of the Immunomodulating Agent FTY720. Journal of Biological Chemistry, 2011, 286, 1758-1766.	3.4	135
20	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
21	Indole enhances acid resistance in Escherichia coli. Microbial Pathogenesis, 2010, 49, 90-94.	2.9	45
22	Characterization of the ATP-dependent Sphingosine 1-Phosphate Transporter in Rat Erythrocytes. Journal of Biological Chemistry, 2009, 284, 21192-21200.	3.4	119
23	The Sphingolipid Transporter Spns2 Functions in Migration of Zebrafish Myocardial Precursors. Science, 2009, 323, 524-527.	12.6	372
24	Secreted indole serves as a signal for expression of type III secretion system translocators in enterohaemorrhagic Escherichia coli O157â€Š:â€ŠH7. Microbiology (United Kingdom), 2009, 155, 541-550.	1.8	90
25	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
26	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
27	Role of xenobiotic transporters in bacterial drug resistance and virulence. IUBMB Life, 2008, 60, 569-574.	3.4	21
28	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
29	AcrS/EnvR Represses Expression of the<i>acrAB</i>Multidrug Efflux Genes in<i>Escherichia coli</i>. Journal of Bacteriology, 2008, 190, 6276-6279.	2.2	74
30	3P-041 Aromatic residues of multidrug exporter AcrB in Escherichia coli play an important role in substrates recognition(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S133-S134.	0.1	0
31	Crystal structures of a multidrug transporter reveal a functionally rotating mechanism. Nature, 2006, 443, 173-179.	27.8	684
32	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
33	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
34	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
35	Direct Interaction of Multidrug Efflux Transporter AcrB and Outer Membrane Channel TolC Detected via Site-Directed Disulfide Cross-Linkingâ€. Biochemistry, 2005, 44, 11115-11121.	2.5	104
36	Role of Histone-Like Protein H-NS in Multidrug Resistance of Escherichia coli. Journal of Bacteriology, 2004, 186, 1423-1429.	2.2	103

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37	Extramembrane Central Pore of Multidrug Exporter AcrB in Escherichia coli Plays an Important Role in Drug Transport. Journal of Biological Chemistry, 2004, 279, 3743-3748.	3.4	54
38	Indole induces the expression of multidrug exporter genes in Escherichia coli. Molecular Microbiology, 2004, 55, 1113-1126.	2.5	279
39	Multidrug-exporting secondary transporters. Current Opinion in Structural Biology, 2003, 13, 443-452.	5.7	83
40	Mechanisms of drug/H+ antiport: complete cysteine-scanning mutagenesis and the protein engineering approach. Current Opinion in Chemical Biology, 2003, 7, 570-579.	6.1	46
41	Membrane topology of ABC-type macrolide antibiotic exporter MacB inEscherichia coli. FEBS Letters, 2003, 546, 241-246.	2.8	69
42	Comprehensive Studies of Drug Resistance Mediated by Overexpression of Response Regulators of Two-Component Signal Transduction Systems in <i>Escherichia coli</i>. Journal of Bacteriology, 2003, 185, 1851-1856.	2.2	151
43	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
44	Roles of TolC-Dependent Multidrug Transporters of <i>Escherichia coli</i> in Resistance to Î²-Lactams. Antimicrobial Agents and Chemotherapy, 2003, 47, 3030-3033.	3.2	130
45	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
46	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
47	Membrane Topology of a Multidrug Efflux Transporter, AcrB, in Escherichia coli. Journal of Biochemistry, 2002, 131, 145-151.	1.7	38
48	Crystal structure of bacterial multidrug efflux transporter AcrB. Nature, 2002, 419, 587-593.	27.8	893
49	Novel Macrolide-Specific ABC-Type Efflux Transporter in Escherichia coli. Journal of Bacteriology, 2001, 183, 5639-5644.	2.2	330
50	Complete Cysteine-scanning Mutagenesis and Site-directed Chemical Modification of the Tn10-encoded Metal-Tetracycline/H+ Antiporter. Journal of Biological Chemistry, 2001, 276, 20330-20339.	3.4	84
51	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
52	Analysis of a Complete Library of Putative Drug Transporter Genes in <i>Escherichia coli</i>. Journal of Bacteriology, 2001, 183, 5803-5812.	2.2	580
53	Cysteine-scanning Mutagenesis of Transmembrane Segments 4 and 5 of the Tn10-encoded Metal-Tetracycline/H+ Antiporter Reveals a Permeability Barrier in the Middle of a Transmembrane Water-filled Channel. Journal of Biological Chemistry, 2000, 275, 22704-22712.	3.4	30
54	Cysteine-scanning Mutagenesis around Transmembrane Segments 1 and 11 and Their Flanking Loop Regions of Tn10-encoded Metal-Tetracycline/H+ Antiporter. Journal of Biological Chemistry, 2000, 275, 18692-18697.	3.4	24

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55	Proximity of Periplasmic Loops in the Metal-Tetracycline/H+ Antiporter of Escherichia coli Observed on Site-directed Chemical Cross-linking. Journal of Biological Chemistry, 2000, 275, 5270-5274.	3.4	19
56	Transmembrane remote conformational suppression of the Gly-332 mutation of the Tn10-encoded metal-tetracycline/H+antiporter. FEBS Letters, 1999, 457, 169-173.	2.8	10
57	Cysteine-scanning mutagenesis around transmembrane segment VI of Tn10-encoded metal-tetracycline/H+antiporter. FEBS Letters, 1999, 461, 315-318.	2.8	20
58	Roles of Conserved Arginine Residues in the Metalâˆ’Tetracycline/H+ Antiporter of Escherichia coli. Biochemistry, 1998, 37, 5475-5480.	2.5	25
59	Cysteine-scanning Mutagenesis around Transmembrane Segment III of Tn10-encoded Metal-Tetracycline/H+ Antiporter. Journal of Biological Chemistry, 1998, 273, 5243-5247.	3.4	26
60	Site-directed Chemical Modification of Cysteine-scanning Mutants as to Transmembrane Segment II and Its Flanking Regions of the Tn10-encoded Metal-Tetracycline/H+ Antiporter Reveals a Transmembrane Water-filled Channel. Journal of Biological Chemistry, 1998, 273, 32806-32811.	3.4	30
61	Membrane Topology of the Transposon 10-encoded Metal-Tetracycline/H+ Antiporter as Studied by Site-directed Chemical Labeling. Journal of Biological Chemistry, 1997, 272, 580-585.	3.4	56
62	Remote Conformational Effects of the Gly-62 â†’ Leu Mutation of the Tn10-Encoded Metal-Tetracycline/H+Antiporter ofEscherichia coliand Its Second-Site Suppressor Mutationâ€. Biochemistry, 1997, 36, 6941-6946.	2.5	15
63	A novel compound, 1,1-dimethyl-5-(1-hydroxypropyl)-4,6,7-trimethylindan, is an effective inhibitor of thetet(K) gene-encoded metal-tetracycline/H+antiporter ofStaphylococcus aureus. FEBS Letters, 1997, 412, 337-340.	2.8	15
64	Roles of acidic residues in the hydrophilic loop regions of metalâ€tetracycline/H⁺ antiporter Tet(K) of <i>Staphylococcus aureus</i>. FEBS Letters, 1997, 419, 211-214.	2.8	10
65	Second-site suppressor mutations for the Arg70 substitution mutants of the Tn10-encoded metal-tetracycline/H+ antiporter of Escherichia coli. Biochimica Et Biophysica Acta - Bioenergetics, 1997, 1322, 230-236.	1.0	5
66	His257 Is a Uniquely Important Histidine Residue for Tetracycline/H+Antiport Function but Not Mandatory for Full Activity of the Transposon Tn10-Encoded Metalâˆ’Tetracycline/H+Antiporterâ€. Biochemistry, 1996, 35, 4359-4364.	2.5	14
67	Determination of a Transmembrane Segment Using Cysteine-Scanning Mutants of Transposon Tn10-Encoded Metalâˆ’Tetracycline/H+Antiporterâ€. Biochemistry, 1996, 35, 15896-15899.	2.5	44
68	Mercaptide Formed between the Residue Cys70 and Hg2+or Co2+Behaves as a Functional Positively Charged Side Chain Operative in the Arg70 â†’ Cys Mutant of the Metalâˆ’Tetracycline/H+Antiporter ofEscherichia coliâ€. Biochemistry, 1996, 35, 9385-9391.	2.5	9
69	Asp-285 of the metal-tetracycline/H+antiporter ofEscherichia coliis essential for substrate binding. FEBS Letters, 1996, 388, 50-52.	2.8	20
70	Transmembrane glutamic acid residues play essential roles in the metalâ€tetracycline/H⁺ antiporter of <i>Staphylococcus aureus</i>. FEBS Letters, 1996, 391, 243-246.	2.8	22
71	Site-Specificity of the Second-Site Suppressor Mutation of the Asp-285 .fwdarw. Asn Mutant of Metal-Tetracycline/H+ Antiporter of Escherichia coli and the Effects of Amino Acid Substitutions at the First and Second Sites. Biochemistry, 1995, 34, 7-12.	2.5	30
72	Substrate-induced acceleration ofN-ethylmaleimide reaction with the Cys-65 mutant of the transposon Tn 10-encoded metal-tetracycline/H+antiporter depends on the interaction of Asp-66 with the substrate. FEBS Letters, 1995, 362, 47-49.	2.8	16

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73	The tetracycline efflux protein encoded by the <i>tet</i>(K) gene from <i>Staphylococcus aureus</i> is a metalâ€tetracycline/H⁺ antiporter. FEBS Letters, 1995, 365, 193-197.	2.8	32
74	Reconstitution of the metal-tetracycline/H+antiporter ofEscherichia coliin proteoliposomes including F0F1-ATPase. FEBS Letters, 1995, 374, 72-76.	2.8	9
75	Second-site suppressor mutations for the Asp-66 .fwdarw. Cys mutant of the transposon Tn10-encoded metal-tetracycline/H+ antiporter of Escherichia coli. Biochemistry, 1995, 34, 11800-11806.	2.5	17
76	Hot Spots for Sulfhydryl Inactivation of Cys Mutants in the Widely Conserved Sequence Motifs of the Metal-Tetracycline/H+ Antiporter of Escherichia coli1. Journal of Biochemistry, 1994, 115, 958-964.	1.7	13
77	The in vivo assembly and function of the N- and C-terminal halves of the Tn 10-encoded TetA protein inEscherichia coli. FEBS Letters, 1993, 324, 131-135.	2.8	15
78	Effects of sulfhydryl reagents on the Cys65mutant of the transposon Tn10-encoded metal-tetracycline/H+antiporter ofEscherichia coli. FEBS Letters, 1993, 322, 201-204.	2.8	9
79	Role of the conserved quartets of residues located in the N- and C-terminal halves of the transposon Tn10-encoded metal-tetracycline/hydrogen ion antiporter of Escherichia coli. Biochemistry, 1993, 32, 5698-5704.	2.5	32
80	Serine residues responsible for tetracycline transport are on a vertical stripe including Asp-84 on one side of transmembrane helix 3 in transposon Tn10-encoded tetracycline/H+antiporter ofEscherichia coli. FEBS Letters, 1992, 307, 229-232.	2.8	20
81	Aspartic acid-66 is the only essential negatively charged residue in the putative hydrophilic loop region of the metal-tetracycline/hydrogen ion antiporter encoded by transposon Tn10 of Escherichia coli. Biochemistry, 1992, 31, 8344-8348.	2.5	44
82	Stoichiometry of metal-tetracycline/H+antiport mediated by transposon Tn10-encoded tetracycline resistance protein inEscherichia coli. FEBS Letters, 1991, 282, 415-418.	2.8	56
83	Orientation of the carboxyl terminus of the transposon Tn10-encoded tetracycline resistance protein inEscherichia coli. FEBS Letters, 1990, 265, 17-19.	2.8	53
84	Identification of the active site ofCitrobacter freundiiÎ²-lactamase using dansyl-penicillin. FEBS Letters, 1987, 218, 126-130.	2.8	10
85	Effects of magnesium and sodium ions on the outer membrane permeability of cephalosporins inEscherichia coli. FEBS Letters, 1986, 208, 43-47.	2.8	9
86	Energetics of tetracycline efflux system encoded by Tn10 inEscherichia coli. FEBS Letters, 1985, 193, 194-198.	2.8	74
87	Difference in pathway ofEscherichia coliouter membrane permeation between penicillins and cephalosporins. FEBS Letters, 1985, 181, 143-148.	2.8	25
88	The effect of lipopolysaccharide on lipid bilayer permeability of Î²-lactam antibiotics. FEBS Letters, 1984, 170, 268-272.	2.8	26
89	The effect of hydrophobicity of Î²-lactam antibiotics on their phospholipid bilayer permeability. FEBS Letters, 1983, 164, 389-392.	2.8	5