David M Clarke

List of Publications by Year in descending order

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30047 51562 7,979 121 54 86 citations h-index g-index papers 121 121 121 3819 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Location of high affinity Ca2 +-binding sites within the predicted transmembrahe domain of the sarco-plasmic reticulum Ca2+-ATPase. Nature, 1989, 339, 476-478.	13.7	605
2	Membrane Topology of a Cysteine-less Mutant of Human P-glycoprotein. Journal of Biological Chemistry, 1995, 270, 843-848.	1.6	234
3	Correction of Defective Protein Kinesis of Human P-glycoprotein Mutants by Substrates and Modulators. Journal of Biological Chemistry, 1997, 272, 709-712.	1.6	213
4	Recent Progress in Understanding the Mechanism of P-Glycoprotein-mediated Drug Efflux. Journal of Membrane Biology, 2005, 206, 173-185.	1.0	185
5	Location of the Rhodamine-binding Site in the Human Multidrug Resistance P-glycoprotein. Journal of Biological Chemistry, 2002, 277, 44332-44338.	1.6	183
6	Defining the Drug-binding Site in the Human Multidrug Resistance P-glycoprotein Using a Methanethiosulfonate Analog of Verapamil, MTS-verapamil. Journal of Biological Chemistry, 2001, 276, 14972-14979.	1.6	170
7	Determining the Dimensions of the Drug-binding Domain of Human P-glycoprotein Using Thiol Cross-linking Compounds as Molecular Rulers. Journal of Biological Chemistry, 2001, 276, 36877-36880.	1.6	160
8	Rapid Purification of Human P-glycoprotein Mutants Expressed Transiently in HEK 293 Cells by Nickel-Chelate Chromatography and Characterization of their Drug-stimulated ATPase Activities. Journal of Biological Chemistry, 1995, 270, 21449-21452.	1.6	158
9	Simultaneous Binding of Two Different Drugs in the Binding Pocket of the Human Multidrug Resistance P-glycoprotein. Journal of Biological Chemistry, 2003, 278, 39706-39710.	1.6	157
10	Substrate-induced Conformational Changes in the Transmembrane Segments of Human P-glycoprotein. Journal of Biological Chemistry, 2003, 278, 13603-13606.	1.6	154
11	Covalent Modification of Human P-glycoprotein Mutants Containing a Single Cysteine in Either Nucleotide-binding Fold Abolishes Drug-stimulated ATPase Activity. Journal of Biological Chemistry, 1995, 270, 22957-22961.	1.6	140
12	The "LSGGQ―Motif in Each Nucleotide-binding Domain of Human P-glycoprotein Is Adjacent to the Opposing Walker A Sequence. Journal of Biological Chemistry, 2002, 277, 41303-41306.	1.6	131
13	Identification of Residues in the Drug-binding Site of Human P-glycoprotein Using a Thiol-reactive Substrate. Journal of Biological Chemistry, 1997, 272, 31945-31948.	1.6	129
14	Mutations to Amino Acids Located in Predicted Transmembrane Segment 6 (TM6) Modulate the Activity and Substrate Specificity of Human P-glycoprotein. Biochemistry, 1994, 33, 14049-14057.	1.2	126
15	Identification of Residues within the Drug-binding Domain of the Human Multidrug Resistance P-glycoprotein by Cysteine-scanning Mutagenesis and Reaction with Dibromobimane. Journal of Biological Chemistry, 2000, 275, 39272-39278.	1.6	121
16	Correctors Promote Maturation of Cystic Fibrosis Transmembrane Conductance Regulator (CFTR)-processing Mutants by Binding to the Protein. Journal of Biological Chemistry, 2007, 282, 33247-33251.	1.6	121
17	The Transmembrane Domains of the Human Multidrug Resistance P-glycoprotein Are Sufficient to Mediate Drug Binding and Trafficking to the Cell Surface. Journal of Biological Chemistry, 1999, 274, 24759-24765.	1.6	119
18	Nucleotide sequence andin vitroexpression of rubella virus 24S subgenomic messenger RNA encoding the structural proteins E1, E2, and C. Nucleic Acids Research, 1987, 15, 3041-3056.	6.5	115

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19	P-glycoprotein. Journal of Biological Chemistry, 1995, 270, 21839-21844.	1.6	114
20	Molecular cloning and tissue distribution of alternatively spliced mRNAs encoding possible mammalian homologs of the yeast secretory pathway calcium pump. Biochemistry, 1992, 31, 7600-7608.	1.2	113
21	Nucleotide sequence of the pntA and pntB genes encoding the pyridine nucleotide transhydrogenase of Escherichia coli. FEBS Journal, 1986, 158, 647-653.	0.2	109
22	Disease-associated Mutations in the Fourth Cytoplasmic Loop of Cystic Fibrosis Transmembrane Conductance Regulator Compromise Biosynthetic Processing and Chloride Channel Activity. Journal of Biological Chemistry, 1996, 271, 15139-15145.	1.6	105
23	Identification of Residues in the Drug-binding Domain of Human P-glycoprotein. Journal of Biological Chemistry, 1999, 274, 35388-35392.	1.6	103
24	Predicting P-Glycoprotein-Mediated Drug Transport Based On Support Vector Machine and Three-Dimensional Crystal Structure of P-glycoprotein. PLoS ONE, 2011, 6, e25815.	1.1	103
25	Drug Binding in Human P-glycoprotein Causes Conformational Changes in Both Nucleotide-binding Domains. Journal of Biological Chemistry, 2003, 278, 1575-1578.	1.6	101
26	Corrector VX-809 stabilizes the first transmembrane domain of CFTR. Biochemical Pharmacology, 2013, 86, 612-619.	2.0	99
27	Cytoplasmic Loop Three of Cystic Fibrosis Transmembrane Conductance Regulator Contributes to Regulation of Chloride Channel Activity. Journal of Biological Chemistry, 1996, 271, 27493-27499.	1.6	93
28	Blockage of Drug Resistance In Vitro by Disulfiram, a Drug Used to Treat Alcoholism. Journal of the National Cancer Institute, 2000, 92, 898-902.	3.0	93
29	Transmembrane segment 7 of human P-glycoprotein forms part of the drug-binding pocket. Biochemical Journal, 2006, 399, 351-359.	1.7	93
30	Chemical and pharmacological chaperones as new therapeutic agents. Expert Reviews in Molecular Medicine, 2007, 9, 1-18.	1.6	92
31	Drug-stimulated ATPase Activity of Human P-glycoprotein Requires Movement between Transmembrane Segments 6 and 12. Journal of Biological Chemistry, 1997, 272, 20986-20989.	1.6	91
32	Specific Rescue of Cystic Fibrosis Transmembrane Conductance Regulator Processing Mutants Using Pharmacological Chaperones. Molecular Pharmacology, 2006, 70, 297-302.	1.0	89
33	Superfolding of the Partially Unfolded Core-glycosylated Intermediate of Human P-glycoprotein into the Mature Enzyme Is Promoted by Substrate-induced Transmembrane Domain Interactions. Journal of Biological Chemistry, 1998, 273, 14671-14674.	1.6	87
34	The human multidrug resistance Pâ€glycoprotein is inactive when its maturation is inhibited: potential for a role in cancer chemotherapy. FASEB Journal, 1999, 13, 1724-1732.	0.2	84
35	The Packing of the Transmembrane Segments of Human Multidrug Resistance P-glycoprotein Is Revealed by Disulfide Cross-linking Analysis. Journal of Biological Chemistry, 2000, 275, 5253-5256.	1.6	84
36	The Î"F508 Mutation Disrupts Packing of the Transmembrane Segments of the Cystic Fibrosis Transmembrane Conductance Regulator. Journal of Biological Chemistry, 2004, 279, 39620-39627.	1.6	81

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37	Transmembrane segment 1 of human P-glycoprotein contributes to the drug-binding pocket. Biochemical Journal, 2006, 396, 537-545.	1.7	78
38	Identification of Residues in the Drug Translocation Pathway of the Human Multidrug Resistance P-glycoprotein by Arginine Mutagenesis. Journal of Biological Chemistry, 2009, 284, 24074-24087.	1.6	78
39	Vanadate trapping of nucleotide at the ATP-binding sites of human multidrug resistance P-glycoprotein exposes different residues to the drug-binding site. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 3511-3516.	3.3	77
40	Mutational analysis of ABC proteins. Archives of Biochemistry and Biophysics, 2008, 476, 51-64.	1.4	77
41	Determining the structure and mechanism of the human multidrug resistance P-glycoprotein using cysteine-scanning mutagenesis and thiol-modification techniques. Biochimica Et Biophysica Acta - Biomembranes, 1999, 1461, 315-325.	1.4	74
42	Rescue of Î"F508 and Other Misprocessed CFTR Mutants by a Novel Quinazoline Compound. Molecular Pharmaceutics, 2005, 2, 407-413.	2.3	74
43	Inhibition of Oxidative Cross-linking between Engineered Cysteine Residues at Positions 332 in Predicted Transmembrane Segments (TM) 6 and 975 in Predicted TM12 of Human P-glycoprotein by Drug Substrates. Journal of Biological Chemistry, 1996, 271, 27482-27487.	1.6	73
44	Disease-Associated Mutations in Cytoplasmic Loops 1 and 2 of Cystic Fibrosis Transmembrane Conductance Regulator Impede Processing or Opening of the Channelâ€. Biochemistry, 1997, 36, 11966-11974.	1.2	73
45	Methanethiosulfonate Derivatives of Rhodamine and Verapamil Activate Human P-glycoprotein at Different Sites. Journal of Biological Chemistry, 2003, 278, 50136-50141.	1.6	72
46	Do drug substrates enter the common drug-binding pocket of P-glycoprotein through "gates�. Biochemical and Biophysical Research Communications, 2005, 329, 419-422.	1.0	72
47	Modulating the Folding of P-Glycoprotein and Cystic Fibrosis Transmembrane Conductance Regulator Truncation Mutants with Pharmacological Chaperones. Molecular Pharmacology, 2007, 71, 751-758.	1.0	68
48	Processing Mutations Disrupt Interactions between the Nucleotide Binding and Transmembrane Domains of P-glycoprotein and the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR). Journal of Biological Chemistry, 2008, 283, 28190-28197.	1.6	68
49	Molecular dissection of the human multidrug resistance P-glycoprotein. Biochemistry and Cell Biology, 1999, 77, 11-23.	0.9	67
50	Disulfide Cross-linking Analysis Shows That Transmembrane Segments 5 and 8 of Human P-glycoprotein Are Close Together on the Cytoplasmic Side of the Membrane. Journal of Biological Chemistry, 2004, 279, 7692-7697.	1.6	64
51	Cross-linking of Human Multidrug Resistance P-glycoprotein by the Substrate, Tris-(2-maleimidoethyl)amine, Is Altered by ATP Hydrolysis. Journal of Biological Chemistry, 2001, 276, 31800-31805.	1.6	62
52	Purification and properties of reconstitutively active nicotinamide nucleotide transhydrogenase of Escherichia coli. FEBS Journal, 1985, 149, 517-523.	0.2	58
53	Rhodamine Inhibitors of P-Glycoprotein: An Amide/Thioamide "Switch―for ATPase Activity. Journal of Medicinal Chemistry, 2009, 52, 3328-3341.	2.9	58
54	Quality Control by Proteases in the Endoplasmic Reticulum. Journal of Biological Chemistry, 1998, 273, 32373-32376.	1.6	57

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55	The V510D Suppressor Mutation Stabilizes ΔF508-CFTR at the Cell Surface. Biochemistry, 2010, 49, 6352-6357.	1.2	57
56	Additive effect of multiple pharmacological chaperones on maturation of CFTR processing mutants. Biochemical Journal, 2007, 406, 257-263.	1.7	55
57	Human P-glycoprotein is active when the two halves are clamped together in the closed conformation. Biochemical and Biophysical Research Communications, 2010, 395, 436-440.	1.0	54
58	The ATPase Activity of the P-glycoprotein Drug Pump Is Highly Activated When the N-terminal and Central Regions of the Nucleotide-binding Domains Are Linked Closely Together. Journal of Biological Chemistry, 2012, 287, 26806-26816.	1.6	54
59	Drug-stimulated ATPase Activity of Human P-glycoprotein Is Blocked by Disulfide Cross-linking between the Nucleotide-binding Sites. Journal of Biological Chemistry, 2000, 275, 19435-19438.	1.6	53
60	Val133 and Cys137 in Transmembrane Segment 2 Are Close to Arg935 and Gly939 in Transmembrane Segment 11 of Human P-glycoprotein. Journal of Biological Chemistry, 2004, 279, 18232-18238.	1.6	53
61	Thapsigargin or curcumin does not promote maturation of processing mutants of the ABC transporters, CFTR, and P-glycoprotein. Biochemical and Biophysical Research Communications, 2004, 325, 580-585.	1.0	52
62	The Minimum Functional Unit of Human P-glycoprotein Appears to be a Monomer. Journal of Biological Chemistry, 1996, 271, 27488-27492.	1.6	51
63	Rescue of Folding Defects in ABC Transporters Using Pharmacological Chaperones. Journal of Bioenergetics and Biomembranes, 2005, 37, 501-507.	1.0	51
64	Correctors promote folding of the CFTR in the endoplasmic reticulum. Biochemical Journal, 2008, 413, 29-36.	1.7	51
65	The Drug-Binding Pocket of the Human Multidrug Resistance P-Glycoprotein Is Accessible to the Aqueous Medium. Biochemistry, 2004, 43, 12081-12089.	1.2	50
66	Corrector VX-809 promotes interactions between cytoplasmic loop one and the first nucleotide-binding domain of CFTR. Biochemical Pharmacology, 2017, 136, 24-31.	2.0	49
67	Permanent Activation of the Human P-glycoprotein by Covalent Modification of a Residue in the Drug-binding Site. Journal of Biological Chemistry, 2003, 278, 20449-20452.	1.6	48
68	The chemical chaperone CFcor-325 repairs folding defects in the transmembrane domains of CFTR-processing mutants. Biochemical Journal, 2006, 395, 537-542.	1.7	45
69	Tariquidar inhibits P-glycoprotein drug efflux but activates ATPase activity by blocking transition to an open conformation. Biochemical Pharmacology, 2014, 92, 558-566.	2.0	44
70	Cystic fibrosis: channel, catalytic, and folding properties of the CFTR protein. Journal of Bioenergetics and Biomembranes, 1997, 29, 429-442.	1.0	43
71	ATP Hydrolysis Promotes Interactions between the Extracellular Ends of Transmembrane Segments 1 and 11 of Human Multidrug Resistance P-Glycoprotein. Biochemistry, 2005, 44, 10250-10258.	1.2	43
72	Expression of rubella virus cDNA coding for the structural proteins. Gene, 1988, 65, 23-30.	1.0	41

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73	Suppressor Mutations in the Transmembrane Segments of P-glycoprotein Promote Maturation of Processing Mutants and Disrupt a Subset of Drug-binding Sites. Journal of Biological Chemistry, 2007, 282, 32043-32052.	1.6	40
74	Human P-glycoprotein Contains a Greasy Ball-and-Socket Joint at the Second Transmission Interface. Journal of Biological Chemistry, 2013, 288, 20326-20333.	1.6	40
75	Chalcogenopyrylium Compounds as Modulators of the ATP-Binding Cassette Transporters P-Glycoprotein (P-gp/ <i>ABCB1</i>) and Multidrug Resistance Protein 1 (MRP1/ <i>ABCC1</i>). Journal of Medicinal Chemistry, 2012, 55, 4683-4699.	2.9	39
76	Mapping the Binding Site of the Inhibitor Tariquidar That Stabilizes the First Transmembrane Domain of P-glycoprotein. Journal of Biological Chemistry, 2015, 290, 29389-29401.	1.6	37
77	Introduction of the Most Common Cystic Fibrosis Mutation (Î"F508) into Human P-glycoprotein Disrupts Packing of the Transmembrane Segments. Journal of Biological Chemistry, 2002, 277, 27585-27588.	1.6	36
78	Inhibition of Multidrug Resistance by AdamantylGb3, a Globotriaosylceramide Analog. Journal of Biological Chemistry, 2008, 283, 4501-4511.	1.6	36
79	Correctors Enhance Maturation of ΰF508 CFTR by Promoting Interactions between the Two Halves of the Molecule. Biochemistry, 2009, 48, 9882-9890.	1.2	36
80	Mutational Analysis of the Predicted First Transmembrane Segment of Each Homologous Half of Human P-glycoprotein Suggests That They Are Symmetrically Arranged in the Membrane. Journal of Biological Chemistry, 1996, 271, 15414-15419.	1.6	33
81	Cystic Fibrosis Transmembrane Conductance Regulator Has an Altered Structure When Its Maturation Is Inhibited 1. Biochemistry, 2000, 39, 3797-3803.	1.2	33
82	Arginines in the First Transmembrane Segment Promote Maturation of a P-glycoprotein Processing Mutant by Hydrogen Bond Interactions with Tyrosines in Transmembrane Segment 11. Journal of Biological Chemistry, 2008, 283, 24860-24870.	1.6	26
83	Processing Mutations Located throughout the Human Multidrug Resistance P-glycoprotein Disrupt Interactions between the Nucleotide Binding Domains. Journal of Biological Chemistry, 2004, 279, 38395-38401.	1.6	24
84	The Transmission Interfaces Contribute Asymmetrically to the Assembly and Activity of Human P-glycoprotein. Journal of Biological Chemistry, 2015, 290, 16954-16963.	1.6	24
85	Nucleotide Binding, ATP Hydrolysis, and Mutation of the Catalytic Carboxylates of Human P-Glycoprotein Cause Distinct Conformational Changes in the Transmembrane Segments. Biochemistry, 2007, 46, 9328-9336.	1.2	23
86	A Salt Bridge in Intracellular Loop 2 Is Essential for Folding of Human P-Glycoprotein. Biochemistry, 2013, 52, 3194-3196.	1.2	23
87	The Dileucine Motif at the COOH Terminus of Human Multidrug Resistance P-glycoprotein Is Important for Folding but Not Activity. Journal of Biological Chemistry, 2005, 280, 2522-2528.	1.6	22
88	P-glycoprotein ATPase activity requires lipids to activate a switch at the first transmission interface. Biochemical and Biophysical Research Communications, 2016, 472, 379-383.	1.0	22
89	Expression of a Functionally Active Human Renal Sodium-Calcium Exchanger Lacking a Signal Sequence. Journal of Biological Chemistry, 1995, 270, 19345-19350.	1.6	21
90	Nonylphenol Ethoxylates, but Not Nonylphenol, Are Substrates of the Human Multidrug Resistance P-glycoprotein. Biochemical and Biophysical Research Communications, 1998, 247, 478-480.	1.0	21

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91	Corrector-mediated rescue of misprocessed CFTR mutants can be reduced by the P-glycoprotein drug pump. Biochemical Pharmacology, 2012, 83, 345-354.	2.0	20
92	Detection of antibodies to individual proteins of rubella virus. Journal of Virological Methods, 1986, 13, 149-159.	1.0	19
93	Expression and mutation of Ca2+ ATPases of the sarcoplasmic reticulum. Cytoskeleton, 1989, 14, 26-34.	4.4	19
94	Identification of the Distance between the Homologous Halves of P-glycoprotein That Triggers the High/Low ATPase Activity Switch. Journal of Biological Chemistry, 2014, 289, 8484-8492.	1.6	19
95	The Glycosylation and Orientation in the Membrane of the Third Cytoplasmic Loop of Human P-Glycoprotein Is Affected by Mutations and Substrates. Biochemistry, 1999, 38, 5124-5129.	1.2	18
96	Drug Rescue Distinguishes between Different Structural Models of Human P-Glycoprotein. Biochemistry, 2013, 52, 7167-7169.	1.2	18
97	Locking Intracellular Helices 2 and 3 Together Inactivates Human P-glycoprotein. Journal of Biological Chemistry, 2014, 289, 229-236.	1.6	18
98	Insertion of an Arginine Residue into the Transmembrane Segments Corrects Protein Misfolding. Journal of Biological Chemistry, 2006, 281, 29436-29440.	1.6	17
99	Deletion of NH2â^and COOH-terminal sequences destroys function of the Ca2+ATPase of rabbit fast-twitch skeletal muscle sarcoplasmic reticulum. FEBS Letters, 1993, 336, 168-170.	1.3	16
100	[35] Mutational analysis of human P-glycoprotein. Methods in Enzymology, 1998, 292, 480-492.	0.4	16
101	Bithiazole Correctors Rescue CFTR Mutants by Two Different Mechanisms. Biochemistry, 2013, 52, 5161-5163.	1.2	16
102	Isolation of a fourth cysteinyl-containing peptide of the \hat{l} ±-subunit of the F1ATPase fromEscherichia colinecessitates revision of the DNA sequence. FEBS Letters, 1986, 197, 121-124.	1.3	14
103	Early postnatal demoralisation among primiparous women in the community: measurement, prevalence and associated factors. BMC Pregnancy and Childbirth, 2015, 15, 259.	0.9	14
104	Attachment of a â€~molecular spring' restores drug-stimulated ATPase activity to P -glycoprotein lacking both Q loop glutamines. Biochemical and Biophysical Research Communications, 2017, 483, 366-370.	1.0	13
105	Benzbromarone Stabilizes î"F508 CFTR at the Cell Surface. Biochemistry, 2011, 50, 4393-4395.	1.2	11
106	Cysteines Introduced into Extracellular Loops 1 and 4 of Human P-Glycoprotein That Are Close Only in the Open Conformation Spontaneously Form a Disulfide Bond That Inhibits Drug Efflux and ATPase Activity. Journal of Biological Chemistry, 2014, 289, 24749-24758.	1.6	11
107	The cystic fibrosis V232D mutation inhibits CFTR maturation by disrupting a hydrophobic pocket rather than formation of aberrant interhelical hydrogen bonds. Biochemical Pharmacology, 2014, 88, 46-57.	2.0	11
108	cDNA Cloning of Possible Mammalian Homologs of the Yeast Secretory Pathway Ca2+-Transporting ATPase. Annals of the New York Academy of Sciences, 1992, 671, 70-81.	1.8	9

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109	Using a cysteine-less mutant to provide insight into the structure and mechanism of CFTR. Journal of Physiology, 2006, 572, 312-312.	1.3	9
110	Thiorhodamines containing amide and thioamide functionality as inhibitors of the ATP-binding cassette drug transporter P-glycoprotein (ABCB1). Bioorganic and Medicinal Chemistry, 2012, 20, 4290-4302.	1.4	9
111	Expression of the cloned subunits of Escherichia colitranshydrogenase from separate replicons. FEBS Letters, 1986, 200, 23-26.	1.3	8
112	The W232R Suppressor Mutation Promotes Maturation of a Truncation Mutant Lacking both Nucleotide-Binding Domains and Restores Interdomain Assembly and Activity of P-glycoprotein Processing Mutants. Biochemistry, 2011, 50, 672-685.	1.2	6
113	Drugs Modulate Interactions between the First Nucleotide-Binding Domain and the Fourth Cytoplasmic Loop of Human P-Glycoprotein. Biochemistry, 2016, 55, 2817-2820.	1.2	6
114	Repair of CFTR Folding Defects with Correctors that Function as Pharmacological Chaperones. Methods in Molecular Biology, 2011, 741, 23-37.	0.4	6
115	The PEST sequence does not contribute to the stability of the cystic fibrosis transmembrane conductance regulator., 2002, 3, 29.		5
116	Application of Chemical Chaperones to the Rescue of Folding Defects., 2003, 232, 231-244.		4
117	Thiol-reactive drug substrates of human P-glycoprotein label the same sites to activate ATPase activity in membranes or dodecyl maltoside detergent micelles. Biochemical and Biophysical Research Communications, 2017, 488, 573-577.	1.0	4
118	Niemann-Pick NPC1: Sterols to the Rescue and Beyond. Chemistry and Biology, 2013, 20, 297-298.	6.2	3
119	Measuring postnatal demoralisation: adaptation of the Demoralisation Scale-II (DS-II) for postnatal use. Journal of Reproductive and Infant Psychology, 2018, 36, 561-577.	0.9	3
120	A short cross-linker activates human P-glycoprotein missing a catalytic carboxylate. Biochemical Pharmacology, 2017, 145, 27-33.	2.0	2
121	The Use of Site-Directed Mutagenesis to Identify Functional Sites in the Ca2+ ATPase., 1994,, 181-190.		O