

Ian D. Kerr

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120
papers

5,258
citations

37
h-index

71
g-index

122
ext. papers

5,712
ext. citations

4.7
avg, IF

5.5
L-index

#	Paper	IF	Citations
120	The auxin influx carrier LAX3 promotes lateral root emergence. <i>Nature Cell Biology</i> , 2008 , 10, 946-54	23.4	583
119	A novel family of phospholipase D homologues that includes phospholipid synthases and putative endonucleases: identification of duplicated repeats and potential active site residues. <i>Protein Science</i> , 1996 , 5, 914-22	6.3	267
118	Structure-function analysis of the presumptive Arabidopsis auxin permease AUX1. <i>Plant Cell</i> , 2004 , 16, 3069-83	11.6	261
117	Repacking of the transmembrane domains of P-glycoprotein during the transport ATPase cycle. <i>EMBO Journal</i> , 2001 , 20, 5615-25	13	241
116	ABC transporter research: going strong 40 years on. <i>Biochemical Society Transactions</i> , 2015 , 43, 1033-40	5.1	147
115	The Concise Guide to PHARMACOLOGY 2013/14: overview. <i>British Journal of Pharmacology</i> , 2013 , 170, 1449-58	8.6	143
114	The influenza A virus M2 channel: a molecular modeling and simulation study. <i>Virology</i> , 1997 , 233, 163-73	3.6	140
113	Detergent-free purification of ABC (ATP-binding-cassette) transporters. <i>Biochemical Journal</i> , 2014 , 461, 269-78	3.8	138
112	Water in channel-like cavities: structure and dynamics. <i>Biophysical Journal</i> , 1996 , 70, 693-702	2.9	122
111	Unraveling the evolution of auxin signaling. <i>Plant Physiology</i> , 2011 , 155, 209-21	6.6	119
110	Sequence analysis of twin ATP binding cassette proteins involved in translational control, antibiotic resistance, and ribonuclease L inhibition. <i>Biochemical and Biophysical Research Communications</i> , 2004 , 315, 166-73	3.4	113
109	Parallel helix bundles and ion channels: molecular modeling via simulated annealing and restrained molecular dynamics. <i>Biophysical Journal</i> , 1994 , 67, 1501-15	2.9	110
108	Structure and association of ATP-binding cassette transporter nucleotide-binding domains. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2002 , 1561, 47-64	3.8	108
107	Intrinsic acyl-CoA thioesterase activity of a peroxisomal ATP binding cassette transporter is required for transport and metabolism of fatty acids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 1279-84	11.5	107
106	Purification and 3D structural analysis of oligomeric human multidrug transporter ABCG2. <i>Structure</i> , 2006 , 14, 1623-32	5.2	107
105	An atomic detail model for the human ATP binding cassette transporter P-glycoprotein derived from disulfide cross-linking and homology modeling. <i>FASEB Journal</i> , 2003 , 17, 2287-9	0.9	107
104	Towards understanding promiscuity in multidrug efflux pumps. <i>Trends in Biochemical Sciences</i> , 2014 , 39, 8-16	10.3	96

103	P-glycoprotein: so many ways to turn it on. <i>Journal of Clinical Pharmacology</i> , 2008 , 48, 365-78	2.9	96
102	Molecular dynamics simulations of water within models of ion channels. <i>Biophysical Journal</i> , 1996 , 70, 1643-61	2.9	91
101	Multiple drugbinding sites on the R482G isoform of the ABCG2 transporter. <i>British Journal of Pharmacology</i> , 2006 , 149, 506-15	8.6	88
100	Ion channels formed by HIV-1 Vpu: a modelling and simulation study. <i>FEBS Letters</i> , 1997 , 405, 299-304	3.8	82
99	The ABCG family of membrane-associated transporters: you don't have to be big to be mighty. <i>British Journal of Pharmacology</i> , 2011 , 164, 1767-79	8.6	81
98	The translocation mechanism of P-glycoprotein. <i>FEBS Letters</i> , 2006 , 580, 1056-63	3.8	81
97	MBRS-39. TWIST1 PLAYS A REGULATORY ROLE IN MEDULLOBLASTOMA METASTASIS. <i>Neuro-Oncology</i> , 2018 , 20, i136-i137	1	78
96	Influenza virus M2 protein: a molecular modelling study of the ion channel. <i>Protein Engineering, Design and Selection</i> , 1993 , 6, 65-74	1.9	74
95	New insight into the biochemical mechanisms regulating auxin transport in plants. <i>Biochemical Journal</i> , 2007 , 401, 613-22	3.8	71
94	The alpha-5 segment of Bacillus thuringiensis delta-endotoxin: in vitro activity, ion channel formation and molecular modelling. <i>Biochemical Journal</i> , 1994 , 304 (Pt 3), 895-902	3.8	66
93	Annexins in human breast cancer: Possible predictors of pathological response to neoadjuvant chemotherapy. <i>European Journal of Cancer</i> , 2009 , 45, 1274-1281	7.5	65
92	The multidrug transporter ABCG2: still more questions than answers. <i>Biochemical Society Transactions</i> , 2016 , 44, 824-30	5.1	61
91	The topography of transmembrane segment six is altered during the catalytic cycle of P-glycoprotein. <i>Journal of Biological Chemistry</i> , 2004 , 279, 34913-21	5.4	54
90	The binding of auxin to the Arabidopsis auxin influx transporter AUX1. <i>Plant Physiology</i> , 2008 , 148, 529-356	3.5	52
89	Pediatric brain tumor cancer stem cells: cell cycle dynamics, DNA repair, and etoposide extrusion. <i>Neuro-Oncology</i> , 2011 , 13, 70-83	1	50
88	Multidrug efflux pumps: the structures of prokaryotic ATP-binding cassette transporter efflux pumps and implications for our understanding of eukaryotic P-glycoproteins and homologues. <i>FEBS Journal</i> , 2010 , 277, 550-63	5.7	48
87	Transbilayer pores formed by beta-barrels: molecular modeling of pore structures and properties. <i>Biophysical Journal</i> , 1995 , 69, 1334-43	2.9	44
86	Polymorphisms of the Multidrug Pump ABCG2: A Systematic Review of Their Effect on Protein Expression, Function, and Drug Pharmacokinetics. <i>Drug Metabolism and Disposition</i> , 2018 , 46, 1886-1899 ⁴		44

85	Overcoming multiple drug resistance mechanisms in medulloblastoma. <i>Acta Neuropathologica Communications</i> , 2014 , 2, 57	7.3	41
84	Alamethicin channels - modelling via restrained molecular dynamics simulations. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1997 , 1325, 235-49	3.8	37
83	Residue G346 in transmembrane segment six is involved in inter-domain communication in P-glycoprotein. <i>Biochemistry</i> , 2007 , 46, 9899-910	3.2	37
82	Nucleotide-dependent conformational changes in HisP: molecular dynamics simulations of an ABC transporter nucleotide-binding domain. <i>Biophysical Journal</i> , 2004 , 87, 3703-15	2.9	37
81	Is ATP binding responsible for initiating drug translocation by the multidrug transporter ABCG2?. <i>FEBS Journal</i> , 2008 , 275, 4354-62	5.7	36
80	Alamethicin pyromellitate: an ion-activated channel-forming peptide. <i>Biochemistry</i> , 1994 , 33, 6850-8	3.2	36
79	Seven-helix bundles: molecular modeling via restrained molecular dynamics. <i>Biophysical Journal</i> , 1995 , 68, 1295-310	2.9	35
78	Plasma membrane dynamics and tetrameric organisation of ABCG2 transporters in mammalian cells revealed by single particle imaging techniques. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2016 , 1863, 19-29	4.9	33
77	ABC proteins and antibiotic drug resistance: is it all about transport?. <i>Biochemical Society Transactions</i> , 2005 , 33, 1000-2	5.1	33
76	Ion channels formed by amphipathic helical peptides. A molecular modelling study. <i>European Biophysics Journal</i> , 1991 , 20, 229-40	1.9	32
75	The central cavity of ABCB1 undergoes alternating access during ATP hydrolysis. <i>FEBS Journal</i> , 2014 , 281, 2190-2201	5.7	30
74	Modelling membrane proteins using structural restraints. <i>Nature Structural Biology</i> , 1995 , 2, 624-31		30
73	Structure-based interpretation of the mutagenesis database for the nucleotide binding domains of P-glycoprotein. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2008 , 1778, 376-91	3.8	28
72	The coupling mechanism of P-glycoprotein involves residue L339 in the sixth membrane spanning segment. <i>FEBS Letters</i> , 2005 , 579, 3984-90	3.8	28
71	Purification and structural analyses of ABCG2. <i>Advanced Drug Delivery Reviews</i> , 2009 , 61, 57-65	18.5	27
70	Transmembrane helix 12 modulates progression of the ATP catalytic cycle in ABCB1. <i>Biochemistry</i> , 2009 , 48, 6249-58	3.2	25
69	Improving the stability and function of purified ABCB1 and ABCA4: the influence of membrane lipids. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2014 , 1838, 134-47	3.8	24
68	Identification of residues in ABCG2 affecting protein trafficking and drug transport, using co-evolutionary analysis of ABCG sequences. <i>Bioscience Reports</i> , 2015 , 35,	4.1	24

67	Ferrocenoyl derivatives of alamethicin: redox-sensitive ion channels. <i>Biochemistry</i> , 1997 , 36, 1115-22	3.2	23
66	Packing interactions of Aib-containing helices: molecular modeling of parallel dimers of simple hydrophobic helices and of alamethicin. <i>Biopolymers</i> , 1995 , 35, 639-55	2.2	22
65	Location of contact residues in pharmacologically distinct drug binding sites on P-glycoprotein. <i>Biochemical Pharmacology</i> , 2017 , 123, 19-28	6	21
64	ABC proteins and antibiotic drug resistance: is it all about transport?. <i>Biochemical Society Transactions</i> , 2005 , 33, 1000-1002	5.1	21
63	Ion channel formation by synthetic analogues of staphylococcal delta-toxin. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1995 , 1236, 219-27	3.8	21
62	Dimerization of ABCG2 analysed by bimolecular fluorescence complementation. <i>PLoS ONE</i> , 2011 , 6, e25818	1.8	21
61	Studies of the pore-forming domain of a voltage-gated potassium channel protein. <i>Protein Engineering, Design and Selection</i> , 1994 , 7, 255-62	1.9	20
60	Transmembrane helix 12 plays a pivotal role in coupling energy provision and drug binding in ABCB1. <i>FEBS Journal</i> , 2010 , 277, 3974-85	5.7	19
59	Molecular modelling of Staphylococcal delta-toxin ion channels by restrained molecular dynamics. <i>Protein Engineering, Design and Selection</i> , 1996 , 9, 161-71	1.9	19
58	Residues contributing to drug transport by ABCG2 are localised to multiple drug-binding pockets. <i>Biochemical Journal</i> , 2018 , 475, 1553-1567	3.8	18
57	Cytosolic region of TM6 in P-glycoprotein: topographical analysis and functional perturbation by site directed labeling. <i>Biochemistry</i> , 2008 , 47, 3615-24	3.2	17
56	Molecular dynamics simulations of isolated transmembrane helices of potassium channels 1996 , 39, 503		17
55	Cation selectivity in ion channels. <i>Nature</i> , 1995 , 373, 112	50.4	16
54	The pore-lining region of shaker voltage-gated potassium channels: comparison of beta-barrel and alpha-helix bundle models. <i>Biophysical Journal</i> , 1997 , 73, 581-602	2.9	15
53	Hydrophilic surface maps of channel-forming peptides: analysis of amphipathic helices. <i>European Biophysics Journal</i> , 1993 , 22, 269-77	1.9	15
52	Ion channel stability and hydrogen bonding. Molecular modelling of channels formed by synthetic alamethicin analogues. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1997 , 1330, 103-9	3.8	14
51	Principles of proteomics and its applications in cancer. <i>Journal of the Royal College of Surgeons of Edinburgh</i> , 2007 , 5, 14-22	2.5	14
50	A selective biotinylated probe for V1a vasopressin receptors. <i>Molecular and Cellular Endocrinology</i> , 1991 , 77, 123-31	4.4	13

49	ABCG2: does resolving its structure elucidate the mechanism?. <i>Biochemical Society Transactions</i> , 2018 , 46, 1485-1494	5.1	13
48	ABCB1 in children's brain tumours. <i>Biochemical Society Transactions</i> , 2015 , 43, 1018-22	5.1	12
47	Definition of the domain boundaries is critical to the expression of the nucleotide-binding domains of P-glycoprotein. <i>European Biophysics Journal</i> , 2003 , 32, 644-54	1.9	12
46	Communication between the nucleotide binding domains of P-glycoprotein occurs via conformational changes that involve residue 508. <i>Biochemistry</i> , 2003 , 42, 7780-9	3.2	12
45	Protein-water-ion interactions in a model of the pore domain of a potassium channel: a simulation study. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1998 , 1370, 1-7	3.8	11
44	The nucleotide-binding domains of P-glycoprotein. Functional symmetry in the isolated domain demonstrated by N-ethylmaleimide labelling. <i>FEBS Journal</i> , 2003 , 270, 1483-92		11
43	Cellular Patterning of Roots Under Low Phosphate Conditions. <i>Frontiers in Plant Science</i> , 2018 , 9, 735	6.2	10
42	Overcoming ABCG2-mediated drug resistance with imidazo-[1,2-b]-pyridazine-based Pim1 kinase inhibitors. <i>Cancer Chemotherapy and Pharmacology</i> , 2015 , 76, 853-64	3.5	9
41	Application of fluorescence correlation spectroscopy to study substrate binding in styrene maleic acid lipid copolymer encapsulated ABCG2. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020 , 1862, 183218	3.8	9
40	Ion channels of biological membranes: prediction of single channel conductance. <i>Theoretical Chemistry Accounts</i> , 1999 , 101, 97-102	1.9	9
39	Induction of a stress response in <i>Lactococcus lactis</i> is associated with a resistance to ribosomally active antibiotics. <i>FEBS Journal</i> , 2011 , 278, 4015-24	5.7	8
38	Picky ABCG5/G8 and promiscuous ABCG2 - a tale of fatty diets and drug toxicity. <i>FEBS Letters</i> , 2020 , 594, 4035-4058	3.8	8
37	Mammalian ABCG-transporters, sterols and lipids: To bind perchance to transport?. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2021 , 1866, 158860	5	8
36	A role for ABCB1 in prognosis, invasion and drug resistance in ependymoma. <i>Scientific Reports</i> , 2019 , 9, 10290	4.9	7
35	Modelling the packing of transmembrane helices: application to aquaporin-1. <i>Biochemical Society Transactions</i> , 1998 , 26, 509-15	5.1	7
34	8.8 Molecular Aspects of the Translocation Process by ABC Proteins 2012 , 145-173		6
33	Molecular dynamics simulations of isolated transmembrane helices of potassium channels. <i>Biopolymers</i> , 1996 , 39, 503-15	2.2	6
32	Cross-linking, DEER-spectroscopy and molecular dynamics confirm the inward facing state of P-glycoprotein in a lipid membrane. <i>Journal of Structural Biology</i> , 2020 , 211, 107513	3.4	5

31	The ATP-binding cassette proteins of the deep-branching protozoan parasite <i>Trichomonas vaginalis</i> . <i>PLoS Neglected Tropical Diseases</i> , 2012 , 6, e1693	4.8	5
30	Modelling the restoration of wild-type dynamic behaviour in DeltaF508-CFTR NBD1 by 8-cyclopentyl-1,3-dipropylxanthine. <i>Journal of Molecular Graphics and Modelling</i> , 2007 , 26, 691-9	2.8	5
29	ABC Transporters and Isothiocyanates. <i>Letters in Drug Design and Discovery</i> , 2006 , 3, 607-621	0.8	5
28	Molecular dynamics simulations of isolated transmembrane helices of potassium channels. <i>Biopolymers</i> , 1998 , 39, 503-515	2.2	5
27	Localisation of a family of complex-forming β barrels in the <i>T. vaginalis</i> hydrogenosomal membrane. <i>FEBS Letters</i> , 2012 , 586, 4038-45	3.8	4
26	STRUCTURE OF ABC TRANSPORTERS 2003 , 65-80		4
25	Heterologous expression of a membrane-spanning auxin importer: implications for functional analyses of auxin transporters. <i>International Journal of Plant Genomics</i> , 2009 , 2009, 848145		3
24	Hormone Transport. <i>Plant Cell Monographs</i> , 2011 , 379-397	0.6	3
23	Simplified models of the pore domain of the nicotinic acetylcholine receptor. <i>Biochemical Society Transactions</i> , 1994 , 22, 158S	5.1	3
22	Disruption of the Unique ABCG-Family NBD:NBD Interface Impacts Both Drug Transport and ATP Hydrolysis. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	2
21	Analysis of the Sam50 translocase of excavate organisms supports evolution of divergent organelles from a common endosymbiotic event. <i>Bioscience Reports</i> , 2013 , 33,	4.1	2
20	Proteomic profiling of MCF-7 breast cancer cells with chemoresistance to different types of anti-cancer drugs 2007 ,		2
19	Principles of membrane protein structure. <i>Biomembranes: A Multi-Volume Treatise</i> , 1995 , 1, 29-78		2
18	Analysis of Sequence Divergence in Mammalian ABCGs Predicts a Structural Network of Residues That Underlies Functional Divergence. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	2
17	Y-Box Binding Protein-1: A Neglected Target in Pediatric Brain Tumors?. <i>Molecular Cancer Research</i> , 2021 , 19, 375-387	6.6	2
16	3D hydrogels reveal medulloblastoma subgroup differences and identify extracellular matrix subtypes that predict patient outcome. <i>Journal of Pathology</i> , 2021 , 253, 326-338	9.4	2
15	The ABC Transporters: Structural Insights into Drug Transport. <i>Methods and Principles in Medicinal Chemistry</i> , 2009 , 1-48	0.4	2
14	Secondary structure of an isolated P-region from the voltage-gated sodium channel: a molecular modelling/dynamics study. <i>Biophysical Chemistry</i> , 1997 , 69, 221-32	3.5	1

13	Simulation studies on bacteriorhodopsin bundle of transmembrane alpha segments. <i>European Biophysics Journal</i> , 2000 , 28, 663-73	1.9	1
12	Water dynamics in model transbilayer pores. <i>Biochemical Society Transactions</i> , 1996 , 24, 139S	5.1	1
11	Molecular modelling of the pore of potassium channels by restraints-directed distance geometry. <i>Biochemical Society Transactions</i> , 1996 , 24, 297S	5.1	1
10	Hydrophilic and hydrophobic surface map analysis of bacteriorhodopsin. <i>Biochemical Society Transactions</i> , 1993 , 21, 78S	5.1	1
9	Hydrophilic surface maps of channel-forming peptides. <i>Biochemical Society Transactions</i> , 1992 , 20, 323S	5.1	1
8	BLBP Is Both a Marker for Poor Prognosis and a Potential Therapeutic Target in Paediatric Ependymoma. <i>Cancers</i> , 2021 , 13,	6.6	1
7	Long-term exposure to irinotecan reduces cell migration in glioma cells. <i>Journal of Neuro-Oncology</i> , 2016 , 127, 455-62	4.8	1
6	Single Molecule or Ensemble Fluorescence Microscopy Investigations of ABC Transporter Oligomerisation and Dynamics 2016 , 85-102		
5	Molecular dynamics of ion/channel interactions. <i>Biochemical Society Transactions</i> , 1998 , 26, S301	5.1	
4	The voltage-gated potassium channel: Sequence analysis and molecular modelling of the pore domain. <i>Journal of Computer - Aided Molecular Design</i> , 1999 , 15/16, 187-214		
3	Sequence analysis and molecular dynamics studies of potassium channel transmembrane helices. <i>Biochemical Society Transactions</i> , 1995 , 23, 415S	5.1	
2	ABCB1 inhibition provides a novel therapeutic target to block TWIST1-induced migration in medulloblastoma. <i>Neuro-Oncology Advances</i> , 2021 , 3, vdab030	0.9	
1	Detergent-Free Membrane Protein Purification Using SMA Polymer. <i>Methods in Molecular Biology</i> , 2022 , 389-404	1.4	