

Christoph Fahlke

List of Publications by Year in Descending Order

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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.

118
papers

5,198
citations

41
h-index

69
g-index

128
ext. papers

5,904
ext. citations

8.3
avg. IF

5.43
L-index

#	Paper	IF	Citations
118	CLC anion/proton exchangers regulate secretory vesicle filling and granule exocytosis in chromaffin cells.. <i>Journal of Neuroscience</i> , 2022 ,	6.6	1
117	Excitatory Amino Acid Transporter EAAT5 Improves Temporal Resolution in the Retina. <i>ENeuro</i> , 2021 , 8,	3.9	2
116	Cellular Physiology and Pathophysiology of EAAT Anion Channels.. <i>Frontiers in Cellular Neuroscience</i> , 2021 , 15, 815279	6.1	1
115	Mechanisms Underlying Proton Release in CLC-type F/H Antiporters. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 4415-4420	6.4	3
114	Dysregulation of Astrocyte Ion Homeostasis and Its Relevance for Stroke-Induced Brain Damage. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	9
113	The molecular and phenotypic spectrum of CLCN4-related epilepsy. <i>Epilepsia</i> , 2021 , 62, 1401-1415	6.4	0
112	Molecular Basis of Coupled Transport and Anion Conduction in Excitatory Amino Acid Transporters. <i>Neurochemical Research</i> , 2021 , 1	4.6	2
111	Glial Chloride Homeostasis Under Transient Ischemic Stress. <i>Frontiers in Cellular Neuroscience</i> , 2021 , 15, 735300	6.1	3
110	Molecular Basis of CLC Antiporter Inhibition by Fluoride. <i>Journal of the American Chemical Society</i> , 2020 , 142, 7254-7258	16.4	10
109	Metabolic energy sensing by mammalian CLC anion/proton exchangers. <i>EMBO Reports</i> , 2020 , 21, e478726.5	6.5	5
108	Increased glutamate transporter-associated anion currents cause glial apoptosis in episodic ataxia 6. <i>Brain Communications</i> , 2020 , 2, fcaa022	4.5	13
107	Functional consequences of SLC1A3 mutations associated with episodic ataxia 6. <i>Human Mutation</i> , 2020 , 41, 1892-1905	4.7	13
106	An amino-terminal point mutation increases EAAT2 anion currents without affecting glutamate transport rates. <i>Journal of Biological Chemistry</i> , 2020 , 295, 14936-14947	5.4	3
105	Na-dependent gate dynamics and electrostatic attraction ensure substrate coupling in glutamate transporters. <i>Science Advances</i> , 2020 , 6,	14.3	11
104	Reconstitution and NMR Characterization of the Ion-Channel Accessory Subunit Barttin in Detergents and Lipid-Bilayer Nanodiscs. <i>Frontiers in Molecular Biosciences</i> , 2019 , 6, 13	5.6	3
103	Quantitative determination of cellular [Na] by fluorescence lifetime imaging with CoroNaGreen. <i>Journal of General Physiology</i> , 2019 , 151, 1319-1331	3.4	8
102	Unique structure and function of viral rhodopsins. <i>Nature Communications</i> , 2019 , 10, 4939	17.4	29

101	Elevated aldosterone and blood pressure in a mouse model of familial hyperaldosteronism with CLC-2 mutation. <i>Nature Communications</i> , 2019 , 10, 5155	17.4	19
100	Allosteric gate modulation confers K coupling in glutamate transporters. <i>EMBO Journal</i> , 2019 , 38, e101468		18
99	CLCN2 chloride channel mutations in familial hyperaldosteronism type II. <i>Nature Genetics</i> , 2018 , 50, 349-354	36.4	117
98	Efficient non-cytotoxic fluorescent staining of halophiles. <i>Scientific Reports</i> , 2018 , 8, 2549	4.9	11
97	Molecular and cellular physiology of sodium-dependent glutamate transporters. <i>Brain Research Bulletin</i> , 2018 , 136, 3-16	3.9	48
96	CLC-3: biophysical properties clarify cellular functions. <i>Journal of Physiology</i> , 2018 , 596, 3823-3824	3.9	0
95	Barttin Regulates the Subcellular Localization and Posttranslational Modification of Human Cl/H Antiporter CLC-5. <i>Frontiers in Physiology</i> , 2018 , 9, 1490	4.6	7
94	Infection-Induced Neutrophil Recruitment and Location in the Conducting Airway of Immunocompetent, Neutropenic, and Immunosuppressed Mice. <i>Journal of Immunology Research</i> , 2018 , 2018, 5379085	4.5	4
93	Gating Charge Calculations by Computational Electrophysiology Simulations. <i>Biophysical Journal</i> , 2017 , 112, 1396-1405	2.9	9
92	Glutamate transporter-associated anion channels adjust intracellular chloride concentrations during glial maturation. <i>Glia</i> , 2017 , 65, 388-400	9	50
91	Impaired K binding to glial glutamate transporter EAAT1 in migraine. <i>Scientific Reports</i> , 2017 , 7, 13913	4.9	21
90	Preferential association with CLC-3 permits sorting of CLC-4 into endosomal compartments. <i>Journal of Biological Chemistry</i> , 2017 , 292, 19055-19065	5.4	11
89	VGLUT1 functions as a glutamate/proton exchanger with chloride channel activity in hippocampal glutamatergic synapses. <i>Nature Communications</i> , 2017 , 8, 2279	17.4	36
88	Reduced Membrane Insertion of CLC-K by V33L Barttin Results in Loss of Hearing, but Leaves Kidney Function Intact. <i>Frontiers in Physiology</i> , 2017 , 8, 269	4.6	7
87	Molecular physiology of anion channels: dual function proteins and new structural motifs--a special issue. <i>Pflugers Archiv European Journal of Physiology</i> , 2016 , 468, 369-70	4.6	2
86	Molecular physiology of EAAT anion channels. <i>Pflugers Archiv European Journal of Physiology</i> , 2016 , 468, 491-502	4.6	37
85	Human CLC-K Channels Require Palmitoylation of Their Accessory Subunit Barttin to Be Functional. <i>Journal of Biological Chemistry</i> , 2015 , 290, 17390-400	5.4	14
84	Crystal structure of a light-driven sodium pump. <i>Nature Structural and Molecular Biology</i> , 2015 , 22, 390-517.6	117.6	115

83	Neuronal CLC-3 Splice Variants Differ in Subcellular Localizations, but Mediate Identical Transport Functions. <i>Journal of Biological Chemistry</i> , 2015 , 290, 25851-62	5.4	27
82	Excitatory amino acid transporters: recent insights into molecular mechanisms, novel modes of modulation and new therapeutic possibilities. <i>Current Opinion in Pharmacology</i> , 2015 , 20, 116-23	5.1	68
81	Molecular Determinants of Substrate Specificity in Sodium-coupled Glutamate Transporters. <i>Journal of Biological Chemistry</i> , 2015 , 290, 28988-96	5.4	9
80	Impaired surface membrane insertion of homo- and heterodimeric human muscle chloride channels carrying amino-terminal myotonia-causing mutations. <i>Scientific Reports</i> , 2015 , 5, 15382	4.9	15
79	Electrophysiological Characterization of eGFP-Labeled Intrastratial Dopamine Grafts. <i>Cell Transplantation</i> , 2015 , 24, 1451-67	4	
78	Recurrent gain of function mutation in calcium channel CACNA1H causes early-onset hypertension with primary aldosteronism. <i>ELife</i> , 2015 , 4, e06315	8.9	203
77	Tryptophan Scanning Mutagenesis Identifies the Molecular Determinants of Distinct Barttin Functions. <i>Journal of Biological Chemistry</i> , 2015 , 290, 18732-43	5.4	11
76	Carboxyl-terminal Truncations of CLC-Kb Abolish Channel Activation by Barttin Via Modified Common Gating and Trafficking. <i>Journal of Biological Chemistry</i> , 2015 , 290, 30406-16	5.4	13
75	Mechanisms of anion conduction by coupled glutamate transporters. <i>Cell</i> , 2015 , 160, 542-53	56.2	86
74	Determination of Intracellular Chloride Concentrations by Fluorescence Lifetime Imaging. <i>Springer Series in Chemical Physics</i> , 2015 , 189-211	0.3	6
73	CNS Schwann cells display oligodendrocyte precursor-like potassium channel activation and antigenic expression in vitro. <i>Journal of Neural Transmission</i> , 2014 , 121, 569-81	4.3	10
72	Behind the scenes of CLC gating: deriving the voltage dependence of membrane proteins by admittance measurements. <i>Biophysical Journal</i> , 2014 , 107, 1261-2	2.9	
71	CLC-1 and CLC-2 form hetero-dimeric channels with novel protopore functions. <i>Pflugers Archiv European Journal of Physiology</i> , 2014 , 466, 2191-204	4.6	19
70	The photophysics of LOV-based fluorescent proteins--new tools for cell biology. <i>Photochemical and Photobiological Sciences</i> , 2014 , 13, 875-83	4.2	77
69	Involvement of CLC-3 chloride/proton exchangers in controlling glutamatergic synaptic strength in cultured hippocampal neurons. <i>Frontiers in Cellular Neuroscience</i> , 2014 , 8, 143	6.1	27
68	Functional properties of the retinal glutamate transporters GLT-1c and EAAT5. <i>Journal of Biological Chemistry</i> , 2014 , 289, 1815-24	5.4	42
67	CLC channel function and dysfunction in health and disease. <i>Frontiers in Physiology</i> , 2014 , 5, 378	4.6	61
66	Regulation of CLC-2 gating by intracellular ATP. <i>Pflugers Archiv European Journal of Physiology</i> , 2013 , 465, 1423-37	4.6	25

65	Somatic and germline CACNA1D calcium channel mutations in aldosterone-producing adenomas and primary aldosteronism. <i>Nature Genetics</i> , 2013 , 45, 1050-4	36.3	410
64	CLC-3 is an intracellular chloride/proton exchanger with large voltage-dependent nonlinear capacitance. <i>ACS Chemical Neuroscience</i> , 2013 , 4, 994-1003	5.7	53
63	Allosteric modulation of an excitatory amino acid transporter: the subtype-selective inhibitor UCPH-101 exerts sustained inhibition of EAAT1 through an intramonomeric site in the trimerization domain. <i>Journal of Neuroscience</i> , 2013 , 33, 1068-87	6.6	41
62	Mutating a conserved proline residue within the trimerization domain modifies Na ⁺ binding to excitatory amino acid transporters and associated conformational changes. <i>Journal of Biological Chemistry</i> , 2013 , 288, 36492-501	5.4	15
61	Induced fit substrate binding to an archeal glutamate transporter homologue. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 12486-91	11.5	38
60	Disease-causing mutations C277R and C277Y modify gating of human CLC-1 chloride channels in myotonia congenita. <i>Journal of Physiology</i> , 2012 , 590, 3449-64	3.9	28
59	Anion transport by the cochlear motor protein prestin. <i>Journal of Physiology</i> , 2012 , 590, 259-72	3.9	24
58	A point mutation associated with episodic ataxia 6 increases glutamate transporter anion currents. <i>Brain</i> , 2012 , 135, 3416-25	11.2	50
57	Neutralizing aspartate 83 modifies substrate translocation of excitatory amino acid transporter 3 (EAAT3) glutamate transporters. <i>Journal of Biological Chemistry</i> , 2012 , 287, 20016-26	5.4	10
56	Anion- and proton-dependent gating of CLC-4 anion/proton transporter under uncoupling conditions. <i>Biophysical Journal</i> , 2011 , 100, 1233-41	2.9	26
55	Engaging neuroscience to advance translational research in brain barrier biology. <i>Nature Reviews Neuroscience</i> , 2011 , 12, 169-82	13.5	418
54	Noise analysis to study unitary properties of transporter-associated ion channels. <i>Channels</i> , 2011 , 5, 468-74	3.4	8
53	Hetero-oligomerization of neuronal glutamate transporters. <i>Journal of Biological Chemistry</i> , 2011 , 286, 3935-43	5.4	27
52	Substrate-dependent gating of anion channels associated with excitatory amino acid transporter 4. <i>Journal of Biological Chemistry</i> , 2011 , 286, 23780-8	5.4	14
51	Regulation of glial glutamate transporters by C-terminal domains. <i>Journal of Biological Chemistry</i> , 2011 , 286, 1927-37	5.4	23
50	Chloride channels take center stage in a muscular drama. <i>Journal of General Physiology</i> , 2011 , 137, 17-9	3.4	8
49	Physiology and pathophysiology of CLC-K/barttin channels. <i>Frontiers in Physiology</i> , 2010 , 1, 155	4.6	47
48	A conserved aspartate determines pore properties of anion channels associated with excitatory amino acid transporter 4 (EAAT4). <i>Journal of Biological Chemistry</i> , 2010 , 285, 23676-86	5.4	32

47	Barttin activates CLC-K channel function by modulating gating. <i>Journal of the American Society of Nephrology: JASN</i> , 2010 , 21, 1281-9	12.7	60
46	Disease-causing dysfunctions of barttin in Bartter syndrome type IV. <i>Journal of the American Society of Nephrology: JASN</i> , 2009 , 20, 145-53	12.7	62
45	Channel-like slippage modes in the human anion/proton exchanger CLC-4. <i>Journal of General Physiology</i> , 2009 , 133, 485-96	3.4	54
44	Two novel CLCN2 mutations accelerating chloride channel deactivation are associated with idiopathic generalized epilepsy. <i>Human Mutation</i> , 2009 , 30, 397-405	4.7	52
43	CLCN2 variants in idiopathic generalized epilepsy. <i>Nature Genetics</i> , 2009 , 41, 954-5	36.3	40
42	Molecular basis of DFNB73: mutations of BSND can cause nonsyndromic deafness or Bartter syndrome. <i>American Journal of Human Genetics</i> , 2009 , 85, 273-80	11	61
41	Gating of human CLC-2 chloride channels and regulation by carboxy-terminal domains. <i>Journal of Physiology</i> , 2008 , 586, 5325-36	3.9	39
40	Anion channels: regulation of CLC-3 by an orphan second messenger. <i>Current Biology</i> , 2008 , 18, R1061-4	6.3	10
39	Conserved dimeric subunit stoichiometry of SLC26 multifunctional anion exchangers. <i>Journal of Biological Chemistry</i> , 2008 , 283, 4177-88	5.4	76
38	A beta-lactam antibiotic dampens excitotoxic inflammatory CNS damage in a mouse model of multiple sclerosis. <i>PLoS ONE</i> , 2008 , 3, e3149	3.7	68
37	Neuronal glutamate transporters vary in substrate transport rate but not in unitary anion channel conductance. <i>Journal of Biological Chemistry</i> , 2007 , 282, 34719-26	5.4	35
36	Parawixin1: a spider toxin opening new avenues for glutamate transporter pharmacology. <i>Molecular Pharmacology</i> , 2007 , 72, 1100-2	4.3	10
35	Intersubunit interactions in EAAT4 glutamate transporters. <i>Journal of Neuroscience</i> , 2006 , 26, 7513-22	6.6	28
34	Barttin modulates trafficking and function of CLC-K channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 11411-6	11.5	105
33	Carboxy-terminal truncations modify the outer pore vestibule of muscle chloride channels. <i>Biophysical Journal</i> , 2005 , 89, 1710-20	2.9	38
32	A dynamic switch between inhibitory and excitatory currents in a neuronal glutamate transporter. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 19214-8	11.5	27
31	A trimeric quaternary structure is conserved in bacterial and human glutamate transporters. <i>Journal of Biological Chemistry</i> , 2004 , 279, 39505-12	5.4	95
30	The role of the carboxyl terminus in CLC chloride channel function. <i>Journal of Biological Chemistry</i> , 2004 , 279, 13140-7	5.4	70

29	Molecular physiology and pathophysiology of ClC-type chloride channels. <i>Advances in Molecular and Cell Biology</i> , 2004 , 189-217		3
28	Glutamate modifies ion conduction and voltage-dependent gating of excitatory amino acid transporter-associated anion channels. <i>Journal of Biological Chemistry</i> , 2003 , 278, 50112-9	5.4	51
27	Mutations in CLCN2 encoding a voltage-gated chloride channel are associated with idiopathic generalized epilepsies. <i>Nature Genetics</i> , 2003 , 33, 527-32	36.3	274
26	Anion permeation in human ClC-4 channels. <i>Biophysical Journal</i> , 2003 , 84, 2306-18	2.9	53
25	A novel alteration of muscle chloride channel gating in myotonia levior. <i>Journal of Physiology</i> , 2002 , 545, 345-54	3.9	15
24	Novel CLCN1 mutations with unique clinical and electrophysiological consequences. <i>Brain</i> , 2002 , 125, 2392-407	11.2	67
23	The myotonia congenita mutation A331T confers a novel hyperpolarization-activated gate to the muscle chloride channel ClC-1. <i>Journal of Neuroscience</i> , 2002 , 22, 7462-70	6.6	15
22	Residues lining the inner pore vestibule of human muscle chloride channels. <i>Journal of Biological Chemistry</i> , 2001 , 276, 1759-65	5.4	30
21	Ion permeation and selectivity in ClC-type chloride channels. <i>American Journal of Physiology - Renal Physiology</i> , 2001 , 280, F748-57	4.3	79
20	Molecular mechanisms of ion conduction in ClC-type chloride channels: lessons from disease-causing mutations. <i>Kidney International</i> , 2000 , 57, 780-6	9.9	11
19	Dent's disease 2000 , 255-276		
18	Regulation of the human skeletal muscle chloride channel hClC-1 by protein kinase C. <i>Journal of Physiology</i> , 1999 , 514 (Pt 3), 677-85	3.9	45
17	A missense mutation in canine ClC-1 causes recessive myotonia congenita in the dog. <i>FEBS Letters</i> , 1999 , 456, 54-8	3.8	57
16	Pore stoichiometry of a voltage-gated chloride channel. <i>Nature</i> , 1998 , 394, 687-90	50.4	58
15	Mechanism of ion permeation in skeletal muscle chloride channels. <i>Journal of General Physiology</i> , 1997 , 110, 551-64	3.4	53
14	Subunit stoichiometry of human muscle chloride channels. <i>Journal of General Physiology</i> , 1997 , 109, 93-104	3.4	89
13	A mutation in autosomal dominant myotonia congenita affects pore properties of the muscle chloride channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997 , 94, 2729-34	11.5	93
12	Pore-forming segments in voltage-gated chloride channels. <i>Nature</i> , 1997 , 390, 529-32	50.4	166

11	Mechanism of voltage-dependent gating in skeletal muscle chloride channels. <i>Biophysical Journal</i> , 1996 , 71, 695-706	2.9	72
10	Molecular basis for decreased muscle chloride conductance in the myotonic goat. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996 , 93, 11248-52	11.5	115
9	Characterization of the high-conductance Ca(2+)-activated K+ channel in adult human skeletal muscle. <i>Pflugers Archiv European Journal of Physiology</i> , 1995 , 429, 738-47	4.6	11
8	An aspartic acid residue important for voltage-dependent gating of human muscle chloride channels. <i>Neuron</i> , 1995 , 15, 463-72	13.9	108
7	Different effects on gating of three myotonia-causing mutations in the inactivation gate of the human muscle sodium channel. <i>Journal of Physiology</i> , 1995 , 487, 107-14	3.9	76
6	Role of the cytoskeleton in the regulation of Cl- channels in human embryonic skeletal muscle cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1994 , 428, 323-30	4.6	19
5	Chloride channels with reduced single-channel conductance in recessive myotonia congenita. <i>Neuron</i> , 1993 , 10, 225-32	13.9	24
4	Giga-seal formation alters properties of sodium channels of human myoballs. <i>Pflugers Archiv European Journal of Physiology</i> , 1992 , 420, 248-54	4.6	14
3	Whole-cell recordings of chloride currents in cultured human skeletal muscle. <i>Pflugers Archiv European Journal of Physiology</i> , 1992 , 421, 101-7	4.6	10
2	Single-channel recordings of chloride currents in cultured human skeletal muscle. <i>Pflugers Archiv European Journal of Physiology</i> , 1992 , 421, 108-16	4.6	19
1	Chloride channels in cultured human skeletal muscle are regulated by G proteins. <i>Pflugers Archiv European Journal of Physiology</i> , 1992 , 421, 566-71	4.6	8