Cryo-EM structures and functional characterization of
of uncoupled chloride transport

ELife

8,

DOI: 10.7554/elife.46986

#	Article	IF	Citations
1	Structural mechanism of the active bicarbonate transporter from cyanobacteria. Nature Plants, 2019, 5, 1184-1193.	4.7	60
2	Voltage Does Not Drive Prestin (SLC26a5) Electro-Mechanical Activity at High Frequencies Where Cochlear Amplification Is Best. IScience, 2019, 22, 392-399.	1.9	19
3	Systematic quantification of the anion transport function of pendrin (SLC26A4) and its diseaseâ€associated variants. Human Mutation, 2020, 41, 316-331.	1.1	16
4	Alternative chloride transport pathways as pharmacological targets for the treatment of cystic fibrosis. Journal of Cystic Fibrosis, 2020, 19, S37-S41.	0.3	29
5	Tonotopy of cochlear hair cell biophysics (excl. mechanotransduction). Current Opinion in Physiology, 2020, 18, 1-6.	0.9	5
6	No Zoom Required: Meeting at the Î²-Intercalated Cells. Journal of the American Society of Nephrology: JASN, 2020, 31, 1655-1657.	3.0	1
7	Heterologous expression and purification of the bicarbonate transporter BicA from Synechocystis sp. PCC 6803. Protein Expression and Purification, 2020, 175, 105716.	0.6	1
8	The cochlear outer hair cell speed paradox. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21880-21888.	3.3	30
9	Structural insights into the gating mechanism of human SLC26A9 mediated by its C-terminal sequence. Cell Discovery, 2020, 6, 55.	3.1	43
10	<i>Slc26a9</i> <i>P2ACre</i>, a new CRE driver to regulate gene expression in the otic placode lineage and other FGFR2b-dependent epithelia. Development (Cambridge), 2020, 147, .	1.2	0
11	Complex nonlinear capacitance in outer hair cell macro-patches: effects of membrane tension. Scientific Reports, 2020, 10, 6222.	1.6	24
12	Novel Human Polymorphisms Define a Key Role for the SLC26A6-STAS Domain in Protection From Ca2+-Oxalate Lithogenesis. Frontiers in Pharmacology, 2020, 11, 405.	1.6	8
13	Functional Distinction between Human and Mouse Sodium-Coupled Citrate Transporters and Its Biologic Significance: An Attempt for Structural Basis Using a Homology Modeling Approach. Chemical Reviews, 2021, 121, 5359-5377.	23.0	15
14	Amphipathic environments for determining the structure of membrane proteins by single-particle electron cryo-microscopy. Quarterly Reviews of Biophysics, 2021, 54, e6.	2.4	22
15	Glutamate transporters have a chloride channel with two hydrophobic gates. Nature, 2021, 591, 327-331.	13.7	40
16	Membrane Protein Stabilization Strategies for Structural and Functional Studies. Membranes, 2021, 11, 155.	1.4	17
17	Calmodulin binds to the STAS domain of SLC26A5 prestin with a calcium-dependent, one-lobe, binding mode. Journal of Structural Biology, 2021, 213, 107714.	1.3	7
18	Pharmacological Modulation of Ion Channels for the Treatment of Cystic Fibrosis. Journal of Experimental Pharmacology, 2021, Volume 13, 693-723.	1.5	24

#	ARTICLE	IF	CITATIONS
19	Structure and function of an Arabidopsis thaliana sulfate transporter. Nature Communications, 2021, 12, 4455.	5.8	26
20	DeepEMhancer: a deep learning solution for cryo-EM volume post-processing. Communications Biology, 2021, 4, 874.	2.0	561
21	Cryo-EM structures of the TTYH family reveal a novel architecture for lipid interactions. Nature Communications, 2021, 12, 4893.	5.8	11
22	Comparative Molecular Dynamics Investigation of the Electromotile Hearing Protein Prestin. International Journal of Molecular Sciences, 2021, 22, 8318.	1.8	2
24	Hydrokinetic pancreatic function and insulin secretion are moduled by Cl^{âˆ’} uniporter Slc26a9 in mice. Acta Physiologica, 2022, 234, e13729.	1.8	7
25	Molecular mechanism of prestin electromotive signal amplification. Cell, 2021, 184, 4669-4679.e13.	13.5	61
26	Cryo-EM structure of the sodium-driven chloride/bicarbonate exchanger NDCBE. Nature Communications, 2021, 12, 5690.	5.8	24
28	Single-Particle Cryo-EM of Membrane Proteins in Lipid Nanodiscs. Methods in Molecular Biology, 2020, 2127, 245-273.	0.4	7
31	<i>In meso</i> crystallogenesis. Compatibility of the lipid cubic phase with the synthetic digitonin analogue, glyco-diosgenin. Journal of Applied Crystallography, 2020, 53, 530-535.	1.9	9
32	Increased expression of anion transporter SLC26A9 delays diabetes onset in cystic fibrosis. Journal of Clinical Investigation, 2019, 130, 272-286.	3.9	33
33	Structure of MlaFB uncovers novel mechanisms of ABC transporter regulation. ELife, 2020, 9, .	2.8	32
34	The conformational cycle of prestin underlies outer-hair cell electromotility. Nature, 2021, 600, 553-558.	13.7	53
36	Cochlear Pathomorphogenesis of Incomplete Partition Type II in Slc26a4-Null Mice. JARO - Journal of the Association for Research in Otolaryngology, 2021, 22, 681-691.	0.9	3
37	Properties, Structure, and Function of the Solute Carrier 26 Family of Anion Transporters. Physiology in Health and Disease, 2020, , 467-493.	0.2	2
38	Functional (un)cooperativity in elevator transport proteins. Biochemical Society Transactions, 2020, 48, 1047-1055.	1.6	2
39	Coupling between outer hair cell electromotility and prestin sensor charge depends on voltage operating point. Hearing Research, 2022, 423, 108373.	0.9	5
40	Recent advances in cochlear hair cell nanophysiology: subcellular compartmentalization of electrical signaling in compact sensory cells. Faculty Reviews, 2020, 9, 24.	1.7	2
41	Anatomy and Biophysics of Sensory Cells. , 2020, , 419-440.		0

#	Article	IF	Citations
45	SLC26A9 is selected for endoplasmic reticulum associated degradation (ERAD) via Hsp70-dependent targeting of the soluble STAS domain. Biochemical Journal, 2021, , .	1.7	4
46	SLC26A9 as a Potential Modifier and Therapeutic Target in Cystic Fibrosis Lung Disease. Biomolecules, 2022, 12, 202.	1.8	3
47	Single particle cryo-EM structure of the outer hair cell motor protein prestin. Nature Communications, 2022, 13, 290.	5.8	34
49	Uniport, Not Proton-Symport, in a Non-Mammalian SLC23 Transporter. Journal of Molecular Biology, 2022, 434, 167393.	2.0	6
50	Dominant negative mutation in oxalate transporter<i>SLC26A6</i>associated with enteric hyperoxaluria and nephrolithiasis. Journal of Medical Genetics, 2022, 59, 1035-1043.	1.5	7
51	Role of SLC4 and SLC26 solute carriers during oxidative stress. Acta Physiologica, 2022, 235, e13796.	1.8	17
52	Identification of Potential Genes Encoding Protein Transporters in Arabidopsis thaliana Glucosinolate (GSL) Metabolism. Life, 2022, 12, 326.	1.1	2
53	Organization and Dynamics of the Red Blood Cell Band 3 Anion Exchanger SLC4A1: Insights From Molecular Dynamics Simulations. Frontiers in Physiology, 2022, 13, 817945.	1.3	6
54	Expression of SLC26A9 in Airways and Its Potential Role in Asthma. International Journal of Molecular Sciences, 2022, 23, 2998.	1.8	8
55	Genetic evidence supports the development of SLC26A9 targeting therapies for the treatment of lung disease. Npj Genomic Medicine, 2022, 7, 28.	1.7	7
56	Progress in understanding the structural mechanism underlying prestin's electromotile activity. Hearing Research, 2022, 423, 108423.	0.9	2
57	SLC26A9 deficiency causes gastric intraepithelial neoplasia in mice and aggressive gastric cancer in humans. Cellular Oncology (Dordrecht), 2022, 45, 381-398.	2.1	4
59	The twisting elevator mechanism of glutamate transporters reveals the structural basis for the dual transport-channel functions. Current Opinion in Structural Biology, 2022, 75, 102405.	2.6	0
61	The two-domain elevator-type mechanism of zinc-transporting ZIP proteins. Science Advances, 2022, 8, .	4.7	19
63	Structure and mechanism of the bacterial lipid ABC transporter, MlaFEDB. Current Opinion in Structural Biology, 2022, 76, 102429.	2.6	6
64	The <scp>SLC26A9</scp> inhibitor <scp>S9â€A13</scp> provides no evidence for a role of <scp>SLC26A9</scp> in airway chloride secretion but suggests a contribution to regulation of <scp>ASL pH</scp> and gastric proton secretion. FASEB Journal, 2022, 36, .	0.2	11
65	Determination of oligomeric states of proteins via dual-color colocalization with single molecule localization microscopy. ELife, 0, 11, .	2.8	6
66	Cryo-EM structures of thermostabilized prestin provide mechanistic insights underlying outer hair cell electromotility. Nature Communications, 2022, 13, .	5.8	14

#	Article	IF	Citations
67	CryoEM structures of anion exchanger 1 capture multiple states of inward- and outward-facing conformations. Communications Biology, 2022, 5, .	2.0	10
68	Structure of a volume-regulated heteromeric LRRC8A/C channel. Nature Structural and Molecular Biology, 2023, 30, 52-61.	3.6	12
69	The evolutionary tuning of hearing. Trends in Neurosciences, 2023, 46, 110-123.	4.2	2
70	The Remarkable Outer Hair Cell: Proceedings of a Symposium in Honour of W. E. Brownell. JARO - Journal of the Association for Research in Otolaryngology, 2023, 24, 117-127.	0.9	3
71	Purification and characterization of eukaryotic ATP-dependent transporters homologously expressed in Pichia pastoris for structural studies by cryo-electron microscopy. Protein Expression and Purification, 2023, 204, 106230.	0.6	0
72	SLC26A9 in airways and intestine: secretion or absorption?. Channels, 2023, 17, .	1.5	3
73	Prestinâ€™s fast motor kinetics is essential for mammalian cochlear amplification. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	8
75	Structural basis of vitamin C recognition and transport by mammalian SVCT1 transporter. Nature Communications, 2023, 14, .	5.8	3
76	Structural and functional properties of the transporter SLC26A6 reveal mechanism of coupled anion exchange. ELife, 0, 12, .	2.8	2
86	SLC26 Anion Transporters. Handbook of Experimental Pharmacology, 2023, , .	0.9	1