Show-Ling Shyng

List of Publications by Year
in descending order

51 papers	2,334 citations	218677 26 h-index	223800 46 g-index
60 all docs	60 docs citations	60 times ranked	1930 citing authors

#	Article	IF	Citations
1	Structural Determinants of Pip2 Regulation of Inward Rectifier KATP Channels. Journal of General Physiology, 2000, 116, 599-608.	1.9	189
2	Structural and functional diversity calls for a new classification of ABC transporters. FEBS Letters, 2020, 594, 3767-3775.	2.8	169
3	Clinical characteristics and biochemical mechanisms of congenital hyperinsulinism associated with dominant KATP channel mutations. Journal of Clinical Investigation, 2008, 118, 2877-2886.	8.2	169
4	Cryo-EM structure of the ATP-sensitive potassium channel illuminates mechanisms of assembly and gating. ELife, 2017, 6, .	6.0	166
5	Anti-diabetic drug binding site in a mammalian KATP channel revealed by Cryo-EM. ELife, 2017, 6, .	6.0	122
6	Identification of a Familial Hyperinsulinism-causing Mutation in the Sulfonylurea Receptor 1 That Prevents Normal Trafficking and Function of KATP Channels. Journal of Biological Chemistry, 2002, 277, 17139-17146.	3.4	112
7	Congenital Hyperinsulinismâ€"Associated <i>ABCC8</i> Mutations That Cause Defective Trafficking of ATP-Sensitive K+ Channels. Diabetes, 2007, 56, 2339-2348.	0.6	96
8	Sulfonylureas Correct Trafficking Defects of ATP-sensitive Potassium Channels Caused by Mutations in the Sulfonylurea Receptor. Journal of Biological Chemistry, 2004, 279, 11096-11105.	3.4	91
9	Mechanism of pharmacochaperoning in a mammalian KATP channel revealed by cryo-EM. ELife, 2019, 8, .	6.0	68
10	Diazoxide-Unresponsive Congenital Hyperinsulinism in Children With Dominant Mutations of the Î²-Cell Sulfonylurea Receptor SUR1. Diabetes, 2011, 60, 1797-1804.	0.6	66
11	Leptin Regulates KATP Channel Trafficking in Pancreatic Î²-Cells by a Signaling Mechanism Involving AMP-activated Protein Kinase (AMPK) and cAMP-dependent Protein Kinase (PKA). Journal of Biological Chemistry, 2013, 288, 34098-34109.	3.4	66
12	Role of ubiquitin-proteasome degradation pathway in biogenesis efficiency of Î²-cell ATP-sensitive potassium channels. American Journal of Physiology - Cell Physiology, 2005, 289, C1351-C1359.	4.6	62
13	Sulfonylureas Correct Trafficking Defects of Disease-causing ATP-sensitive Potassium Channels by Binding to the Channel Complex. Journal of Biological Chemistry, 2006, 281, 33403-33413.	3.4	58
14	Carbamazepine as a Novel Small Molecule Corrector of Trafficking-impaired ATP-sensitive Potassium Channels Identified in Congenital Hyperinsulinism. Journal of Biological Chemistry, 2013, 288, 20942-20954.	3.4	57
15	Membrane Phosphoinositides Control Insulin Secretion Through Their Effects on ATP-Sensitive K+ Channel Activity. Diabetes, 2005, 54, 2852-2858.	0.6	54
16	Stabilization of the Activity of ATP-sensitive Potassium Channels by Ion Pairs Formed between Adjacent Kir6.2 Subunits. Journal of General Physiology, 2003, 122, 225-237.	1.9	51
17	Destabilization of ATP-sensitive Potassium Channel Activity by Novel KCNJ11 Mutations Identified in Congenital Hyperinsulinism. Journal of Biological Chemistry, 2008, 283, 9146-9156.	3.4	50
18	Pharmacological rescue of trafficking-impaired ATP-sensitive potassium channels. Frontiers in Physiology, 2013, 4, 386.	2.8	49

#	Article	IF	Citations
19	Kir6.2 Mutations Associated With Neonatal Diabetes Reduce Expression of ATP-Sensitive K+ channels: Implications in Disease Mechanism and Sulfonylurea Therapy. Diabetes, 2006, 55, 1738-1746.	0.6	42
20	Role of Hsp90 in Biogenesis of the Î²-Cell ATP-sensitive Potassium Channel Complex. Molecular Biology of the Cell, 2010, 21, 1945-1954.	2.1	39
21	Pharmacological Correction of Trafficking Defects in ATP-sensitive Potassium Channels Caused by Sulfonylurea Receptor 1 Mutations. Journal of Biological Chemistry, 2016, 291, 21971-21983.	3.4	37
22	Compounds that correct F508del-CFTR trafficking can also correct other protein trafficking diseases: an in vitro study using cell lines. Orphanet Journal of Rare Diseases, 2013, 8, 11.	2.7	36
23	Ion Channels of the Islets in Type 2 Diabetes. Journal of Molecular Biology, 2020, 432, 1326-1346.	4.2	36
24	NMDA receptors mediate leptin signaling and regulate potassium channel trafficking in pancreatic Î²-cells. Journal of Biological Chemistry, 2017, 292, 15512-15524.	3.4	35
25	Engineered interaction between SUR1 and Kir6.2 that enhances ATP sensitivity in KATP channels. Journal of General Physiology, 2012, 140, 175-187.	1.9	34
26	Structurally Distinct Ligands Rescue Biogenesis Defects of the KATP Channel Complex via a Converging Mechanism. Journal of Biological Chemistry, 2015, 290, 7980-7991.	3.4	34
27	Vascular K _{ATP} channel structural dynamics reveal regulatory mechanism by Mg-nucleotides. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33
28	Sulfonylurea Receptor 1 Mutations That Cause Opposite Insulin Secretion Defects with Chemical Chaperone Exposure. Journal of Biological Chemistry, 2009, 284, 7951-7959.	3.4	31
29	Concerted Trafficking Regulation of Kv2.1 and KATP Channels by Leptin in Pancreatic Î²-Cells. Journal of Biological Chemistry, 2015, 290, 29676-29690.	3.4	30
30	N-terminal transmembrane domain of SUR1 controls gating of Kir6.2 by modulating channel sensitivity to PIP2. Journal of General Physiology, 2011, 137, 299-314.	1.9	29
31	Neonatal Diabetes Caused by Mutations in Sulfonylurea Receptor 1: Interplay between Expression and Mg-Nucleotide Gating Defects of ATP-Sensitive Potassium Channels. Journal of Clinical Endocrinology and Metabolism, 2010, 95, E473-E478.	3.6	27
32	Carbamazepine inhibits ATP-sensitive potassium channel activity by disrupting channel response to MgADP. Channels, 2014, 8, 376-382.	2.8	24
33	Pharmacological chaperones of ATP-sensitive potassium channels: Mechanistic insight from cryoEM structures. Molecular and Cellular Endocrinology, 2020, 502, 110667.	3.2	23
34	Role of Derlin-1 Protein in Proteostasis Regulation of ATP-sensitive Potassium Channels. Journal of Biological Chemistry, 2012, 287, 10482-10493.	3.4	21
35	Leptin modulates pancreatic Î²-cell membrane potential through Src kinaseâ€“mediated phosphorylation of NMDA receptors. Journal of Biological Chemistry, 2020, 295, 17281-17297.	3.4	19
36	Novel dominant K_{ATP} channel mutations in infants with congenital hyperinsulinism: Validation by in vitro expression studies and in vivo carrier phenotyping. American Journal of Medical Genetics, Part A, 2019, 179, 2214-2227.	1.2	15

#	Article	IF	Citations
37	Functional characterization of activating mutations in the sulfonylurea receptor 1 (<i>ABCC8</i>) causing neonatal diabetes mellitus in Asian Indian children. Pediatric Diabetes, 2019, 20, 397-407.	2.9	14
38	A Role of the Sulfonylurea Receptor 1 in Endocytic Trafficking of ATPâ€Sensitive Potassium Channels. Traffic, 2011, 12, 1242-1256.	2.7	13
39	Leptin-induced Trafficking of KATP Channels: A Mechanism to Regulate Pancreatic Î²-cell Excitability and Insulin Secretion. International Journal of Molecular Sciences, 2019, 20, 2660.	4.1	11
40	AKAP79/150 coordinates leptin-induced PKA signaling to regulate KATP channel trafficking in pancreatic Î²-cells. Journal of Biological Chemistry, 2021, 296, 100442.	3.4	9
41	Subcellular trafficking and endocytic recycling of K_{ATP} channels. American Journal of Physiology - Cell Physiology, 2022, 322, C1230-C1247.	4.6	8
42	Targeting the Gut Microbiotaâ€“FXR Signaling Axis for Glycemic Control: Does a Dietary Supplement Work Magic?. Diabetes, 2017, 66, 571-573.	0.6	6
43	Functional characterization of <i>ABCC8</i> variants of unknown significance based on bioinformatics predictions, splicing assays, and protein analyses: Benefits for the accurate diagnosis of congenital hyperinsulinism. Human Mutation, 2021, 42, 408-420.	2.5	6
44	Engineered Kir6.2 mutations that correct the trafficking defect of K_{ATP}channels caused by specific SUR1 mutations. Channels, 2013, 7, 313-317.	2.8	4
45	Phosphatidylinositol 4,5-biphosphate (PIP2) modulates syntaxin-1A binding to sulfonylurea receptor 2A to regulate cardiac ATP-sensitive potassium (KATP) channels. Journal of Molecular and Cellular Cardiology, 2014, 75, 100-110.	1.9	4
46	Methods for Characterizing Disease-Associated ATP-Sensitive Potassium Channel Mutations. Methods in Molecular Biology, 2018, 1684, 85-104.	0.9	4
47	Production and purification of ATP-sensitive potassium channel particles for cryo-electron microscopy. Methods in Enzymology, 2021, 653, 121-150.	1.0	4
48	KATP Channel Function: More than Meets the Eye. Function, 2022, 3, zqab070.	2.3	2
49	Probing Subunits Interactions in KATP Channels Using Photo-Crosslinking via Genetically Encoded p-Azido-l-phenylalanine. Methods in Molecular Biology, 2018, 1684, 51-61.	0.9	1
50	Leptin regulates surface expression of Î² â€cell ATPâ€sensitive potassium channels via an AMPK/PKA/Cofilin signaling cascade. FASEB Journal, 2013, 27, 563.2.	0.5	0
51	Carbamazepine restores surface expression and function of traffickingâ€impaired mutant ATPâ€sensitive potassium channels identified in congenital hyperinsulinism. FASEB Journal, 2013, 27, 784.5.	0.5	0