Colin G Nichols

List of Publications by Year
in descending order

209	16,761	20817 60	17592 121
papers	citations	h-index	g-index

218	218	218	9797
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cloning of the beta cell high-affinity sulfonylurea receptor: a regulator of insulin secretion. Science, 1995, 268, 423-426.	12.6	1,306
2	Cloning and expression of an inwardly rectifying ATP-regulated potassium channel. Nature, 1993, 362, 31-38.	27.8	933
3	Potassium channel block by cytoplasmic polyamines as the mechanism of intrinsic rectification. Nature, 1994, 372, 366-369.	27.8	825
4	KATP channels as molecular sensors of cellular metabolism. Nature, 2006, 440, 470-476.	27.8	753
5	INWARD RECTIFIER POTASSIUM CHANNELS. Annual Review of Physiology, 1997, 59, 171-191.	13.1	750
6	Membrane Phospholipid Control of Nucleotide Sensitivity of KATP Channels. , 1998, 282, 1138-1141.		525
7	Adenosine Diphosphate as an Intracellular Regulator of Insulin Secretion. Science, 1996, 272, 1785-1787.	12.6	494
8	Octameric Stoichiometry of the KATP Channel Complex. Journal of General Physiology, 1997, 110, 655-664.	1.9	467
9	Pancreatic Î² Cell Dedifferentiation in Diabetes and Redifferentiation following Insulin Therapy. Cell Metabolism, 2014, 19, 872-882.	16.2	334
10	Nucleotide modulation of the activity of rat heart ATPâ€sensitive K+ channels in isolated membrane patches.. Journal of Physiology, 1989, 419, 193-211.	2.9	280
11	Targeted Overactivity of Î² Cell KATP Channels Induces Profound Neonatal Diabetes. Cell, 2000, 100, 645-654.	28.9	266
12	Regulation of KATP Channel Activity by Diazoxide and MgADP. Journal of General Physiology, 1997, 110, 643-654.	1.9	263
13	Structure of a bacterial voltage-gated sodium channel pore reveals mechanisms of opening and closing. Nature Communications, 2012, 3, 1102.	12.8	255
14	ATP-sensitive potassium channel modulation of the guinea pig ventricular action potential and contraction.. Circulation Research, 1991, 68, 280-287.	4.5	253
15	Adenosine triphosphate-sensitive potassium channels in the cardiovascular system. American Journal of Physiology - Heart and Circulatory Physiology, 1991, 261, H1675-H1686.	3.2	234
16	Muscle K_{ATP}Channels: Recent Insights to Energy Sensing and Myoprotection. Physiological Reviews, 2010, 90, 799-829.	28.8	232
17	The mechanism of inward rectification of potassium channels: "long-pore plugging" by cytoplasmic polyamines.. Journal of General Physiology, 1995, 106, 923-955.	1.9	218
18	Structural Determinants of Pip2 Regulation of Inward Rectifier KATP Channels. Journal of General Physiology, 2000, 116, 599-608.	1.9	189

#	Article	IF	Citations
19	Cryo-EM and X-ray structures of TRPV4 reveal insight into ion permeation and gating mechanisms. Nature Structural and Molecular Biology, 2018, 25, 252-260.	8.2	179
20	The Kinetic and Physical Basis of KATP Channel Gating: Toward a Unified Molecular Understanding. Biophysical Journal, 2000, 78, 2334-2348.	0.5	157
21	The regulation of ATPâ€sensitive K+ channel activity in intact and permeabilized rat ventricular myocytes.. Journal of Physiology, 1990, 423, 91-110.	2.9	156
22	Functional analyses of novel mutations in the sulfonylurea receptor 1 associated with persistent hyperinsulinemic hypoglycemia of infancy.. Diabetes, 1998, 47, 1145-1151.	0.6	148
23	Diabetes and Insulin Secretion. Diabetes, 2005, 54, 3065-3072.	0.6	146
24	Inward Rectification and Implications for Cardiac Excitability. Circulation Research, 1996, 78, 1-7.	4.5	146
25	K _{ATP} Channels and Cardiovascular Disease. Circulation Research, 2013, 112, 1059-1072.	4.5	144
26	Control of Rectification and Gating of Cloned KATP Channels by the Kir6.2 Subunit. Journal of General Physiology, 1997, 110, 141-153.	1.9	135
27	Differential Structure of Atrial and Ventricular K _{ATP}. Circulation Research, 2008, 103, 1458-1465.	4.5	118
28	Critical Role of Gap Junction Coupled KATP Channel Activity for Regulated Insulin Secretion. PLoS Biology, 2006, 4, e26.	5.6	117
29	Genetic Heterogeneity in Familial Hyperinsulinism. Human Molecular Genetics, 1998, 7, 1119-1128.	2.9	116
30	HIV Protease Inhibitors Acutely Impair Glucose-Stimulated Insulin Release. Diabetes, 2003, 52, 1695-1700.	0.6	114
31	The mechanism of early contractile failure of isolated rat ventricular myocytes subjected to complete metabolic inhibition.. Journal of Physiology, 1989, 413, 329-349.	2.9	113
32	Effects of KATP channel openers diazoxide and pinacidil in coronary-perfused atria and ventricles from failing and non-failing human hearts. Journal of Molecular and Cellular Cardiology, 2011, 51, 215-225.	1.9	109
33	The G53D Mutation in Kir6.2 (KCNJ11) Is Associated with Neonatal Diabetes and Motor Dysfunction in Adulthood that Is Improved with Sulfonylurea Therapy. Journal of Clinical Endocrinology and Metabolism, 2008, 93, 1054-1061.	3.6	100
34	K_{ATP} channels and insulin secretion disorders. American Journal of Physiology - Endocrinology and Metabolism, 2002, 283, E207-E216.	3.5	98
35	Sulfonylurea and K+-Channel Opener Sensitivity of KATP Channels. Journal of General Physiology, 1999, 114, 203-213.	1.9	94
36	ATP and Sulfonylurea Sensitivity of Mutant ATP-Sensitive K+ Channels in Neonatal Diabetes: Implications for Pharmacogenomic Therapy. Diabetes, 2005, 54, 2645-2654.	0.6	92

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37	Secondary Consequences of Î² Cell Inexcitability: Identification and Prevention in a Murine Model of KATP-Induced Neonatal Diabetes Mellitus. Cell Metabolism, 2009, 9, 140-151.	16.2	92
38	CantÃº Syndrome Resulting from Activating Mutation in the<i>KCNJ8</i>Gene. Human Mutation, 2014, 35, 809-813.	2.5	92
39	[K+] dependence of polyamine-induced rectification in inward rectifier potassium channels (IRK1,) Tj ETQq1 1 0.784314 rgBT /Overlo	1.9	88
40	ATP inhibition of KATPchannels: control of nucleotide sensitivity by the N-terminal domain of the Kir6.2 subunit. Journal of Physiology, 1999, 515, 19-30.	2.9	87
41	Structure and Dynamics of the Pore of Inwardly Rectifying KATP Channels. Journal of Biological Chemistry, 2000, 275, 1137-1144.	3.4	87
42	Differential KATP channel pharmacology in intact mouse heart. Journal of Molecular and Cellular Cardiology, 2010, 48, 152-160.	1.9	84
43	An ATP-Binding Mutation (G334D) in KCNJ11 Is Associated With a Sulfonylurea-Insensitive Form of Developmental Delay, Epilepsy, and Neonatal Diabetes. Diabetes, 2007, 56, 328-336.	0.6	82
44	Gating Mechanism of KATP Channels. Journal of General Physiology, 2003, 122, 471-480.	1.9	81
45	Secreted CLCA1 modulates TMEM16A to activate Ca2+-dependent chloride currents in human cells. ELife, 2015, 4, .	6.0	81
46	The Polyamine Binding Site in Inward Rectifier K+ Channels. Journal of General Physiology, 2006, 127, 467-480.	1.9	80
47	Mechanism for selectivity-inactivation coupling in KcsA potassium channels. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5272-5277.	7.1	80
48	Chronic Antidiabetic Sulfonylureas In Vivo: Reversible Effects on Mouse Pancreatic Î²-Cells. PLoS Medicine, 2008, 5, e206.	8.4	79
49	Mg(2+)â€dependent inward rectification of ROMK1 potassium channels expressed in Xenopus oocytes.. Journal of Physiology, 1994, 476, 399-409.	2.9	77
50	Hyperinsulinism induced by targeted suppression of beta cell KATP channels. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16992-16997.	7.1	75
51	Tolerance for ATP-Insensitive K ATP Channels in Transgenic Mice. Circulation Research, 2001, 89, 1022-1029.	4.5	71
52	Kir6.2 Variant E23K Increases ATP-Sensitive K+ Channel Activity and Is Associated With Impaired Insulin Release and Enhanced Insulin Sensitivity in Adults With Normal Glucose Tolerance. Diabetes, 2009, 58, 1869-1878.	0.6	71
53	Direct and Specific Activation of Human Inward Rectifier K+ Channels by Membrane Phosphatidylinositol 4,5-Bisphosphate. Journal of Biological Chemistry, 2010, 285, 37129-37132.	3.4	71
54	The Role of NH2-terminal Positive Charges in the Activity of Inward Rectifier KATP Channels. Journal of General Physiology, 2002, 120, 437-446.	1.9	70

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55	Differential nucleotide regulation of K channels by SUR1 and SUR2A. Journal of Molecular and Cellular Cardiology, 2005, 39, 491-501.	1.9	70
56	Dual-Mode Phospholipid Regulation of Human Inward Rectifying Potassium Channels. Biophysical Journal, 2011, 100, 620-628.	0.5	69
57	Structural dynamics of potassium-channel gating revealed by single-molecule FRET. Nature Structural and Molecular Biology, 2016, 23, 31-36.	8.2	69
58	Molecular Basis of Inward Rectification. Journal of General Physiology, 2004, 124, 541-554.	1.9	68
59	Expression of a functional Kir4 family inward rectifier K+channel from a gene cloned from mouse liver. Journal of Physiology, 1999, 514, 639-653.	2.9	67
60	Molecular biology of K_{ATP} channels and implications for health and disease. IUBMB Life, 2009, 61, 971-978.	3.4	67
61	Polyamines and potassium channels: A 25-year romance. Journal of Biological Chemistry, 2018, 293, 18779-18788.	3.4	67
62	Structural basis of control of inward rectifier Kir2 channel gating by bulk anionic phospholipids. Journal of General Physiology, 2016, 148, 227-237.	1.9	66
63	Depletion of intracellular polyamines relieves inward rectification of potassium channels.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 12014-12019.	7.1	64
64	Molecular Basis of Ion Selectivity, Block, and Rectification of the Inward Rectifier Kir3.1/Kir3.4 K+ Channel. Journal of Biological Chemistry, 2003, 278, 49537-49548.	3.4	62
65	Loss-of-Function <i>ABCC8</i> Mutations in Pulmonary Arterial Hypertension. Circulation Genomic and Precision Medicine, 2018, 11, e002087.	3.6	62
66	ATP dependence of KATP channel kinetics in isolated membrane patches from rat ventricle. Biophysical Journal, 1991, 60, 1164-1177.	0.5	60
67	Hyperinsulinism in mice with heterozygous loss of KATP channels. Diabetologia, 2006, 49, 2368-2378.	6.3	60
68	Secondary anionic phospholipid binding site and gating mechanism in Kir2.1 inward rectifier channels. Nature Communications, 2013, 4, 2786.	12.8	60
69	ABCC9/SUR2 in the brain: Implications for hippocampal sclerosis of aging and a potential therapeutic target. Ageing Research Reviews, 2015, 24, 111-125.	10.9	60
70	Enantioselective Protein-Sterol Interactions Mediate Regulation of Both Prokaryotic and Eukaryotic Inward Rectifier K+ Channels by Cholesterol. PLoS ONE, 2011, 6, e19393.	2.5	58
71	The role of ATP in energy-deprivation contractures in unloaded rat ventricular myocytes. Canadian Journal of Physiology and Pharmacology, 1990, 68, 183-194.	1.4	56
72	Structural and Functional Determinants of Conserved Lipid Interaction Domains of Inward Rectifying Kir6.2 Channels. Journal of General Physiology, 2002, 119, 581-591.	1.9	56

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73	Coronavirus Proteins as Ion Channels: Current and Potential Research. Frontiers in Immunology, 2020, 11, 573339.	4.8	56
74	Direct Modulation of Kir Channel Gating by Membrane Phosphatidylinositol 4,5-Bisphosphate. Journal of Biological Chemistry, 2005, 280, 35785-35788.	3.4	55
75	Dual role of K _{ATP} channel C-terminal motif in membrane targeting and metabolic regulation. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16669-16674.	7.1	55
76	Fatty Acid Synthase Modulates Homeostatic Responses to Myocardial Stress. Journal of Biological Chemistry, 2011, 286, 30949-30961.	3.4	55
77	Hypotension Due to Kir6.1 Gainâ€ofâ€Function in Vascular Smooth Muscle. Journal of the American Heart Association, 2013, 2, e000365.	3.7	55
78	Malaria parasite CelTOS targets the inner leaflet of cell membranes for pore-dependent disruption. ELife, 2016, 5, .	6.0	54
79	ATP Interaction with the Open State of the KATP Channel. Biophysical Journal, 2001, 80, 719-728.	0.5	53
80	Sarcolemmal K channels: what do we really know?. Journal of Molecular and Cellular Cardiology, 2005, 39, 61-70.	1.9	53
81	Functional Characterization of a Prokaryotic Kir Channel. Journal of Biological Chemistry, 2004, 279, 47076-47080.	3.4	52
82	<i>ABCC8</i> R1420H Loss-of-Function Variant in a Southwest American Indian Community: Association With Increased Birth Weight and Doubled Risk of Type 2 Diabetes. Diabetes, 2015, 64, 4322-4332.	0.6	50
83	CantÃº syndrome: Findings from 74 patients in the International CantÃº Syndrome Registry. American Journal of Medical Genetics, Part C: Seminars in Medical Genetics, 2019, 181, 658-681.	1.6	50
84	Block of the Kir2.1 Channel Pore by Alkylamine Analogues of Endogenous Polyamines. Journal of General Physiology, 1998, 112, 351-363.	1.9	49
85	Flexibility of the Kir6.2 inward rectifier K+ channel pore. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 4227-4232.	7.1	49
86	KirBac1.1: It's an Inward Rectifying Potassium Channel. Journal of General Physiology, 2009, 133, 295-305.	1.9	48
87	Î²â€cell hyperexcitability: from hyperinsulinism to diabetes. Diabetes, Obesity and Metabolism, 2007, 9, 81-88.	4.4	47
88	Control of Inward Rectifier K Channel Activity by Lipid Tethering of Cytoplasmic Domains. Journal of General Physiology, 2007, 130, 329-334.	1.9	45
89	A Mutation in the TMD0-L0 Region of Sulfonylurea Receptor-1 (L225P) Causes Permanent Neonatal Diabetes Mellitus (PNDM). Diabetes, 2007, 56, 1357-1362.	0.6	45
90	Modulation of Potassium Channels in the Hearts of Transgenic and Mutant Mice with Altered Polyamine Biosynthesis. Journal of Molecular and Cellular Cardiology, 2000, 32, 2007-2024.	1.9	44

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91	Ligand-induced Closure of Inward Rectifier Kir6.2 Channels Traps Spermine in the Pore. Journal of General Physiology, 2003, 122, 795-805.	1.9	44
92	Cardiovascular consequences of KATP overactivity in Cantu syndrome. JCI Insight, 2018, 3, .	5.0	44
93	On the Mechanism of Inhibition of KATPChannels by Glibenclamide in Rat Ventricular Myocytes. Journal of Cardiovascular Electrophysiology, 1993, 4, 38-47.	1.7	43
94	The Role of the Cytoplasmic Pore in Inward Rectification of Kir2.1 Channels. Journal of General Physiology, 2007, 130, 145-155.	1.9	43
95	Disruption of Sarcolemmal ATP-Sensitive Potassium Channel Activity Impairs the Cardiac Response to Systolic Overload. Circulation Research, 2008, 103, 1009-1017.	4.5	43
96	Tuning the electrical properties of the heart by differential trafficking of KATP ion channel complexes. Journal of Cell Science, 2014, 127, 2106-19.	2.0	43
97	Co-expression of sulfonylurea receptors and KATP channels in hamster insulinoma tumor (HIT) cells. Evidence for direct association of the receptor with the channel. Journal of Biological Chemistry, 1992, 267, 14934-40.	3.4	43
98	Diet-Induced Glucose Intolerance in Mice With Decreased Â-Cell ATP-Sensitive K+ Channels. Diabetes, 2004, 53, 3159-3167.	0.6	42
99	Block of K_v1.7 potassium currents increases glucoseâ€stimulated insulin secretion. EMBO Molecular Medicine, 2012, 4, 424-434.	6.9	42
100	Adenosine Triphosphate-Sensitive Potassium Currents in Heart Disease and Cardioprotection. Cardiac Electrophysiology Clinics, 2016, 8, 323-335.	1.7	41
101	Neurologic and neuroimaging manifestations of CantÃº syndrome. Neurology, 2016, 87, 270-276.	1.1	40
102	Glibenclamide reverses cardiovascular abnormalities of Cantu syndrome driven by KATP channel overactivity. Journal of Clinical Investigation, 2020, 130, 1116-1121.	8.2	40
103	Contractility and ischemic response of hearts from transgenic mice with altered sarcolemmal KATP channels. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 283, H584-H590.	3.2	39
104	Remodeling of excitation-contraction coupling in transgenic mice expressing ATP-insensitive sarcolemmal KATP channels. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H1361-H1369.	3.2	39
105	Hyperinsulinism and Diabetes: Genetic Dissection of Î² Cell Metabolism-Excitation Coupling in Mice. Cell Metabolism, 2009, 10, 442-453.	16.2	38
106	Diabetes and insulin secretion: whither K_{ATP}?. American Journal of Physiology - Endocrinology and Metabolism, 2002, 283, E403-E412.	3.5	36
107	Role of Sulfonylurea Receptor Type 1 Subunits of ATP-Sensitive Potassium Channels in Myocardial Ischemia/Reperfusion Injury. Circulation, 2008, 117, 1405-1413.	1.6	36
108	Macrophage secretion of miR-106b-5p causes renin-dependent hypertension. Nature Communications, 2020, 11, 4798.	12.8	36

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109	Fibroblast Growth Factor Receptor 1 Signaling in Adult Cardiomyocytes Increases Contractility and Results in a Hypertrophic Cardiomyopathy. PLoS ONE, 2013, 8, e82979.	2.5	36
110	Successful sulfonylurea treatment of an insulin-naÃ¯ve neonate with diabetes mellitus due to a KCNJ11 mutation. Pediatric Diabetes, 2009, 11, 286-288.	2.9	35
111	Energetics and Location of Phosphoinositide Binding in Human Kir2.1 Channels. Journal of Biological Chemistry, 2013, 288, 16726-16737.	3.4	34
112	Direct Activation of<i>Î²</i>-Cell K_{ATP}Channels with a Novel Xanthine Derivative. Molecular Pharmacology, 2014, 85, 858-865.	2.3	34
113	Cantu syndromeâ€"associated SUR2 (ABCC9) mutations in distinct structural domains result in KATP channel gain-of-function by differential mechanisms. Journal of Biological Chemistry, 2018, 293, 2041-2052.	3.4	34
114	Kir6.1â€dependent K_{ATP} channels in lymphatic smooth muscle and vessel dysfunction in mice with Kir6.1 gainâ€ofâ€function. Journal of Physiology, 2020, 598, 3107-3127.	2.9	34
115	Acute Sulfonylurea Therapy at Disease Onset Can Cause Permanent Remission of KATP-Induced Diabetes. Diabetes, 2011, 60, 2515-2522.	0.6	33
116	Differential mechanisms of CantÃº syndromeâ€"associated gain of function mutations in the <i>ABCC9</i> (SUR2) subunit of the KATP channel. Journal of General Physiology, 2015, 146, 527-540.	1.9	33
117	Conserved functional consequences of disease-associated mutations in the slide helix of Kir6.1 and Kir6.2 subunits of the ATP-sensitive potassium channel. Journal of Biological Chemistry, 2017, 292, 17387-17398.	3.4	31
118	ABCC9-related Intellectual disability Myopathy Syndrome is a KATP channelopathy with loss-of-function mutations in ABCC9. Nature Communications, 2019, 10, 4457.	12.8	31
119	Defects in beta cell Ca2+ signalling, glucose metabolism and insulin secretion in a murine model of KATP channel-induced neonatal diabetes mellitus. Diabetologia, 2011, 54, 1087-1097.	6.3	30
120	Structural rearrangements underlying ligand-gating in Kir channels. Nature Communications, 2012, 3, 617.	12.8	30
121	Glibenclamide treatment in a CantÃº syndrome patient with a pathogenic ABCC9 gainâ€ofâ€function variant: Initial experience. American Journal of Medical Genetics, Part A, 2019, 179, 1585-1590.	1.2	30
122	Potassium channel selectivity filter dynamics revealed by single-molecule FRET. Nature Chemical Biology, 2019, 15, 377-383.	8.0	30
123	The diabetic Î²â€cell: hyperstimulated vs. hyperexcited. Diabetes, Obesity and Metabolism, 2012, 14, 129-135.	4.4	29
124	KATP channel gain-of-function leads to increased myocardial L-type Ca2+ current and contractility in Cantu syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6773-6778.	7.1	29
125	Transgenic overexpression of SUR1 in the heart suppresses sarcolemmal K. Journal of Molecular and Cellular Cardiology, 2005, 39, 647-656.	1.9	28
126	Polyamine Permeation and Rectification of Kir4.1 Channels. Channels, 2007, 1, 172-178.	2.8	28

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127	On Potential Interactions between Non-selective Cation Channel TRPM4 and Sulfonylurea Receptor SUR1. Journal of Biological Chemistry, 2012, 287, 8746-8756.	3.4	28
128	Identification of a Cholesterol-Binding Pocket in Inward Rectifier K + (Kir) Channels. Biophysical Journal, 2014, 107, 2786-2796.	0.5	28
129	Atomistic basis of opening and conduction in mammalian inward rectifier potassium (Kir2.2) channels. Journal of General Physiology, 2020, 152, jgp.201912422.	1.9	28
130	Expression of ATP-Insensitive KATP Channels in Pancreatic Â-Cells Underlies a Spectrum of Diabetic Phenotypes. Diabetes, 2006, 55, 2957-2964.	0.6	27
131	Arrhythmia susceptibility and premature death in transgenic mice overexpressing both SUR1 and Kir6.2[Î"N30,K185Q] in the heart. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H836-H845.	3.2	26
132	Modulation of ATP-sensitive potassium channel activity by flash-photolysis of ?caged-ATP? in rat heart cells. Pflugers Archiv European Journal of Physiology, 1990, 415, 510-512.	2.8	25
133	Locale and chemistry of spermine binding in the archetypal inward rectifier Kir2.1. Journal of General Physiology, 2010, 135, 495-508.	1.9	25
134	The shifting landscape of K_{ATP}channelopathies and the need for â€˜sharperâ€™ therapeutics. Future Medicinal Chemistry, 2016, 8, 789-802.	2.3	25
135	Genetic Discovery of ATP-Sensitive K ⁺ Channels in Cardiovascular Diseases. Circulation: Arrhythmia and Electrophysiology, 2019, 12, e007322.	4.8	25
136	The â€˜inner coreâ€™ of inwardly rectifying K+ channels. Trends in Pharmacological Sciences, 1993, 14, 320-323.	8.7	24
137	Heterologous expression of the Na + ,K + â€ATPase Î³ subunit in Xenopus oocytes induces an endogenous, voltageâ€gated large diameter pore. Journal of Physiology, 2001, 535, 407-417.	2.9	24
138	Pulmonary Hypertension and ATP-Sensitive Potassium Channels. Hypertension, 2019, 74, 14-22.	2.7	24
139	Differential Roles of Blocking Ions in KirBac1.1 Tetramer Stability. Journal of Biological Chemistry, 2009, 284, 2854-2860.	3.4	23
140	Transient Notch Activation Induces Long-Term Gene Expression Changes Leading to Sick Sinus Syndrome in Mice. Circulation Research, 2017, 121, 549-563.	4.5	23
141	Trypsin and ?-chymotrypsin treatment abolishes glibenclamide sensitivity of KATP channels in rat ventricular myocytes. Pflugers Archiv European Journal of Physiology, 1993, 422, 617-619.	2.8	22
142	Blocker Protection by Short Spermine Analogs: Refined Mapping of the Spermine Binding Site in a Kir Channel. Biophysical Journal, 2008, 95, 3827-3839.	0.5	21
143	Expression and purification of recombinant human inward rectifier K+ (KCNJ) channels in Saccharomyces cerevisiae. Protein Expression and Purification, 2010, 71, 115-121.	1.3	21
144	Molecular Dynamics Simulations of KirBac1.1 Mutants Reveal Global Gating Changes of Kir Channels. Journal of Chemical Information and Modeling, 2015, 55, 814-822.	5.4	21

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145	Control of KirBac3.1 Potassium Channel Gating at the Interface between Cytoplasmic Domains. Journal of Biological Chemistry, 2014, 289, 143-151.	3.4	20
146	Molecular Basis of Inward Rectification: Structural Features of the Blocker Defined by Extended Polyamine Analogs. Molecular Pharmacology, 2005, 68, 298-304.	2.3	19
147	HMR 1098 is not an SUR isotype specific inhibitor of heterologous or sarcolemmal KATP channels. Journal of Molecular and Cellular Cardiology, 2011, 50, 552-560.	1.9	19
148	Pathophysiological Consequences of KATP Channel Overactivity and Pharmacological Response to Glibenclamide in Skeletal Muscle of a Murine Model of CantÃ¹ Syndrome. Frontiers in Pharmacology, 2020, 11, 604885.	3.5	19
149	Differential Lipid Dependence of the Function of Bacterial Sodium Channels. PLoS ONE, 2013, 8, e61216.	2.5	18
150	Electrophysiologic consequences of KATP gain of function in the heart: Conduction abnormalities in Cantu syndrome. Heart Rhythm, 2015, 12, 2316-2324.	0.7	18
151	Control of Kir channel gating by cytoplasmic domain interface interactions. Journal of General Physiology, 2017, 149, 561-576.	1.9	18
152	The Mechanism of High-Output Cardiac Hypertrophy Arising From Potassium Channel Gain-of-Function in CantÃº Syndrome. Function, 2020, 1, zqaa004.	2.3	18
153	Random assembly of SUR subunits in K_{ATP}channel complexes. Channels, 2008, 2, 34-38.	2.8	17
154	Congenital Hyperinsulinism and Glucose Hypersensitivity in Homozygous and Heterozygous Carriers of Kir6.2 (<i>KCNJ11</i>) Mutation V290M Mutation. Diabetes, 2011, 60, 209-217.	0.6	17
155	Lipids driving protein structure? Evolutionary adaptations in Kir channels. Channels, 2010, 4, 139-141.	2.8	16
156	Functional Characterization of a Novel KCNJ11 in Frame Mutation-Deletion Associated with Infancy-Onset Diabetes and a Mild Form of Intermediate DEND: A Battle between KATP Gain of Channel Activity and Loss of Channel Expression. PLoS ONE, 2013, 8, e63758.	2.5	16
157	The role of membrane excitability in pancreatic Î²-cell glucotoxicity. Scientific Reports, 2019, 9, 6952.	3.3	16
158	Kir6.1- and SUR2-dependent KATP overactivity disrupts intestinal motility in murine models of CantÃº syndrome. JCI Insight, 2020, 5, .	5.0	16
159	The mechanism of KATP channel inhibition by ATP.. Journal of General Physiology, 1991, 97, 1095-1098.	1.9	15
160	Polyamine Flux in Xenopus Oocytes Through Hemiâ€Gap Junctional Channels. Journal of Physiology, 2003, 553, 95-100.	2.9	15
161	Adenosine Triphosphateâ€Sensitive Potassium Channel Kir Subunits Implicated in Cardioprotection by Diazoxide. Journal of the American Heart Association, 2015, 4, e002016.	3.7	15
162	Remission of Severe Neonatal Diabetes With Very Early Sulfonylurea Treatment. Diabetes Care, 2015, 38, e38-e39.	8.6	15

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163	Novel KCNJ10 Gene Variations Compromise Function of Inwardly Rectifying Potassium Channel 4.1. Journal of Biological Chemistry, 2016, 291, 7716-7726.	3.4	15
164	The mitochondria and insulin release: Nnt just a passing relationship. Cell Metabolism, 2006, 3, 5-7.	16.2	14
165	Expression of Kir2.1 and Kir6.2 transgenes under the control of the Î±-MHC promoter in the sinoatrial and atrioventricular nodes in transgenic mice. Journal of Molecular and Cellular Cardiology, 2006, 41, 855-867.	1.9	14
166	K_{ATP} channels in lymphatic function. American Journal of Physiology - Cell Physiology, 2022, 323, C1018-C1035.	4.6	14
167	A difference in inward rectification and polyamine block and permeation between the Kir2.1 and Kir3.1/Kir3.4 K+channels. Journal of Physiology, 2005, 568, 749-766.	2.9	13
168	â€œCardiac K _{ATP} â€ Circulation: Arrhythmia and Electrophysiology, 2011, 4, 796-798.	4.8	13
169	Modeling K,ATP-Dependent Excitability in Pancreatic Islets. Biophysical Journal, 2014, 107, 2016-2026.	0.5	13
170	Expression and function of ATP-dependent potassium channels in zebrafish islet Î²-cells. Royal Society Open Science, 2017, 4, 160808.	2.4	13
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