

# Takashi Miki

## List of Publications by Year in descending order

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95  
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7,735  
citations

61857

43  
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49773

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95  
docs citations

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times ranked

6997  
citing authors

#	ARTICLE	IF	CITATIONS
1	ATP-sensitive K <sup>+</sup> channels in the hypothalamus are essential for the maintenance of glucose homeostasis. <i>Nature Neuroscience</i> , 2001, 4, 507-512.	7.1	470
2	Physiological and pathophysiological roles of ATP-sensitive K <sup>+</sup> channels. <i>Progress in Biophysics and Molecular Biology</i> , 2003, 81, 133-176.	1.4	451
3	cAMP-GEFII is a direct target of cAMP in regulated exocytosis. <i>Nature Cell Biology</i> , 2000, 2, 805-811.	4.6	431
4	Essential role of Epac2/Rap1 signaling in regulation of insulin granule dynamics by cAMP. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 19333-19338.	3.3	358
5	Protective Role of ATP-Sensitive Potassium Channels in Hypoxia-Induced Generalized Seizure. <i>Science</i> , 2001, 292, 1543-1546.	6.0	318
6	Critical Role of cAMP-GEFII-Rim2 Complex in Incretin-potentiated Insulin Secretion. <i>Journal of Biological Chemistry</i> , 2001, 276, 46046-46053.	1.6	313
7	Mouse model of Prinzmetal angina by disruption of the inward rectifier Kir6.1. <i>Nature Medicine</i> , 2002, 8, 466-472.	15.2	306
8	Kir6.2 is required for adaptation to stress. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 13278-13283.	3.3	279
9	Role of sarcolemmal KATP channels in cardioprotection against ischemia/reperfusion injury in mice. <i>Journal of Clinical Investigation</i> , 2002, 109, 509-516.	3.9	269
10	K-ATP channels promote the differential degeneration of dopaminergic midbrain neurons. <i>Nature Neuroscience</i> , 2005, 8, 1742-1751.	7.1	253
11	Gut microbiota confers host resistance to obesity by metabolizing dietary polyunsaturated fatty acids. <i>Nature Communications</i> , 2019, 10, 4007.	5.8	231
12	Role of sarcolemmal KATP channels in cardioprotection against ischemia/reperfusion injury in mice. <i>Journal of Clinical Investigation</i> , 2002, 109, 509-516.	3.9	209
13	The cAMP Sensor Epac2 Is a Direct Target of Antidiabetic Sulfonylurea Drugs. <i>Science</i> , 2009, 325, 607-610.	6.0	198
14	Functional Roles of Cardiac and Vascular ATP-Sensitive Potassium Channels Clarified by Kir6.2-Knockout Mice. <i>Circulation Research</i> , 2001, 88, 570-577.	2.0	184
15	Molecular Basis of Electrocardiographic ST-Segment Elevation. <i>Circulation Research</i> , 2000, 87, 837-839.	2.0	159
16	KATP channel mutation confers risk for vein of Marshall adrenergic atrial fibrillation. <i>Nature Clinical Practice Cardiovascular Medicine</i> , 2007, 4, 110-116.	3.3	159
17	Roles of K channels as metabolic sensors in acute metabolic changes. <i>Journal of Molecular and Cellular Cardiology</i> , 2005, 38, 917-925.	0.9	143
18	LKB1 Regulates Pancreatic $\beta^2$ Cell Size, Polarity, and Function. <i>Cell Metabolism</i> , 2009, 10, 296-308.	7.2	143

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19	MTABC3, a Novel Mitochondrial ATP-binding Cassette Protein Involved in Iron Homeostasis. <i>Journal of Biological Chemistry</i> , 2000, 275, 17536-17540.	1.6	118
20	Insulin secretion and differential gene expression in glucose-responsive and -unresponsive MIN6 sublines. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2000, 279, E773-E781.	1.8	116
21	Cardioprotective Effect of Diazoxide Is Mediated by Activation of Sarcolemmal but Not Mitochondrial ATP-Sensitive Potassium Channels in Mice. <i>Circulation</i> , 2003, 107, 682-685.	1.6	115
22	Knockout of Kir6.2 negates ischemic preconditioning-induced protection of myocardial energetics. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2003, 284, H2106-H2113.	1.5	112
23	Distinct Effects of Glucose-Dependent Insulinotropic Polypeptide and Glucagon-Like Peptide-1 on Insulin Secretion and Gut Motility. <i>Diabetes</i> , 2005, 54, 1056-1063.	0.3	103
24	Protection conferred by myocardial ATP-sensitive K <sup>+</sup> channels in pressure overload-induced congestive heart failure revealed in KCNJ11Kir6.2-null mutant. <i>Journal of Physiology</i> , 2006, 577, 1053-1065.	1.3	102
25	KCNJ11 gene knockout of the Kir6.2 K ATP channel causes maladaptive remodeling and heart failure in hypertension. <i>Human Molecular Genetics</i> , 2006, 15, 2285-2297.	1.4	98
26	Rim2 <sup>±</sup> Determines Docking and Priming States in Insulin Granule Exocytosis. <i>Cell Metabolism</i> , 2010, 12, 117-129.	7.2	97
27	Roles of ATP-Sensitive K <sup>+</sup> Channels as Metabolic Sensors: Studies of Kir6.x Null Mice. <i>Diabetes</i> , 2004, 53, S176-S180.	0.3	94
28	ATP-Sensitive K <sup>+</sup> Channel Knockout Compromises the Metabolic Benefit of Exercise Training, Resulting in Cardiac Deficits. <i>Diabetes</i> , 2004, 53, S169-S175.	0.3	89
29	Enhanced Neuronal Damage After Ischemic Insults in Mice Lacking Kir6.2-Containing ATP-Sensitive K <sup>+</sup> Channels. <i>Journal of Neurophysiology</i> , 2006, 95, 2590-2601.	0.9	86
30	Critical role of the N <sup>α</sup> -terminal cyclic AMP <sup>α</sup> -binding domain of Epac2 in its subcellular localization and function. <i>Journal of Cellular Physiology</i> , 2009, 219, 652-658.	2.0	82
31	ATP-sensitive potassium channels participate in glucose uptake in skeletal muscle and adipose tissue. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2002, 283, E1178-E1184.	1.8	81
32	Isx Participates in the Maintenance of Vitamin A Metabolism by Regulation of $\beta$ -Carotene 15,15 <sup>α</sup> -Monooxygenase (Bcmo1) Expression. <i>Journal of Biological Chemistry</i> , 2008, 283, 4905-4911.	1.6	77
33	Noc2 is essential in normal regulation of exocytosis in endocrine and exocrine cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 8313-8318.	3.3	75
34	Gene knockout of the KCNJ8 <sup>α</sup> -encoded Kir6.1 K ATP channel imparts fatal susceptibility to endotoxemia. <i>FASEB Journal</i> , 2006, 20, 2271-2280.	0.2	71
35	Embryonic Stem Cell Therapy of Heart Failure in Genetic Cardiomyopathy. <i>Stem Cells</i> , 2008, 26, 2644-2653.	1.4	71
36	Glucose Controls Cytosolic Ca <sup>2+</sup> and Insulin Secretion in Mouse Islets Lacking Adenosine Triphosphate-Sensitive K <sup>+</sup> Channels Owing to a Knockout of the Pore-Forming Subunit Kir6.2. <i>Endocrinology</i> , 2009, 150, 33-45.	1.4	71

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37	Genetic Disruption of Kir6.2, the Pore-Forming Subunit of ATP-Sensitive K <sup>+</sup> Channel, Predisposes to Catecholamine-Induced Ventricular Dysrhythmia. <i>Diabetes</i> , 2004, 53, S165-S168.	0.3	68
38	Gene targeting approach to clarification of ion channel function: studies of Kir6.x null mice. <i>Journal of Physiology</i> , 2004, 554, 295-300.	1.3	61
39	Characterization of the cDNA and Gene Encoding Human PDE3B, the cGIP1 Isoform of the Human Cyclic GMP-Inhibited Cyclic Nucleotide Phosphodiesterase Family. <i>Genomics</i> , 1996, 36, 476-485.	1.3	60
40	KATP channel knockout worsens myocardial calcium stress load in vivo and impairs recovery in stunned heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 292, H1706-H1713.	1.5	54
41	Cephalic phase insulin secretion is KATP channel independent. <i>Journal of Endocrinology</i> , 2013, 218, 25-33.	1.2	48
42	Role of the central nervous system and adipose tissue BDNF/TrkB axes in metabolic regulation. <i>Npj Aging and Mechanisms of Disease</i> , 2015, 1, 15009.	4.5	47
43	Gs/Gq signaling switch in $\beta^2$ cells defines incretin effectiveness in diabetes. <i>Journal of Clinical Investigation</i> , 2020, 130, 6639-6655.	3.9	46
44	Possible role of PEPT1 in gastrointestinal hormone secretion. <i>Biochemical and Biophysical Research Communications</i> , 2005, 336, 1028-1032.	1.0	45
45	Morphological Changes in Pancreatic Islets of KATP Channel-Deficient Mice. The Involvement of KATP Channels in the Survival of Insulin Cells and the Maintenance of Islet Architecture.. <i>Archives of Histology and Cytology</i> , 2001, 64, 59-67.	0.2	43
46	Diet-Induced Glucose Intolerance in Mice With Decreased $\beta$ -Cell ATP-Sensitive K <sup>+</sup> Channels. <i>Diabetes</i> , 2004, 53, 3159-3167.	0.3	42
47	Role of ATP-sensitive K <sup>+</sup> channels in electrophysiological alterations during myocardial ischemia: a study using Kir6.2-null mice. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005, 288, H352-H357.	1.5	40
48	Restricted expression of somatostatin receptor 3 to primary cilia in the pancreatic islets and adenohypophysis of mice. <i>Biomedical Research</i> , 2011, 32, 73-81.	0.3	40
49	Proteomic profiling of K <sup>+</sup> channel-deficient hypertensive heart maps risk for maladaptive cardiomyopathic outcome. <i>Proteomics</i> , 2009, 9, 1314-1325.	1.3	36
50	Establishment of new clonal pancreatic $\beta$ -cell lines (MIN6 $\beta$ K) useful for study of incretin/cyclic adenosine monophosphate signaling. <i>Journal of Diabetes Investigation</i> , 2010, 1, 137-142.	1.1	36
51	KATP channel as well as SGLT1 participates in GIP secretion in the diabetic state. <i>Journal of Endocrinology</i> , 2014, 222, 191-200.	1.2	35
52	Distinct action of the $\alpha$ -glucosidase inhibitor miglitol on SGLT3, enteroendocrine cells, and GLP1 secretion. <i>Journal of Endocrinology</i> , 2015, 224, 205-214.	1.2	32
53	Gut carbohydrate inhibits GIP secretion via a microbiota/SCFA/FFAR3 pathway. <i>Journal of Endocrinology</i> , 2018, 239, 267-276.	1.2	29
54	Identification, Tissue Expression, and Functional Characterization of Otx3, a Novel Member of the Otx Family. <i>Journal of Biological Chemistry</i> , 2002, 277, 28065-28069.	1.6	25

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55	Spontaneous Recovery From Hyperglycemia by Regeneration of Pancreatic $\beta$ -Cells in Kir6.2G132S Transgenic Mice. <i>Diabetes</i> , 2006, 55, 1930-1938.	0.3	25
56	Role of sarcolemmal ATP-sensitive K <sup>+</sup> channels in the regulation of sinoatrial node automaticity: an evaluation using Kir6.2-deficient mice. <i>Journal of Physiology</i> , 2008, 586, 2767-2778.	1.3	25
57	Pancreatic $\beta$ -cells are generated by neogenesis from non- $\beta$ -cells after birth. <i>Biomedical Research</i> , 2011, 32, 167-174.	0.3	24
58	Angiotensin-3, a novel member of the angiotensin family. <i>FEBS Letters</i> , 1999, 448, 254-256.	1.3	21
59	Enhanced vascular endothelial growth factor signaling in islets contributes to $\beta$ cell injury and consequential diabetes in spontaneously diabetic Torii rats. <i>Diabetes Research and Clinical Practice</i> , 2014, 106, 303-311.	1.1	20
60	Fructose induces glucose-dependent insulinotropic polypeptide, glucagon-like peptide-1 and insulin secretion: Role of adenosine triphosphate-sensitive K <sup>+</sup> channels. <i>Journal of Diabetes Investigation</i> , 2015, 6, 522-526.	1.1	19
61	ATP-sensitive K <sup>+</sup> channel-mediated glucose uptake is independent of IRS-1/phosphatidylinositol 3-kinase signaling. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2003, 285, E1289-E1296.	1.8	18
62	Identification and characterization of a novel member of the ATP-sensitive K <sup>+</sup> channel subunit family, Kir6.3, in zebrafish. <i>Physiological Genomics</i> , 2006, 24, 290-297.	1.0	18
63	Dmbx1 is essential in agouti-related protein action. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 15514-15519.	3.3	18
64	Glucagon-like peptide-1 secretion by direct stimulation of L cells with luminal sugar vs non-nutritive sweetener. <i>Journal of Diabetes Investigation</i> , 2012, 3, 156-163.	1.1	18
65	Characterization of Genes Encoding the Pancreatic $\beta$ -cell ATP-sensitive K <sup>+</sup> channel in Persistent Hyperinsulinemic Hypoglycemia of Infancy in Japanese Patients. <i>Endocrine Journal</i> , 2000, 47, 715-722.	0.7	14
66	Unsuppressed lipolysis in adipocytes is linked with enhanced gluconeogenesis and altered bile acid physiology in <i>InsrP1195L/+</i> mice fed high-fat-diet. <i>Scientific Reports</i> , 2015, 5, 17565.	1.6	14
67	Haploinsufficiency of the <i>c-myc</i> transcriptional repressor <i>FIR</i> , as a dominant negative-alternative splicing model, promoted p53-dependent T-cell acute lymphoblastic leukemia progression by activating Notch1. <i>Oncotarget</i> , 2015, 6, 5102-5117.	0.8	14
68	Inhibition of ATP-Sensitive K <sup>+</sup> Channels and L-Type Ca <sup>2+</sup> Channels by Amiodarone Elicits Contradictory Effect on Insulin Secretion in MIN6 Cells. <i>Journal of Pharmacological Sciences</i> , 2011, 116, 73-80.	1.1	13
69	Ca <sup>2+</sup> Influx Does Not Trigger Glucose-Induced Traffic of the Insulin Granules and Alteration of Their Distribution. <i>Experimental Biology and Medicine</i> , 2003, 228, 1218-1226.	1.1	12
70	K <sup>+</sup> ATP channel-deficient pancreatic $\beta$ -cells are streptozotocin resistant because of lower GLUT2 activity. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2008, 294, E326-E335.	1.8	12
71	Deficiency of lysyl hydroxylase 2 in mice causes systemic endoplasmic reticulum stress leading to early embryonic lethality. <i>Biochemical and Biophysical Research Communications</i> , 2019, 512, 486-491.	1.0	12
72	A Novel Function of Noc2 in Agonist-Induced Intracellular Ca <sup>2+</sup> Increase during Zymogen-Granule Exocytosis in Pancreatic Acinar Cells. <i>PLoS ONE</i> , 2012, 7, e37048.	1.1	11

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73	Distinct effects of dipeptidyl peptidase-4 inhibitor and glucagon-like peptide-1 receptor agonist on islet morphology and function. <i>Endocrine</i> , 2016, 51, 429-439.	1.1	11
74	Functional analysis of transcriptional repressor Otx3/Dmbx1. <i>FEBS Letters</i> , 2005, 579, 2926-2932.	1.3	10
75	Disruption of Kir6.2-containing ATP-sensitive potassium channels impairs maintenance of hypoxic gasping in mice. <i>European Journal of Neuroscience</i> , 2007, 25, 2349-2363.	1.2	10
76	Analysis of the insulin-sensitive phosphodiesterase 3B gene in type 2 diabetes. <i>Diabetes Research and Clinical Practice</i> , 2001, 54, 79-88.	1.1	9
77	Refeeding with glucose rather than fructose elicits greater hepatic inflammatory gene expression in mice. <i>Nutrition</i> , 2015, 31, 757-765.	1.1	9
78	Construction of a Multi-Functional cDNA Library Specific for Mouse Pancreatic Islets and Its Application to Microarray. <i>DNA Research</i> , 2004, 11, 315-323.	1.5	8
79	Distinct roles of systemic and local actions of insulin on pancreatic $\beta$ -cells. <i>Metabolism: Clinical and Experimental</i> , 2018, 82, 100-110.	1.5	7
80	Importance of Adult Dmbx1 in Long-Lasting Orexigenic Effect of Agouti-Related Peptide. <i>Endocrinology</i> , 2016, 157, 245-257.	1.4	6
81	Refeeding with a standard diet after a 48-h fast elicits an inflammatory response in the mouse liver. <i>Journal of Nutritional Biochemistry</i> , 2013, 24, 1314-1323.	1.9	5
82	Electrophysiological analyses of transgenic mice overexpressing KCNJ8 with S422L mutation in cardiomyocytes. <i>Journal of Pharmacological Sciences</i> , 2017, 135, 37-43.	1.1	4
83	Accelerated oligosaccharide absorption and altered serum metabolites during oral glucose tolerance test in young Japanese with impaired glucose tolerance. <i>Journal of Diabetes Investigation</i> , 2018, 9, 512-521.	1.1	4
84	Diet-Induced Obese Mice and Leptin-Deficient Lepob/ob Mice Exhibit Increased Circulating GIP Levels Produced by Different Mechanisms. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4448.	1.8	4
85	Concanavalin A Agglutinability of Some Enveloped RNA Viruses Modified by Host Cell Transformation. <i>Microbiology and Immunology</i> , 1980, 24, 429-438.	0.7	3
86	Electrochemical Modification of Vesicular Stomatitis Virus Glycoprotein by Host Cell Transformation. <i>Microbiology and Immunology</i> , 1981, 25, 585-594.	0.7	3
87	Importance of Hepatocyte Nuclear Factor 4 $\alpha$ in Glycerol-induced Glucose-6-phosphatase Expression in Liver. <i>Biomedical Research</i> , 2016, 37, 85-93.	0.3	3
88	Lack of Brain Insulin Receptor Substrate-1 Causes Growth Retardation, With Decreased Expression of Growth Hormone-Releasing Hormone in the Hypothalamus. <i>Diabetes</i> , 2021, 70, 1640-1653.	0.3	3
89	Phloretin suppresses carbohydrate-induced GLP-1 secretion via inhibiting short chain fatty acid release from gut microbiome. <i>Biochemical and Biophysical Research Communications</i> , 2022, 621, 176-182.	1.0	3
90	GPR52 accelerates fatty acid biosynthesis in a ligand-dependent manner in hepatocytes and in response to excessive fat intake in mice. <i>IScience</i> , 2021, 24, 102260.	1.9	2

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91	Beneficial effects of ventromedial hypothalamus (VMH) lesioning on function and morphology of the liver after hepatectomy in rats. <i>Brain Research</i> , 2011, 1421, 82-89.	1.1	1
92	A Case of Type 1 Diabetes With Nocturnal Hypoglycemia After Desensitization Therapy for Insulin Allergy. <i>Diabetes Care</i> , 2013, 36, e89-e89.	4.3	1
93	Ectopic overexpression of Kir6.1 in the mouse heart impacts on the life expectancy. <i>Scientific Reports</i> , 2018, 8, 11723.	1.6	1
94	Lecithin Inclusion by $\beta$ -Cyclodextrin Activates SREBP2 Signaling in the Gut and Ameliorates Postprandial Hyperglycemia. <i>International Journal of Molecular Sciences</i> , 2021, 22, 10796.	1.8	1
95	Protein Kinase A-Independent Mechanism of cAMP in Insulin Secretion. , 2008, , 133-146.		0