

Kevin Wickman

List of Publications by Year in descending order

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103
papers

6,853
citations

53660

45
h-index

62479

80
g-index

109
all docs

109
docs citations

109
times ranked

5579
citing authors

#	ARTICLE	IF	CITATIONS
1	Recombinant G-protein $\beta\gamma$ -subunits activate the muscarinic-gated atrial potassium channel. <i>Nature</i> , 1994, 368, 255-257.	13.7	452
2	Abnormal Heart Rate Regulation in GIRK4 Knockout Mice. <i>Neuron</i> , 1998, 20, 103-114.	3.8	355
3	New mammalian chloride channel identified by expression cloning. <i>Nature</i> , 1992, 356, 238-241.	13.7	343
4	Vesicular Dopamine Release Elicits an Inhibitory Postsynaptic Current in Midbrain Dopamine Neurons. <i>Neuron</i> , 2004, 42, 939-946.	3.8	323
5	Evaluation of the role of IKACH in atrial fibrillation using a mouse knockout model. <i>Journal of the American College of Cardiology</i> , 2001, 37, 2136-2143.	1.2	234
6	$G\beta\gamma$ Binds Directly to the G Protein-gated K ⁺ Channel, IKACH. <i>Journal of Biological Chemistry</i> , 1995, 270, 29059-29062.	1.6	214
7	RGS2 modulates coupling between GABAB receptors and GIRK channels in dopamine neurons of the ventral tegmental area. <i>Nature Neuroscience</i> , 2007, 10, 1559-1568.	7.1	185
8	Molecular and Cellular Diversity of Neuronal G-Protein-Gated Potassium Channels. <i>Journal of Neuroscience</i> , 2005, 25, 11468-11478.	1.7	180
9	G-Protein-Gated Potassium Channels Containing Kir3.2 and Kir3.3 Subunits Mediate the Acute Inhibitory Effects of Opioids on Locus Ceruleus Neurons. <i>Journal of Neuroscience</i> , 2002, 22, 4328-4334.	1.7	177
10	Using Knockout and Transgenic Mice to Study Neurophysiology and Behavior. <i>Physiological Reviews</i> , 1998, 78, 1131-1163.	13.1	168
11	Serotonin 2C Receptor Activates a Distinct Population of Arcuate Pro-opiomelanocortin Neurons via TRPC Channels. <i>Neuron</i> , 2011, 71, 488-497.	3.8	165
12	The Heart Rate Decrease Caused by Acute FTY720 Administration Is Mediated by the G Protein-Gated Potassium Channel IKACH. <i>American Journal of Transplantation</i> , 2005, 5, 529-536.	2.6	160
13	Spinal G-Protein-Gated Potassium Channels Contribute in a Dose-Dependent Manner to the Analgesic Effect of μ - and δ - But Not κ -Opioids. <i>Journal of Neuroscience</i> , 2005, 25, 3551-3559.	1.7	134
14	Spinal G-Protein-Gated K ⁺ Channels Formed by GIRK1 and GIRK2 Subunits Modulate Thermal Nociception and Contribute to Morphine Analgesia. <i>Journal of Neuroscience</i> , 2004, 24, 2806-2812.	1.7	131
15	Compartment-Dependent Colocalization of Kir3.2-Containing K ⁺ Channels and GABAB Receptors in Hippocampal Pyramidal Cells. <i>Journal of Neuroscience</i> , 2006, 26, 4289-4297.	1.7	131
16	Brain Localization and Behavioral Impact of the G-Protein-Gated K ⁺ Channel Subunit GIRK4. <i>Journal of Neuroscience</i> , 2000, 20, 5608-5615.	1.7	112
17	Repeated Cocaine Weakens GABAB-Girk Signaling in Layer 5/6 Pyramidal Neurons in the Prelimbic Cortex. <i>Neuron</i> , 2013, 80, 159-170.	3.8	111
18	New insights into the therapeutic potential of Girk channels. <i>Trends in Neurosciences</i> , 2014, 37, 20-29.	4.2	102

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19	G-protein-gated Inwardly Rectifying Potassium Channels Modulate Respiratory Depression by Opioids. <i>Anesthesiology</i> , 2016, 124, 641-650.	1.3	102
20	Mechanisms underlying the activation of G-protein-gated inwardly rectifying K ⁺ (GIRK) channels by the novel anxiolytic drug, ML297. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10755-10760.	3.3	97
21	Functional and Biochemical Evidence for G-protein-gated Inwardly Rectifying K ⁺ (GIRK) Channels Composed of GIRK2 and GIRK3. <i>Journal of Biological Chemistry</i> , 2000, 275, 36211-36216.	1.6	96
22	Contribution of the Kir3.1 Subunit to the Muscarinic-gated Atrial Potassium Channel IKACH. <i>Journal of Biological Chemistry</i> , 2002, 277, 48282-48288.	1.6	89
23	RGS6/GÎ25 Complex Accelerates <i>IKACH</i> Gating Kinetics in Atrial Myocytes and Modulates Parasympathetic Regulation of Heart Rate. <i>Circulation Research</i> , 2010, 107, 1350-1354.	2.0	83
24	G-protein regulation of ion channels. <i>Current Opinion in Neurobiology</i> , 1995, 5, 278-285.	2.0	81
25	Behavioral characterization of mice lacking GIRK/Kir3 channel subunits. <i>Genes, Brain and Behavior</i> , 2008, 7, 523-531.	1.1	80
26	GIRK4 Confers Appropriate Processing and Cell Surface Localization to G-protein-gated Potassium Channels. <i>Journal of Biological Chemistry</i> , 1999, 274, 2571-2582.	1.6	76
27	Decreased Cocaine Self-Administration in Kir3 Potassium Channel Subunit Knockout Mice. <i>Neuropsychopharmacology</i> , 2003, 28, 932-938.	2.8	74
28	Cardiac arrhythmia induced by genetic silencing of <i>funny</i> (f) channels is rescued by GIRK4 inactivation. <i>Nature Communications</i> , 2014, 5, 4664.	5.8	70
29	The G-protein-gated K ⁺ channel, <i>IKACH</i> , is required for regulation of pacemaker activity and recovery of resting heart rate after sympathetic stimulation. <i>Journal of General Physiology</i> , 2013, 142, 113-126.	0.9	69
30	Cell type-specific subunit composition of G protein-gated potassium channels in the cerebellum. <i>Journal of Neurochemistry</i> , 2008, 105, 497-511.	2.1	67
31	Role of G protein-gated inwardly rectifying potassium channels in P2Y12 receptor-mediated platelet functional responses. <i>Blood</i> , 2004, 104, 1335-1343.	0.6	66
32	Subcellular compartment-specific molecular diversity of pre- and post-synaptic GABA _B -activated GIRK channels in Purkinje cells. <i>Journal of Neurochemistry</i> , 2009, 110, 1363-1376.	2.1	65
33	GÎ25 recruits R7 RGS proteins to GIRK channels to regulate the timing of neuronal inhibitory signaling. <i>Nature Neuroscience</i> , 2010, 13, 661-663.	7.1	65
34	RGS7/GÎ25/R7BP complex regulates synaptic plasticity and memory by modulating hippocampal GABABR-GIRK signaling. <i>ELife</i> , 2014, 3, e02053.	2.8	64
35	Absence and Rescue of Morphine Withdrawal in GIRK/Kir3 Knock-out Mice. <i>Journal of Neuroscience</i> , 2008, 28, 4069-4077.	1.7	62
36	Developmental regulation of G protein-gated inwardly-rectifying K ⁺ (GIRK/Kir3) channel subunits in the brain. <i>European Journal of Neuroscience</i> , 2011, 34, 1724-1736.	1.2	62

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37	Expression and Localization of RGS9-2/G 5/R7BP Complex In Vivo Is Set by Dynamic Control of Its Constitutive Degradation by Cellular Cysteine Proteases. <i>Journal of Neuroscience</i> , 2007, 27, 14117-14127.	1.7	60
38	pICln Binds to a Mammalian Homolog of a Yeast Protein Involved in Regulation of Cell Morphology. <i>Journal of Biological Chemistry</i> , 1998, 273, 10811-10814.	1.6	57
39	Hyperalgesia and blunted morphine analgesia in G protein-gated potassium channel subunit knockout mice. <i>NeuroReport</i> , 2002, 13, 2509-2513.	0.6	56
40	Acute Cocaine Exposure Weakens GABA _B Receptor-Dependent G-Protein-Gated Inwardly Rectifying K ⁺ Signaling in Dopamine Neurons of the Ventral Tegmental Area. <i>Journal of Neuroscience</i> , 2011, 31, 12251-12257.	1.7	54
41	Mapping a Barbiturate Withdrawal Locus to a 0.44 Mb Interval and Analysis of a Novel Null Mutant Identify a Role for <i>Kcnj9</i> (GIRK3) in Withdrawal from Pentobarbital, Zolpidem, and Ethanol. <i>Journal of Neuroscience</i> , 2009, 29, 11662-11673.	1.7	53
42	GIRK Channels Modulate Opioid-Induced Motor Activity in a Cell Type- and Subunit-Dependent Manner. <i>Journal of Neuroscience</i> , 2015, 35, 7131-7142.	1.7	53
43	Distinct Populations of Spinal Cord Lamina II Interneurons Expressing G-Protein-Gated Potassium Channels. <i>Journal of Neuroscience</i> , 2006, 26, 12251-12259.	1.7	52
44	HIV-1 protein Tat produces biphasic changes in NMDA-evoked increases in intracellular Ca ²⁺ concentration via activation of Src kinase and nitric oxide signaling pathways. <i>Journal of Neurochemistry</i> , 2014, 130, 642-656.	2.1	52
45	The Cardiac Inward Rectifier K ⁺ Channel Subunit, CIR, Does Not Comprise the ATP-sensitive K ⁺ Channel, IKATP. <i>Journal of Biological Chemistry</i> , 1995, 270, 28777-28779.	1.6	51
46	Quantitative trait locus and computational mapping identifies <i>Kcnj9</i> (GIRK3) as a candidate gene affecting analgesia from multiple drug classes. <i>Pharmacogenetics and Genomics</i> , 2008, 18, 231-241.	0.7	51
47	G protein-gated I _{KACH} channels as therapeutic targets for treatment of sick sinus syndrome and heart block. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E932-41.	3.3	47
48	R7BP Complexes With RGS9-2 and RGS7 in the Striatum Differentially Control Motor Learning and Locomotor Responses to Cocaine. <i>Neuropsychopharmacology</i> , 2010, 35, 1040-1050.	2.8	46
49	GIRK3 gates activation of the mesolimbic dopaminergic pathway by ethanol. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 7091-7096.	3.3	46
50	Differential GABAB-Receptor-Mediated Effects in Perisomatic- and Dendrite-Targeting Parvalbumin Interneurons. <i>Journal of Neuroscience</i> , 2013, 33, 7961-7974.	1.7	43
51	Predisposition to late-onset obesity in GIRK4 knockout mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 8148-8153.	3.3	42
52	Altered neurotransmission in the mesolimbic reward system of <i>Girk³</i> mice. <i>Journal of Neurochemistry</i> , 2010, 114, 1487-1497.	2.1	42
53	Selective Ablation of GIRK Channels in Dopamine Neurons Alters Behavioral Effects of Cocaine in Mice. <i>Neuropsychopharmacology</i> , 2017, 42, 707-715.	2.8	41
54	Cocaine-induced adaptations in metabotropic inhibitory signaling in the mesocorticolimbic system. <i>Reviews in the Neurosciences</i> , 2012, 23, 325-51.	1.4	40

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55	Association of Rgs7/GÎ²5 complexes with girk channels and GABA_B receptors in hippocampal CA1 pyramidal neurons. <i>Hippocampus</i> , 2013, 23, 1231-1245.	0.9	40
56	GÎ²3 Binding Increases the Open Time of IKACH: Kinetic Evidence for Multiple GÎ²3 Binding Sites. <i>Biophysical Journal</i> , 1999, 76, 246-252.	0.2	38
57	Essential Role of the m2R-RGS6-IKACH Pathway in Controlling Intrinsic Heart Rate Variability. <i>PLoS ONE</i> , 2013, 8, e76973.	1.1	38
58	Structure, G Protein Activation, and Functional Relevance of the Cardiac G Protein-Gated K+ Channel, IKACH. <i>Annals of the New York Academy of Sciences</i> , 1999, 868, 386-398.	1.8	35
59	G Protein-Gated K + Channel Ablation in Forebrain Pyramidal Neurons Selectively Impairs Fear Learning. <i>Biological Psychiatry</i> , 2016, 80, 796-806.	0.7	35
60	G-protein-coupled inward rectifier potassium current contributes to ventricular repolarization. <i>Cardiovascular Research</i> , 2014, 101, 175-184.	1.8	33
61	Sex differences in GABABR-GIRK signaling in layer 5/6 pyramidal neurons of the mouse prelimbic cortex. <i>Neuropharmacology</i> , 2015, 95, 353-360.	2.0	33
62	ICln Is Essential for Cellular and Early Embryonic Viability. <i>Journal of Biological Chemistry</i> , 2000, 275, 12363-12366.	1.6	32
63	Pre- and postsynaptic regulation of locus coeruleus neurons after chronic morphine treatment: a study of GIRK knockout mice. <i>European Journal of Neuroscience</i> , 2008, 28, 618-624.	1.2	32
64	RGS6, but Not RGS4, Is the Dominant Regulator of G Protein Signaling (RGS) Modulator of the Parasympathetic Regulation of Mouse Heart Rate. <i>Journal of Biological Chemistry</i> , 2014, 289, 2440-2449.	1.6	31
65	Behavioral characterization of mice lacking Trek channels. <i>Frontiers in Behavioral Neuroscience</i> , 2012, 6, 60.	1.0	30
66	A Role for the GIRK3 Subunit in Methamphetamine-Induced Attenuation of GABA_B Receptor-Activated GIRK Currents in VTA Dopamine Neurons. <i>Journal of Neuroscience</i> , 2016, 36, 3106-3114.	1.7	29
67	Differential association of GABAB receptors with their effector ion channels in Purkinje cells. <i>Brain Structure and Function</i> , 2018, 223, 1565-1587.	1.2	27
68	Structural characterization of the mouse Girk genes. <i>Gene</i> , 2002, 284, 241-250.	1.0	26
69	Tyrosine Phosphorylation of Kir3.1 in Spinal Cord Is Induced by Acute Inflammation, Chronic Neuropathic Pain, and Behavioral Stress. <i>Journal of Biological Chemistry</i> , 2005, 280, 41683-41693.	1.6	26
70	Targeting inhibitory cerebellar circuitry to alleviate behavioral deficits in a mouse model for studying idiopathic autism. <i>Neuropsychopharmacology</i> , 2020, 45, 1159-1170.	2.8	26
71	Axonal sorting of Kir3.3 defines a GABA-containing neuron in the CA3 region of rodent hippocampus. <i>Molecular and Cellular Neurosciences</i> , 2003, 24, 709-724.	1.0	25
72	Atrial GIRK Channels Mediate the Effects of Vagus Nerve Stimulation on Heart Rate Dynamics and Arrhythmogenesis. <i>Frontiers in Physiology</i> , 2018, 9, 943.	1.3	25

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73	Partial Structure, Chromosome Localization, and Expression of the MouseGirk4Gene. Genomics, 1997, 40, 395-401.	1.3	23
74	Expression and relevance of the G protein-gated K ⁺ channel in the mouse ventricle. Scientific Reports, 2018, 8, 1192.	1.6	19
75	GIRK Channel Activity in Dopamine Neurons of the Ventral Tegmental Area Bidirectionally Regulates Behavioral Sensitivity to Cocaine. Journal of Neuroscience, 2019, 39, 3600-3610.	1.7	19
76	GIRK2 splice variants and neuronal G protein-gated K ⁺ channels: implications for channel function and behavior. Scientific Reports, 2017, 7, 1639.	1.6	18
77	Inhibition of Pyramidal Neurons in the Basal Amygdala Promotes Fear Learning. ENeuro, 2018, 5, ENEURO.0272-18.2018.	0.9	18
78	Unequal interactions between alcohol and nicotine co-consumption: suppression and enhancement of concurrent drug intake. Psychopharmacology, 2020, 237, 967-978.	1.5	17
79	GPCR-dependent biasing of GIRK channel signaling dynamics by RGS6 in mouse sinoatrial nodal cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14522-14531.	3.3	17
80	Neuronal G protein-gated K ⁺ channels. American Journal of Physiology - Cell Physiology, 2022, 323, C439-C460.	2.1	17
81	Evaluation of study design variables and their impact on food-maintained operant responding in mice. Behavioural Brain Research, 2010, 207, 394-401.	1.2	16
82	GIRK Channel Plasticity and Implications for Drug Addiction. International Review of Neurobiology, 2015, 123, 201-238.	0.9	16
83	Structural elements in the Girk1 subunit that potentiate G protein-gated potassium channel activity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 21492-21497.	3.3	15
84	Analgesic Effects of the GIRK Activator, VU0466551, Alone and in Combination with Morphine in Acute and Persistent Pain Models. ACS Chemical Neuroscience, 2019, 10, 1294-1299.	1.7	15
85	Partial Structure, Chromosome Localization, and Expression of the MouseInnGene. Genomics, 1997, 40, 402-408.	1.3	13
86	Suppression of inhibitory G protein signaling in forebrain pyramidal neurons triggers plasticity of glutamatergic neurotransmission in the nucleus accumbens core. Neuropharmacology, 2017, 117, 33-40.	2.0	13
87	Discovery and Characterization of 1H-Pyrazol-5-yl-2-phenylacetamides as Novel, Non-Urea-Containing GIRK1/2 Potassium Channel Activators. ACS Chemical Neuroscience, 2017, 8, 1873-1879.	1.7	13
88	Inhibition of G protein-gated K ⁺ channels by tertiapin-Q rescues sinus node dysfunction and atrioventricular conduction in mouse models of primary bradycardia. Scientific Reports, 2020, 10, 9835.	1.6	13
89	Differential patterns of alcohol and nicotine intake: Combined alcohol and nicotine binge consumption behaviors in mice. Alcohol, 2020, 85, 57-64.	0.8	12
90	Mechanisms and Regulation of Neuronal GABAB Receptor-Dependent Signaling. Current Topics in Behavioral Neurosciences, 2020, , 39-79.	0.8	11

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91	VU0810464, a non-urea G protein-gated inwardly rectifying K ⁺ (K _{ir} 3/GIRK) channel activator, exhibits enhanced selectivity for neuronal K _{ir} 3 channels and reduces stress-induced hyperthermia in mice. <i>British Journal of Pharmacology</i> , 2019, 176, 2238-2249.	2.7	10
92	Identification and characterization of alternative splice variants of the mouse <i>Trek2/Kcnk10</i> gene. <i>Neuroscience</i> , 2011, 194, 11-18.	1.1	9
93	Genetic Ablation of G Protein-Gated Inwardly Rectifying K ⁺ Channels Prevents Training-Induced Sinus Bradycardia. <i>Frontiers in Physiology</i> , 2020, 11, 519382.	1.3	9
94	Bidirectional sex-dependent regulation of $\alpha 6$ and $\alpha 3$ nicotinic acetylcholine receptors by protein kinase C μ . <i>Addiction Biology</i> , 2021, 26, e12954.	1.4	8
95	Suppression of pyramidal neuron G protein-gated inwardly rectifying K ⁺ channel signaling impairs prefrontal cortical function and underlies stress-induced deficits in cognitive flexibility in male, but not female, mice. <i>Neuropsychopharmacology</i> , 2021, 46, 2158-2169.	2.8	7
96	Mild membrane depolarization in neurons induces immediate early gene transcription and acutely subdues responses to a successive stimulus. <i>Journal of Biological Chemistry</i> , 2022, 298, 102278.	1.6	7
97	The influences of the M2R-GIRK4-RGS6 dependent parasympathetic pathway on electrophysiological properties of the mouse heart. <i>PLoS ONE</i> , 2018, 13, e0193798.	1.1	5
98	Impact of Acute and Persistent Excitation of Prefrontal Pyramidal Neurons on Motor Activity and Trace Fear Learning. <i>Journal of Neuroscience</i> , 2021, 41, 960-971.	1.7	5
99	Differential Impact of Inhibitory G-Protein Signaling Pathways in Ventral Tegmental Area Dopamine Neurons on Behavioral Sensitivity to Cocaine and Morphine. <i>ENeuro</i> , 2021, 8, ENEURO.0081-21.2021.	0.9	5
100	Bidirectional Influence of Limbic GIRK Channel Activation on Innate Avoidance Behavior. <i>Journal of Neuroscience</i> , 2021, 41, 5809-5821.	1.7	3
101	GIRK3 deletion facilitates kappa opioid signaling in chondrocytes, delays vascularization and promotes bone lengthening in mice. <i>Bone</i> , 2022, 159, 116391.	1.4	2
102	Preface. <i>International Review of Neurobiology</i> , 2015, 123, xi-xii.	0.9	1
103	Characterization of VU0468554, a new selective inhibitor of cardiac GIRK channels. <i>Molecular Pharmacology</i> , 2021, 100, MOLPHARM-AR-2021-000311.	1.0	1