Jonathan H Jaggar

List of Publications by Year
in descending order

89 papers	4,804 citations	70961 41 h-index	95083 68 g-index
98 all docs	98 docs citations	98 times ranked	3921 citing authors

#	Article	IF	Citations
1	Calcium sparks in smooth muscle. American Journal of Physiology - Cell Physiology, 2000, 278, C235-C256.	2.1	571
2	Heme Is a Carbon Monoxide Receptor for Large-Conductance Ca 2+ -Activated K + Channels. Circulation Research, 2005, 97, 805-812.	2.0	200
3	Carbon monoxide and hydrogen sulfide: gaseous messengers in cerebrovascular circulation. Journal of Applied Physiology, 2006, 100, 1065-1076.	1.2	177
4	Carbon monoxide as an endogenous vascular modulator. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H1-H11.	1.5	156
5	Carbon Monoxide Dilates Cerebral Arterioles by Enhancing the Coupling of Ca 2+ Sparks to Ca 2+ -Activated K + Channels. Circulation Research, 2002, 91, 610-617.	2.0	155
6	Localized TRPA1 channel Ca ²⁺ signals stimulated by reactive oxygen species promote cerebral artery dilation. Science Signaling, 2015, 8, ra2.	1.6	139
7	Voltage dependence of Ca²⁺sparks in intact cerebral arteries. American Journal of Physiology - Cell Physiology, 1998, 274, C1755-C1761.	2.1	138
8	Mitochondria-Derived Reactive Oxygen Species Dilate Cerebral Arteries by Activating Ca 2+ Sparks. Circulation Research, 2005, 97, 354-362.	2.0	120
9	TMEM16A/ANO1 Channels Contribute to the Myogenic Response in Cerebral Arteries. Circulation Research, 2012, 111, 1027-1036.	2.0	117
10	Activators of protein kinase C decrease Ca²⁺spark frequency in smooth muscle cells from cerebral arteries. American Journal of Physiology - Cell Physiology, 1997, 273, C2090-C2095.	2.1	116
11	Differential regulation of Ca²⁺sparks and Ca²⁺waves by UTP in rat cerebral artery smooth muscle cells. American Journal of Physiology - Cell Physiology, 2000, 279, C1528-C1539.	2.1	116
12	Intravascular pressure regulates local and global Ca²⁺ signaling in cerebral artery smooth muscle cells. American Journal of Physiology - Cell Physiology, 2001, 281, C439-C448.	2.1	116
13	IP ₃ Constricts Cerebral Arteries via IP ₃ Receptorâ€“Mediated TRPC3 Channel Activation and Independently of Sarcoplasmic Reticulum Ca ²⁺ Release. Circulation Research, 2008, 102, 1118-1126.	2.0	107
14	Ontogeny of Local Sarcoplasmic Reticulum Ca 2+ Signals in Cerebral Arteries. Circulation Research, 1998, 83, 1104-1114.	2.0	103
15	TMEM16A channels generate Ca²⁺-activated Cl^{âˆ’} currents in cerebral artery smooth muscle cells. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H1819-H1827.	1.5	92
16	Photolysis of intracellular caged sphingosine-1-phosphate causes Ca2+mobilization independently of G-protein-coupled receptors. FEBS Letters, 2003, 554, 443-449.	1.3	87
17	Mitochondrial modulation of Ca2+sparks and transient KCacurrents in smooth muscle cells of rat cerebral arteries. Journal of Physiology, 2004, 556, 755-771.	1.3	86
18	Calcium/Ask1/MKK7/JNK2/c-Src signalling cascade mediates disruption of intestinal epithelial tight junctions by dextran sulfate sodium. Biochemical Journal, 2015, 465, 503-515.	1.7	83

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19	Inositol trisphosphate receptors in smooth muscle cells. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H2190-H2210.	1.5	78
20	Dynamic regulation of Î²1 subunit trafficking controls vascular contractility. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2361-2366.	3.3	78
21	Isoform-Selective Physical Coupling of TRPC3 Channels to IP ₃ Receptors in Smooth Muscle Cells Regulates Arterial Contractility. Circulation Research, 2010, 106, 1603-1612.	2.0	77
22	Essential role for smooth muscle BK channels in alcohol-induced cerebrovascular constriction. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 18217-18222.	3.3	74
23	Smooth muscle cell transient receptor potential polycystinâ€2 (TRPP2) channels contribute to the myogenic response in cerebral arteries. Journal of Physiology, 2013, 591, 5031-5046.	1.3	73
24	Clâˆ’ channels in smooth muscle cells. Pflugers Archiv European Journal of Physiology, 2014, 466, 861-872.	1.3	73
25	Calcium- and voltage-gated BK channels in vascular smooth muscle. Pflugers Archiv European Journal of Physiology, 2018, 470, 1271-1289.	1.3	73
26	Smooth Muscle Cell Î± ₂ Î´-1 Subunits Are Essential for Vasoregulation by Ca _V 1.2 Channels. Circulation Research, 2009, 105, 948-955.	2.0	71
27	Caveolin-1 Assembles Type 1 Inositol 1,4,5-Trisphosphate Receptors and Canonical Transient Receptor Potential 3 Channels into a Functional Signaling Complex in Arterial Smooth Muscle Cells. Journal of Biological Chemistry, 2011, 286, 4341-4348.	1.6	70
28	9â€Phenanthrol inhibits recombinant and arterial myocyte <scp>TMEM</scp>16<scp>A</scp> channels. British Journal of Pharmacology, 2015, 172, 2459-2468.	2.7	68
29	Mitochondria Control Functional Ca _V 1.2 Expression in Smooth Muscle Cells of Cerebral Arteries. Circulation Research, 2010, 107, 631-641.	2.0	65
30	LRRC26 Is a Functional BK Channel Auxiliary Î³ Subunit in Arterial Smooth Muscle Cells. Circulation Research, 2014, 115, 423-431.	2.0	65
31	CaV1.3 Channels and Intracellular Calcium Mediate Osmotic Stress-induced N-terminal c-Jun Kinase Activation and Disruption of Tight Junctions in Caco-2 Cell Monolayers. Journal of Biological Chemistry, 2011, 286, 30232-30243.	1.6	61
32	Sarcoplasmic reticulum calcium load regulates rat arterial smooth muscle calcium sparks and transient KCacurrents. Journal of Physiology, 2002, 544, 71-84.	1.3	59
33	Vasoconstriction resulting from dynamic membrane trafficking of TRPM4 in vascular smooth muscle cells. American Journal of Physiology - Cell Physiology, 2010, 299, C682-C694.	2.1	59
34	Type 1 IP3 receptors activate BKCa channels via local molecular coupling in arterial smooth muscle cells. Journal of General Physiology, 2010, 136, 283-291.	0.9	55
35	Astrocyte-Derived CO Is a Diffusible Messenger That Mediates Glutamate-Induced Cerebral Arteriolar Dilation by Activating Smooth Muscle Cell K Ca Channels. Circulation Research, 2008, 102, 234-241.	2.0	53
36	Calmodulin is responsible for Ca2+-dependent regulation of TRPA1 Channels. Scientific Reports, 2017, 7, 45098.	1.6	52

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37	Hydrogen sulfide activates Ca²⁺ sparks to induce cerebral arteriole dilatation. Journal of Physiology, 2012, 590, 2709-2720.	1.3	50
38	A Novel CaV1.2 N Terminus Expressed in Smooth Muscle Cells of Resistance Size Arteries Modifies Channel Regulation by Auxiliary Subunits. Journal of Biological Chemistry, 2007, 282, 29211-29221.	1.6	48
39	Transcriptional Upregulation of Î± ₂ Î´-1 Elevates Arterial Smooth Muscle Cell Voltage-Dependent Ca ²⁺ Channel Surface Expression and Cerebrovascular Constriction in Genetic Hypertension. Hypertension, 2012, 60, 1006-1015.	1.3	48
40	An Elevation in Physical Coupling of Type 1 Inositol 1,4,5-Trisphosphate (IP ₃) Receptors to Transient Receptor Potential 3 (TRPC3) Channels Constricts Mesenteric Arteries in Genetic Hypertension. Hypertension, 2012, 60, 1213-1219.	1.3	47
41	Type 1 inositol 1,4,5-trisphosphate receptors mediate UTP-induced cation currents, Ca²⁺signals, and vasoconstriction in cerebral arteries. American Journal of Physiology - Cell Physiology, 2008, 295, C1376-C1384.	2.1	46
42	Local coupling of TRPC6 to ANO1/TMEM16A channels in smooth muscle cells amplifies vasoconstriction in cerebral arteries. American Journal of Physiology - Cell Physiology, 2016, 310, C1001-C1009.	2.1	44
43	Eugenol dilates mesenteric arteries and reduces systemic BP by activating endothelial cell <scp>TRPV</scp>4 channels. British Journal of Pharmacology, 2015, 172, 3484-3494.	2.7	42
44	Angiotensin II stimulates internalization and degradation of arterial myocyte plasma membrane BK channels to induce vasoconstriction. American Journal of Physiology - Cell Physiology, 2015, 309, C392-C402.	2.1	42
45	Ano1 mediates pressure-sensitive contraction frequency changes in mouse lymphatic collecting vessels. Journal of General Physiology, 2019, 151, 532-554.	0.9	42
46	Sulfonylurea Receptor-Dependent and -Independent Pathways Mediate Vasodilation Induced by ATP-Sensitive K+ Channel Openers. Molecular Pharmacology, 2008, 74, 736-743.	1.0	38
47	Arterial smooth muscle cell PKD2 (TRPP1) channels regulate systemic blood pressure. ELife, 2018, 7, .	2.8	37
48	The voltageâ€dependent Lâ€type Ca²⁺ (Ca_V1.2) channel Câ€terminus fragment is a biâ€modal vasodilator. Journal of Physiology, 2013, 591, 2987-2998.	1.3	31
49	Calcium Channels and Oxidative Stress Mediate a Synergistic Disruption of Tight Junctions by Ethanol and Acetaldehyde in Caco-2 Cell Monolayers. Scientific Reports, 2016, 6, 38899.	1.6	29
50	Endothelin-1 Stimulates Vasoconstriction Through Rab11A Serine 177 Phosphorylation. Circulation Research, 2017, 121, 650-661.	2.0	27
51	Intravascular flow stimulates PKD2 (polycystin-2) channels in endothelial cells to reduce blood pressure. ELife, 2020, 9, .	2.8	27
52	Potassium Channels, Imidazolines, and Insulin-Secreting Cells. Annals of the New York Academy of Sciences, 1995, 763, 243-261.	1.8	25
53	CaV1.2 Channel N-terminal Splice Variants Modulate Functional Surface Expression in Resistance Size Artery Smooth Muscle Cells. Journal of Biological Chemistry, 2011, 286, 15058-15066.	1.6	25
54	SUMO1 modification of PKD2 channels regulates arterial contractility. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 27095-27104.	3.3	23

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55	Intravascular pressure enhances the abundance of functional K _v 1.5 channels at the surface of arterial smooth muscle cells. Science Signaling, 2015, 8, ra83.	1.6	21
56	TMEM16A channel upregulation in arterial smooth muscle cells produces vasoconstriction during diabetes. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 320, H1089-H1101.	1.5	21
57	Eugenol Dilates Rat Cerebral Arteries by Inhibiting Smooth Muscle Cell Voltage-dependent Calcium Channels. Journal of Cardiovascular Pharmacology, 2014, 64, 401-406.	0.8	20
58	Membrane depolarization activates BK channels through ROCK-mediated Î²1 subunit surface trafficking to limit vasoconstriction. Science Signaling, 2017, 10, .	1.6	18
59	K_V channel trafficking and control of vascular tone. Microcirculation, 2018, 25, e12418.	1.0	18
60	Large Conductance Ca2+-Activated K+ Channel (BKCa) Î±-Subunit Splice Variants in Resistance Arteries from Rat Cerebral and Skeletal Muscle Vasculature. PLoS ONE, 2014, 9, e98863.	1.1	16
61	Rab25 influences functional Cav1.2 channel surface expression in arterial smooth muscle cells. American Journal of Physiology - Cell Physiology, 2016, 310, C885-C893.	2.1	16
62	Polymyxin B has multiple blocking actions on the ATP-sensitive potassium channel in insulin-secreting cells. Pflugers Archiv European Journal of Physiology, 1994, 426, 31-39.	1.3	15
63	Impaired Trafficking of Î²1 Subunits Inhibits BK Channels in Cerebral Arteries of Hypertensive Rats. Hypertension, 2018, 72, 765-775.	1.3	14
64	A plasma membrane-localized polycystin-1/polycystin-2 complex in endothelial cells elicits vasodilation. ELife, 2022, 11, .	2.8	14
65	Type 2 ryanodine receptors are highly sensitive to alcohol. FEBS Letters, 2014, 588, 1659-1665.	1.3	12
66	Cholesterol activates BK channels by increasing KCNMB1 protein levels in the plasmalemma. Journal of Biological Chemistry, 2021, 296, 100381.	1.6	12
67	Angiotensin II reduces the surface abundance of K_V1.5 channels in arterial myocytes to stimulate vasoconstriction. Journal of Physiology, 2017, 595, 1607-1618.	1.3	11
68	Elevated plasma catecholamines functionally compensate for the reduced myogenic tone in smooth muscle STIM1 knockout mice but with deleterious cardiac effects. Cardiovascular Research, 2018, 114, 668-678.	1.8	11
69	Contributions of K_{ATP} and K_{Ca} channels to cerebral arteriolar dilation to hypercapnia in neonatal brain. Physiological Reports, 2014, 2, e12127.	0.7	9
70	Trafficking of BK channel subunits controls arterial contractility. Oncotarget, 2017, 8, 106149-106150.	0.8	6
71	Cholesterol-induced Trafficking of beta1 Subunits Switches Modulation of BK Function by this Steroid from Inhibition to Activation. Biophysical Journal, 2020, 118, 109a-110a.	0.2	3
72	Ion Channel Trafficking and Control of Arterial Contractility. , 2016, , 153-168.		1

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73	STIMulating blood pressure. ELife, 2022, 11, .	2.8	1
74	Now you see it, now you don't: the changing face of endothelinâ€1 signalling during vascular ontogenesis. Journal of Physiology, 2016, 594, 4703-4704.	1.3	0
75	The 2019 FASEB Science Research Conference on Smooth Muscle, July 14â€“19, 2019, Palm Beach Florida, USA. FASEB Journal, 2019, 33, 13068-13070.	0.2	0
76	Hypoxia inhibits transients KCa currents to limit cerebral artery dilation. FASEB Journal, 2006, 20, A304.	0.2	0
77	Genetic Ablation of Caveolinâ€1 Modifies Ca2+ Spark Coupling in Murine Arterial Smooth Muscle Cells. FASEB Journal, 2006, 20, A1173.	0.2	0
78	MEMBRANE DEPOLARIZATION COUPLESCa2+ SPARKS TO KCa CHANNELS IN NEWBORN ARTERIAL SMOOTH MUSCLE CELLS. FASEB Journal, 2006, 20, A304.	0.2	0
79	The myogenic response is suppressed in cerebral arteries of caveolinâ€1 deficient mice. FASEB Journal, 2006, 20, A303.	0.2	0
80	IP3 constricts cerebral arteries by activating a nonâ€selective cation current in myocytes. FASEB Journal, 2007, 21, A1350.	0.2	0
81	Myocytes of resistanceâ€size arteries express Ca _V 1.2 channels with a novel Nâ€terminus. FASEB Journal, 2007, 21, A1240.	0.2	0
82	Caveolinâ€1 ablation induces functional K Ca channel activation and attenuates the myogenic response in cerebral arteries. FASEB Journal, 2007, 21, A521.	0.2	0
83	Essential role for inositol 1,4,5â€trisphosphate receptor 1 (IP3R1) in UTPâ€induced Ca2+ signal and diameter regulation in rat cerebral arteries. FASEB Journal, 2008, 22, 1208.5.	0.2	0
84	Hydrogen sulfide dilates cerebral arterioles by activating smooth muscle cell plasma membrane K ATP channels. FASEB Journal, 2011, 25, 1026.8.	0.2	0
85	BK Ca channels modulate cortical astrocytic CO production in newborn pigs. FASEB Journal, 2011, 25, .	0.2	0
86	Hydrogen sulfide activates Ca 2+ sparks to induce cerebral arteriole dilation. FASEB Journal, 2012, 26, 870.20.	0.2	0
87	<i>Science Signaling</i> Podcast for 9 May 2017: Trafficking of BK channel subunits in arterial myocytes. Science Signaling, 2017, 10, .	1.6	0
88	Endothelial cell PKD2 (TPP1) channels are essential for flowâ€mediated vasodilation. FASEB Journal, 2018, 32, 581.3.	0.2	0
89	A plasma membraneâ€localized polycystinâ€1/polycystinâ€2 complex in endothelial cells elicits vasodilation. FASEB Journal, 2022, 36, .	0.2	0