Adrian D Bonev

List of Publications by Year
in descending order

67 papers	6,539 citations	101543 36 h-index	149698 56 g-index
68 all docs	68 docs citations	68 times ranked	4498 citing authors

#	Article	IF	Citations
1	Vasoregulation by the Î²1 subunit of the calcium-activated potassium channel. Nature, 2000, 407, 870-876.	27.8	772
2	Local potassium signaling couples neuronal activity to vasodilation in the brain. Nature Neuroscience, 2006, 9, 1397-1403.	14.8	487
3	Elementary Ca ²⁺ Signals Through Endothelial TRPV4 Channels Regulate Vascular Function. Science, 2012, 336, 597-601.	12.6	479
4	Altered Expression of Small-Conductance Ca 2+ -Activated K + (SK3) Channels Modulates Arterial Tone and Blood Pressure. Circulation Research, 2003, 93, 124-131.	4.5	301
5	Astrocytic endfoot Ca ²⁺ and BK channels determine both arteriolar dilation and constriction. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3811-3816.	7.1	265
6	Functional Coupling of Ryanodine Receptors to KCa Channels in Smooth Muscle Cells from Rat Cerebral Arteries. Journal of General Physiology, 1999, 113, 229-238.	1.9	261
7	Functional architecture of inositol 1,4,5-trisphosphate signaling in restricted spaces of myoendothelial projections. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9627-9632.	7.1	252
8	Calcium Dynamics in Cortical Astrocytes and Arterioles During Neurovascular Coupling. Circulation Research, 2004, 95, e73-81.	4.5	230
9	Gender Differences in Coronary Artery Diameter Involve Estrogen, Nitric Oxide, and Ca ²⁺ -Dependent K ⁺ Channels. Circulation Research, 1996, 79, 1024-1030.	4.5	214
10	Modulation of the molecular composition of large conductance, Ca2+ activated K+ channels in vascular smooth muscle during hypertension. Journal of Clinical Investigation, 2003, 112, 717-724.	8.2	208
11	Frequency modulation of Ca²⁺sparks is involved in regulation of arterial diameter by cyclic nucleotides. American Journal of Physiology - Cell Physiology, 1998, 274, C1346-C1355.	4.6	194
12	Micromolar Ca²⁺ from sparks activates Ca²⁺-sensitive K⁺ channels in rat cerebral artery smooth muscle. American Journal of Physiology - Cell Physiology, 2001, 281, C1769-C1775.	4.6	186
13	Differential patterning of cGMP in vascular smooth muscle cells revealed by single GFP-linked biosensors. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 365-370.	7.1	157
14	AKAP150-dependent cooperative TRPV4 channel gating is central to endothelium-dependent vasodilation and is disrupted in hypertension. Science Signaling, 2014, 7, ra66.	3.6	151
15	Kir2.1 encodes the inward rectifier potassium channel in rat arterial smooth muscle cells. Journal of Physiology, 1999, 515, 639-651.	2.9	135
16	Î²1â€subunit of the Ca 2+ â€activated K + channel regulates contractile activity of mouse urinary bladder smooth muscle. Journal of Physiology, 2001, 537, 443-452.	2.9	134
17	Modulation of the molecular composition of large conductance, Ca2+ activated K+ channels in vascular smooth muscle during hypertension. Journal of Clinical Investigation, 2003, 112, 717-724.	8.2	124
18	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.	4.6	116

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19	Ontogeny of Local Sarcoplasmic Reticulum Ca 2+ Signals in Cerebral Arteries. Circulation Research, 1998, 83, 1104-1114.	4.5	103
20	Shiga Toxin 2 Affects the Central Nervous System through Receptor Globotriaosylceramide Localized to Neurons. Journal of Infectious Diseases, 2008, 198, 1398-1406.	4.0	103
21	Endothelial SK_{Ca} and IK_{Ca} Channels Regulate Brain Parenchymal Arteriolar Diameter and Cortical Cerebral Blood Flow. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 1175-1186.	4.3	101
22	Inversion of neurovascular coupling by subarachnoid blood depends on large-conductance Ca ²⁺ -activated K ⁺ (BK) channels. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1387-95.	7.1	97
23	Inward rectifier potassium (Kir2.1) channels as endâ€stage boosters of endotheliumâ€dependent vasodilators. Journal of Physiology, 2016, 594, 3271-3285.	2.9	97
24	Intracellular calcium events activated by ATP in murine colonic myocytes. American Journal of Physiology - Cell Physiology, 2000, 279, C126-C135.	4.6	91
25	Ca2+Sparks and Their Function in Human Cerebral Arteries. Stroke, 2002, 33, 802-808.	2.0	90
26	Role of phospholamban in the modulation of arterial Ca²⁺sparks and Ca²⁺-activated K⁺channels by cAMP. American Journal of Physiology - Cell Physiology, 2001, 281, C1029-C1037.	4.6	89
27	Dynamic Inositol Trisphosphate-mediated Calcium Signals within Astrocytic Endfeet Underlie Vasodilation of Cerebral Arterioles. Journal of General Physiology, 2006, 128, 659-669.	1.9	88
28	Ca2+-activated K+ Channels in Murine Endothelial Cells: Block by Intracellular Calcium and Magnesium. Journal of General Physiology, 2008, 131, 125-135.	1.9	83
29	Opposing Actions of Inositol 1,4,5-Trisphosphate and Ryanodine Receptors on Nuclear Factor of Activated T-cells Regulation in Smooth Muscle. Journal of Biological Chemistry, 2002, 277, 37756-37764.	3.4	81
30	Sympathetic nerve stimulation induces local endothelial Ca²⁺ signals to oppose vasoconstriction of mouse mesenteric arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H594-H602.	3.2	80
31	Potassium channelopathy-like defect underlies early-stage cerebrovascular dysfunction in a genetic model of small vessel disease. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E796-805.	7.1	77
32	Low levels of K_{ATP}channel activation decrease excitability and contractility of urinary bladder. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2001, 280, R1427-R1433.	1.8	69
33	Elementary purinergic Ca2+transients evoked by nerve stimulation in rat urinary bladder smooth muscle. Journal of Physiology, 2005, 564, 201-212.	2.9	56
34	Inositol trisphosphate receptor calcium release is required for cerebral artery smooth muscle cell proliferation. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H240-H247.	3.2	43
35	Reduced Ca²⁺ Spark Activity after Subarachnoid Hemorrhage Disables BK Channel Control of Cerebral Artery Tone. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 3-16.	4.3	40
36	The Î²1 subunit of the Ca2+-sensitive K+ channel protects against hypertension. Journal of Clinical Investigation, 2004, 113, 955-957.	8.2	39

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37	Alkaline pH shifts Ca²⁺sparks to Ca²⁺waves in smooth muscle cells of pressurized cerebral arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 283, H2169-H2176.	3.2	37
38	Pressure-induced oxidative activation of PKG enables vasoregulation by Ca ²⁺ sparks and BK channels. Science Signaling, 2016, 9, ra100.	3.6	35
39	Adenosine signaling activates ATP-sensitive K ⁺ channels in endothelial cells and pericytes in CNS capillaries. Science Signaling, 2022, 15, eabl5405.	3.6	33
40	Oxidation of cysteine 117 stimulates constitutive activation of the type Iî± cGMP-dependent protein kinase. Journal of Biological Chemistry, 2018, 293, 16791-16802.	3.4	30
41	Effect of endogenous and exogenous nitric oxide on calcium sparks as targets for vasodilation in rat cerebral artery. Nitric Oxide - Biology and Chemistry, 2007, 16, 104-109.	2.7	29
42	NS19504: A Novel BK Channel Activator with Relaxing Effect on Bladder Smooth Muscle Spontaneous Phasic Contractions. Journal of Pharmacology and Experimental Therapeutics, 2014, 350, 520-530.	2.5	29
43	Extracellular histones induce calcium signals in the endothelium of resistance-sized mesenteric arteries and cause loss of endothelium-dependent dilation. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1309-H1322.	3.2	29
44	Spontaneous electrical rhythmicity and the role of the sarcoplasmic reticulum in the excitability of guinea pig gallbladder smooth muscle cells. American Journal of Physiology - Renal Physiology, 2006, 290, G655-G664.	3.4	27
45	Ca2+ Sparks and KCa Channels: Novel Mechanisms to Relax Urinary Bladder Smooth Muscle. , 2003, 539, 347-357.		27
46	Inhibition of Ca++sparks by oxyhemoglobin in rabbit cerebral arteries. Journal of Neurosurgery, 2004, 100, 295-302.	1.6	23
47	Uncoupling of neurovascular communication after transient global cerebral ischemia is caused by impaired parenchymal smooth muscle K_{ir} channel function. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 1195-1201.	4.3	22
48	Calcium waves in intact guinea pig gallbladder smooth muscle cells. American Journal of Physiology - Renal Physiology, 2006, 291, G717-G727.	3.4	21
49	Subarachnoid Blood Converts Neurally Evoked Vasodilation to Vasoconstriction in Rat Brain Cortex. , 2013, 115, 167-171.		21
50	Role of impaired endothelial cell Ca²⁺signaling in uteroplacental vascular dysfunction during diabetic rat pregnancy. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 304, H935-H945.	3.2	15
51	Impairment of IKCa channels contributes to uteroplacental endothelial dysfunction in rat diabetic pregnancy. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H592-H604.	3.2	15
52	Inhibition of vascular smooth muscle inward-rectifier K⁺channels restores myogenic tone in mouse urinary bladder arterioles. American Journal of Physiology - Renal Physiology, 2017, 312, F836-F847.	2.7	13
53	The K V 7 channel activator retigabine suppresses mouse urinary bladder afferent nerve activity without affecting detrusor smooth muscle K + channel currents. Journal of Physiology, 2019, 597, 935-950.	2.9	13
54	Lack of direct effect of adiponectin on vascular smooth muscle cell BKCa channels or Ca2+ signaling in the regulation of small artery pressure-induced constriction. Physiological Reports, 2017, 5, e13337.	1.7	12

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55	Traumatic Brain Injury Impairs Systemic Vascular Function through Disruption of Inward-Rectifier Potassium Channels. Function, 2021, 2, .	2.3	9
56	A mechanism linking perinatal 2,3,7,8 tetrachlorodibenzo-p-dioxin exposure to lower urinary tract dysfunction in adulthood. DMM Disease Models and Mechanisms, 2021, 14, .	2.4	4
57	Elementary Ca2+signals through endothelial TRPV4 channels regulate vascular function. BMC Pharmacology & Toxicology, 2013, 14, .	2.4	1
58	Functional evidence of TRPV4â€mediated Ca 2+ signals in cortical astrocytes. FASEB Journal, 2011, 25, 1024.23.	0.5	1
59	Basal and AChâ€stimulated intracellular Ca ²⁺ signals in intact endothelium originate from IP ₃ â€sensitive stores. FASEB Journal, 2007, 21, A861.	0.5	0
60	Ca 2+ pulsars: spatially restricted, IP 3 Râ€mediated Ca 2+ release important for endothelial function. FASEB Journal, 2008, 22, 1181.18.	0.5	0
61	Nerveâ€induced smooth muscle to endothelium signaling in small resistance arteries. FASEB Journal, 2010, 24, 598.7.	0.5	0
62	High intravascular pressure decreases endothelial Ca 2+ pulsars and impairs endotheliumâ€dependent vasodilation in mouse mesenteric arteries. FASEB Journal, 2010, 24, 956.6.	0.5	0
63	Elementary TRPV4 Ca ²⁺ events in intact vascular endothelium. FASEB Journal, 2011, 25, 1082.1.	0.5	0
64	Fundamental Change in Neurovascular Coupling after Subarachnoid Hemorrhage. FASEB Journal, 2011, 25, 1021.9.	0.5	0
65	Profound decrease in myogenic tone of parenchymal arterioles in a genetic model of cerebral ischemic small vessel disease. FASEB Journal, 2012, 26, 685.6.	0.5	0
66	Critical role of Kv channels in cerebrovascular dysfunction associated with ischemic small vessel disease in a mouse genetic model. FASEB Journal, 2013, 27, 925.7.	0.5	0
67	Experimental Diabetes Impairs Endothelial IKCa Channel Function in Uteroplacental Arteries from Pregnant Rats. FASEB Journal, 2013, 27, 687.8.	0.5	0