Vladimir Matchkov

List of Publications by Year
in descending order

91 papers	2,687 citations	172386 29 h-index	197736 49 g-index
92 all docs	92 docs citations	92 times ranked	2904 citing authors

#	Article	IF	Citations
1	Phenylephrine-Induced Cardiovascular Changes in the Anesthetized Mouse: An Integrated Assessment of in vivo Hemodynamics Under Conditions of Controlled Heart Rate. Frontiers in Physiology, 2022, 13, 831724.	1.3	4
2	Migraineâ€Associated Mutation in the Na,Kâ€ATPase Leads to Disturbances in Cardiac Metabolism and Reduced Cardiac Function. Journal of the American Heart Association, 2022, 11, e021814.	1.6	9
3	Impaired Mineral Ion Metabolism in a Mouse Model of Targeted Calcium-Sensing Receptor (CaSR) Deletion from Vascular Smooth Muscle Cells. Journal of the American Society of Nephrology: JASN, 2022, 33, 1323-1340.	3.0	7
4	Stress adaptation in rats associate with reduced expression of cerebrovascular K_v7.4 channels and biphasic neurovascular responses. Stress, 2022, 25, 227-234.	0.8	1
5	Transglutaminase 2 Inhibitor LDN 27219 Age-Dependently Lowers Blood Pressure and Improves Endothelium-Dependent Vasodilation in Resistance Arteries. Hypertension, 2021, 77, 216-227.	1.3	12
6	NBCn1 Increases NH4 + Reabsorption Across Thick Ascending Limbs, the Capacity for Urinary NH4 + Excretion, and Early Recovery from Metabolic Acidosis. Journal of the American Society of Nephrology: JASN, 2021, 32, 852-865.	3.0	7
7	Chronic Ouabain Prevents Na,K-ATPase Dysfunction and Targets AMPK and IL-6 in Disused Rat Soleus Muscle. International Journal of Molecular Sciences, 2021, 22, 3920.	1.8	8
8	Demand creates its own supply: The Na/Kâ€ATPase controls metabolic reserve and flexibility. Acta Physiologica, 2021, 232, e13673.	1.8	3
9	Does Src Kinase Mediated Vasoconstriction Impair Penumbral Reperfusion?. Stroke, 2021, 52, e250-e258.	1.0	4
10	The snake heart pacemaker is localized near the sinoatrial valve. Journal of Experimental Biology, 2021, 224, .	0.8	2
11	Activation of the kidney sodium chloride cotransporter by the Î²2-adrenergic receptor agonist salbutamol increases blood pressure. Kidney International, 2021, 100, 321-335.	2.6	14
12	Inherited Ventricular Arrhythmia in Zebrafish: Genetic Models and Phenotyping Tools. Reviews of Physiology, Biochemistry and Pharmacology, 2021, , 1.	0.9	1
13	Abnormal neurovascular coupling as a cause of excess cerebral vasodilation in familial migraine. Cardiovascular Research, 2020, 116, 2009-2020.	1.8	15
14	A characterization of the electrophysiological properties of the cardiomyocytes from ventricle, atrium and sinus venosus of the snake heart. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2020, 190, 63-73.	0.7	9
15	Effect of ischemic preconditioning and a Kv7 channel blocker on cardiac ischemia-reperfusion injury in rats. European Journal of Pharmacology, 2020, 866, 172820.	1.7	6
16	A paradoxical increase of force development in saphenous and tail arteries from heterozygous ANO1 knockout mice. Physiological Reports, 2020, 8, e14645.	0.7	8
17	Circulating Ouabain Modulates Expression of Claudins in Rat Intestine and Cerebral Blood Vessels. International Journal of Molecular Sciences, 2020, 21, 5067.	1.8	14
18	Trophic sympathetic influence weakens pro-contractile role of Clâˆ' channels in rat arteries during postnatal maturation. Scientific Reports, 2020, 10, 20002.	1.6	3

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19	Aberrant sinus node firing during Î²â€adrenergic stimulation leads to cardiac arrhythmias in diabetic mice. Acta Physiologica, 2020, 229, e13444.	1.8	7
20	Skeletal Muscle Na,K-ATPase as a Target for Circulating Ouabain. International Journal of Molecular Sciences, 2020, 21, 2875.	1.8	10
21	Isoform-specific Na,K-ATPase and membrane cholesterol remodeling in motor endplates in distinct mouse models of myodystrophy. American Journal of Physiology - Cell Physiology, 2020, 318, C1030-C1041.	2.1	9
22	PTPRG is an ischemia risk locus essential for HCO3â€“-dependent regulation of endothelial function and tissue perfusion. ELife, 2020, 9, .	2.8	15
23	Ultrasensitive Photonic Microsystem Enabling Sub-micrometric Monitoring of Arterial Oscillations for Advanced Cardiovascular Studies. Frontiers in Physiology, 2019, 10, 940.	1.3	0
24	Vascular microdomain signalling and possible novel treatments in cardiovascular diseases. Experimental Physiology, 2019, 104, 1011-1012.	0.9	0
25	A Single Simulated Heliox Dive Modifies Endothelial Function in the Vascular Wall of ApoE Knockout Male Rats More Than Females. Frontiers in Physiology, 2019, 10, 1342.	1.3	15
26	Perivascular Adipose Tissue Contributes to the Modulation of Vascular Tone in vivo. Journal of Vascular Research, 2019, 56, 320-332.	0.6	8
27	Rat mesenteric small artery neurogenic dilatation is predominantly mediated by Î²₁â€adrenoceptors <i>in vivo</i>. Journal of Physiology, 2019, 597, 1819-1831.	1.3	10
28	The Na,K-ATPase in vascular smooth muscle cells. Current Topics in Membranes, 2019, 83, 151-175.	0.5	8
29	Involvement of the Na⁺,K⁺â€ATPase isoforms in control of cerebral perfusion. Experimental Physiology, 2019, 104, 1023-1028.	0.9	9
30	Proâ€contractile role of chloride in arterial smooth muscle: Postnatal decline potentially governed by sympathetic nerves. Experimental Physiology, 2019, 104, 1018-1022.	0.9	2
31	Smooth muscle Ca²⁺sensitization causes hypercontractility of middle cerebral arteries in mice bearing the familial hemiplegic migraine type 2 associated mutation. Journal of Cerebral Blood Flow and Metabolism, 2019, 39, 1570-1587.	2.4	21
32	The Î±2 isoform Na,Kâ€ATPase modulates contraction of rat mesenteric small artery via cSrcâ€dependent Ca²⁺ sensitization. Acta Physiologica, 2018, 224, e13059.	1.8	16
33	Variable Contribution of <scp>TMEM</scp>16A to Tone in Murine Arterial Vasculature. Basic and Clinical Pharmacology and Toxicology, 2018, 123, 30-41.	1.2	15
34	The Na,K-ATPase-Dependent Src Kinase Signaling Changes with Mesenteric Artery Diameter. International Journal of Molecular Sciences, 2018, 19, 2489.	1.8	8
35	The V-ATPase is expressed in the choroid plexus and mediates cAMP-induced intracellular pH alterations. Physiological Reports, 2017, 5, e13072.	0.7	15
36	Membrane lipid rafts are disturbed in the response of rat skeletal muscle to short-term disuse. American Journal of Physiology - Cell Physiology, 2017, 312, C627-C637.	2.1	46

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37	Na-K-ATPase regulates intercellular communication in the vascular wall via cSrc kinase-dependent connexin43 phosphorylation. American Journal of Physiology - Cell Physiology, 2017, 312, C385-C397.	2.1	19
38	Reply from Vladimir V. Matchkov and Christian Aalkjaer. Journal of Physiology, 2017, 595, 6785-6787.	1.3	2
39	Intravital investigation of rat mesenteric small artery tone and blood flow. Journal of Physiology, 2017, 595, 5037-5053.	1.3	30
40	Loss-of-activity-mutation in the cardiac chloride-bicarbonate exchanger AE3 causes short QT syndrome. Nature Communications, 2017, 8, 1696.	5.8	88
41	Specialized Functional Diversity and Interactions of the Na,K-ATPase. Frontiers in Physiology, 2016, 7, 179.	1.3	65
42	Involvement of transglutaminase 2 and voltageâ€gated potassium channels in cystamine vasodilatation in rat mesenteric small arteries. British Journal of Pharmacology, 2016, 173, 839-855.	2.7	15
43	Negative News: Cl^{âˆ’}and HCO₃^{âˆ’}in the Vascular Wall. Physiology, 2016, 31, 370-383.	1.6	16
44	Distinct Î±2 Na,K-ATPase membrane pools are differently involved in early skeletal muscle remodeling during disuse. Journal of General Physiology, 2016, 147, 175-188.	0.9	47
45	Hypertension and physical exercise: The role of oxidative stress. Medicina (Lithuania), 2016, 52, 19-27.	0.8	132
46	Isoform-Specific Na,K-ATPase Alterations Precede Disuse-Induced Atrophy of Rat Soleus Muscle. BioMed Research International, 2015, 2015, 1-11.	0.9	24
47	Extracellular Calcium-Dependent Modulation of Endothelium Relaxation in Rat Mesenteric Small Artery: The Role of Potassium Signaling. BioMed Research International, 2015, 2015, 1-11.	0.9	7
48	Chronic selective serotonin reuptake inhibition modulates endothelial dysfunction and oxidative state in rat chronic mild stress model of depression. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2015, 309, R814-R823.	0.9	39
49	The role of Ca2+ activated Clâˆ’ channels in blood pressure control. Current Opinion in Pharmacology, 2015, 21, 127-137.	1.7	23
50	Role of Peripheral Vascular Resistance for the Association Between Major Depression and Cardiovascular Disease. Journal of Cardiovascular Pharmacology, 2015, 65, 299-307.	0.8	14
51	Endothelium in Diseased States. BioMed Research International, 2014, 2014, 1-2.	0.9	3
52	Downregulation of L-type Ca²⁺channel in rat mesenteric arteries leads to loss of smooth muscle contractile phenotype and inward hypertrophic remodeling. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 306, H1287-H1301.	1.5	20
53	The bestrophin- and TMEM16A-associated Ca²⁺-activated Cl^{â€“}channels in vascular smooth muscles. Channels, 2014, 8, 361-369.	1.5	23
54	<scp>K</scp>_V7 channels are involved in hypoxiaâ€induced vasodilatation of porcine coronary arteries. British Journal of Pharmacology, 2014, 171, 69-82.	2.7	65

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55	Association Between Endothelial Dysfunction and Depression-Like Symptoms in Chronic Mild Stress Model of Depression. Psychosomatic Medicine, 2014, 76, 268-276.	1.3	34
56	TMEM16A knockdown abrogates two different Ca2+-activated Clâˆ’ currents and contractility of smooth muscle in rat mesenteric small arteries. Pflugers Archiv European Journal of Physiology, 2014, 466, 1391-1409.	1.3	59
57	Opto-mechanical microbridles for the determination of structural and functional properties of small resistance arteries. , 2014, , .		0
58	Vascular smooth muscle cell phenotype is defined by <scp>C</scp>a²⁺â€dependent transcription factors. FEBS Journal, 2013, 280, 5488-5499.	2.2	83
59	Transport and Function of Chloride in Vascular Smooth Muscles. Journal of Vascular Research, 2013, 50, 69-87.	0.6	30
60	Treatment with the vascular disrupting agent combretastatin is associated with impaired AQP2 trafficking and increased urine output. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2012, 303, R186-R198.	0.9	5
61	Chronic Mild Stressâ€"Induced Depression-Like Symptoms in Rats and Abnormalities in Catecholamine Uptake in Small Arteries. Psychosomatic Medicine, 2012, 74, 278-287.	1.3	22
62	The Î±₂ isoform of the Na,K-pump is important for intercellular communication, agonist-induced contraction, and EDHF-like response in rat mesenteric arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 303, H36-H46.	1.5	24
63	Cyclodextrin-Scaffolded Alamethicin with Remarkably Efficient Membrane Permeabilizing Properties and Membrane Current Conductance. Journal of Physical Chemistry B, 2012, 116, 7652-7659.	1.2	28
64	Intracellular Ca²⁺ Signalling and Phenotype of Vascular Smooth Muscle Cells. Basic and Clinical Pharmacology and Toxicology, 2012, 110, 42-48.	1.2	62
65	Vasomotion â€" what is currently thought?. Acta Physiologica, 2011, 202, 253-269.	1.8	206
66	Disruption of Na ⁺ ,HCO ₃ ^{âˆ’} Cotransporter NBCn1 (slc4a7) Inhibits NO-Mediated Vasorelaxation, Smooth Muscle Ca ²⁺ Sensitivity, and Hypertension Development in Mice. Circulation, 2011, 124, 1819-1829.	1.6	124
67	Bestrophin is important for the rhythmic but not the tonic contraction in rat mesenteric small arteries. Cardiovascular Research, 2011, 91, 685-693.	1.8	39
68	The Î±2 isoform of the Na, Kâ€pump is involved in synchronization of smooth muscle cells in the arterial wall.. FASEB Journal, 2010, 24, 976.16.	0.2	0
69	Downrgulation of Lâ€type calcium channels increase media thicknes and change smooth muscle phenotype in rat resistance arteries in vivo.. FASEB Journal, 2010, 24, 985.16.	0.2	0
70	Vasomotion in rat small mesenteric arteries is bestrophinâ€3 dependent.. FASEB Journal, 2010, 24, 1002.29.	0.2	0
71	Role of bestrophinâ€3 protein in endoplasmic reticulum (ER)â€stress response and its regulation by reactive oxygen species (ROS) and ERK1/2 in kidney proximal tubule cells (PTC).. FASEB Journal, 2010, 24, 770.1.	0.2	0
72	Mechanisms of cellular synchronization in the vascular wall. Mechanisms of vasomotion. Danish Medical Bulletin, 2010, 57, B4191.	0.3	16

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73	NS11021, a novel opener of largeâ€conductance Ca²⁺â€activated K⁺ channels, enhances erectile responses in rats. British Journal of Pharmacology, 2009, 158, 1465-1476.	2.7	45
74	Vasomotion has chloride-dependency in rat mesenteric small arteries. Pflugers Archiv European Journal of Physiology, 2008, 457, 389-404.	1.3	44
75	Rebaudioside A directly stimulates insulin secretion from pancreatic beta cells: a glucoseâ€dependent action via inhibition of ATPâ€sensitive K⁺â€channels*. Diabetes, Obesity and Metabolism, 2008, 10, 1074-1085.	2.2	47
76	Bestrophin-3 (Vitelliform Macular Dystrophy 2â€“Like 3 Protein) Is Essential for the cGMP-Dependent Calcium-Activated Chloride Conductance in Vascular Smooth Muscle Cells. Circulation Research, 2008, 103, 864-872.	2.0	88
77	Heterogeneity and weak coupling may explain the synchronization characteristics of cells in the arterial wall. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 3483-3502.	1.6	21
78	Interaction Between Na + /K + -Pump and Na + /Ca 2+ -Exchanger Modulates Intercellular Communication. Circulation Research, 2007, 100, 1026-1035.	2.0	52
79	A model of smooth muscle cell synchronization in the arterial wall. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H229-H237.	1.5	45
80	Activation of a cGMP-sensitive calcium-dependent chloride channel may cause transition from calcium waves to whole cell oscillations in smooth muscle cells. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H215-H228.	1.5	41
81	Antiphase oscillations of endothelium and smooth muscle [Ca2+]i in vasomotion of rat mesenteric small arteries. Cell Calcium, 2007, 42, 536-547.	1.1	34
82	Na + /K + â€pump modulates intercellular communication via interaction with other membrane transporters in vascular smooth muscle cells.. FASEB Journal, 2007, 21, A912.	0.2	0
83	siRNAâ€mediated knockdown of endogenously expressed bestrophin in smooth muscles.. FASEB Journal, 2007, 21, .	0.2	0
84	Analysis of effects of connexin-mimetic peptides in rat mesenteric small arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H357-H367.	1.5	59
85	Distribution of cGMP-dependent and cGMP-independent Ca2+-activated Clâˆ’ conductances in smooth muscle cells from different vascular beds and colon. Pflugers Archiv European Journal of Physiology, 2005, 451, 371-379.	1.3	31
86	Effects of cGMP on Coordination of Vascular Smooth Muscle Cells of Rat Mesenteric Small Arteries. Journal of Vascular Research, 2005, 42, 301-311.	0.6	34
87	A Cyclic GMPâ€“dependent Calcium-activated Chloride Current in Smooth-muscle Cells from Rat Mesenteric Resistance Arteries. Journal of General Physiology, 2004, 123, 121-134.	0.9	87
88	Junctional and nonjunctional effects of heptanol and glycyrrhetinic acid derivates in rat mesenteric small arteries. British Journal of Pharmacology, 2004, 142, 961-972.	2.7	79
89	KATP -channel-induced vasodilation is modulated by the Na,K-pump activity in rabbit coronary small arteries. British Journal of Pharmacology, 2004, 143, 872-880.	2.7	16
90	Myogenic response of rat femoral small arteries in relation to wall structure and [Ca2+]i. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 283, H118-H125.	1.5	19

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91	Hypothesis for the Initiation of Vasomotion. Circulation Research, 2001, 88, 810-815.	2.0	240