Sergey Kasparov

List of Publications by Year in descending order

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136 papers	6,158 citations	47 h-index	74 g-index
		47006	76900
138 all docs	138 docs citations	138 times ranked	6349 citing authors

#	Article	IF	Citations
1	Memantine Disrupts Motor Coordination through Anxiety-like Behavior in CD1 Mice. Brain Sciences, 2022, 12, 495.	2.3	1
2	Selective optogenetic stimulation of efferent fibers in the vagus nerve of a large mammal. Brain Stimulation, 2021, 14, 88-96.	1.6	24
3	Chronic optogenetic stimulation of Bergman glia leads to dysfunction of EAAT1 and Purkinje cell death, mimicking the events caused by expression of pathogenic ataxin-1. Neurobiology of Disease, 2021, 154, 105340.	4.4	12
4	Expression of Microbial Enzymes in Mammalian Astrocytes to Modulate Lactate Release. Brain Sciences, 2021, 11, 1056.	2.3	1
5	Reducing <scp>l</scp>â€lactate release from hippocampal astrocytes by intracellular oxidation increases novelty induced activity in mice. Glia, 2021, 69, 1241-1250.	4.9	8
6	Feasibility of Photodynamic Therapy for Glioblastoma with the Mitochondria-Targeted Photosensitizer Tetramethylrhodamine Methyl Ester (TMRM). Biomedicines, 2021, 9, 1453.	3.2	8
7	Astrocytes monitor cerebral perfusion and control systemic circulation to maintain brain blood flow. Nature Communications, 2020, 11, 131.	12.8	137
8	Viral Vectors as Gene Therapy Agents for Treatment of Glioblastoma. Cancers, 2020, 12, 3724.	3.7	14
9	Astrocytes Modulate Baroreflex Sensitivity at the Level of the Nucleus of the Solitary Tract. Journal of Neuroscience, 2020, 40, 3052-3062.	3.6	20
10	Using Light for Therapy of Glioblastoma Multiforme (GBM). Brain Sciences, 2020, 10, 75.	2.3	27
11	Identification of neuron-type specific promoters in monkey genome and their functional validation in mice. Biochemical and Biophysical Research Communications, 2019, 518, 619-624.	2.1	6
12	Manipulation of dorsal raphe serotonergic neurons modulates active coping to inescapable stress and anxiety-related behaviors in mice and rats. Neuropsychopharmacology, 2019, 44, 721-732.	5.4	59
13	cAMPâ€dependent modulation of I h underlies the P2Y 1 receptorâ€mediated excitation of the preBÃ¶tzinger Complex inspiratory network in vitro. FASEB Journal, 2019, 33, 551.8.	0.5	1
14	Population genetics of spinoÑerebellar ataxias caused by polyglutamine expansions. Vavilovskii Zhurnal Genetiki I Selektsii, 2019, 23, 473-481.	1.1	0
15	Astrocytes modulate brainstem respiratory rhythm-generating circuits and determine exercise capacity. Nature Communications, 2018, 9, 370.	12.8	104
16	Hypothalamic paraventricular nucleus neuronal nitric oxide synthase activity is a major determinant of renal sympathetic discharge in conscious Wistar rats. Experimental Physiology, 2018, 103, 419-428.	2.0	11
17	Release of ATP by preâ€BÃ¶tzinger complex astrocytes contributes to the hypoxic ventilatory response via a Ca²⁺â€dependent P2Y₁ receptor mechanism. Journal of Physiology, 2018, 596, 3245-3269.	2.9	82
18	Current technical approaches to brain energy metabolism. Glia, 2018, 66, 1138-1159.	4.9	40

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19	Putative Receptors Underpinning l-Lactate Signalling in Locus Coeruleus. Neuroglia (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	0.9	17
20	In Search of a Breakthrough Therapy for Glioblastoma Multiforme. Neuroglia (Basel, Switzerland), 2018, 1, 292-310.	0.9	11
21	Glioâ€•and neuroâ€protection by prosaposin is mediated by orphan Gâ€protein coupled receptors GPR37L1 and GPR37. Glia, 2018, 66, 2414-2426.	4.9	54
22	Signal transduction in astrocytes: Localization and release of inorganic polyphosphate. Glia, 2018, 66, 2126-2136.	4.9	34
23	CNS distribution, signalling properties and central effects of G-protein coupled receptor 4. Neuropharmacology, 2018, 138, 381-392.	4.1	44
24	Differences in autonomic innervation to the vertebrobasilar arteries in spontaneously hypertensive and Wistar rats. Journal of Physiology, 2018, 596, 3505-3529.	2.9	8
25	A sweet taste receptorâ€dependent mechanism of glucosensing in hypothalamic tanycytes. Glia, 2017, 65, 773-789.	4.9	58
26	Volumetric Spatial Correlations of Neurovascular Coupling Studied using Single Pulse Opto-fMRI. Scientific Reports, 2017, 7, 41583.	3.3	12
27	Vagal determinants of exercise capacity. Nature Communications, 2017, 8, 15097.	12.8	55
28	Astroglia as a cellular target for neuroprotection and treatment of neuroâ€psychiatric disorders. Glia, 2017, 65, 1205-1226.	4.9	88
29	Neuroprotective potential of astroglia. Journal of Neuroscience Research, 2017, 95, 2126-2139.	2.9	50
30	Rodents and humans are able to detect the odour of L-Lactate. PLoS ONE, 2017, 12, e0178478.	2.5	7
31	Dialogue Between Astrocytes and Noradrenergic Neurons Via l -Lactate. , 2017, , 167-182.		2
32	Mechanisms of CO₂/H⁺Sensitivity of Astrocytes. Journal of Neuroscience, 2016, 36, 10750-10758.	3.6	101
33	Parasympathetic innervation of vertebrobasilar arteries: is this a potential clinical target?. Journal of Physiology, 2016, 594, 6463-6485.	2.9	36
34	OS 05-09 REDUCED VASODILATOR EFFICIENCY OF ADENOSINE IN THE BRAINSTEM OF YOUNG SPONTANEOUSLY HYPERTENSIVE RATS. Journal of Hypertension, 2016, 34, e60.	0.5	0
35	Glia, sympathetic activity and cardiovascular disease. Experimental Physiology, 2016, 101, 565-576.	2.0	47
36	Astrocytes and Brain Hypoxia. Advances in Experimental Medicine and Biology, 2016, 903, 201-207.	1.6	28

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37	Are Astrocytes the Pressure-Reservoirs of Lactate in the Brain?. Cell Metabolism, 2016, 23, 1-2.	16.2	60
38	Hemichannel-mediated release of lactate. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 1202-1211.	4.3	77
39	Brainstem Hypoxia Contributes to the Development of Hypertension in the Spontaneously Hypertensive Rat. Hypertension, 2015, 65, 775-783.	2.7	81
40	Functional Oxygen Sensitivity of Astrocytes. Journal of Neuroscience, 2015, 35, 10460-10473.	3.6	219
41	Beyond Gene Inactivation: Evolution of Tools for Analysis of Serotonergic Circuitry. ACS Chemical Neuroscience, 2015, 6, 1116-1129.	3.5	14
42	Is L-Lactate a Novel Signaling Molecule in the Brain?. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 1069-1075.	4.3	148
43	A Role for Astrocytes in Sensing the Brain Microenvironment and Neuro-Metabolic Integration. Neurochemical Research, 2015, 40, 2386-2393.	3.3	37
44	Ultrastructural Correlates of Enhanced Norepinephrine and Neuropeptide Y Cotransmission in the Spontaneously Hypertensive Rat Brain. ASN Neuro, 2015, 7, 175909141561011.	2.7	13
45	A Critical Role for Purinergic Signalling in the Mechanisms Underlying Generation of BOLD fMRI Responses. Journal of Neuroscience, 2015, 35, 5284-5292.	3.6	49
46	Comparative analysis of optogenetic actuators in cultured astrocytes. Cell Calcium, 2014, 56, 208-214.	2.4	62
47	Purinergic signalling in the rostral ventro-lateral medulla controls sympathetic drive and contributes to the progression of heart failure following myocardial infarction in rats. Basic Research in Cardiology, 2013, 108, 317.	5.9	71
48	Excessive Leukotriene B4 in Nucleus Tractus Solitarii Is Prohypertensive in Spontaneously Hypertensive Rats. Hypertension, 2013, 61, 194-201.	2.7	44
49	Differential Sensitivity of Brainstem versus Cortical Astrocytes to Changes in pH Reveals Functional Regional Specialization of Astroglia. Journal of Neuroscience, 2013, 33, 435-441.	3.6	96
50	Viral Gene Delivery: Optimized Protocol for Production of High Titer Lentiviral Vectors. Methods in Molecular Biology, 2013, 998, 65-75.	0.9	15
51	fMRI response to blue light delivery in the naÃ¯ve brain: Implications for combined optogenetic fMRI studies. NeuroImage, 2013, 66, 634-641.	4.2	122
52	Optogenetics at a crossroads?. Experimental Physiology, 2013, 98, 971-972.	2.0	3
53	Cardioprotection evoked by remote ischaemic preconditioning is critically dependent on the activity of vagal pre-ganglionic neurones. Cardiovascular Research, 2012, 95, 487-494.	3.8	187
54	Upregulation of junctional adhesion molecule-A is a putative prognostic marker of hypertension. Cardiovascular Research, 2012, 96, 552-560.	3.8	29

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55	Optogenetics. , 2012, , 689-691.		0
56	Leptin activates rat carotid body Type I cells and brainstem astroglial cells. FASEB Journal, 2012, 26, 1128.4.	0.5	0
57	The many facets of optogenetics. Experimental Physiology, 2011, 96, 1-3.	2.0	3
58	Optogenetic experimentation on astrocytes. Experimental Physiology, 2011, 96, 40-50.	2.0	71
59	Glial-neuronal interactions in the central nervous cardiovascular and respiratory control. Experimental Physiology, 2011, 96, 391-392.	2.0	0
60	Astrocytes as brain interoceptors. Experimental Physiology, 2011, 96, 411-416.	2.0	71
61	Temporal profile of arginine vasopressin release from the neurohypophysis in response to hypertonic saline and hypotension measured using a fluorescent fusion protein. Journal of Neuroscience Methods, 2011, 201, 191-195.	2.5	5
62	NOS Antagonism Using Viral Vectors as an Experimental Strategy: Implications for In Vivo Studies of Cardiovascular Control and Peripheral Neuropathies. Methods in Molecular Biology, 2011, 704, 197-223.	0.9	3
63	Chronic knockdown of nNOS in the paraventricular nucleus (PVN) produces persistent increases in arterial pressure and renal sympathetic nerve activity (RSNA) in the rat. FASEB Journal, 2011, 25, 1078.8.	0.5	0
64	Cell- and region-specific miR30-based gene knock-down with temporal control in the rat brain. BMC Molecular Biology, 2010, 11, 93.	3.0	8
65	Transgenic neuronal nitric oxide synthase expression induces axotomy-like changes in adult motoneurons. Journal of Physiology, 2010, 588, 3425-3443.	2.9	13
66	Astroglia are a possible cellular substrate of angiotensin(1-7) effects in the rostral ventrolateral medulla. Cardiovascular Research, 2010, 87, 578-584.	3.8	45
67	Role of Estradiol in the Dynamic Control of Tanycyte Plasticity Mediated by Vascular Endothelial Cells in the Median Eminence. Endocrinology, 2010, 151, 1760-1772.	2.8	62
68	Kidney-Induced Hypertension Depends on Superoxide Signaling in the Rostral Ventrolateral Medulla. Hypertension, 2010, 56, 290-296.	2.7	67
69	Astrocytes Control Breathing Through pH-Dependent Vesicular Release of Atp. Biophysical Journal, 2010, 98, 95a-96a.	0.5	0
70	Astrocytes Control Breathing Through pH-Dependent Release of ATP. Science, 2010, 329, 571-575.	12.6	752
71	Photostimulation of Channelrhodopsinâ€2 expressing ventral medullary astrocytes increases sympathetic nerve activity and blood pressure in rats. FASEB Journal, 2010, 24, 808.16.	0.5	0
72	Optogenetic Analysis of Areaâ€Specific Glialâ€Neuronal Signalling. FASEB Journal, 2010, 24, 1064.19.	0.5	0

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73	The use of viral gene transfer in studies of brainstem noradrenergic and serotonergic neurons. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 2565-2576.	4.0	3
74	Adenoviral vectors for highly selective gene expression in central serotonergic neurons reveal quantal characteristics of serotonin release in the rat brain. BMC Biotechnology, 2009, 9, 23.	3.3	26
75	Targeting central serotonergic neurons with lentiviral vectors based on a transcriptional amplification strategy. Gene Therapy, 2009, 16, 681-688.	4.5	29
76	A fibreâ€optic laser system and cellâ€specific viral vectors for chronic optoâ€genetic experimentation on deep brain structures. FASEB Journal, 2009, 23, 818.11.	0.5	0
77	Cellular substrates for angiotensin1â€7 (Ang1â€7) action in the rostral ventroâ€lateral medulla (RVLM) of the normotentsive and spontaneously hypertensive rat (SHR). FASEB Journal, 2009, 23, 958.3.	0.5	0
78	Autonomic cardiovascular responses to chronic infusions of angiotensin II (ANGII) in wistar kyoto rats (WKY). FASEB Journal, 2009, 23, 1017.13.	0.5	0
79	Signalling across the blood brain barrier by angiotensin II: novel implications for neurogenic hypertension. Journal of Molecular Medicine, 2008, 86, 705-710.	3.9	74
80	Viral vectors based on bidirectional cell-specific mammalian promoters and transcriptional amplification strategy for use in vitro and in vivo. BMC Biotechnology, 2008, 8, 49.	3.3	70
81	Enhancement of cellâ€specific transgene expression from a Tetâ€Off regulatory system using a transcriptional amplification strategy in the rat brain. Journal of Gene Medicine, 2008, 10, 583-592.	2.8	34
82	A micro-optrode for simultaneous extracellular electrical and intracellular optical recording from neurons in an intact oscillatory neuronal network. Journal of Neuroscience Methods, 2008, 168, 383-395.	2.5	13
83	Altered central catecholaminergic transmission and cardiovascular disease. Experimental Physiology, 2008, 93, 725-740.	2.0	46
84	Evidence for a detrimental role of nitric oxide synthesized by endothelial nitric oxide synthase after peripheral nerve injury. Neuroscience, 2008, 157, 40-51.	2.3	17
85	Area-Specific Differences in Transmitter Release in Central Catecholaminergic Neurons of Spontaneously Hypertensive Rats. Hypertension, 2008, 52, 351-358.	2.7	19
86	Role of phosphoinositideâ€3â€kinase (PI3K) in the nucleus of the solitary tract (NTS) in the modulation of baroreceptor reflex function in the hypertensive rat. FASEB Journal, 2008, 22, 737.34.	0.5	0
87	Proteomic analysis of brainstem micro vessels in angiotensin II induced hypertension. FASEB Journal, 2008, 22, 968.1.	0.5	0
88	Inhibition of Resting Potassium Conductances by Long-Term Activation of the NO/cGMP/Protein Kinase G Pathway: A New Mechanism Regulating Neuronal Excitability. Journal of Neuroscience, 2007, 27, 6302-6312.	3.6	42
89	Restraining influence of A2 neurons in chronic control of arterial pressure in spontaneously hypertensive rats. Cardiovascular Research, 2007, 76, 184-193.	3.8	51
90	Junctional Adhesion Molecule-1 Is Upregulated in Spontaneously Hypertensive Rats. Hypertension, 2007, 49, 1321-1327.	2.7	92

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91	Single fluorescent protein-based Ca2+ sensors with increased dynamic range. BMC Biotechnology, 2007, 7, 37.	3.3	99
92	Differential sensitivity of excitatory and inhibitory synaptic transmission to modulation by nitric oxide in rat nucleus tractus solitarii. Experimental Physiology, 2007, 92, 371-382.	2.0	42
93	Suitability of hCMV for viral gene expression in the brain. Nature Methods, 2007, 4, 379-379.	19.0	10
94	Vascular-brain signaling in hypertension: Role of angiotensin II and nitric oxide. Current Hypertension Reports, 2007, 9, 242-247.	3.5	59
95	Microarray analysis of brainstem micro vessels in an animal model genetically predisposed to hypertension. FASEB Journal, 2007, 21, A1411.	0.5	0
96	Chronic inhibition of phosphoinositideâ€3â€kinase (PI3K) in the nucleus of the solitary tract (NTS) of hypertensive rats increases blood pressure. FASEB Journal, 2007, 21, A899.	0.5	2
97	Automation of analysis of cardiovascular autonomic function from chronic measurements of arterial pressure in conscious rats. Experimental Physiology, 2006, 91, 201-213.	2.0	73
98	Endothelial NO Synthase Activity in Nucleus Tractus Solitarii Contributes to Hypertension in Spontaneously Hypertensive Rats. Hypertension, 2006, 48, 644-650.	2.7	66
99	Mechanism of nitric oxide action on inhibitory GABAergic signaling within the nucleus tractus solitarii. FASEB Journal, 2006, 20, 1537-1539.	0.5	52
100	GAL4â€“NF-ÎºB Fusion Protein Augments Transgene Expression from Neuronal Promoters in the Rat Brain. Molecular Therapy, 2006, 14, 872-882.	8.2	39
101	Downâ€regulation of leukotriene B4 12â€hydroxydehydrogenase gene in the nucleus tractus solitarii (NTS) of the spontaneously hypertensive rat may be proâ€hypertensive. FASEB Journal, 2006, 20, .	0.5	0
102	Targeting brain stem centers of cardiovascular control using adenoviral vectors: impact of promoters on transgene expression. Physiological Genomics, 2005, 20, 165-172.	2.3	56
103	Imaging living central neurones using viral gene transfer. Advanced Drug Delivery Reviews, 2005, 57, 79-93.	13.7	36
104	Targeting specific neuronal populations using adeno- and lentiviral vectors: applications for imaging and studies of cell function. Experimental Physiology, 2005, 90, 61-69.	2.0	36
105	Differences in transductional tropism of adenoviral and lentiviral vectors in the rat brainstem. Experimental Physiology, 2005, 90, 71-78.	2.0	56
106	Nitroxergic Modulation in the NTS. Frontiers in Neuroscience, 2005, , 209-258.	0.0	1
107	Viral vectors as tools for studies of central cardiovascular control. Progress in Biophysics and Molecular Biology, 2004, 84, 251-277.	2.9	24
108	Genes Regulating Cardiovascular Function as Revealed Using Viral Vectors. , 2004, , 399-409.		2

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109	Dynamic Exercise Attenuates Spontaneous Baroreceptor Reflex Sensitivity in Conscious Rats. Experimental Physiology, 2003, 88, 517-526.	2.0	24
110	Dynamics of a Transgene Expression in Acute Rat Brain Slices Transfected with Adenoviral Vectors. Experimental Physiology, 2003, 88, 459-466.	2.0	17
111	Chronic inhibition of endothelial nitric oxide synthase activity in nucleus tractus solitarii enhances baroreceptor reflex in conscious rats. Journal of Physiology, 2003, 546, 233-242.	2.9	98
112	In vivo gene transfer to dissect neuronal mechanisms regulating cardiorespiratory function. Canadian Journal of Physiology and Pharmacology, 2003, 81, 311-316.	1.4	6
113	Efficient large-scale production and concentration of HIV-1-based lentiviral vectors for use in vivo. Physiological Genomics, 2003, 12, 221-228.	2.3	154
114	Genetic and pharmacological dissection of pathways involved in the angiotensin IIâ€mediated depression of baroreflex function. FASEB Journal, 2002, 16, 1595-1601.	0.5	50
115	Nitric oxide and autonomic control of heart rate: a question of specificity. Trends in Neurosciences, 2002, 25, 626-631.	8.6	110
116	Somatic nociception activates NK1receptors in the nucleus tractus solitarii to attenuate the baroreceptor cardiac reflex. European Journal of Neuroscience, 2002, 16, 907-920.	2.6	52
117	Dynamic Confocal Imaging in Acute Brain Slices and Organotypic Slice Cultures Using a Spectral Confocal Microscope with Single Photon Excitation. Experimental Physiology, 2002, 87, 715-724.	2.0	23
118	Properties of solitary tract neurones responding to peripheral arterial chemoreceptors. Neuroscience, 2001, 105, 231-248.	2.3	64
119	Unravelling mechanisms of action of angiotensin II on cardiorespiratory function usingin vivogene transfer. Acta Physiologica Scandinavica, 2001, 173, 127-137.	2.2	32
120	GABA A receptor É›â€subunit may confer benzodiazepine insensitivity to the caudal aspect of the nucleus tractus solitarii of the rat. Journal of Physiology, 2001, 536, 785-796.	2.9	35
121	Adenoviral vector demonstrates that angiotensin IIâ€induced depression of the cardiac baroreflex is mediated by endothelial nitric oxide synthase in the nucleus tractus solitarii of the rat. Journal of Physiology, 2001, 531, 445-458.	2.9	151
122	Morphological and electrophysiological properties of neurones in the dorsal vagal complex of the rat activated by arterial baroreceptors. Journal of Comparative Neurology, 2000, 417, 233-249.	1.6	48
123	Sensory channel specific modulation in the nucleus of the solitary tract. Journal of the Autonomic Nervous System, 2000, 80, 117-129.	1.9	50
124	Morphological and electrophysiological properties of neurones in the dorsal vagal complex of the rat activated by arterial baroreceptors. , 2000, 417, 233.		1
125	Morphological and electrophysiological properties of neurones in the dorsal vagal complex of the rat activated by arterial baroreceptors. Journal of Comparative Neurology, 2000, 417, 233.	1.6	1
126	Differential effects of angiotensin II on cardiorespiratory reflexes mediated by nucleus tractus solitarii - a microinjection study in the rat. Journal of Physiology, 1999, 521, 213-225.	2.9	99

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127	Differential effects of angiotensin II in the nucleus tractus solitarii of the rat - plausible neuronal mechanisms. Journal of Physiology, 1999, 521, 227-238.	2.9	66
128	Reflex response and convergence of pharyngoesophageal and peripheral chemoreceptors in the nucleus of the solitary tract. Neuroscience, 1999, 93, 143-154.	2.3	78
129	Differential effects of apamin on neuronal excitability in the nucleus tractus solitarii of rats studied in vitro. Journal of the Autonomic Nervous System, 1999, 77, 90-97.	1.9	16
130	Angiotensin II receptors within the nucleus of the solitary tract mediate the developmental attenuation of the baroreceptor vagal reflex in pre-weaned rats. Journal of the Autonomic Nervous System, 1998, 74, 160-168.	1.9	31
131	Presynaptic action of the neurosteroid pregnenolone sulfate on inhibitory transmitter release in cultured hippocampal neurons. Brain Research, 1997, 772, 226-232.	2.2	29
132	Changes in baroreceptor vagal reflex performance in the developing rat. Pflugers Archiv European Journal of Physiology, 1997, 434, 438-444.	2.8	69
133	Thyrotropin-releasing hormone enhances excitatory postsynaptic potentials in neocortical neurons of the rat in vitro. Brain Research, 1994, 656, 229-235.	2.2	21
134	The NMDA-receptor antagonist dizocilpine (MK-801) suppresses the memory facilitatory action of thyrotropin-releasing hormone. Neuropeptides, 1992, 23, 87-92.	2.2	9
135	Stimulant effect of thyrotropin-releasing hormone and its analog, RGH 2202, on the diaphragm respiratory activity, and their antagonism with morphine: possible involvement of the N-methyl-D-aspartate receptors. Brain Research, 1991, 551, 110-115.	2.2	20
136	Optogenetic Control of Astroglia. , 0, , 181-195.		0