

Igor Medina

List of Publications by Year in descending order

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50
papers

3,878
citations

159585

30
h-index

206112

48
g-index

54
all docs

54
docs citations

54
times ranked

4340
citing authors

#	ARTICLE	IF	CITATIONS
1	The NMDA Receptor Is Coupled to the ERK Pathway by a Direct Interaction between NR2B and RasGRF1. <i>Neuron</i> , 2003, 40, 775-784.	8.1	394
2	Ca ²⁺ Oscillations Mediated by the Synergistic Excitatory Actions of GABAA and NMDA Receptors in the Neonatal Hippocampus. <i>Neuron</i> , 1997, 18, 243-255.	8.1	377
3	Opposing role of synaptic and extrasynaptic NMDA receptors in regulation of the extracellular signal-regulated kinases (ERK) activity in cultured rat hippocampal neurons. <i>Journal of Physiology</i> , 2006, 572, 789-798.	2.9	275
4	SynGAP-MUFP1-CaMKII Synaptic Complexes Regulate p38 MAP Kinase Activity and NMDA Receptor-Dependent Synaptic AMPA Receptor Potentiation. <i>Neuron</i> , 2004, 43, 563-574.	8.1	254
5	Current view on the functional regulation of the neuronal K ⁺ -Cl ⁻ cotransporter KCC2. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 27.	3.7	186
6	A Novel Inward Rectifier K ⁺ Channel with Unique Pore Properties. <i>Neuron</i> , 1998, 20, 995-1005.	8.1	170
7	Genetically encoded impairment of neuronal KCC2 cotransporter function in human idiopathic generalized epilepsy. <i>EMBO Reports</i> , 2014, 15, 766-774.	4.5	163
8	Activity-Dependent Dendritic Release of BDNF and Biological Consequences. <i>Molecular Neurobiology</i> , 2009, 39, 37-49.	4.0	152
9	A Novel In Vitro Preparation: the Intact Hippocampal Formation. <i>Neuron</i> , 1997, 19, 743-749.	8.1	136
10	WNK1-regulated inhibitory phosphorylation of the KCC2 cotransporter maintains the depolarizing action of GABA in immature neurons. <i>Science Signaling</i> , 2015, 8, ra65.	3.6	133
11	Early expression of KCC2 in rat hippocampal cultures augments expression of functional GABA synapses. <i>Journal of Physiology</i> , 2005, 566, 671-679.	2.9	126
12	Backpropagating Action Potentials Trigger Dendritic Release of BDNF during Spontaneous Network Activity. <i>Journal of Neuroscience</i> , 2008, 28, 7013-7023.	3.6	116
13	Efficient transfection of DNA or shRNA vectors into neurons using magnetofection. <i>Nature Protocols</i> , 2007, 2, 3090-3101.	12.0	114
14	KCC2 regulates actin dynamics in dendritic spines via interaction with β -PIX. <i>Journal of Cell Biology</i> , 2015, 209, 671-686.	5.2	97
15	Mutations in KCNJ13 Cause Autosomal-Dominant Snowflake Vitreoretinal Degeneration. <i>American Journal of Human Genetics</i> , 2008, 82, 174-180.	6.2	93
16	Knocking down of the KCC2 in rat hippocampal neurons increases intracellular chloride concentration and compromises neuronal survival. <i>Journal of Physiology</i> , 2011, 589, 2475-2496.	2.9	88
17	Ca ²⁺ Binding to GIRK4 Subunit Is Critical for G Protein-gated K ⁺ Channel Activation. <i>Journal of Biological Chemistry</i> , 1998, 273, 16946-16952.	3.4	79
18	Mechanism of BDNF Modulation in GABAergic Synaptic Transmission in Healthy and Disease Brains. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 273.	3.7	72

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19	Molecular architecture of potassium chloride co-transporter KCC2. <i>Scientific Reports</i> , 2017, 7, 16452.	3.3	66
20	Impaired regulation of KCC2 phosphorylation leads to neuronal network dysfunction and neurodevelopmental pathology. <i>Science Signaling</i> , 2019, 12, .	3.6	66
21	Genetically encoded Cl-Sensor as a tool for monitoring of Cl-dependent processes in small neuronal compartments. <i>Journal of Neuroscience Methods</i> , 2010, 193, 14-23.	2.5	60
22	A Switch Mechanism for G $\beta\gamma$ Activation of IKACH. <i>Journal of Biological Chemistry</i> , 2000, 275, 29709-29716.	3.4	55
23	AAV-mediated expression of wild-type and ALS-linked mutant VAPB selectively triggers death of motoneurons through a Ca ²⁺ -dependent ER-associated pathway. <i>Journal of Neurochemistry</i> , 2010, 114, 795-809.	3.9	52
24	Maturation of kainate-induced epileptiform activities in interconnected intact neonatal limbic structures in vitro. <i>European Journal of Neuroscience</i> , 1999, 11, 3468-3480.	2.6	50
25	The small molecule CLP257 does not modify activity of the K ⁺ “Cl ⁻ ” co-transporter KCC2 but does potentiate GABAA receptor activity. <i>Nature Medicine</i> , 2017, 23, 1394-1396.	30.7	47
26	Oxytocin administration in neonates shapes hippocampal circuitry and restores social behavior in a mouse model of autism. <i>Molecular Psychiatry</i> , 2021, 26, 7582-7595.	7.9	45
27	Mobilization of intracellular calcium stores participates in the rise of [Ca ²⁺] _i and the toxic actions of the HIV coat protein GP120. <i>European Journal of Neuroscience</i> , 1999, 11, 1167-1178.	2.6	43
28	Pro-Brain-Derived Neurotrophic Factor Inhibits GABAergic Neurotransmission by Activating Endocytosis and Repression of GABA _A Receptors. <i>Journal of Neuroscience</i> , 2014, 34, 13516-13534.	3.6	43
29	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.	3.8	35
30	Enhanced synaptic activity and epileptiform events in the embryonic KCC2 deficient hippocampus. <i>Frontiers in Cellular Neuroscience</i> , 2011, 5, 23.	3.7	35
31	Change in the shape and density of dendritic spines caused by overexpression of acidic calponin in cultured hippocampal neurons. <i>Hippocampus</i> , 2006, 16, 183-197.	1.9	32
32	Improved method for efficient imaging of intracellular Cl ⁻ with Cl-Sensor using conventional fluorescence setup. <i>Frontiers in Molecular Neuroscience</i> , 2013, 6, 7.	2.9	27
33	Calcium-dependent inactivation of the monosynaptic NMDA EPSCs in rat hippocampal neurons in culture. <i>European Journal of Neuroscience</i> , 1999, 11, 2422-2430.	2.6	23
34	The adipocyte hormone leptin sets the emergence of hippocampal inhibition in mice. <i>ELife</i> , 2018, 7, .	6.0	20
35	Process formation results from the imbalance between motor-mediated forces. <i>Journal of Cell Science</i> , 2001, 114, 3899-3904.	2.0	20
36	Characterization in Cultured Cerebellar Granule Cells and in the Developing Rat Brain of mRNA Variants for the NMDA Receptor 2C Subunit. <i>Journal of Neurochemistry</i> , 2008, 74, 1798-1808.	3.9	16

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37	A Novel View on the Role of Intracellular Tails in Surface Delivery of the Potassium-Chloride Cotransporter KCC2. <i>ENeuro</i> , 2017, 4, ENEURO.0055-17.2017.	1.9	16
38	Staurosporine and NEM mainly impair WNK-SPAK/OSR1 mediated phosphorylation of KCC2 and NKCC1. <i>PLoS ONE</i> , 2020, 15, e0232967.	2.5	14
39	The calcium-dependent transient inactivation of recombinant NMDA receptor-channel does not involve the high affinity calmodulin binding site of the NR1 subunit. <i>Neuroscience Letters</i> , 1997, 223, 137-139.	2.1	13
40	GABA Neurotransmission and Neural Cation-Chloride Co-transporters: Actions Beyond Ion Transport. <i>Critical Reviews in Neurobiology</i> , 2006, 18, 105-112.	3.1	13
41	Extrasynaptic NMDA Receptors Reshape Gene Ranks. <i>Science's STKE: Signal Transduction Knowledge Environment</i> , 2007, 2007, pe23.	3.9	10
42	Molecular cloning and biochemical characterization of two cation chloride cotransporter subfamily members of <i>Hydra vulgaris</i> . <i>PLoS ONE</i> , 2017, 12, e0179968.	2.5	9
43	The MUPP1-SynGAP protein complex does not mediate activity-induced LTP. <i>Molecular and Cellular Neurosciences</i> , 2008, 38, 183-188.	2.2	8
44	Back-propagating action potential. <i>Communicative and Integrative Biology</i> , 2008, 1, 153-155.	1.4	8
45	Smoothed receptor Signaling regulates the developmental shift of GABA polarity in rat somatosensory cortex. <i>Journal of Cell Science</i> , 2020, 133, .	2.0	8
46	Leptin increases GABAergic synaptogenesis through the Rho guanine exchange factor β -PIX in developing hippocampal neurons. <i>Science Signaling</i> , 2021, 14, .	3.6	8
47	The hypoglycemic sulphonylurea tolbutamide increases - but not kainate-activated currents in hippocampal neurons in culture. <i>European Journal of Pharmacology</i> , 1993, 249, 325-329.	3.5	3
48	Contribution of Smoothed Receptor Signaling in GABAergic Neurotransmission and Chloride Homeostasis in the Developing Rodent Brain. <i>Frontiers in Physiology</i> , 2021, 12, 798066.	2.8	3
49	Methods for investigating the activities of neuronal chloride transporters. , 2020, , 21-41.		1
50	KCC2 regulates actin dynamics in dendritic spines via interaction with β -PIX. <i>Journal of Experimental Medicine</i> , 2015, 212, 2127OIA56.	8.5	0