Michal Hershfinkel

List of Publications by Year
in descending order

86 papers	5,540 citations	71061 41 h-index	82499 72 g-index
94 all docs	94 docs citations	94 times ranked	5707 citing authors

#	Article	IF	Citations
1	NCLX is an essential component of mitochondrial Na ⁺ /Ca ²⁺ exchange. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 436-441.	3.3	683
2	The Neurophysiology and Pathology of Brain Zinc. Journal of Neuroscience, 2011, 31, 16076-16085.	1.7	291
3	A zinc-sensing receptor triggers the release of intracellular Ca2+ and regulates ion transport. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 11749-11754.	3.3	226
4	Role of GPR40 in fatty acid action on the Î² cell line INS-1E. Biochemical and Biophysical Research Communications, 2005, 335, 97-104.	1.0	201
5	Synaptically Released Zinc Triggers Metabotropic Signaling via a Zinc-Sensing Receptor in the Hippocampus. Journal of Neuroscience, 2009, 29, 2890-2901.	1.7	199
6	Mechanism and Regulation of Cellular Zinc Transport. Molecular Medicine, 2007, 13, 337-343.	1.9	176
7	Identification of the Zn2+ Binding Site and Mode of Operation of a Mammalian Zn2+ Transporter. Journal of Biological Chemistry, 2009, 284, 17677-17686.	1.6	161
8	Nested Polyhedra of MX2 (M = W, Mo; X = S, Se) Probed by High-Resolution Electron Microscopy and Scanning Tunneling Microscopy. Journal of the American Chemical Society, 1994, 116, 1914-1917.	6.6	159
9	PKA Phosphorylation of NCLX Reverses Mitochondrial Calcium Overload and Depolarization, Promoting Survival of PINK1-Deficient Dopaminergic Neurons. Cell Reports, 2015, 13, 376-386.	2.9	136
10	Upregulation of KCC2 Activity by Zinc-Mediated Neurotransmission via the mZnR/GPR39 Receptor. Journal of Neuroscience, 2011, 31, 12916-12926.	1.7	125
11	Lithium-Calcium Exchange Is Mediated by a Distinct Potassium-independent Sodium-Calcium Exchanger. Journal of Biological Chemistry, 2004, 279, 25234-25240.	1.6	119
12	Histidine pairing at the metal transport site of mammalian ZnT transporters controls Zn ²⁺ over Cd ²⁺ selectivity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7202-7207.	3.3	117
13	Mobile zinc increases rapidly in the retina after optic nerve injury and regulates ganglion cell survival and optic nerve regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E209-E218.	3.3	111
14	Synaptic release of zinc from brain slices: Factors governing release, imaging, and accurate calculation of concentration. Journal of Neuroscience Methods, 2006, 154, 19-29.	1.3	109
15	ZnT-1 expression in astroglial cells protects against zinc toxicity and slows the accumulation of intracellular zinc. Glia, 2004, 48, 145-155.	2.5	107
16	Extracellular Zinc Triggers ERK-dependent Activation of Na+/H+ Exchange in Colonocytes Mediated by the Zinc-sensing Receptor. Journal of Biological Chemistry, 2004, 279, 51804-51816.	1.6	96
17	Zinc Released from Injured Cells Is Acting via the Zn2+-sensing Receptor, ZnR, to Trigger Signaling Leading to Epithelial Repair. Journal of Biological Chemistry, 2010, 285, 26097-26106.	1.6	94
18	Distribution of the zinc transporter ZnT-1 in comparison with chelatable zinc in the mouse brain. Journal of Comparative Neurology, 2002, 447, 201-209.	0.9	90

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19	The Zinc Sensing Receptor, ZnR/GPR39, in Health and Disease. International Journal of Molecular Sciences, 2018, 19, 439.	1.8	86
20	The Zinc Sensing Receptor, a Link Between Zinc and Cell Signaling. Molecular Medicine, 2007, 13, 331-336.	1.9	83
21	Unique targeting of cytosolic phospholipase A2 to plasma membranes mediated by the NADPH oxidase in phagocytes. Journal of Cell Biology, 2003, 162, 683-692.	2.3	82
22	Mitochondria control storeâ€operated Ca ²⁺ entry through Na ⁺ and redox signals. EMBO Journal, 2017, 36, 797-815.	3.5	82
23	Synaptic Zn²⁺Inhibits Neurotransmitter Release by Promoting Endocannabinoid Synthesis. Journal of Neuroscience, 2013, 33, 9259-9272.	1.7	73
24	The zinc sensing receptor, ZnR/GPR39, controls proliferation and differentiation of colonocytes and thereby tight junction formation in the colon. Cell Death and Disease, 2014, 5, e1307-e1307.	2.7	70
25	A role for ZnT-1 in regulating cellular cation influx. Biochemical and Biophysical Research Communications, 2004, 323, 1145-1150.	1.0	66
26	Silencing of ZnT-1 expression enhances heavy metal influx and toxicity. Journal of Molecular Medicine, 2006, 84, 753-763.	1.7	66
27	Homeostatic regulation of KCC2 activity by the zinc receptor mZnR/GPR39 during seizures. Neurobiology of Disease, 2015, 81, 4-13.	2.1	66
28	A Sodium Zinc Exchange Mechanism Is Mediating Extrusion of Zinc in Mammalian Cells. Journal of Biological Chemistry, 2004, 279, 4278-4284.	1.6	64
29	The Mitochondrial Na+/Ca2+ Exchanger Upregulates Glucose Dependent Ca2+ Signalling Linked to Insulin Secretion. PLoS ONE, 2012, 7, e46649.	1.1	64
30	How cellular Zn2+ signaling drives physiological functions. Cell Calcium, 2018, 75, 53-63.	1.1	61
31	Intracellular zinc inhibits KCC2 transporter activity. Nature Neuroscience, 2009, 12, 725-727.	7.1	59
32	Molecular Identity and Functional Properties of the Mitochondrial Na+/Ca2+ Exchanger. Journal of Biological Chemistry, 2012, 287, 31650-31657.	1.6	56
33	Rapid and reactive nitric oxide production by astrocytes in mouse neocortical slices. Glia, 2005, 52, 169-176.	2.5	52
34	Optogenetic control of mitochondrial metabolism and Ca ²⁺ signaling by mitochondria-targeted opsins. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5167-E5176.	3.3	52
35	SNARE-dependent upregulation of potassium chloride co-transporter 2 activity after metabotropic zinc receptor activation in rat cortical neurons in vitro. Neuroscience, 2012, 210, 38-46.	1.1	50
36	Extracellular zinc and zinc-citrate, acting through a putative zinc-sensing receptor, regulate growth and survival of prostate cancer cells. Carcinogenesis, 2008, 29, 1692-1700.	1.3	49

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37	Pancreatic Î²â€cell Na⁺channels control global Ca²⁺signaling and oxidative metabolism by inducing Na⁺and Ca²⁺responses that are propagated into mitochondria. FASEB Journal, 2014, 28, 3301-3312.	0.2	49
38	Clioquinol effects on tissue chelatable zinc in mice. Journal of Molecular Medicine, 2003, 81, 637-644.	1.7	48
39	Scanning Tunneling Microscope Induced Crystallization of Fullerene-like MoS2. Journal of the American Chemical Society, 1996, 118, 7804-7808.	6.6	46
40	Zinc Sensing Receptor Signaling, Mediated by GPR39, Reduces Butyrate-Induced Cell Death in HT29 Colonocytes via Upregulation of Clusterin. PLoS ONE, 2012, 7, e35482.	1.1	44
41	Synaptic zinc inhibition of NMDA receptors depends on the association of GluN2A with the zinc transporter ZnT1. Science Advances, 2020, 6, .	4.7	43
42	Fluorescence-Based Zinc Ion Sensor for Zinc Ion Release from Pancreatic Cells. Analytical Chemistry, 2006, 78, 5799-5804.	3.2	42
43	Inhibitory Mechanism of Store-operated Ca2+ Channels by Zinc. Journal of Biological Chemistry, 2004, 279, 11106-11111.	1.6	41
44	Zinc-regulating Proteins, ZnT-1, and Metallothionein I/II Are Present in Different Cell Populations in the Mouse Testis. Journal of Histochemistry and Cytochemistry, 2005, 53, 905-912.	1.3	38
45	The zinc sensing receptor, ZnR/GPR39, triggers metabotropic calcium signalling in colonocytes and regulates occludin recovery in experimental colitis. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150420.	1.8	36
46	Postnatal regulation of ZnT-1 expression in the mouse brain. Developmental Brain Research, 2002, 137, 149-157.	2.1	35
47	Targeting lipid rafts inhibits protein kinase B by disrupting calcium homeostasis and attenuates malignant properties of melanoma cells. Carcinogenesis, 2008, 29, 1546-1554.	1.3	35
48	The zinc sensing receptor ZnR GPR39 in health and disease. Frontiers in Bioscience - Landmark, 2017, 22, 1469-1492.	3.0	34
49	Zinc influx and physiological consequences in the Î²-insulinoma cell line, Min6. Biochemical and Biophysical Research Communications, 2006, 346, 205-212.	1.0	33
50	Nitric oxide signaling modulates synaptic inhibition in the superior paraolivary nucleus (SPN) via cGMP-dependent suppression of KCC2. Frontiers in Neural Circuits, 2014, 8, 65.	1.4	33
51	The ZnR/GPR39 Interacts With the CaSR to Enhance Signaling in Prostate and Salivary Epithelia. Journal of Cellular Physiology, 2014, 229, 868-877.	2.0	32
52	Impact of S100A8/A9 Expression on Prostate Cancer Progression In Vitro and In Vivo. Journal of Cellular Physiology, 2014, 229, 661-671.	2.0	32
53	Zinc transporter 10 (ZnT10)-dependent extrusion of cellular Mn2+ is driven by an active Ca2+-coupled exchange. Journal of Biological Chemistry, 2019, 294, 5879-5889.	1.6	30
54	The extracellular zinc-sensing receptor mediates intercellular communication by inducing ATP release. Biochemical and Biophysical Research Communications, 2005, 332, 845-852.	1.0	29

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55	Single Î±-Domain Constructs of the Na+/Ca2+Exchanger, NCLX, Oligomerize To Form a Functional Exchangerâ€. Biochemistry, 2006, 45, 11856-11866.	1.2	28
56	The lipophilic zinc chelator DP-b99 prevents zinc induced neuronal death. European Journal of Pharmacology, 2009, 618, 15-21.	1.7	27
57	Crystallization of layered metalâ€dichalcogenides films on amorphous substrates. Applied Physics Letters, 1995, 67, 3474-3476.	1.5	26
58	A crosstalk between Na+ channels, Na+/K+ pump and mitochondrial Na+ transporters controls glucose-dependent cytosolic and mitochondrial Na+ signals. Cell Calcium, 2015, 57, 69-75.	1.1	26
59	Amyloid Î² attenuates metabotropic zinc sensing receptor, <scp>mZnR</scp>/<scp>GPR</scp>39, dependent Ca²⁺, <scp>ERK</scp>1/2 and Clusterin signaling in neurons. Journal of Neurochemistry, 2016, 139, 221-233.	2.1	26
60	The Zn 2+ -sensing receptor, ZnR/GPR39, upregulates colonocytic Cl âˆ’ absorption, via basolateral KCC1, and reduces fluid loss. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2017, 1863, 947-960.	1.8	25
61	Cell death induced by zinc and cadmium is mediated by clusterin in cultured mouse seminiferous tubules. Journal of Cellular Physiology, 2009, 220, 222-229.	2.0	24
62	Elucidating the H+ Coupled Zn2+ Transport Mechanism of ZIP4; Implications in Acrodermatitis Enteropathica. International Journal of Molecular Sciences, 2020, 21, 734.	1.8	24
63	Mitotic Slippage and Expression of Survivin Are Linked to Differential Sensitivity of Human Cancer Cell-Lines to the Kinesin-5 Inhibitor Monastrol. PLoS ONE, 2015, 10, e0129255.	1.1	23
64	Identification of residues that control Li + versus Na + dependent Ca 2+ exchange at the transport site of the mitochondrial NCLX. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 997-1008.	1.9	23
65	Extracellular pH Regulates Zinc Signaling via an Asp Residue of the Zinc-sensing Receptor (ZnR/GPR39). Journal of Biological Chemistry, 2012, 287, 33339-33350.	1.6	22
66	Regulation of neuronal pH by the metabotropic Zn²⁺â€sensing Gqâ€coupled receptor, mZnR/GPR39. Journal of Neurochemistry, 2015, 135, 897-907.	2.1	20
67	Enhanced ZnR/GPR39 Activity in Breast Cancer, an Alternative Trigger of Signaling Leading to Cell Growth. Scientific Reports, 2018, 8, 8119.	1.6	18
68	ZnR/GPR39 upregulation of K+/Clâˆ’-cotransporter 3 in tamoxifen resistant breast cancer cells. Cell Calcium, 2019, 81, 12-20.	1.1	17
69	Parallel in vivo and in vitro transcriptomics analysis reveals calcium and zinc signalling in the brain as sensitive targets of HBCD neurotoxicity. Archives of Toxicology, 2018, 92, 1189-1203.	1.9	16
70	Life after the birth of the mitochondrial Na+/Ca2+ exchanger, NCLX. Science China Life Sciences, 2015, 58, 59-65.	2.3	15
71	Rare-variant pathogenicity triage and inclusion of synonymous variants improves analysis of disease associations of orphan G proteinâ€“coupled receptors. Journal of Biological Chemistry, 2019, 294, 18109-18121.	1.6	14
72	ZnT1 is a neuronal Zn2+/Ca2+ exchanger. Cell Calcium, 2022, 101, 102505.	1.1	12

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73	Zinc homeostatic proteins in the CNS are regulated by crosstalk between extracellular and intracellular zinc. Journal of Cellular Physiology, 2010, 224, 567-574.	2.0	10
74	Scanning tunneling spectroscopy studies of the Auâ€"Hâ€terminated Si interface. Applied Physics Letters, 1996, 69, 400-402.	1.5	7
75	Investigation of the composition and electrical properties of goldâ€"H-terminated silicon (111) interface. Thin Solid Films, 1998, 320, 228-235.	0.8	7
76	Glutamate Regulates the Activity of Topoisomerase I in Mouse Cerebellum. Molecular Neurobiology, 2008, 38, 242-252.	1.9	7
77	ZnR/GPR39 controls cell migration by orchestrating recruitment of KCC3 into protrusions, re-organization of actin and activation of MMP. Cell Calcium, 2021, 94, 102330.	1.1	7
78	SNAP23 regulates KCC2 membrane insertion and activity following mZnR/GPR39 activation in hippocampalneurons. IScience, 2022, 25, 103751.	1.9	7
79	The ZIP3 Zinc Transporter Is Localized to Mossy Fiber Terminals and Is Required for Kainate-Induced Degeneration of CA3 Neurons. Journal of Neuroscience, 2022, 42, 2824-2834.	1.7	7
80	The Gluzinergic Synapse: Whoâ€™s Talking and Whoâ€™s Listening?. , 2005, , 123-137.		5
81	Zinc Signaling in the Mammary Gland: For Better and for Worse. Biomedicines, 2021, 9, 1204.	1.4	4
82	The Zinc-Sensing Receptor, ZnR/GPR39: Signaling and Significance. , 2014, , 111-133.		3
83	The mitochondrial Na+/Ca2+ exchangerâ€NCLX is an integrating hub for glucose dependent Na+ and Ca2+ signaling in pancreatic Î² cells. FASEB Journal, 2013, 27, 918.9.	0.2	1
84	SURFACE MODIFICATIONS: NANOSTRUCTURES AND NESTED POLYHEDRA GENERATED BY PULSING THE STM TIP. Surface Review and Letters, 1997, 04, 1015-1020.	0.5	0
85	Seashells by the zinc shore: a meeting report of the International Society for Zinc Biology, Asilomar, CA 2014. Metallomics, 2015, 7, 1299-1304.	1.0	0
86	Zinc Signaling (Zincâ€™ing) in Intestinal Function. , 2019, , 347-363.		0