

Lutz Birnbaumer

List of Publications by Year in descending order

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104
papers

5,002
citations

101384

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102304

66
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106
all docs

106
docs citations

106
times ranked

6130
citing authors

#	ARTICLE	IF	CITATIONS
1	Neutrophil Cytochrome Bactericidal Permeability Increasing Protein Suppressing Tumor Metastasis via Inhibiting Hypoxia-Inducible Factor-1 in Circulating Breast Cancer Cells. <i>Advanced Healthcare Materials</i> , 2022, 11, e2101761.	3.9	13
2	Hepatic interferon regulatory factor 8 expression suppresses hepatocellular carcinoma progression and enhances the response to anti-programmed cell death protein-1 therapy. <i>Hepatology</i> , 2022, 76, 1602-1616.	3.6	18
3	The Retinal Basis of Light Aversion in Neonatal Mice. <i>Journal of Neuroscience</i> , 2022, 42, 4101-4115.	1.7	10
4	TRPC4 and GIRK channels underlie neuronal coding of firing patterns that reflect Gq/11 coincidence signals of variable strengths. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2120870119.	3.3	7
5	Quercetin alleviates acute kidney injury by inhibiting ferroptosis. <i>Journal of Advanced Research</i> , 2021, 28, 231-243.	4.4	279
6	Implication of TRPC3 channel in gustatory perception of dietary lipids. <i>Acta Physiologica</i> , 2021, 231, e13554.	1.8	12
7	Reinvigorating exhausted CD8 ⁺ cytotoxic T lymphocytes in the tumor microenvironment and current strategies in cancer immunotherapy. <i>Medicinal Research Reviews</i> , 2021, 41, 156-201.	5.0	56
8	Sensory Detection by the Vomeronasal Organ Modulates Experience-Dependent Social Behaviors in Female Mice. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 638800.	1.8	14
9	Ca ²⁺ is a major determinant of cAMP signaling in the pathophysiology of movement disorders. <i>Cell Reports</i> , 2021, 34, 108718.	2.9	48
10	TRPC3 and NALCN channels drive pacemaking in substantia nigra dopaminergic neurons. <i>ELife</i> , 2021, 10, .	2.8	17
11	Insulin-activated store-operated Ca ²⁺ entry via Orai1 induces podocyte actin remodeling and causes proteinuria. <i>Nature Communications</i> , 2021, 12, 6537.	5.8	14
12	Canonical transient receptor potential 6 channel deficiency promotes smooth muscle cells dedifferentiation and increased proliferation after arterial injury. <i>JVS Vascular Science</i> , 2020, 1, 136-150.	0.4	1
13	Lack of Ca ²⁺ proteins in adipocytes attenuates diet-induced obesity. <i>Molecular Metabolism</i> , 2020, 40, 101029.	3.0	10
14	GPCR-dependent biasing of GIRK channel signaling dynamics by RGS6 in mouse sinoatrial nodal cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 14522-14531.	3.3	17
15	Ca ²⁺ vomeronasal neurons govern the initial outcome of an acute social competition. <i>Scientific Reports</i> , 2020, 10, 894.	1.6	13
16	RNA-seq analysis reveals TRPC genes to impact an unexpected number of metabolic and regulatory pathways. <i>Scientific Reports</i> , 2020, 10, 7227.	1.6	11
17	Analysis of Mrgprb2 Receptor-Evoked Ca ²⁺ Signaling in Bone Marrow Derived (BMMC) and Peritoneal (PMC) Mast Cells of TRPC-Deficient Mice. <i>Frontiers in Immunology</i> , 2020, 11, 564.	2.2	17
18	Ca ²⁺ entry via TRPC1 is essential for cellular differentiation and modulates secretion via the SNARE complex. <i>Journal of Cell Science</i> , 2019, 132, .	1.2	10

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19	Heteromeric TRPV4/TRPC1 channels mediate calcium-sensing receptor-induced relaxations and nitric oxide production in mesenteric arteries: comparative study using wild-type and TRPC1 ^{-/-} mice. <i>Channels</i> , 2019, 13, 410-423.	1.5	12
20	Thymopentin ameliorates dextran sulfate sodium-induced colitis by triggering the production of IL-22 in both innate and adaptive lymphocytes. <i>Theranostics</i> , 2019, 9, 7490-7505.	4.6	38
21	TRPC6 Binds to and Activates Calpain, Independent of Its Channel Activity, and Regulates Podocyte Cytoskeleton, Cell Adhesion, and Motility. <i>Journal of the American Society of Nephrology: JASN</i> , 2019, 30, 1910-1924.	3.0	60
22	Lipid-independent control of endothelial and neuronal TRPC3 channels by light. <i>Chemical Science</i> , 2019, 10, 2837-2842.	3.7	28
23	Deletion of the β subunit of the heterotrimeric Go protein impairs cerebellar cortical development in mice. <i>Molecular Brain</i> , 2019, 12, 57.	1.3	11
24	TRPC6 regulates phenotypic switching of vascular smooth muscle cells through plasma membrane potential-dependent coupling with PTEN. <i>FASEB Journal</i> , 2019, 33, 9785-9796.	0.2	27
25	TRPC channels are not required for graded persistent activity in entorhinal cortex neurons. <i>Hippocampus</i> , 2019, 29, 1038-1048.	0.9	12
26	GNAI1 and GNAI3 Reduce Colitis-Associated Tumorigenesis in Mice by Blocking IL6 Signaling and Down-regulating Expression of GNAI2. <i>Gastroenterology</i> , 2019, 156, 2297-2312.	0.6	59
27	Evidence for a regulated Ca ²⁺ entry in proximal tubular cells and its implication in calcium stone formation. <i>Journal of Cell Science</i> , 2019, 132, .	1.2	22
28	Central role of G protein $G_{\alpha 2}$ and $G_{\alpha 2}$ vomeronasal neurons in balancing territorial and infant-directed aggression of male mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 5135-5143.	3.3	51
29	TRPC3 determines osmosensitive [Ca ²⁺] _i signaling in the collecting duct and contributes to urinary concentration. <i>PLoS ONE</i> , 2019, 14, e0226381.	1.1	16
30	Transient Receptor Potential Canonical 3 and Nuclear Factor of Activated T Cells C3 Signaling Pathway Critically Regulates Myocardial Fibrosis. <i>Antioxidants and Redox Signaling</i> , 2019, 30, 1851-1879.	2.5	12
31	Depression promotes prostate cancer invasion and metastasis via a sympathetic-cAMP-FAK signaling pathway. <i>Oncogene</i> , 2018, 37, 2953-2966.	2.6	49
32	Antidepressant action of BDNF requires and is mimicked by $G_{\alpha 1/3}$ expression in the hippocampus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E3549-E3558.	3.3	50
33	Regional Heterogeneity of D2-Receptor Signaling in the Dorsal Striatum and Nucleus Accumbens. <i>Neuron</i> , 2018, 98, 575-587.e4.	3.8	52
34	TRPC proteins contribute to development of diabetic retinopathy and regulate glyoxalase 1 activity and methylglyoxal accumulation. <i>Molecular Metabolism</i> , 2018, 9, 156-167.	3.0	30
35	Reduced calcification and osteogenic features in advanced atherosclerotic plaques of mice with macrophage-specific loss of TRPC3. <i>Atherosclerosis</i> , 2018, 270, 199-204.	0.4	20
36	Chronic stress promotes colitis by disturbing the gut microbiota and triggering immune system response. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2960-E2969.	3.3	261

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37	M1 Macrophage Polarization Is Dependent on TRPC1-Mediated Calcium Entry. <i>Science</i> , 2018, 8, 85-102.	1.9	50
38	Heterotrimeric G-protein subunit G α_{i2} contributes to agonist-sensitive apoptosis and degranulation in murine platelets. <i>Physiological Reports</i> , 2018, 6, e13841.	0.7	5
39	A NOX4/TRPC6 Pathway in Podocyte Calcium Regulation and Renal Damage in Diabetic Kidney Disease. <i>Journal of the American Society of Nephrology: JASN</i> , 2018, 29, 1917-1927.	3.0	95
40	G α_i Proteins are Indispensable for Hearing. <i>Cellular Physiology and Biochemistry</i> , 2018, 47, 1509-1532.	1.1	25
41	Differential effects of inhibitory G protein isoforms on G protein-gated inwardly rectifying K ⁺ currents in adult murine atria. <i>American Journal of Physiology - Cell Physiology</i> , 2018, 314, C616-C626.	2.1	12
42	Melanopsin Phototransduction Is Repurposed by ipRGC Subtypes to Shape the Function of Distinct Visual Circuits. <i>Neuron</i> , 2018, 99, 754-767.e4.	3.8	88
43	Balance of Go α_1 and Go α_2 expression regulates motor function via the striatal dopaminergic system. <i>Journal of Neurochemistry</i> , 2018, 146, 374-389.	2.1	1
44	Soluble klotho binds monosialoganglioside to regulate membrane microdomains and growth factor signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 752-757.	3.3	68
45	TRPC3 channels play a critical role in the theta component of pilocarpine-induced status epilepticus in mice. <i>Epilepsia</i> , 2017, 58, 247-254.	2.6	24
46	Deep Transcriptomic Profiling of M1 Macrophages Lacking Trpc3. <i>Scientific Reports</i> , 2017, 7, 39867.	1.6	8
47	Reduced Necrosis and Content of Apoptotic M1 Macrophages in Advanced Atherosclerotic Plaques of Mice With Macrophage-Specific Loss of Trpc3. <i>Scientific Reports</i> , 2017, 7, 42526.	1.6	20
48	Inhibition of L-Type Ca ²⁺ Channels by TRPC1-STIM1 Complex Is Essential for the Protection of Dopaminergic Neurons. <i>Journal of Neuroscience</i> , 2017, 37, 3364-3377.	1.7	69
49	TRPC1 and TRPC3-dependent Ca ²⁺ signaling in mouse cortical astrocytes affects injury-evoked astrogliosis <i>in vivo</i> . <i>Glia</i> , 2017, 65, 1535-1549.	2.5	24
50	Evidence that Orai1 does not contribute to store-operated TRPC1 channels in vascular smooth muscle cells. <i>Channels</i> , 2017, 11, 329-339.	1.5	18
51	Transient Receptor Potential Canonical 3 (TRPC3) Channels Are Required for Hypothalamic Glucose Detection and Energy Homeostasis. <i>Diabetes</i> , 2017, 66, 314-324.	0.3	27
52	Inhibition of TRPC6 channels ameliorates renal fibrosis and contributes to renal protection by soluble klotho. <i>Kidney International</i> , 2017, 91, 830-841.	2.6	84
53	Integration of TRPC6 and NADPH oxidase activation in lysophosphatidylcholine-induced TRPC5 externalization. <i>American Journal of Physiology - Cell Physiology</i> , 2017, 313, C541-C555.	2.1	17
54	Evidence for constitutive bone morphogenetic protein-2 secretion by M1 macrophages: Constitutive auto/paracrine osteogenic signaling by BMP-2 in M1 macrophages. <i>Biochemical and Biophysical Research Communications</i> , 2017, 491, 154-158.	1.0	29

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55	Increased glomerular filtration rate and impaired contractile function of mesangial cells in TRPC6 knockout mice. <i>Scientific Reports</i> , 2017, 7, 4145.	1.6	19
56	Store-operated interactions between plasmalemmal STIM1 and TRPC1 proteins stimulate PLC β 1 to induce TRPC1 channel activation in vascular smooth muscle cells. <i>Journal of Physiology</i> , 2017, 595, 1039-1058.	1.3	35
57	TRPC3/6/7 Knockdown Protects the Brain from Cerebral Ischemia Injury via Astrocyte Apoptosis Inhibition and Effects on NF- κ B Translocation. <i>Molecular Neurobiology</i> , 2017, 54, 7555-7566.	1.9	37
58	Deletion of diacylglycerol-responsive TRPC genes attenuates diabetic nephropathy by inhibiting activation of the TGF β 1 signaling pathway. <i>American Journal of Translational Research (discontinued)</i> , 2017, 9, 5619-5630.	0.0	13
59	The role of G α O-mediated signaling in the rostral ventrolateral medulla oblongata in cardiovascular reflexes and control of cardiac ventricular excitability. <i>Physiological Reports</i> , 2016, 4, e12860.	0.7	4
60	Blunted apoptosis of erythrocytes in mice deficient in the heterotrimeric G-protein subunit G β 2. <i>Scientific Reports</i> , 2016, 6, 30925.	1.6	29
61	The contribution of TRPC1, TRPC3, TRPC5 and TRPC6 to touch and hearing. <i>Neuroscience Letters</i> , 2016, 610, 36-42.	1.0	34
62	Resistance to pathologic cardiac hypertrophy and reduced expression of CaV1.2 in <i>Trpc3</i> -depleted mice. <i>Molecular and Cellular Biochemistry</i> , 2016, 421, 55-65.	1.4	15
63	Development of the main olfactory system and main olfactory epithelium-dependent male mating behavior are altered in G α -deficient mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 10974-10979.	3.3	22
64	The TRPM1 channel in ON-bipolar cells is gated by both the G α and the G β 3 subunits of the G-protein Go. <i>Scientific Reports</i> , 2016, 6, 20940.	1.6	30
65	Membrane translocation of TRPC6 channels and endothelial migration are regulated by calmodulin and PI3 kinase activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2110-2115.	3.3	42
66	Store depletion induces G α -mediated PLC β 1 activity to stimulate TRPC1 channels in vascular smooth muscle cells. <i>FASEB Journal</i> , 2016, 30, 702-715.	0.2	25
67	From GTP and G proteins to TRPC channels: a personal account. <i>Journal of Molecular Medicine</i> , 2015, 93, 941-953.	1.7	22
68	TRPC3 channels critically regulate hippocampal excitability and contextual fear memory. <i>Behavioural Brain Research</i> , 2015, 281, 69-77.	1.2	51
69	Increased size and cellularity of advanced atherosclerotic lesions in mice with endothelial overexpression of the human TRPC3 channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E2201-6.	3.3	29
70	Murine cardiac growth, TRPC channels, and cGMP kinase I. <i>Pflugers Archiv European Journal of Physiology</i> , 2015, 467, 2229-2234.	1.3	12
71	Innate Predator Odor Aversion Driven by Parallel Olfactory Subsystems that Converge in the Ventromedial Hypothalamus. <i>Current Biology</i> , 2015, 25, 1340-1346.	1.8	138
72	Platelet G α i2 protein G β 2 is an essential mediator of thrombo-inflammatory organ damage in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6491-6496.	3.3	35

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73	Evidence of a Role for Fibroblast Transient Receptor Potential Canonical 3 Ca ²⁺ Channel in Renal Fibrosis. <i>Journal of the American Society of Nephrology: JASN</i> , 2015, 26, 1855-1876.	3.0	56
74	GÎ± ₁ and GÎ± ₃ regulate macrophage polarization by forming a complex containing CD14 and Gab1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 4731-4736.	3.3	39
75	TRPC6 is the endothelial calcium channel that regulates leukocyte transendothelial migration during the inflammatory response. <i>Journal of Experimental Medicine</i> , 2015, 212, 1883-1899.	4.2	96
76	An essential role for GÎ± ₂ in Smoothed-stimulated epithelial cell proliferation in the mammary gland. <i>Science Signaling</i> , 2015, 8, ra92.	1.6	17
77	TRPC6 channel translocation into phagosomal membrane augments phagosomal function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E6486-95.	3.3	56
78	Transient Receptor Potential Canonical Type 3 Channels Control the Vascular Contractility of Mouse Mesenteric Arteries. <i>PLoS ONE</i> , 2014, 9, e110413.	1.1	26
79	Critical role of canonical transient receptor potential channel 7 in initiation of seizures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 11533-11538.	3.3	32
80	Metabolism Regulates the Spontaneous Firing of Substantia Nigra Pars Reticulata Neurons via K ⁺ ATP and Nonselective Cation Channels. <i>Journal of Neuroscience</i> , 2014, 34, 16336-16347.	1.7	49
81	Reduced endoplasmic reticulum stress-induced apoptosis and impaired unfolded protein response in TRPC3-deficient M1 macrophages. <i>American Journal of Physiology - Cell Physiology</i> , 2014, 307, C521-C531.	2.1	28
82	TRPV4, TRPC1, and TRPP2 assemble to form a flow-sensitive heteromeric channel. <i>FASEB Journal</i> , 2014, 28, 4677-4685.	0.2	104
83	Simultaneous deletion of floxed genes mediated by CaMKIIÎ±-Cre in the brain and in male germ cells: application to conditional and conventional disruption of GoÎ±. <i>Experimental and Molecular Medicine</i> , 2014, 46, e93-e93.	3.2	23
84	Insulin secretion stimulated by l-arginine and its metabolite l-ornithine depends on GÎ± ₂ . <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2014, 307, E800-E812.	1.8	33
85	The RNA-Binding Protein, ZFP36L2, Influences Ovulation and Oocyte Maturation. <i>PLoS ONE</i> , 2014, 9, e97324.	1.1	35
86	GÎ± ₂ - and GÎ± ₃ -Deficient Mice Display Opposite Severity of Myocardial Ischemia Reperfusion Injury. <i>PLoS ONE</i> , 2014, 9, e98325.	1.1	24
87	Acute effects of angiotensin II on calcium influx in the podocytes of the freshly isolated glomeruli of the wild type and TRPC6-deficient mice (892.1). <i>FASEB Journal</i> , 2014, 28, 892.1.	0.2	0
88	Deletion of transient receptor potential canonical channel 1 prevents pulmonary vascular hyperpermeability and edema formation secondary to cAMP activation of SPHK1 (847.4). <i>FASEB Journal</i> , 2014, 28, 847.4.	0.2	0
89	Canonical Transient Receptor Channel 5 (TRPC5) and TRPC1/4 Contribute to Seizure and Excitotoxicity by Distinct Cellular Mechanisms. <i>Molecular Pharmacology</i> , 2013, 83, 429-438.	1.0	113
90	Sustained ATP-mediated vasodilation of cerebral arteries requires Ca ²⁺ influx via TRPC3 channels to produce endothelial SKCa channel activation and hyperpolarization. <i>FASEB Journal</i> , 2013, 27, 925.4.	0.2	0

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91	Heteromeric Canonical Transient Receptor Potential 1 and 4 Channels Play a Critical Role in Epileptiform Burst Firing and Seizure-Induced Neurodegeneration. <i>Molecular Pharmacology</i> , 2012, 81, 384-392.	1.0	78
92	Role of TRPC1 and TRPC3 channels in constriction and relaxation of mouse thoracic aorta. <i>FASEB Journal</i> , 2012, 26, 853.6.	0.2	0
93	Intrinsic phototransduction persists in melanopsin-expressing ganglion cells lacking diacylglycerol-sensitive TRPC subunits. <i>European Journal of Neuroscience</i> , 2011, 33, 856-867.	1.2	55
94	Endothelial TRPC1 and TRPC3 channels contribute to ATP-mediated relaxation in mouse cerebral arteries. <i>FASEB Journal</i> , 2011, 25, 1024.8.	0.2	1
95	On the roles of Mg in the activation of G proteins. <i>Journal of Receptor and Signal Transduction Research</i> , 2010, 30, 372-375.	1.3	16
96	TRPC6 and TRPC1 functionally interact to mediate Ca ²⁺ entry in endothelial cells to induce lung vascular permeability. <i>FASEB Journal</i> , 2010, 24, 598.16.	0.2	0
97	The TRPC Class of Ion Channels: A Critical Review of Their Roles in Slow, Sustained Increases in Intracellular Ca ²⁺ Concentrations. <i>Annual Review of Pharmacology and Toxicology</i> , 2009, 49, 395-426.	4.2	223
98	TRPC3 Channels Are Required for Synaptic Transmission and Motor Coordination. <i>Neuron</i> , 2008, 59, 392-398.	3.8	356
99	The discovery of signal transduction by G proteins. A personal account and an overview of the initial findings and contributions that led to our present understanding. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007, 1768, 756-771.	1.4	49
100	Expansion of signal transduction by G proteins. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007, 1768, 772-793.	1.4	134
101	Pressure-induced and store-operated cation influx in vascular smooth muscle cells is independent of TRPC1. <i>Pflugers Archiv European Journal of Physiology</i> , 2007, 455, 465-477.	1.3	219
102	Antagonism between G α 2 and G α 3 in CXCR3-mediated signaling. <i>FASEB Journal</i> , 2006, 20, LB77.	0.2	1
103	Increased Vascular Smooth Muscle Contractility in TRPC6 ^{-/-} Mice. <i>Molecular and Cellular Biology</i> , 2005, 25, 6980-6989.	1.1	467
104	Molecular Diversity and Function of G Proteins and Calcium Channels. <i>Biology of Reproduction</i> , 1991, 44, 207-224.	1.2	38