Johannes W Hell

List of Publications by Year
in descending order

104 papers	10,201 citations	44042 48 h-index	34964 98 g-index
115 all docs	115 docs citations	115 times ranked	8851 citing authors

#	Article	IF	Citations
1	Identification and differential subcellular localization of the neuronal class C and class D L-type calcium channel alpha 1 subunits.. Journal of Cell Biology, 1993, 123, 949-962.	2.3	706
2	Interaction with the NMDA receptor locks CaMKII in an active conformation. Nature, 2001, 411, 801-805.	13.7	636
3	Biochemical properties and subcellular distribution of an N-type calcium hannel Î±1 subunit. Neuron, 1992, 9, 1099-1115.	3.8	592
4	Regulation of Cardiac L-Type Calcium Channels by Protein Kinase A and Protein Kinase C. Circulation Research, 2000, 87, 1095-1102.	2.0	539
5	A beta 2 Adrenergic Receptor Signaling Complex Assembled with the Ca2+ Channel Cav1.2. Science, 2001, 293, 98-101.	6.0	489
6	SAP97 Is Associated with the Î±-Amino-3-hydroxy-5-methylisoxazole-4-propionic Acid Receptor GluR1 Subunit. Journal of Biological Chemistry, 1998, 273, 19518-19524.	1.6	385
7	Localization of cardiac L-type Ca2+ channels to a caveolar macromolecular signaling complex is required for beta2-adrenergic regulation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7500-7505.	3.3	369
8	Calcium/calmodulin-dependent protein kinase II is associated with the N-methyl-D-aspartate receptor. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 3239-3244.	3.3	349
9	Supramolecular Assemblies and Localized Regulation of Voltage-Gated Ion Channels. Physiological Reviews, 2009, 89, 411-452.	13.1	309
10	CaMKII: Claiming Center Stage in Postsynaptic Function and Organization. Neuron, 2014, 81, 249-265.	3.8	279
11	Specific Phosphorylation of a Site in the Full-Length Form of the Î±1 Subunit of the Cardiac L-Type Calcium Channel by Adenosine 3â€˜,5â€˜-Cyclic Monophosphate- Dependent Protein Kinaseâ€. Biochemistry, 1996, 35, 10392-10402.	1.2	271
12	NS21: Re-defined and modified supplement B27 for neuronal cultures. Journal of Neuroscience Methods, 2008, 171, 239-247.	1.3	258
13	Regulation of GluR1 by the A-Kinase Anchoring Protein 79 (AKAP79) Signaling Complex Shares Properties with Long-Term Depression. Journal of Neuroscience, 2002, 22, 3044-3051.	1.7	214
14	CaMKII binding to GluN2B is critical during memory consolidation. EMBO Journal, 2012, 31, 1203-1216.	3.5	207
15	N-methyl-D-aspartate receptor-induced proteolytic conversion of postsynaptic class C L-type calcium channels in hippocampal neurons.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 3362-3367.	3.3	188
16	Interactions between the NR2B Receptor and CaMKII Modulate Synaptic Plasticity and Spatial Learning. Journal of Neuroscience, 2007, 27, 13843-13853.	1.7	169
17	Protein Phosphatase 2A Is Associated with Class C L-type Calcium Channels (Cav1.2) and Antagonizes Channel Phosphorylation by cAMP-dependent Protein Kinase. Journal of Biological Chemistry, 2000, 275, 39710-39717.	1.6	164
18	Age-dependent requirement of AKAP150-anchored PKA and GluR2-lacking AMPA receptors in LTP. EMBO Journal, 2007, 26, 4879-4890.	3.5	157

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19	Distinct Eligibility Traces for LTP and LTD in Cortical Synapses. Neuron, 2015, 88, 528-538.	3.8	149
20	Differential phosphorylation of two size forms of the neuronal class C L-type calcium channel alpha 1 subunit. Journal of Biological Chemistry, 1993, 268, 19451-7.	1.6	146
21	The A-kinase Anchor Protein MAP2B and cAMP-dependent Protein Kinase Are Associated with Class C L-type Calcium Channels in Neurons. Journal of Biological Chemistry, 1999, 274, 30280-30287.	1.6	133
22	Activity-driven postsynaptic translocation of CaMKII. Trends in Pharmacological Sciences, 2005, 26, 645-653.	4.0	132
23	Critical Role of cAMP-Dependent Protein Kinase Anchoring to the L-Type Calcium Channel Cav1.2 via A-Kinase Anchor Protein 150 in Neuronsâ€. Biochemistry, 2007, 46, 1635-1646.	1.2	126
24	Selectivity and Promiscuity of the First and Second PDZ Domains of PSD-95 and Synapse-associated Protein 102. Journal of Biological Chemistry, 2002, 277, 21697-21711.	1.6	117
25	Increased phosphorylation of the neuronal L-type Ca2+ channel Cav1.2 during aging. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 16018-16023.	3.3	117
26	Binding of Protein Phosphatase 2A to the L-Type Calcium Channel Cav1.2 next to Ser1928, Its Main PKA Site, Is Critical for Ser1928 Dephosphorylation. Biochemistry, 2006, 45, 3448-3459.	1.2	106
27	Phosphorylation of Ser1166 on GluN2B by PKA Is Critical to Synaptic NMDA Receptor Function and Ca²⁺Signaling in Spines. Journal of Neuroscience, 2014, 34, 869-879.	1.7	98
28	Competition between Î±-actinin and Ca2+-Calmodulin Controls Surface Retention of the L-type Ca2+ Channel CaV1.2. Neuron, 2013, 78, 483-497.	3.8	97
29	Assembly of a Î²2-adrenergic receptorâ€"GluR1 signalling complex for localized cAMP signalling. EMBO Journal, 2010, 29, 482-495.	3.5	96
30	SAP97 concentrates at the postsynaptic density in cerebral cortex. European Journal of Neuroscience, 2000, 12, 3605-3614.	1.2	92
31	Phosphorylation of Ser ¹⁹²⁸ mediates the enhanced activity of the L-type Ca ²⁺ channel Ca _v 1.2 by the Î² ₂ -adrenergic receptor in neurons. Science Signaling, 2017, 10, .	1.6	91
32	Ser ¹⁹²⁸ phosphorylation by PKA stimulates the L-type Ca ²⁺ channel Ca _V 1.2 and vasoconstriction during acute hyperglycemia and diabetes. Science Signaling, 2017, 10, .	1.6	85
33	Striatal-enriched Protein-tyrosine Phosphatase (STEP) Regulates Pyk2 Kinase Activity. Journal of Biological Chemistry, 2012, 287, 20942-20956.	1.6	77
34	Postsynaptic Clustering and Activation of Pyk2 by PSD-95. Journal of Neuroscience, 2010, 30, 449-463.	1.7	75
35	Mutations in AKAP5 Disrupt Dendritic Signaling Complexes and Lead to Electrophysiological and Behavioral Phenotypes in Mice. PLoS ONE, 2010, 5, e10325.	1.1	75
36	DAPK1 Mediates LTD by Making CaMKII/GluN2B Binding LTP Specific. Cell Reports, 2017, 19, 2231-2243.	2.9	73

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37	AKAP150â€anchored PKA activity is important for LTD during its induction phase. Journal of Physiology, 2008, 586, 4155-4164.	1.3	69
38	Î²₂-Adrenergic receptor supports prolonged theta tetanus-induced LTP. Journal of Neurophysiology, 2012, 107, 2703-2712.	0.9	69
39	Ras and Rap Signal Bidirectional Synaptic Plasticity via Distinct Subcellular Microdomains. Neuron, 2018, 98, 783-800.e4.	3.8	68
40	Role of Palmitoylation of Postsynaptic Proteins in Promoting Synaptic Plasticity. Frontiers in Molecular Neuroscience, 2019, 12, 8.	1.4	67
41	Capping of the N-terminus of PSD-95 by calmodulin triggers its postsynaptic release. EMBO Journal, 2014, 33, 1341-53.	3.5	64
42	The CaMKII/GluN2B Protein Interaction Maintains Synaptic Strength. Journal of Biological Chemistry, 2016, 291, 16082-16089.	1.6	63
43	Mechanisms of postsynaptic localization of AMPA-type glutamate receptors and their regulation during long-term potentiation. Science Signaling, 2019, 12, .	1.6	63
44	The Therapeutic Landscape of Rheumatoid Arthritis: Current State and Future Directions. Frontiers in Pharmacology, 2021, 12, 680043.	1.6	62
45	Adenylyl Cyclase Anchoring by a Kinase Anchor Protein AKAP5 (AKAP79/150) Is Important for Postsynaptic Î²-Adrenergic Signaling. Journal of Biological Chemistry, 2013, 288, 17918-17931.	1.6	61
46	Phosphorylation of Ca _v 1.2 on S1928 uncouples the Lâ€type Ca ²⁺ channel from the Î² ₂ adrenergic receptor. EMBO Journal, 2016, 35, 1330-1345.	3.5	61
47	Differential phosphorylation of two size forms of the N-type calcium channel alpha 1 subunit which have different COOH termini. Journal of Biological Chemistry, 1994, 269, 7390-6.	1.6	61
48	Postsynaptic localization and regulation of AMPA receptors and Cav1.2 by Î²2 adrenergic receptor/PKA and Ca ²⁺ /CaMKII signaling. EMBO Journal, 2018, 37, .	3.5	57
49	Imbalance of excitatory/inhibitory synaptic protein expression in iPSC-derived neurons from FOXG1+/âˆ’ patients and in foxg1+/âˆ’ mice. European Journal of Human Genetics, 2016, 24, 871-880.	1.4	54
50	Î±-Actinin Anchors PSD-95 at Postsynaptic Sites. Neuron, 2018, 97, 1094-1109.e9.	3.8	53
51	Nimodipine fosters remyelination in a mouse model of multiple sclerosis and induces microglia-specific apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3295-E3304.	3.3	52
52	Phosphorylation of presynaptic and postsynaptic calcium channels by cAMP-dependent protein kinase in hippocampal neurons. EMBO Journal, 1995, 14, 3036-44.	3.5	50
53	The genetics of PKMÎ¶ and memory maintenance. Science Signaling, 2017, 10, .	1.6	48
54	Targeting of Protein Phosphatases PP2A and PP2B to the C-Terminus of the L-Type Calcium Channel Ca_v1.2. Biochemistry, 2010, 49, 10298-10307.	1.2	47

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55	Homeostatic synaptic scaling: molecular regulators of synaptic AMPA-type glutamate receptors. F1000Research, 2018, 7, 234.	0.8	44
56	How Ca ²⁺ -permeable AMPA receptors, the kinase PKA, and the phosphatase PP2B are intertwined in synaptic LTP and LTD. Science Signaling, 2016, 9, e2.	1.6	43
57	Cardiomyocyte substructure reverts to an immature phenotype during heart failure. Journal of Physiology, 2019, 597, 1833-1853.	1.3	43
58	The Cytoskeletal Protein Î±-Actinin Regulates Acid-sensing Ion Channel 1a through a C-terminal Interaction. Journal of Biological Chemistry, 2009, 284, 2697-2705.	1.6	41
59	SynDIG4/Prrt1 Is Required for Excitatory Synapse Development and Plasticity Underlying Cognitive Function. Cell Reports, 2018, 22, 2246-2253.	2.9	41
60	Cascades of Homeostatic Dysregulation Promote Incubation of Cocaine Craving. Journal of Neuroscience, 2018, 38, 4316-4328.	1.7	39
61	Intracellular Î² ₁ -Adrenergic Receptors and Organic Cation Transporter 3 Mediate Phospholamban Phosphorylation to Enhance Cardiac Contractility. Circulation Research, 2021, 128, 246-261.	2.0	38
62	Loss of F-box Only Protein 2 (Fbxo2) Disrupts Levels and Localization of Select NMDA Receptor Subunits, and Promotes Aberrant Synaptic Connectivity. Journal of Neuroscience, 2015, 35, 6165-6178.	1.7	36
63	Ca ²⁺ /calmodulin binding to <scp>PSD</scp> â€95 mediates homeostatic synaptic scaling down. EMBO Journal, 2018, 37, 122-138.	3.5	36
64	Adenylyl cyclase 5â€"generated cAMP controls cerebral vascular reactivity during diabetic hyperglycemia. Journal of Clinical Investigation, 2019, 129, 3140-3152.	3.9	35
65	A Gs-coupled purinergic receptor boosts Ca2+ influx and vascular contractility during diabetic hyperglycemia. ELife, 2019, 8, .	2.8	33
66	Thermodynamic linkage between calmodulin domains binding calcium and contiguous sites in the C-terminal tail of CaV1.2. Biophysical Chemistry, 2011, 159, 172-187.	1.5	32
67	Impaired BKCa channel function in native vascular smooth muscle from humans with type 2 diabetes. Scientific Reports, 2017, 7, 14058.	1.6	31
68	Loss of SynDIG1 Reduces Excitatory Synapse Maturation But Not Formation<i>In Vivo</i>. ENeuro, 2016, 3, ENEURO.0130-16.2016.	0.9	30
69	Dynamic L-type CaV1.2 channel trafficking facilitates CaV1.2 clustering and cooperative gating. Biochimica Et Biophysica Acta - Molecular Cell Research, 2018, 1865, 1341-1355.	1.9	29
70	Functionally distinct and selectively phosphorylated GPCR subpopulations co-exist in a single cell. Nature Communications, 2018, 9, 1050.	5.8	28
71	Î²-Adrenergic Regulation of the L-Type Ca ²⁺ Channel Ca _V 1.2 by PKA Rekindles Excitement. Science Signaling, 2010, 3, pe33.	1.6	25
72	A Kinase Anchor Protein 150 (AKAP150)-associated Protein Kinase A Limits Dendritic Spine Density. Journal of Biological Chemistry, 2011, 286, 26496-26506.	1.6	24

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73	Non-ionotropic signaling by the NMDA receptor: controversy and opportunity. F1000Research, 2016, 5, 1010.	0.8	23
74	AKAP5 complex facilitates purinergic modulation of vascular L-type Ca2+ channel CaV1.2. Nature Communications, 2020, 11, 5303.	5.8	22
75	Î±-Actinin Promotes Surface Localization and Current Density of the Ca²⁺ Channel Ca_V1.2 by Binding to the IQ Region of the Î±1 Subunit. Biochemistry, 2017, 56, 3669-3681.	1.2	21
76	Proteolytic processing of the L-type Ca2+Âchannel alpha11.2 subunit in neurons. F1000Research, 2017, 6, 1166.	0.8	20
77	Î±â€Actininâ€1 promotes activity of the Lâ€type Ca ²⁺ channel Ca _v 1.2. EMBO Journal, 2020, 39, e102622.	3.5	20
78	Molecular mimicking of C-terminal phosphorylation tunes the surface dynamics of CaV1.2 calcium channels in hippocampal neurons. Journal of Biological Chemistry, 2018, 293, 1040-1053.	1.6	18
79	CaMKII binding to GluN2B is important for massed spatial learning in the Morris water maze. F1000Research, 2014, 3, 193.	0.8	18
80	CavÎ²1 regulates T cell expansion and apoptosis independently of voltage-gated Ca2+ channel function. Nature Communications, 2022, 13, 2033.	5.8	18
81	Proteolytic processing of the L-type Ca2+Âchannel alpha11.2 subunit in neurons. F1000Research, 2017, 6, 1166.	0.8	16
82	Tissue-specific adrenergic regulation of the L-type Ca ²⁺ channel Ca _V 1.2. Science Signaling, 2020, 13, .	1.6	15
83	Norepinephrine potentiates and serotonin depresses visual cortical responses by transforming eligibility traces. Nature Communications, 2022, 13, .	5.8	14
84	Î²₂Adrenergic Receptor Complexes with the L-Type Ca²⁺Channel Ca_V1.2 and AMPA-Type Glutamate Receptors: Paradigms for Pharmacological Targeting of Protein Interactions. Annual Review of Pharmacology and Toxicology, 2020, 60, 155-174.	4.2	13
85	Ca2+/Calmodulin Binding to PSD-95 Downregulates Its Palmitoylation and AMPARs in Long-Term Depression. Frontiers in Synaptic Neuroscience, 2019, 11, 6.	1.3	12
86	Î²-blockers augment L-type Ca2+ channel activity by targeting spatially restricted Î²2AR signaling in neurons. ELife, 2019, 8, .	2.8	12
87	Mission CaMKIIÎ³: Shuttle Calmodulin from Membrane to Nucleus. Cell, 2014, 159, 235-237.	13.5	10
88	Differential phosphorylation, localization, and function of distinct alpha 1 subunits of neuronal calcium channels. Two size forms for class B, C, and D alpha 1 subunits with different COOH-termini. Annals of the New York Academy of Sciences, 1994, 747, 282-93.	1.8	10
89	Contribution of D1R-expressing neurons of the dorsal dentate gyrus and Cav1.2 channels in extinction of cocaine conditioned place preference. Neuropsychopharmacology, 2020, 45, 1506-1517.	2.8	9
90	Age-Dependent Contributions of NMDA Receptors and L-Type Calcium Channels to Long-Term Depression in the Piriform Cortex. International Journal of Molecular Sciences, 2021, 22, 13551.	1.8	8

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91	Secondhand Smoke Exposure Impairs Ion Channel Function and Contractility of Mesenteric Arteries. Function, 2021, 2, zqab041.	1.1	7
92	Long-Term Potentiation. , 2008, , 501-534.		7
93	AKAP5 Keeps L-type Channels and NFAT on Their Toes. Cell Reports, 2014, 7, 1341-1342.	2.9	4
94	Chemical shift assignments of a calmodulin intermediate with two Ca2+ bound in complex with the IQ-motif of voltage-gated Ca2+ channels (CaV1.2). Biomolecular NMR Assignments, 2019, 13, 233-237.	0.4	4
95	Aging differentially affects LTCC function in hippocampal CA1 and piriform cortex pyramidal neurons. Cerebral Cortex, 2023, 33, 1489-1503.	1.6	4
96	Hooked on the D3 Receptor: CaMKII's New Addiction. Neuron, 2009, 61, 335-336.	3.8	3
97	Chemical shift assignments of the C-terminal EF-hand domain of Î±-actinin-1. Biomolecular NMR Assignments, 2016, 10, 219-222.	0.4	2
98	Chemical shift assignments of the N-terminal domain of PSD95 (PSD95-NT). Biomolecular NMR Assignments, 2021, 15, 347-350.	0.4	2
99	Zincâ€chelating postsynaptic densityâ€95 Nâ€terminus impairs its palmitoyl modification. Protein Science, 2021, 30, 2246-2257.	3.1	2
100	Postsynaptic Targeting of Protein Kinases and Phosphatases. , 2008, , 459-500.		2
101	How CBP/Shank3 Guards Rap and H-Ras. Structure, 2020, 28, 274-276.	1.6	1
102	CaMKII binding to GluN2B at S1303 has no role in acute or inflammatory pain. Brain Research, 2021, 1750, 147154.	1.1	1
103	Angiotensin II signalling kicks out p27^{Kip1}: casein kinase 2 augmentation of Ca_v1.2 Lâ€type Ca²⁺ channel activity in immature ventricular cardiomyocytes. Journal of Physiology, 2017, 595, 4131-4132.	1.3	1
104	Anchored G_sâ€coupled purinergic receptor regulation of Lâ€type Ca_V1.2 and vascular tone in diabetic hyperglycemia. FASEB Journal, 2018, 32, 569.10.	0.2	0