David J Linden

List of Publications by Year
in descending order

105 papers	13,983 citations	23567 58 h-index	32842 100 g-index
108 all docs	108 docs citations	108 times ranked	10444 citing authors

#	Article	IF	Citations
1	Homer Binds a Novel Proline-Rich Motif and Links Group 1 Metabotropic Glutamate Receptors with IP3 Receptors. Neuron, 1998, 21, 717-726.	8.1	801
2	The other side of the engram: experience-driven changes in neuronal intrinsic excitability. Nature Reviews Neuroscience, 2003, 4, 885-900.	10.2	743
3	Beyond parallel fiber LTD: the diversity of synaptic and non-synaptic plasticity in the cerebellum. Nature Neuroscience, 2001, 4, 467-475.	14.8	557
4	Neurodegeneration in Lurcher mice caused by mutation in Î´2 glutamate receptor gene. Nature, 1997, 388, 769-773.	27.8	522
5	Long-term synaptic depression in the mammalian brain. Neuron, 1994, 12, 457-472.	8.1	475
6	Elongation Factor 2 and Fragile X Mental Retardation Protein Control the Dynamic Translation of Arc/Arg3.1 Essential for mGluR-LTD. Neuron, 2008, 59, 70-83.	8.1	471
7	Expression of Cerebellar Long-Term Depression Requires Postsynaptic Clathrin-Mediated Endocytosis. Neuron, 2000, 25, 635-647.	8.1	445
8	A long-term depression of AMPA currents in cultured cerebellar purkinje neurons. Neuron, 1991, 7, 81-89.	8.1	441
9	Expression of a Protein Kinase C Inhibitor in Purkinje Cells Blocks Cerebellar LTD and Adaptation of the Vestibulo-Ocular Reflex. Neuron, 1998, 20, 495-508.	8.1	383
10	The role of protein kinase C in long-term potentiation: a testable model. Brain Research Reviews, 1989, 14, 279-296.	9.0	378
11	Cerebellar Long-Term Depression Requires PKC-Regulated Interactions between GluR2/3 and PDZ Domainâ€"Containing Proteins. Neuron, 2000, 28, 499-510.	8.1	357
12	Activation of the TRPC1 cation channel by metabotropic glutamate receptor mGluR1. Nature, 2003, 426, 285-291.	27.8	325
13	Requirement of AMPA Receptor GluR2 Phosphorylation for Cerebellar Long-Term Depression. Science, 2003, 300, 1751-1755.	12.6	320
14	Regulation of the Rebound Depolarization and Spontaneous Firing Patterns of Deep Nuclear Neurons in Slices of Rat Cerebellum. Journal of Neurophysiology, 1999, 82, 1697-1709.	1.8	293
15	Reevaluating the Role of LTD in Cerebellar Motor Learning. Neuron, 2011, 70, 43-50.	8.1	291
16	Targeted In Vivo Mutations of the AMPA Receptor Subunit GluR2 and Its Interacting Protein PICK1 Eliminate Cerebellar Long-Term Depression. Neuron, 2006, 49, 845-860.	8.1	266
17	Rapid, synaptically driven increases in the intrinsic excitability of cerebellar deep nuclear neurons. Nature Neuroscience, 2000, 3, 109-111.	14.8	244
18	Narp regulates homeostatic scaling of excitatory synapses on parvalbumin-expressing interneurons. Nature Neuroscience, 2010, 13, 1090-1097.	14.8	243

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19	Impaired Synaptic Plasticity and cAMP Response Element-Binding Protein Activation in Ca²⁺/Calmodulin-Dependent Protein Kinase Type IV/Gr-Deficient Mice. Journal of Neuroscience, 2000, 20, 6459-6472.	3.6	234
20	Phosphorylation of RIM1Î± by PKA Triggers Presynaptic Long-Term Potentiation at Cerebellar Parallel Fiber Synapses. Cell, 2003, 115, 49-60.	28.9	232
21	Homeostatic Scaling Requires Group I mGluR Activation Mediated by Homer1a. Neuron, 2010, 68, 1128-1142.	8.1	227
22	Polarity of Long-Term Synaptic Gain Change Is Related to Postsynaptic Spike Firing at a Cerebellar Inhibitory Synapse. Neuron, 1998, 21, 827-835.	8.1	218
23	Long-Term Depression of the Cerebellar Climbing Fiberâ€"Purkinje Neuron Synapse. Neuron, 2000, 26, 473-482.	8.1	213
24	SRF mediates activity-induced gene expression and synaptic plasticity but not neuronal viability. Nature Neuroscience, 2005, 8, 759-767.	14.8	197
25	NMDA receptor blockade prevents the increase in protein kinase C substrate (protein F1) phosphorylation produced by long-term potentiation. Brain Research, 1988, 458, 142-146.	2.2	185
26	The Return of the Spike. Neuron, 1999, 22, 661-666.	8.1	180
27	A Double-Blind, Randomized, Placebo-Controlled Trial of Oxcarbazepine in the Treatment of Bipolar Disorder in Children and Adolescents. American Journal of Psychiatry, 2006, 163, 1179-1186.	7.2	177
28	Ubiquitous Plasticity and Memory Storage. Neuron, 2007, 56, 582-592.	8.1	171
29	A Late Phase of Cerebellar Long-Term Depression Requires Activation of CaMKIV and CREB. Neuron, 1999, 23, 559-568.	8.1	160
30	Cellular mechanisms of long-term depression in the cerebellum. Current Opinion in Neurobiology, 1993, 3, 401-406.	4.2	159
31	Cannabinoid Receptor Modulation of Synapses Received by Cerebellar Purkinje Cells. Journal of Neurophysiology, 2000, 83, 1167-1180.	1.8	157
32	Impaired Cerebellar Long-Term Potentiation in Type I Adenylyl Cyclase Mutant Mice. Neuron, 1998, 20, 1199-1210.	8.1	148
33	Visualization of NMDA receptorâ€"dependent AMPA receptor synaptic plasticity in vivo. Nature Neuroscience, 2015, 18, 402-407.	14.8	143
34	A Protein Synthesisâ€"Dependent Late Phase of Cerebellar Long-Term Depression. Neuron, 1996, 17, 483-490.	8.1	138
35	Hedgehog Agonist Therapy Corrects Structural and Cognitive Deficits in a Down Syndrome Mouse Model. Science Translational Medicine, 2013, 5, 201ra120.	12.4	129
36	Long-term Depression of Glutamate Currents in Cultured Cerebellar Purkinje Neurons Does Not Require Nitric Oxide Signalling. European Journal of Neuroscience, 1992, 4, 10-15.	2.6	125

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37	Induction of cerebellar long-term depression in culture requires postsynaptic action of Sodium Ions. Neuron, 1993, 11, 1093-1100.	8.1	120
38	A Unique PDZ Ligand in PKCÎ± Confers Induction of Cerebellar Long-Term Synaptic Depression. Neuron, 2004, 44, 585-594.	8.1	118
39	Synaptic Transmission and Hippocampal Long-Term Potentiation in Transgenic Mice Expressing FAD-Linked Presenilin 1. Neurobiology of Disease, 1999, 6, 56-62.	4.4	109
40	An NMDA Receptor/Nitric Oxide Cascade Is Involved in Cerebellar LTD But Is Not Localized to the Parallel Fiber Terminal. Journal of Neurophysiology, 2005, 94, 4281-4289.	1.8	107
41	mGluR1/5-Dependent Long-Term Depression Requires the Regulated Ectodomain Cleavage of Neuronal Pentraxin NPR by TACE. Neuron, 2008, 57, 858-871.	8.1	106
42	Long-Term Depression at the Mossy Fiber-Deep Cerebellar Nucleus Synapse. Journal of Neuroscience, 2006, 26, 6935-6944.	3.6	100
43	Cerebellar Long-Term Synaptic Depression Requires PKC-Mediated Activation of CPI-17, a Myosin/Moesin Phosphatase Inhibitor. Neuron, 2002, 36, 1145-1158.	8.1	95
44	Phospholipase A2 controls the induction of short-term versus long-term depression in the cerebellar Purkinje neuron in culture. Neuron, 1995, 15, 1393-1401.	8.1	94
45	Activation of Presynaptic cAMP-Dependent Protein Kinase Is Required for Induction of Cerebellar Long-Term Potentiation. Journal of Neuroscience, 1999, 19, 10221-10227.	3.6	92
46	Axonal Motility and Its Modulation by Activity Are Branch-Type Specific in the Intact Adult Cerebellum. Neuron, 2007, 56, 472-487.	8.1	84
47	Phorbol ester promotes growth of synaptic plasticity. Brain Research, 1986, 378, 374-378.	2.2	81
48	Morphological Correlates of Intrinsic Electrical Excitability in Neurons of the Deep Cerebellar Nuclei. Journal of Neurophysiology, 2003, 89, 1738-1747.	1.8	77
49	Regrowth of Serotonin Axons in the Adult Mouse Brain Following Injury. Neuron, 2016, 91, 748-762.	8.1	75
50	Long-Term Potentiation of Glial Synaptic Currents in Cerebellar Culture. Neuron, 1997, 18, 983-994.	8.1	74
51	A newly discovered protein kinase C activator (oleic acid) enhances long-term potentiation in the intact hippocampus. Brain Research, 1986, 379, 358-363.	2.2	72
52	SRF binding to SRE 6.9 in the Arc promoter is essential for LTD in cultured Purkinje cells. Nature Neuroscience, 2010, 13, 1082-1089.	14.8	72
53	The Glutamate Receptor-Interacting Protein Family of GluR2-Binding Proteins Is Required for Long-Term Synaptic Depression Expression in Cerebellar Purkinje Cells. Journal of Neuroscience, 2008, 28, 5752-5755.	3.6	68
54	PICK1 interacts with PACSIN to regulate AMPA receptor internalization and cerebellar long-term depression. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13976-13981.	7.1	68

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55	STIM1 Regulates Somatic Ca²⁺Signals and Intrinsic Firing Properties of Cerebellar Purkinje Neurons. Journal of Neuroscience, 2017, 37, 8876-8894.	3.6	68
56	NEUROSCIENCE: From Molecules to Memory in the Cerebellum. Science, 2003, 301, 1682-1685.	12.6	64
57	Long-term depression of climbing fiber-evoked calcium transients in Purkinje cell dendrites. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 2878-2883.	7.1	64
58	N-ethylmaleimide-sensitive factor is required for the synaptic incorporation and removal of AMPA receptors during cerebellar long-term depression. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 18212-18216.	7.1	64
59	Double dissociation between long-term depression and dendritic spine morphology in cerebellar Purkinje cells. Nature Neuroscience, 2007, 10, 546-548.	14.8	64
60	A Prolyl-Isomerase Mediates Dopamine-Dependent Plasticity and Cocaine Motor Sensitization. Cell, 2013, 154, 637-650.	28.9	61
61	DHHC8-Dependent PICK1 Palmitoylation is Required for Induction of Cerebellar Long-Term Synaptic Depression. Journal of Neuroscience, 2013, 33, 15401-15407.	3.6	58
62	The expression of cerebellar LTD in culture is not associated with changes in AMPA-receptor kinetics, agonist affinity, or unitary conductance. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 14066-14071.	7.1	56
63	Synaptically Evoked Glutamate Transport Currents May Be Used To Detect the Expression of Long-Term Potentiation in Cerebellar Culture. Journal of Neurophysiology, 1998, 79, 3151-3156.	1.8	51
64	Adapter protein 14-3-3 is required for a presynaptic form of LTP in the cerebellum. Nature Neuroscience, 2004, 7, 1296-1298.	14.8	48
65	Synaptic Transmission and Hippocampal Long-Term Potentiation in Olfactory Cyclic Nucleotide-Gated Channel Type 1 Null Mouse. Journal of Neurophysiology, 1998, 79, 3295-3301.	1.8	45
66	Dopamine Signaling Is Required for Depolarization-Induced Slow Current in Cerebellar Purkinje Cells. Journal of Neuroscience, 2009, 29, 8530-8538.	3.6	45
67	Persistent changes in the intrinsic excitability of rat deep cerebellar nuclear neurones induced by EPSP or IPSP bursts. Journal of Physiology, 2004, 561, 703-719.	2.9	44
68	Cerebral vascular structure in the motor cortex of adult mice is stable and is not altered by voluntary exercise. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 3725-3743.	4.3	44
69	Defining a Minimal Computational Unit for Cerebellar Long-Term Depression. Neuron, 1996, 17, 333-341.	8.1	41
70	Cerebellar long-term depression as investigated in a cell culture preparation. Behavioral and Brain Sciences, 1996, 19, 339-346.	0.7	41
71	Differential Maturation of Climbing Fiber Innervation in Cerebellar Vermis. Journal of Neuroscience, 2004, 24, 3926-3932.	3.6	37
72	Long-Term Depression of mGluR1 Signaling. Neuron, 2007, 55, 277-287.	8.1	37

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73	Neuromodulation at Single Presynaptic Boutons of Cerebellar Parallel Fibers Is Determined by Bouton Size and Basal Action Potential-Evoked Ca Transient Amplitude. Journal of Neuroscience, 2009, 29, 15586-15594.	3.6	36
74	Characterizing the conductance underlying depolarization-induced slow current in cerebellar Purkinje cells. Journal of Neurophysiology, 2013, 109, 1174-1181.	1.8	36
75	Phosphoproteins localized to presynaptic terminal linked to persistence of long-term potentiation (LTP): quantitative analysis of two-dimensional gels. Brain Research, 1989, 497, 30-42.	2.2	34
76	Glutamate release during LTD at cerebellar climbing fiberâ€“Purkinje cell synapses. Nature Neuroscience, 2002, 5, 725-726.	14.8	34
77	Inositol-1,4,5-Trisphosphate Receptor-Mediated Ca Mobilization Is Not Required for Cerebellar Long-Term Depression in Reduced Preparations. Journal of Neurophysiology, 1998, 80, 2963-2974.	1.8	33
78	Long-Term Potentiation of Neuronal Glutamate Transporters. Neuron, 2005, 46, 715-722.	8.1	31
79	Arc Oligomerization Is Regulated by CaMKII Phosphorylation of the GAG Domain: An Essential Mechanism for Plasticity and Memory Formation. Molecular Cell, 2019, 75, 13-25.e5.	9.7	31
80	Cytosolic phospholipase A2 alpha mediates electrophysiologic responses of hippocampal pyramidal neurons to neurotoxic NMDA treatment. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6078-6083.	7.1	30
81	Serotonin axons in the neocortex of the adult female mouse regrow after traumatic brain injury. Journal of Neuroscience Research, 2018, 96, 512-526.	2.9	28
82	Fast serotonin voltammetry as a versatile tool for mapping dynamic tissue architecture: I. Responses at carbon fibers describe local tissue physiology. Journal of Neurochemistry, 2020, 153, 33-50.	3.9	28
83	<i>In Vivo</i>Imaging of CNS Injury and Disease. Journal of Neuroscience, 2017, 37, 10808-10816.	3.6	24
84	Dendritic glutamate release produces autocrine activation of mGluR1 in cerebellar Purkinje cells. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 746-750.	7.1	23
85	Calcium Influx Measured at Single Presynaptic Boutons of Cerebellar Granule Cell Ascending Axons and Parallel Fibers. Cerebellum, 2012, 11, 121-131.	2.5	20
86	Use-dependent changes in synaptic strength at the Purkinje cell to deep nuclear synapse. Progress in Brain Research, 2000, 124, 257-273.	1.4	19
87	A late phase of LTD in cultured cerebellar Purkinje cells requires persistent dynamin-mediated endocytosis. Journal of Neurophysiology, 2012, 107, 448-454.	1.8	19
88	Transient Upregulation of Postsynaptic IP₃-Gated Ca Release Underlies Short-Term Potentiation of Metabotropic Glutamate Receptor 1 Signaling in Cerebellar Purkinje Cells. Journal of Neuroscience, 2008, 28, 4350-4355.	3.6	17
89	Expression of mutant DISC1 in Purkinje cells increases their spontaneous activity and impairs cognitive and social behaviors in mice. Neurobiology of Disease, 2017, 103, 144-153.	4.4	17
90	Estrogen-Dependent Functional Spine Dynamics in Neocortical Pyramidal Neurons of the Mouse. Journal of Neuroscience, 2019, 39, 4874-4888.	3.6	17

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91	Dynamic imaging of cerebellar Purkinje cells reveals a population of filopodia which cross-link dendrites during early postnatal development. Cerebellum, 2006, 5, 105-115.	2.5	15
92	Is There Gender Bias in the Peer Review Process at <i>Journal of Neurophysiology</i>?. Journal of Neurophysiology, 2009, 101, 2195-2196.	1.8	15
93	Pure spillover transmission between neurons. Nature Neuroscience, 2007, 10, 675-677.	14.8	14
94	Catecholaminergic axons in the neocortex of adult mice regrow following brain injury. Experimental Neurology, 2020, 323, 113089.	4.1	13
95	A Late Phase of Long-Term Synaptic Depression in Cerebellar Purkinje Cells Requires Activation of MEF2. Cell Reports, 2019, 26, 1089-1097.e3.	6.4	12
96	Depolarization-induced slow current in cerebellar Purkinje cells does not require metabotropic glutamate receptor 1. Neuroscience, 2009, 162, 688-693.	2.3	10
97	Persistently Elevated mTOR Complex 1-S6 Kinase 1 Disrupts DARPP-32â€“Dependent D1 Dopamine Receptor Signaling and Behaviors. Biological Psychiatry, 2021, 89, 1058-1072.	1.3	8
98	Chronic In Vivo Imaging of Ponto-Cerebellar Mossy Fibers Reveals Morphological Stability during Whisker Sensory Manipulation in the Adult Rat. ENeuro, 2015, 2, ENEURO.0075-15.2015.	1.9	6
99	A cerebellar long-term depression update. Behavioral and Brain Sciences, 1996, 19, 482-487.	0.7	2
100	Introducing Neuro Forum, a Section for Young Neurophysiologists. Journal of Neurophysiology, 2008, 100, 1159-1159.	1.8	2
101	Warm, Fuzzy Feeling. Journal of Neurophysiology, 2008, 100, 1-1.	1.8	0
102	494. Selective Expression of Mutant DISC1 in Purkinje Cells Increased Their Spontaneous Activity and Produced Cognitive Abnormalities Relevant to Autism Spectrum Disorders. Biological Psychiatry, 2017, 81, S201.	1.3	0
103	Preprint Servers and the Journal of Neurophysiology. Journal of Neurophysiology, 2009, 102, 2577-2577.	1.8	0
104	Journal of Neurophysiology and the Neuroscience Peer Review Consortium (NPRC). Journal of Neurophysiology, 2010, 103, 1707-1707.	1.8	0
105	Cerebellar long-term depression as investigated in a cell culture preparation. , 1997, , 1-8.		0