Ladislav Vyklicky

List of Publications by Citations

81 papers	3,709 citations	32 h-index	60 g-index
85 ext. papers	4,076 ext. citations	5.5 avg, IF	4.89 L-index

#	Paper	IF	Citations
81	Regulation of NMDA receptor desensitization in mouse hippocampal neurons by glycine. *Nature*, **1989**, 338, 425-7	50.4	355
80	Modulation of excitatory synaptic transmission by drugs that reduce desensitization at AMPA/kainate receptors. *Neuron*, **1991**, 7, 971-84	13.9	274
79	Modulation of excitatory amino acid receptors by group IIB metal cations in cultured mouse hippocampal neurones. *Journal of Physiology*, **1989**, 415, 329-50	3.9	231
78	A kinetic analysis of the modulation of N-methyl-D-aspartic acid receptors by glycine in mouse cultured hippocampal neurones. *Journal of Physiology*, **1990**, 428, 333-57	3.9	179
77	Modulation of N-methyl-D-aspartic acid receptor desensitization by glycine in mouse cultured hippocampal neurones. *Journal of Physiology*, **1990**, 428, 313-31	3.9	168
76	Concanavalin A selectively reduces desensitization of mammalian neuronal quisqualate receptors. *Proceedings of the National Academy of Sciences of the United States of America*, **1989**, 86, 1411-5	11.5	157
75	Structure, function, and pharmacology of NMDA receptor channels. *Physiological Research*, **2014**, 63, S191-203	2.1	140
74	The effect of external pH changes on responses to excitatory amino acids in mouse hippocampal neurones. *Journal of Physiology*, **1990**, 430, 497-517	3.9	132
73	Highly Efficient Fluorescence Quenching with Graphene. *Journal of Physical Chemistry C*, **2012**, 116, 2858-2862	4.8	115
72	The action of zinc on synaptic transmission and neuronal excitability in cultures of mouse hippocampus. *Journal of Physiology*, **1989**, 415, 351-65	3.9	115
71	Sites of antagonist action on N-methyl-D-aspartic acid receptors studied using fluctuation analysis and a rapid perfusion technique. *Journal of Neurophysiology*, **1988**, 60, 645-63	3.2	110
70	Open channel block of NMDA receptor responses evoked by tricyclic antidepressants. *Neuron*, **1989**, 2, 1221-7	13.9	95
69	Inflammatory mediators at acidic pH activate capsaicin receptors in cultured sensory neurons from newborn rats. *Journal of Neurophysiology*, **1998**, 79, 670-6	3.2	93
68	Calcium-mediated modulation of N-methyl-D-aspartate (NMDA) responses in cultured rat hippocampal neurones. *Journal of Physiology*, **1993**, 470, 575-600	3.9	93
67	Subtype-dependence of N-methyl-D-aspartate receptor modulation by pregnenolone sulfate. *Neuroscience*, **2006**, 137, 93-102	3.9	86
66	Copper modulation of NMDA responses in mouse and rat cultured hippocampal neurons. *European Journal of Neuroscience*, **1996**, 8, 2257-64	3.5	81
65	Molecular mechanism of pregnenolone sulfate action at NR1/NR2B receptors. *Journal of Neuroscience*, **2004**, 24, 10318-25	6.6	70

64	Cholesterol modulates open probability and desensitization of NMDA receptors. *Journal of Physiology*, **2015**, 593, 2279-93	3.9	62
63	20-oxo-5beta-pregnan-3alpha-yl sulfate is a use-dependent NMDA receptor inhibitor. *Journal of Neuroscience*, **2005**, 25, 8439-50	6.6	56
62	Ethanol inhibits cold-menthol receptor TRPM8 by modulating its interaction with membrane phosphatidylinositol 4,5-bisphosphate. *Journal of Neurochemistry*, **2007**, 100, 211-24	6	50
61	Access of inhibitory neurosteroids to the NMDA receptor. *British Journal of Pharmacology*, **2012**, 166, 1069-83	8.6	44
60	The action of excitatory amino acids on chick spinal cord neurones in culture. *Journal of Physiology*, **1987**, 386, 425-38	3.9	44
59	Neurosteroid modulation of N-methyl-D-aspartate receptors: molecular mechanism and behavioral effects. *Steroids*, **2011**, 76, 1409-18	2.8	42
58	Temperature dependence of NR1/NR2B NMDA receptor channels. *Neuroscience*, **2008**, 151, 428-38	3.9	40
57	The pharmacology of tacrine at N-methyl-d-aspartate receptors. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, **2017**, 75, 54-62	5.5	36
56	Properties of NMDA receptors in rat spinal cord motoneurons. *European Journal of Neuroscience*, **1999**, 11, 827-36	3.5	36
55	A physiologist\'s view of the N-methyl-D-Aspartate receptor: An allosteric ion channel with multiple regulatory sites. *Drug Development Research*, **1989**, 17, 263-280	5.1	36
54	Block of NMDA receptor channels by endogenous neurosteroids: implications for the agonist induced conformational states of the channel vestibule. *Scientific Reports*, **2015**, 5, 10935	4.9	35
53	Preferential Inhibition of Tonically over Phasically Activated NMDA Receptors by Pregnane Derivatives. *Journal of Neuroscience*, **2016**, 36, 2161-75	6.6	34
52	Metabotropic action of postsynaptic kainate receptors triggers hippocampal long-term potentiation. *Nature Neuroscience*, **2017**, 20, 529-539	25.5	33
51	Key amino acid residues within the third membrane domains of NR1 and NR2 subunits contribute to the regulation of the surface delivery of N-methyl-D-aspartate receptors. *Journal of Biological Chemistry*, **2012**, 287, 26423-34	5.4	32
50	New caged neurotransmitter analogs selective for glutamate receptor sub-types based on methoxynitroindoline and nitrophenylethoxycarbonyl caging groups. *Neuropharmacology*, **2012**, 63, 624-34	5.5	32
49	Cellular and behavioural effects of a new steroidal inhibitor of the N-methyl-d-aspartate receptor 3□□pregnanolone glutamate. *Neuropharmacology*, **2011**, 61, 61-8	5.5	31
48	Vanilloid receptor TRPV1 is not activated by vanilloids applied intracellularly. *NeuroReport*, **2003**, 14, 1061-5	1.7	28
47	Pharmacologic properties of NMDA receptors. *Annals of the New York Academy of Sciences*, **1992**, 648, 194-204	6.5	28

46	Surface Expression, Function, and Pharmacology of Disease-Associated Mutations in the Membrane Domain of the Human GluN2B Subunit. *Frontiers in Molecular Neuroscience*, **2018**, 11, 110	6.1	27
45	Pregnenolone sulfate modulation of N-methyl-D-aspartate receptors is phosphorylation dependent. *Neuroscience*, **2009**, 160, 616-28	3.9	24
44	Molecular and functional properties of synaptically activated NMDA receptors in neonatal motoneurons in rat spinal cord slices. *European Journal of Neuroscience*, **2000**, 12, 955-63	3.5	24
43	Evidence that excitatory amino acids not only activate the receptor channel complex but also lead to use-dependent block. *Brain Research*, **1986**, 363, 148-51	3.7	24
42	PIP2 and PIP3 interact with N-terminus region of TRPM4 channel. *Biophysical Chemistry*, **2015**, 205, 24-32	3.5	21
41	Differences in the pore sizes of the N-methyl-D-aspartate and kainate cation channels. *Neuroscience Letters*, **1988**, 89, 313-8	3.3	21
40	Temperature dependence of N-methyl-D-aspartate receptor channels and N-methyl-D-aspartate receptor excitatory postsynaptic currents. *Neuroscience*, **2010**, 165, 736-48	3.9	20
39	A New Class of Potent N-Methyl-D-Aspartate Receptor Inhibitors: Sulfated Neuroactive Steroids with Lipophilic D-Ring Modifications. *Journal of Medicinal Chemistry*, **2015**, 58, 5950-66	8.3	19
38	Physicochemical and biological properties of novel amide-based steroidal inhibitors of NMDA receptors. *Steroids*, **2017**, 117, 52-61	2.8	19
37	Intracellular spermine decreases open probability of N-methyl-D-aspartate receptor channels. *Neuroscience*, **2004**, 125, 879-87	3.9	19
36	The LILI Motif of M3-S2 Linkers Is a Component of the NMDA Receptor Channel Gate. *Frontiers in Molecular Neuroscience*, **2018**, 11, 113	6.1	18
35	Spontaneous openings of NMDA receptor channels in cultured rat hippocampal neurons. *European Journal of Neuroscience*, **1997**, 9, 1999-2008	3.5	18
34	Synthesis of C3, C5, and C7 pregnane derivatives and their effect on NMDA receptor responses in cultured rat hippocampal neurons. *Steroids*, **2009**, 74, 256-63	2.8	16
33	Biochemical and electrophysiological characterization of N-glycans on NMDA receptor subunits. *Journal of Neurochemistry*, **2016**, 138, 546-56	6	16
32	Effects of steroids on NMDA receptors and excitatory synaptic transmission in neonatal motoneurons in rat spinal cord slices. *European Journal of Neuroscience*, **2001**, 14, 495-502	3.5	15
31	Axotomy-induced changes in the properties of NMDA receptor channels in rat spinal cord motoneurons. *Journal of Physiology*, **2002**, 538, 53-63	3.9	14
30	Cholesterol modulates presynaptic and postsynaptic properties of excitatory synaptic transmission. *Scientific Reports*, **2020**, 10, 12651	4.9	14
29	Total Synthesis of ent-Pregnanolone Sulfate and Its Biological Investigation at the NMDA Receptor. *Organic Letters*, **2018**, 20, 946-949	6.2	13

28	Positive Modulators of the N-Methyl-d-aspartate Receptor: Structure-Activity Relationship Study of Steroidal 3-Hemiesters. *Journal of Medicinal Chemistry*, **2018**, 61, 4505-4516	8.3	13
27	Single amino acid residue in the M4 domain of GluN1 subunit regulates the surface delivery of NMDA receptors. *Journal of Neurochemistry*, **2012**, 123, 385-95	6	13
26	Distinct regions within the GluN2C subunit regulate the surface delivery of NMDA receptors. *Frontiers in Cellular Neuroscience*, **2014**, 8, 375	6.1	12
25	3□□Pregnanolone glutamate, a use-dependent NMDA antagonist, reversed spatial learning deficit in an animal model of schizophrenia. *Behavioural Brain Research*, **2012**, 235, 82-8	3.4	12
24	Morphology and physiology of lamina I neurons of the caudal part of the trigeminal nucleus. *Neuroscience*, **2007**, 147, 325-33	3.9	11
23	Pregnenolone sulfate activates NMDA receptor channels. *Physiological Research*, **2013**, 62, 731-6	2.1	11
22	Site of Action of Brain Neurosteroid Pregnenolone Sulfate at the N-Methyl-D-Aspartate Receptor. *Journal of Neuroscience*, **2020**, 40, 5922-5936	6.6	10
21	Shared CaM- and S100A1-binding epitopes in the distal TRPM4 N terminus. *FEBS Journal*, **2018**, 285, 599-613	5.7	9
20	NMDA Receptor Opening and Closing-Transitions of a Molecular Machine Revealed by Molecular Dynamics. *Biomolecules*, **2019**, 9,	5.9	8
19	Characterization of the part of N-terminal PIP2 binding site of the TRPM1 channel. *Biophysical Chemistry*, **2015**, 207, 135-42	3.5	8
18	Neurosteroid-like Inhibitors of N-Methyl-d-aspartate Receptor: Substituted 2-Sulfates and 2-Hemisuccinates of Perhydrophenanthrene. *Journal of Medicinal Chemistry*, **2016**, 59, 4724-39	8.3	8
17	Spider venom of Araneus opens and desensitizes glutamate channels in chick spinal cord neurones. *Neuroscience Letters*, **1986**, 68, 227-31	3.3	6
16	The characterization of a novel S100A1 binding site in the N-terminus of TRPM1. *International Journal of Biochemistry and Cell Biology*, **2016**, 78, 186-193	5.6	5
15	Azido analogs of neuroactive steroids. *Steroids*, **2011**, 76, 1043-50	2.8	5
14	Strong Inhibitory Effect, Low Cytotoxicity and High Plasma Stability of Steroidal Inhibitors of -Methyl-D-Aspartate Receptors With C-3 Amide Structural Motif. *Frontiers in Pharmacology*, **2018**, 9, 1299	5.6	5
13	Synthesis of deuterium labeled NMDA receptor inhibitor - 20-Oxo-5□[9,12,12-(2)H(3)]pregnan-3□yl-L-glutamyl 1-ester. *Steroids*, **2012**, 77, 282-7	2.8	4
12	Axotomy-induced change in the properties of (S)-alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate receptor channels in rat motoneurons. *Neuroscience*, **2000**, 99, 119-31	3.9	4
11	G-protein modulation of glycine-resistant NMDA receptor desensitization in rat cultured hippocampal neurons. *European Journal of Neuroscience*, **1995**, 7, 1826-30	3.5	4

10	Glutamine-induced membrane currents in cultured chick spinal cord neurons. *Neuroscience Letters*, **1988**, 90, 333-7	3.3	4
9	Cobalt ions block L-glutamate and L-aspartate-induced currents in cultured neurons from embryonic chick spinal cord. *Neuroscience Letters*, **1985**, 61, 345-50	3.3	4
8	Palmitoylation Controls NMDA Receptor Function and Steroid Sensitivity. *Journal of Neuroscience*, **2021**, 41, 2119-2134	6.6	4
7	Glutamate receptors in cultures of mouse hippocampus studied with fast applications of agonists, modulators and drugs. *Advances in Experimental Medicine and Biology*, **1990**, 268, 3-11	3.6	3
6	Neuroactive steroids with perfluorobenzoyl group. *Steroids*, **2012**, 77, 1233-41	2.8	2
5	Synthesis of pregnane 3-carboxylic acids via Pd-catalyzed alkoxycarbonylation and their effect on NMDA receptor activity. *Collection of Czechoslovak Chemical Communications*, **2011**, 76, 1141-1161		2
4	Ionic currents in neuroblastoma clone E-7 cells. *Neuroscience Letters*, **1985**, 55, 197-201	3.3	2
3	Analysis of Whole-Cell NMDA Receptor Currents. *Neuromethods*, **2016**, 205-219	0.4	2
2	Endogenous neurosteroids pregnanolone and pregnanolone sulfate potentiate presynaptic glutamate release through distinct mechanisms. *British Journal of Pharmacology*, **2021**, 178, 3888-3904	8.6	2
1	Pitfalls of NMDA Receptor Modulation by Neuroactive Steroids. The Effect of Positive and Negative Modulation of NMDA Receptors in an Animal Model of Schizophrenia. *Biomolecules*, **2021**, 11,	5.9	1