Vladimir Dolezal

List of Publications by Year
in descending order

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88 papers	2,011 citations	236612 25 h-index	288905 40 g-index
93 all docs	93 docs citations	93 times ranked	1682 citing authors

#	Article	IF	Citations
1	Allosteric modulation of muscarinic acetylcholine receptors. Trends in Pharmacological Sciences, 1995, 16, 205-212.	4.0	147
2	Utilization of Citrate, Acetylcarnitine, Acetate, Pyruvate and Glucose for the Synthesis of Acetylcholine in Rat Brain Slices. Journal of Neurochemistry, 1981, 36, 1323-1330.	2.1	126
3	Is an acetylcholine transport system responsible for nonquantal release of acetylcholine at the rodent myoneural junction?. Proceedings of the National Academy of Sciences of the United States of America, 1985, 82, 3514-3518.	3.3	102
4	Thiochrome Enhances Acetylcholine Affinity at Muscarinic M4 Receptors: Receptor Subtype Selectivity via Cooperativity Rather than Affinity. Molecular Pharmacology, 2004, 65, 257-266.	1.0	97
5	NMR Structure and Action on Nicotinic Acetylcholine Receptors of Water-soluble Domain of Human LYNX1. Journal of Biological Chemistry, 2011, 286, 10618-10627.	1.6	87
6	Effects of choline and glucose on atropine-induced alterations of acetylcholine synthesis and content in the caudate nuclei of rats. Brain Research, 1982, 240, 285-293.	1.1	58
7	The effects of 4-aminopyridine and tetrodotoxin on the release of acetylcholine from rat striatal slices. Naunyn-Schmiedeberg's Archives of Pharmacology, 1983, 323, 90-95.	1.4	52
8	Muscarinic M2 Receptors Directly Activate Gq/11 and Gs G-Proteins. Journal of Pharmacology and Experimental Therapeutics, 2007, 320, 607-614.	1.3	51
9	Differences in Kinetics of Xanomeline Binding and Selectivity of Activation of G Proteins at M1 and M2 Muscarinic Acetylcholine Receptors. Molecular Pharmacology, 2006, 70, 656-666.	1.0	50
10	Impairment of muscarinic transmission in transgenic APPswe/PS1dE9 mice. Neurobiology of Aging, 2008, 29, 368-378.	1.5	45
11	The synthesis and release of acetylcholine in normal and denervated rat diaphragms during incubation <i>in vitro</i>. Journal of Physiology, 1983, 334, 461-474.	1.3	42
12	The transcriptional repressor REST is a critical regulator of the neurosecretory phenotype. Journal of Neurochemistry, 2006, 98, 1828-1840.	2.1	42
13	The effects of brucine and alcuronium on the inhibition of [3 H]acetylcholine release from rat striatum by muscarinic receptor agonists. British Journal of Pharmacology, 1998, 124, 1213-1218.	2.7	39
14	Functional cholinergic damage develops with amyloid accumulation in young adult APPswe/PS1dE9 transgenic mice. Neurobiology of Disease, 2010, 38, 27-35.	2.1	38
15	Weak toxin WTX from <i>Najaâ€ƒkaouthia</i> cobra venom interacts with both nicotinic and muscarinic acetylcholine receptors. FEBS Journal, 2009, 276, 5065-5075.	2.2	37
16	Structural Insight into Specificity of Interactions between Nonconventional Three-finger Weak Toxin from Naja kaouthia (WTX) and Muscarinic Acetylcholine Receptors. Journal of Biological Chemistry, 2015, 290, 23616-23630.	1.6	37
17	Activation of muscarinic receptors stimulates the release of choline from brain slices. Biochemical and Biophysical Research Communications, 1984, 120, 1002-1007.	1.0	36
18	Secreted Isoform of Human Lynx1 (SLURP-2): Spatial Structure and Pharmacology of Interactions with Different Types of Acetylcholine Receptors. Scientific Reports, 2016, 6, 30698.	1.6	34

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19	Decrease of the spontaneous non-quantal release of acetylcholine from the phrenic nerve in botulinum-poisoned rat diaphragm. Pflugers Archiv European Journal of Physiology, 1983, 397, 319-322.	1.3	32
20	Detection of choline transporterâ€like 1 protein CTL1 in neuroblastomaâ€ƒÃ—â€ƒglioma cells and in the CNS, and its role in choline uptake. Journal of Neurochemistry, 2009, 110, 1297-1309.	2.1	31
21	Inhibition of the Synthesis of Acetylcholine in Rat Brain Slices by (?)-Hydroxycitrate and Citrate. Journal of Neurochemistry, 1981, 36, 1331-1337.	2.1	29
22	Uncoupling of M1 muscarinic receptor/G-protein interaction by amyloid Î²1â€"42. Neuropharmacology, 2013, 67, 272-283.	2.0	28
23	On homology modeling of the M2 muscarinic acetylcholine receptor subtype. Journal of Computer-Aided Molecular Design, 2013, 27, 525-538.	1.3	27
24	Stimuli that induce a cholinergic neuronal phenotype of NG108-15 cells upregulate ChAT and VAChT mRNAs but fail to increase VAChT protein. Brain Research Bulletin, 2001, 54, 363-373.	1.4	26
25	Beta-amyloid and cholinergic neurons. Neurochemical Research, 2003, 28, 499-506.	1.6	26
26	Membrane cholesterol content influences binding properties of muscarinic M2 receptors and differentially impacts activation of second messenger pathways. European Journal of Pharmacology, 2009, 606, 50-60.	1.7	26
27	Towards predictive docking at aminergic G-protein coupled receptors. Journal of Molecular Modeling, 2015, 21, 284.	0.8	25
28	Asparagine, Valine, and Threonine in the Third Extracellular Loop of Muscarinic Receptor Have Essential Roles in the Positive Cooperativity of Strychnine-Like Allosteric Modulators. Journal of Pharmacology and Experimental Therapeutics, 2005, 313, 688-696.	1.3	24
29	More than one way to toy with ChAT and VAChT. Journal of Physiology (Paris), 2002, 96, 61-72.	2.1	23
30	Apolipoprotein E4 reduces evoked hippocampal acetylcholine release in adult mice. Journal of Neurochemistry, 2016, 136, 503-509.	2.1	23
31	The operational model of allosteric modulation of pharmacological agonism. Scientific Reports, 2020, 10, 14421.	1.6	23
32	Molecular Mechanisms of Methoctramine Binding and Selectivity at Muscarinic Acetylcholine Receptors. Molecular Pharmacology, 2014, 86, 180-192.	1.0	21
33	A specific multiâ€nutrient formulation enhances M1 muscarinic acetylcholine receptor responses <i>in vitro</i>. Journal of Neurochemistry, 2012, 120, 631-640.	2.1	19
34	Failure of the calcium channel activator, Bay K 8644, to increase the release of acetylcholine from nerve terminals in brain and diaphragm. British Journal of Pharmacology, 1987, 91, 475-479.	2.7	18
35	Applications and limitations of fitting of the operational model to determine relative efficacies of agonists. Scientific Reports, 2019, 9, 4637.	1.6	18
36	Calcium channels involved in the inhibition of acetylcholine release by presynaptic muscarinic receptors in rat striatum. British Journal of Pharmacology, 1999, 127, 1627-1632.	2.7	17

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37	Presynaptic muscarinic receptors and the release of acetylcholine from cerebrocortical prisms: roles of Ca2+ and K+ concentrations. Naunyn-Schmiedeberg's Archives of Pharmacology, 1993, 348, 228-233.	1.4	16
38	Positive and Negative Effects of Tacrine (Tetrahydroaminoacridine) and Methoxytacrine on the Metabolism of Acetylcholine in Brain Cortical Prisms Incubated Under "Resting"Conditions. Journal of Neurochemistry, 1991, 56, 1207-1215.	2.1	15
39	Negative Effects of Tacrine (Tetrahydroaminoacridine) and Methoxytacrine on the Metabolism of Acetylcholine in Brain Slices Incubated Under Conditions Stimulating Neurotransmitter Release. Journal of Neurochemistry, 1991, 56, 1216-1221.	2.1	15
40	Effect of tacrine on intracellular calcium in cholinergic SN56 neuronal cells. Brain Research, 1997, 769, 219-224.	1.1	15
41	Presynaptic Nicotinic Receptors Stimulate Increases in Intraterminal Calcium of Chick Sympathetic Neurons in Culture. Journal of Neurochemistry, 2002, 65, 1874-1879.	2.1	15
42	Negative cooperativity in binding of muscarinic receptor agonists and GDP as a measure of agonist efficacy. British Journal of Pharmacology, 2011, 162, 1029-1044.	2.7	15
43	Lipid-Based Diets Improve Muscarinic Neurotransmission in the Hippocampus of Transgenic APPswe/PS1dE9 Mice. Current Alzheimer Research, 2015, 12, 923-931.	0.7	15
44	3,4-Diaminopyridine masks the inhibition of noradrenaline release from chick sympathetic neurons via presynapticÎ±2-adrenoceptors: insights into the role of N- and L-type calcium channels. Brain Research, 1996, 721, 101-110.	1.1	14
45	The influx of Ca2+ and the release of noradrenaline evoked by the stimulation of presynaptic nicotinic receptors of chick sympathetic neurons in culture are not mediated via L-, N-, or P-type calcium channels. Brain Research, 1996, 740, 75-80.	1.1	14
46	Chronic treatment with amyloid Î²1â€“42 inhibits non-cholinergic high-affinity choline transport in NG108-15 cells through protein kinase C signaling. Brain Research, 2005, 1062, 101-110.	1.1	14
47	Changes in Membrane Cholesterol Differentially Influence Preferential and Non-preferential Signaling of the M1 and M3 Muscarinic Acetylcholine Receptors. Neurochemical Research, 2015, 40, 2068-2077.	1.6	14
48	Binding of N-methylscopolamine to the extracellular domain of muscarinic acetylcholine receptors. Scientific Reports, 2017, 7, 40381.	1.6	14
49	Differential Effects of the M1â€“M5 Muscarinic Acetylcholine Receptor Subtypes on Intracellular Calcium and on the Incorporation of Choline Into Membrane Lipids in Genetically Modified Chinese Hamster Ovary Cell Lines. Brain Research Bulletin, 1997, 42, 71-78.	1.4	13
50	Influence of retinoic acid and of cyclic AMP on the expression of choline acetyltransferase and of vesicular acetylcholine transporter in NG108-15 cells. Journal of Physiology (Paris), 1998, 92, 379-384.	2.1	13
51	Chronic exposure of NG108-15 cells to amyloid beta peptide (A beta(1-42)) abolishes calcium influx via N-type calcium channels. Neurochemical Research, 2001, 26, 1079-1084.	1.6	13
52	Differentiation of NG108-15 cells induced by the combined presence of dbcAMP and dexamethasone brings about the expression of N and P/Q types of calcium channels and the inhibitory influence of muscarinic receptors on calcium influx. Brain Research, 2001, 910, 134-141.	1.1	12
53	Subtype Differences in Pre-Coupling of Muscarinic Acetylcholine Receptors. PLoS ONE, 2011, 6, e27732.	1.1	12
54	Characterization of the <i>Drosophila</i> adenosine receptor: the effect of adenosine analogs on cAMP signaling in <i>Drosophila</i> cells and their utility for <i>in vivo</i> experiments. Journal of Neurochemistry, 2012, 121, 383-395.	2.1	12

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55	Calcium-Independent Release of Acetylcholine from Electric Organ Synaptosomes and Its Changes by Depolarization and Cholinergic Drugs. Journal of Neurochemistry, 1988, 50, 406-413.	2.1	11
56	Effects of Pertussis Toxin Suggest a Role for G-Proteins in the Inhibition of Acetylcholine Release from Rat Myenteric Plexus by Opioid and Presynaptic Muscarinic Receptors. European Journal of Neuroscience, 1989, 1, 127-131.	1.2	11
57	Presynaptic Î±2-adrenoceptors inhibit calcium influx in terminals of chicken sympathetic neurons and noradrenaline release evoked by nicotinic stimulation. Neuroscience Letters, 1994, 180, 63-66.	1.0	11
58	Effect of Lanthanum on the Release of Acetylcholine from the Myenteric Plexus and on Its Activation by Ouabain and Electrical Stimulation. Journal of Neurochemistry, 1987, 49, 503-506.	2.1	10
59	Effect of N,N'-Dicyclohexylcarbodiimide on Compartmentation and Release of Newly Synthesized and Preformed Acetylcholine in Torpedo Synaptosomes. Journal of Neurochemistry, 1993, 61, 1454-1460.	2.1	10
60	Multiple promoters drive tissue-specific expression of the human M2 muscarinic acetylcholine receptor gene. Journal of Neurochemistry, 2004, 91, 88-98.	2.1	10
61	Role of membrane cholesterol in differential sensitivity of muscarinic receptor subtypes to persistently bound xanomeline. Neuropharmacology, 2018, 133, 129-144.	2.0	10
62	Differences of the electrical and nicotinic receptor stimulation-evoked liberation of norepinephrine from chicken sympathetic neurons in culture: Possible involvement of different pools of the transmitter. Neurochemical Research, 1995, 20, 261-267.	1.6	9
63	Wash-Resistantly Bound Xanomeline Inhibits Acetylcholine Release by Persistent Activation of Presynaptic M2 and M4 Muscarinic Receptors in Rat Brain. Journal of Pharmacology and Experimental Therapeutics, 2007, 322, 316-323.	1.3	9
64	Effects of atropine on the release of newly synthesized acetylcholine from rat striatal slices at various concentrations of calcium ions. Neurochemical Research, 1990, 15, 41-45.	1.6	8
65	Novel longâ€acting antagonists of muscarinic <scp>ACh</scp> receptors. British Journal of Pharmacology, 2018, 175, 1731-1743.	2.7	8
66	Acetylcholine and choline in rat adrenals and brain cortex prisms incubated at elevated concentrations of choline in the medium. Brain Research, 1988, 449, 244-252.	1.1	7
67	The Increase of Choline Acetyltransferase Activity by Docosahexaenoic Acid in NG108-15 Cells Grown in Serum-free Medium is Independent of its Effect on Cell Growth. Neurochemical Research, 2006, 31, 1239-1246.	1.6	7
68	Novel M 2 â€selective, G i â€biased agonists of muscarinic acetylcholine receptors. British Journal of Pharmacology, 2020, 177, 2073-2089.	2.7	7
69	Agonist-Specific Conformations of the M2 Muscarinic Acetylcholine Receptor Assessed by Molecular Dynamics. Journal of Chemical Information and Modeling, 2020, 60, 2325-2338.	2.5	7
70	Long-Term Activation upon Brief Exposure to Xanomleline Is Unique to M1 and M4 Subtypes of Muscarinic Acetylcholine Receptors. PLoS ONE, 2014, 9, e88910.	1.1	7
71	Positive effects of allosteric modulators on the binding properties and the function of muscarinic acetylcholine receptors. Journal of Physiology (Paris), 1998, 92, 241-243.	2.1	6
72	Docosahexaenoic Acid Supports Cell Growth and Expression of Choline Acetyltransferase and Muscarinic Receptors in NG108-15 Cell Line. Journal of Molecular Neuroscience, 2006, 30, 25-26.	1.1	6

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73	Pharmacological Evaluation of the Long-Term Effects of Xanomeline on the M1 Muscarinic Acetylcholine Receptor. PLoS ONE, 2010, 5, e15722.	1.1	6
74	Analysis of equilibrium binding of an orthosteric tracer and two allosteric modulators. PLoS ONE, 2019, 14, e0214255.	1.1	6
75	Investigation of the mechanism of the effect of tacrine (tetrahydroaminoacridine) on the metabolism of acetylcholine and choline in brain cortical prisms. Journal of Neural Transmission Parkinson's Disease and Dementia Section, 1992, 4, 303-318.	1.2	5
76	Divergence of allosteric effects of rapacuronium on binding and function of muscarinic receptors. BMC Pharmacology, 2009, 9, 15.	0.4	5
77	Classical and atypical agonists activate M1 muscarinic acetylcholine receptors through common mechanisms. Pharmacological Research, 2015, 97, 27-39.	3.1	5
78	Neurosteroids and steroid hormones are allosteric modulators of muscarinic receptors. Neuropharmacology, 2021, 199, 108798.	2.0	5
79	Utilization of Superfused Cerebral Slices in Probing Muscarinic Receptor Autoregulation of Acetylcholine Release. Neuromethods, 2016, , 221-233.	0.2	5
80	Outline of Therapeutic Interventions With Muscarinic Receptor-Mediated Transmission. Physiological Research, 2014, 63, S177-S189.	0.4	5
81	Neuroactive steroids, WIN-compounds and cholesterol share a common binding site on muscarinic acetylcholine receptors. Biochemical Pharmacology, 2021, 192, 114699.	2.0	3
82	Nicotine indirectly increases acetylcholine release in rat striatum. Journal of Neurochemistry, 2003, 85, 16-16.	2.1	1
83	Determinants of Positive Cooperativity Between Strychnine-Like Allosteric Modulators and N-Methylscopolamine at Muscarinic Receptors. Journal of Molecular Neuroscience, 2006, 30, 111-112.	1.1	1
84	Regulation of acetylcholine synthesis in presynaptic endings of cholinergic CNS neurons. Neurophysiology, 1984, 16, 453-460.	0.2	0
85	Chapter 25 The non-quantal release of acetylcholine from motor nerve terminals: comment on its likely size. Progress in Brain Research, 1993, 98, 209-212.	0.9	0
86	27 Tacrine inhibits L-type calcium channels in the cholinergic SN56 cell line. Journal of Physiology (Paris), 1998, 92, 426-427.	2.1	0
87	Multi-nutrient intervention in prodromal Alzheimerâ€™s disease: rationale based on results from the lipididiet programme. Neurobiology of Aging, 2016, 39, S26.	1.5	0
88	Effects of Nitric Oxide on the Catecholamine Release from cultured Bovine Adrenal Chromaffin Cells. , 1997, , 987-992.		0