Vladimir Dolezal

List of Publications by Citations

89 papers	1,727 citations	24 h-index	37 g-index
93 ext. papers	1,855 ext. citations	5 avg, IF	4.28 L-index

#	Paper	IF	Citations
89	Allosteric modulation of muscarinic acetylcholine receptors. *Trends in Pharmacological Sciences*, **1995**, 16, 205-12	13.2	137
88	Utilization of citrate, acetylcarnitine, acetate, pyruvate and glucose for the synthesis of acetylcholine in rat brain slices. *Journal of Neurochemistry*, **1981**, 36, 1323-30	6	114
87	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, 3514-8	11.5	92
86	Thiochrome enhances acetylcholine affinity at muscarinic M4 receptors: receptor subtype selectivity via cooperativity rather than affinity. *Molecular Pharmacology*, **2004**, 65, 257-66	4.3	89
85	NMR structure and action on nicotinic acetylcholine receptors of water-soluble domain of human LYNX1. *Journal of Biological Chemistry*, **2011**, 286, 10618-27	5.4	68
84	Effects of choline and glucose on atropine-induced alterations of acetylcholine synthesis and content in the caudate nuclei of rats. *Brain Research*, **1982**, 240, 285-93	3.7	56
83	The effects of 4-aminopyridine and tetrodotoxin on the release of acetylcholine from rat striatal slices. *Naunyn-Schmiedebergs Archives of Pharmacology*, **1983**, 323, 90-5	3.4	50
82	Impairment of muscarinic transmission in transgenic APPswe/PS1dE9 mice. *Neurobiology of Aging*, **2008**, 29, 368-78	5.6	43
81	Differences in kinetics of xanomeline binding and selectivity of activation of G proteins at M(1) and M(2) muscarinic acetylcholine receptors. *Molecular Pharmacology*, **2006**, 70, 656-66	4.3	42
80	Muscarinic M2 receptors directly activate Gq/11 and Gs G-proteins. *Journal of Pharmacology and Experimental Therapeutics*, **2007**, 320, 607-14	4.7	39
79	The synthesis and release of acetylcholine in normal and denervated rat diaphragms during incubation in vitro. *Journal of Physiology*, **1983**, 334, 461-74	3.9	39
78	The transcriptional repressor REST is a critical regulator of the neurosecretory phenotype. *Journal of Neurochemistry*, **2006**, 98, 1828-40	6	38
77	Functional cholinergic damage develops with amyloid accumulation in young adult APPswe/PS1dE9 transgenic mice. *Neurobiology of Disease*, **2010**, 38, 27-35	7.5	36
76	The effects of brucine and alcuronium on the inhibition of [3H]acetylcholine release from rat striatum by muscarinic receptor agonists. *British Journal of Pharmacology*, **1998**, 124, 1213-8	8.6	35
75	Activation of muscarinic receptors stimulates the release of choline from brain slices. *Biochemical and Biophysical Research Communications*, **1984**, 120, 1002-7	3.4	35
74	Weak toxin WTX from Naja kaouthia cobra venom interacts with both nicotinic and muscarinic acetylcholine receptors. *FEBS Journal*, **2009**, 276, 5065-75	5.7	32
73	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, 23616-30	5.4	28

72	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, 319-22	4.6	28
71	Inhibition of the synthesis of acetylcholine in rat brain slices by (-)-hydroxycitrate and citrate. *Journal of Neurochemistry*, **1981**, 36, 1331-7	6	28
70	Detection of choline transporter-like 1 protein CTL1 in neuroblastoma x glioma cells and in the CNS, and its role in choline uptake. *Journal of Neurochemistry*, **2009**, 110, 1297-309	6	27
69	Secreted Isoform of Human Lynx1 (SLURP-2): Spatial Structure and Pharmacology of Interactions with Different Types of Acetylcholine Receptors. *Scientific Reports*, **2016**, 6, 30698	4.9	24
68	Uncoupling of M1 muscarinic receptor/G-protein interaction by amyloid (1-42). *Neuropharmacology*, **2013**, 67, 272-83	5.5	24
67	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, 688-96	4.7	24
66	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, 363-73	3.9	24
65	Beta-amyloid and cholinergic neurons. *Neurochemical Research*, **2003**, 28, 499-506	4.6	23
64	More than one way to toy with ChAT and VAChT. *Journal of Physiology (Paris)*, **2002**, 96, 61-72		20
63	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	5.3	19
62	Molecular mechanisms of methoctramine binding and selectivity at muscarinic acetylcholine receptors. *Molecular Pharmacology*, **2014**, 86, 180-92	4.3	18
61	A specific multi-nutrient formulation enhances M1 muscarinic acetylcholine receptor responses in vitro. *Journal of Neurochemistry*, **2012**, 120, 631-40	6	18
60	Apolipoprotein E4 reduces evoked hippocampal acetylcholine release in adult mice. *Journal of Neurochemistry*, **2016**, 136, 503-9	6	18
59	Towards predictive docking at aminergic G-protein coupled receptors. *Journal of Molecular Modeling*, **2015**, 21, 284	2	17
58	On homology modeling of the M muscarinic acetylcholine receptor subtype. *Journal of Computer-Aided Molecular Design*, **2013**, 27, 525-38	4.2	16
57	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, 475-9	8.6	16
56	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, 1207-15	6	15
55	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, 1216-21	6	15

54	Presynaptic nicotinic receptors stimulate increases in intraterminal calcium of chick sympathetic neurons in culture. *Journal of Neurochemistry*, **1995**, 65, 1874-9	6	14
53	Chronic treatment with amyloid beta(1-42) inhibits non-cholinergic high-affinity choline transport in NG108-15 cells through protein kinase C signaling. *Brain Research*, **2005**, 1062, 101-10	3.7	14
52	Calcium channels involved in the inhibition of acetylcholine release by presynaptic muscarinic receptors in rat striatum. *British Journal of Pharmacology*, **1999**, 127, 1627-32	8.6	14
51	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	3.7	14
50	Effect of tacrine on intracellular calcium in cholinergic SN56 neuronal cells. *Brain Research*, **1997**, 769, 219-24	3.7	13
49	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, 379-84		13
48	3,4-Diaminopyridine masks the inhibition of noradrenaline release from chick sympathetic neurons via presynaptic alpha 2-adrenoceptors: insights into the role of N- and L-type calcium channels. *Brain Research*, **1996**, 721, 101-10	3.7	13
47	Presynaptic muscarinic receptors and the release of acetylcholine from cerebrocortical prisms: roles of Ca2+ and K+ concentrations. *Naunyn-Schmiedebergs Archives of Pharmacology*, **1993**, 348, 228-33	3.4	13
46	Lipid-Based Diets Improve Muscarinic Neurotransmission in the Hippocampus of Transgenic APPswe/PS1dE9 Mice. *Current Alzheimer Research*, **2015**, 12, 923-31	3	13
45	Changes in Membrane Cholesterol Differentially Influence Preferential and Non-preferential Signaling of the M1 and M3 Muscarinic Acetylcholine Receptors. *Neurochemical Research*, **2015**, 40, 2068-77	4.6	12
44	Negative cooperativity in binding of muscarinic receptor agonists and GDP as a measure of agonist efficacy. *British Journal of Pharmacology*, **2011**, 162, 1029-44	8.6	12
43	Differential effects of the M1-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, 71-8	3.9	12
42	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, 134-41	3.7	11
41	Presynaptic alpha 2-adrenoceptors inhibit calcium influx in terminals of chicken sympathetic neurons and noradrenaline release evoked by nicotinic stimulation. *Neuroscience Letters*, **1994**, 180, 63-6	3.3	11
40	Calcium-independent release of acetylcholine from electric organ synaptosomes and its changes by depolarization and cholinergic drugs. *Journal of Neurochemistry*, **1988**, 50, 406-13	6	11
39	Subtype differences in pre-coupling of muscarinic acetylcholine receptors. *PLoS ONE*, **2011**, 6, e27732	3.7	10
38	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	3.5	10
37	The operational model of allosteric modulation of pharmacological agonism. *Scientific Reports*, **2020**, 10, 14421	4.9	10

36	Binding of N-methylscopolamine to the extracellular domain of muscarinic acetylcholine receptors. *Scientific Reports*, **2017**, 7, 40381	4.9	9
35	Multiple promoters drive tissue-specific expression of the human M muscarinic acetylcholine receptor gene. *Journal of Neurochemistry*, **2004**, 91, 88-98	6	9
34	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, 261-7	4.6	9
33	Effect of N,NRdicyclohexylcarbodiimide on compartmentation and release of newly synthesized and preformed acetylcholine in Torpedo synaptosomes. *Journal of Neurochemistry*, **1993**, 61, 1454-60	6	9
32	Applications and limitations of fitting of the operational model to determine relative efficacies of agonists. *Scientific Reports*, **2019**, 9, 4637	4.9	8
31	Wash-resistantly bound xanomeline inhibits acetylcholine release by persistent activation of presynaptic M(2) and M(4) muscarinic receptors in rat brain. *Journal of Pharmacology and Experimental Therapeutics*, **2007**, 322, 316-23	4.7	8
30	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, 1079-84	4.6	8
29	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, 503-6	6	8
28	Role of membrane cholesterol in differential sensitivity of muscarinic receptor subtypes to persistently bound xanomeline. *Neuropharmacology*, **2018**, 133, 129-144	5.5	7
27	Effects of atropine on the release of newly synthesized acetylcholine from rat striatal slices at various concentrations of calcium ions. *Neurochemical Research*, **1990**, 15, 41-5	4.6	7
26	Acetylcholine and choline in rat adrenals and brain cortex prisms incubated at elevated concentrations of choline in the medium. *Brain Research*, **1988**, 449, 244-52	3.7	7
25	Long-term activation upon brief exposure to xanomleline is unique to M1 and M4 subtypes of muscarinic acetylcholine receptors. *PLoS ONE*, **2014**, 9, e88910	3.7	7
24	Novel long-acting antagonists of muscarinic ACh receptors. *British Journal of Pharmacology*, **2018**, 175, 1731-1743	8.6	6
23	Analysis of equilibrium binding of an orthosteric tracer and two allosteric modulators. *PLoS ONE*, **2019**, 14, e0214255	3.7	5
22	Characterization of the Drosophila adenosine receptor: the effect of adenosine analogs on cAMP signaling in Drosophila cells and their utility for in vivo experiments. *Journal of Neurochemistry*, **2012**, 121, 383-95	6	5
21	Pharmacological evaluation of the long-term effects of xanomeline on the M(1) muscarinic acetylcholine receptor. *PLoS ONE*, **2010**, 5, e15722	3.7	5
20	Divergence of allosteric effects of rapacuronium on binding and function of muscarinic receptors. *BMC Pharmacology*, **2009**, 9, 15		5
19	Positive effects of allosteric modulators on the binding properties and the function of muscarinic acetylcholine receptors. *Journal of Physiology (Paris)*, **1998**, 92, 241-3		5

18	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 Parkinsons Disease and Dementia Section*, **1992**, 4, 303-18		5
17	Outline of therapeutic interventions with muscarinic receptor-mediated transmission. *Physiological Research*, **2014**, 63, S177-89	2.1	5
16	Classical and atypical agonists activate M1 muscarinic acetylcholine receptors through common mechanisms. *Pharmacological Research*, **2015**, 97, 27-39	10.2	4
15	Docosahexaenoic acid supports cell growth and expression of choline acetyltransferase and muscarinic receptors in NG108-15 cell line. *Journal of Molecular Neuroscience*, **2006**, 30, 25-6	3.3	4
14	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, 1239-46	4.6	4
13	Novel M -selective, G -biased agonists of muscarinic acetylcholine receptors. *British Journal of Pharmacology*, **2020**, 177, 2073-2089	8.6	4
12	Utilization of Superfused Cerebral Slices in Probing Muscarinic Receptor Autoregulation of Acetylcholine Release. *Neuromethods*, **2016**, 221-233	0.4	3
11	Steroids as the novel class of high-affinity allosteric modulators of muscarinic receptors		2
10	Agonist-Specific Conformations of the M Muscarinic Acetylcholine Receptor Assessed by Molecular Dynamics. *Journal of Chemical Information and Modeling*, **2020**, 60, 2325-2338	6.1	1
9	Determinants of positive cooperativity between strychnine-like allosteric modulators and N-methylscopolamine at muscarinic receptors. *Journal of Molecular Neuroscience*, **2006**, 30, 111-2	3.3	1
8	Neuroactive steroids, WIN-compounds and cholesterol share a common binding site on muscarinic acetylcholine receptors. *Biochemical Pharmacology*, **2021**, 192, 114699	6	0
7	Neurosteroids and steroid hormones are allosteric modulators of muscarinic receptors. *Neuropharmacology*, **2021**, 199, 108798	5.5	0
6	27 Tacrine inhibits L-type calcium channels in the cholinergic SN56 cell line. *Journal of Physiology (Paris)*, **1998**, 92, 426-427		
5	Nicotine indirectly increases acetylcholine release in rat striatum. *Journal of Neurochemistry*, **2003**, 85, 16-16	6	
4	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	2.9	
3	Regulation of acetylcholine synthesis in presynaptic endings of cholinergic CNS neurons. *Neurophysiology*, **1984**, 16, 453-460	0.6	
2	Tacrine (Tetrahydroaminoacridine) and the Metabolism of Acetylcholine and Choline **1993**, 341-351		
1	Effects of Nitric Oxide on the Catecholamine Release from cultured Bovine Adrenal Chromaffin Cells **1997**, 987-992		