Jerrel L Yakel

List of Publications by Year
in descending order

75 papers	4,922 citations	94433 37 h-index	95266 68 g-index
77 all docs	77 docs citations	77 times ranked	4606 citing authors

#	Article	IF	Citations
1	Î±7 nicotinic acetylcholine receptors in the hippocampal circuit: taming complexity. Trends in Neurosciences, 2022, 45, 145-157.	8.6	21
2	Cholinergic Regulation of Hippocampal Theta Rhythm. Biomedicines, 2022, 10, 745.	3.2	6
3	Loss of Î±7 nicotinic acetylcholine receptors in GABAergic neurons causes sex-dependent decreases in radial glia-like cell quantity and impairments in cognitive and social behavior. Brain Structure and Function, 2021, 226, 365-379.	2.3	10
4	Regulation of hippocamposeptal input within the medial septum/diagonal band of Broca. Neuropharmacology, 2021, 191, 108589.	4.1	5
5	Differential signalling induced by Î±7 nicotinic acetylcholine receptors in hippocampal dentate gyrus in vitro and in vivo. Journal of Physiology, 2021, 599, 4687-4704.	2.9	6
6	Hippocampal Interneuronal Î±7 nAChRs Modulate Theta Oscillations in Freely Moving Mice. Cell Reports, 2020, 31, 107740.	6.4	23
7	A novel role of NLRP3-generated IL-1Î² in the acute-chronic transition of peripheral lipopolysaccharide-elicited neuroinflammation: implications for sepsis-associated neurodegeneration. Journal of Neuroinflammation, 2020, 17, 64.	7.2	60
8	A subset of noradrenergic (NE) neurons defined by developmental expression of Hoxb1 have a distinct role in attenuating the behavioral response to acute stress. Molecular Psychiatry, 2019, 24, 625-625.	7.9	0
9	Genetic identification of a population of noradrenergic neurons implicated in attenuation of stress-related responses. Molecular Psychiatry, 2019, 24, 710-725.	7.9	24
10	The Î±7 nicotinic acetylcholine receptors regulate hippocampal adult-neurogenesis in a sexually dimorphic fashion. Brain Structure and Function, 2019, 224, 829-846.	2.3	23
11	Absolute Configuration and Pharmacology of the Poison Frog Alkaloid Phantasmidine. Journal of Natural Products, 2018, 81, 1029-1035.	3.0	14
12	Septal cholinergic neurons gate hippocampal output to entorhinal cortex via oriens lacunosum moleculare interneurons. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1886-E1895.	7.1	55
13	Cholinergic modulation of the hippocampal region and memory function. Journal of Neurochemistry, 2017, 142, 111-121.	3.9	273
14	Local cholinergic-GABAergic circuitry within the basal forebrain is modulated by galanin. Brain Structure and Function, 2017, 222, 1385-1400.	2.3	5
15	Inducing theta oscillations in the entorhinal hippocampal network in vitro. Brain Structure and Function, 2017, 222, 943-955.	2.3	7
16	Hippocampus and Entorhinal Cortex Recruit Cholinergic and NMDA Receptors Separately to Generate Hippocampal Theta Oscillations. Cell Reports, 2017, 21, 3585-3595.	6.4	37
17	Levamisole: A Positive Allosteric Modulator for the Î±3Î²4 Nicotinic Acetylcholine Receptors Prevents Weight Gain in the CD-1 Mice on a High Fat Diet. Current Pharmaceutical Design, 2017, 23, 1869-1872.	1.9	6
18	Heteromeric Î±7Î²2 Nicotinic Acetylcholine Receptors in the Brain. Trends in Pharmacological Sciences, 2016, 37, 562-574.	8.7	79

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19	Nicotinic ACh receptors as therapeutic targets in CNS disorders. Trends in Pharmacological Sciences, 2015, 36, 96-108.	8.7	389
20	Activation of Î±7 nicotinic acetylcholine receptors increases intracellular cAMP levels via activation of AC1 in hippocampal neurons. Neuropharmacology, 2015, 95, 405-414.	4.1	39
21	The effect of Î±7 nicotinic receptor activation on glutamatergic transmission in the hippocampus. Biochemical Pharmacology, 2015, 97, 439-444.	4.4	59
22	A mutation in the extracellular domain of the Î±7 nAChR reduces calcium permeability. Pflugers Archiv European Journal of Physiology, 2014, 466, 1571-1579.	2.8	21
23	Presynaptic Â7 Nicotinic Acetylcholine Receptors Enhance Hippocampal Mossy Fiber Glutamatergic Transmission via PKA Activation. Journal of Neuroscience, 2014, 34, 124-133.	3.6	59
24	Research tool: validation of floxed Î±7 nicotinic acetylcholine receptor conditional knockout mice using in vitro and in vivo approaches. Journal of Physiology, 2014, 592, 3201-3214.	2.9	26
25	Nicotinic ACh receptors in the hippocampal circuit; functional expression and role in synaptic plasticity. Journal of Physiology, 2014, 592, 4147-4153.	2.9	49
26	Functional Distribution and Regulation of Neuronal Nicotinic ACh Receptors in the Mammalian Brain. Receptors, 2014, , 93-114.	0.2	2
27	Activation of the Î±7 nicotinic ACh receptor induces anxiogenic effects in rats which is blocked by a 5-HT1a receptor antagonist. Neuropharmacology, 2013, 70, 35-42.	4.1	37
28	Effects of neuronal nicotinic acetylcholine receptor allosteric modulators in animal behavior studies. Biochemical Pharmacology, 2013, 86, 1054-1062.	4.4	59
29	Cholinergic receptors: functional role of nicotinic ACh receptors in brain circuits and disease. Pflugers Archiv European Journal of Physiology, 2013, 465, 441-450.	2.8	69
30	Nicotinic ACh Receptors in the Hippocampus: Role in Excitability and Plasticity. Nicotine and Tobacco Research, 2012, 14, 1249-1257.	2.6	56
31	Cholinergic Coordination of Presynaptic and Postsynaptic Activity Induces Timing-Dependent Hippocampal Synaptic Plasticity. Journal of Neuroscience, 2012, 32, 12337-12348.	3.6	77
32	Functional Î±7 Nicotinic ACh Receptors on Astrocytes in Rat Hippocampal CA1 Slices. Journal of Molecular Neuroscience, 2012, 48, 14-21.	2.3	97
33	Molecular actions of smoking cessation drugs at Î±4Î²2 nicotinic receptors defined in crystal structures of a homologous binding protein. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9173-9178.	7.1	65
34	Timing-Dependent Septal Cholinergic Induction of Dynamic Hippocampal Synaptic Plasticity. Neuron, 2011, 71, 155-165.	8.1	251
35	The Î±7 nicotinic acetylcholine receptor function in hippocampal neurons is regulated by the lipid composition of the plasma membrane. Journal of Physiology, 2011, 589, 3163-3174.	2.9	50
36	Allosteric modulators of the Î±4Î²2 subtype of neuronal nicotinic acetylcholine receptors. Biochemical Pharmacology, 2011, 82, 952-958.	4.4	38

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37	Allosteric Modulator Desformylflustrabromine Relieves the Inhibition of Î±2Î²2 and Î±4Î²2 Nicotinic Acetylcholine Receptors by Î²-Amyloid1â€“42 Peptide. Journal of Molecular Neuroscience, 2011, 45, 42-47.	2.3	45
38	Allosteric Modulation of Related Ligand-Gated Ion Channels Synergistically Induces Long-Term Potentiation in the Hippocampus and Enhances Cognition. Journal of Pharmacology and Experimental Therapeutics, 2011, 336, 908-915.	2.5	16
39	Crystal Structures of a Cysteine-modified Mutant in Loop D of Acetylcholine-binding Protein. Journal of Biological Chemistry, 2011, 286, 4420-4428.	3.4	46
40	A Structural and Mutagenic Blueprint for Molecular Recognition of Strychnine and d-Tubocurarine by Different Cys-Loop Receptors. PLoS Biology, 2011, 9, e1001034.	5.6	92
41	Hippocampal infusions of MARCKS peptides impair memory of rats on the radial-arm maze. Brain Research, 2010, 1308, 147-152.	2.2	12
42	Gating of nicotinic ACh receptors: latest insights into ligand binding and function. Journal of Physiology, 2010, 588, 597-602.	2.9	38
43	Advances and hold-ups in the study of structure, function and regulation of Cys-loop ligand-gated ion channels and receptors. Journal of Physiology, 2010, 588, 555-556.	2.9	11
44	Rapid desensitization of the rat Î±7 nAChR is facilitated by the presence of a proline residue in the outer Î²â€sheet. Journal of Physiology, 2010, 588, 4415-4429.	2.9	22
45	Identification and Functional Characterization of a Novel Acetylcholine-Binding Protein from the Marine Annelid Capitella teleta. Biochemistry, 2010, 49, 2279-2287.	2.5	28
46	Dual Allosteric Modulators of Neuronal Nicotinicâ€Acetylcholine and GABAâ€A Receptors. FASEB Journal, 2010, 24, 579.5.	0.5	0
47	Characterization of a Nicotine-Sensitive Neuronal Population in Rat Entorhinal Cortex. Journal of Neuroscience, 2009, 29, 10436-10448.	3.6	34
48	Inhibition of Î±7â€containing nicotinic ACh receptors by muscarinic M₁ ACh receptors in rat hippocampal CA1 interneurones in slices. Journal of Physiology, 2009, 587, 1033-1042.	2.9	16
49	Nicotinic acetylcholine receptor-mediated calcium signaling in the nervous system. Acta Pharmacologica Sinica, 2009, 30, 673-680.	6.1	186
50	Aromatic residues at position 55 of rat Î±7 nicotinic acetylcholine receptors are critical for maintaining rapid desensitization. Journal of Physiology, 2008, 586, 1105-1115.	2.9	49
51	Functional Î±7â€containing nicotinic acetylcholine receptors localize to cell bodies and proximal dendrites in the rat substantia nigra pars reticulata. Journal of Physiology, 2008, 586, 1365-1378.	2.9	6
52	Inhibition of Native and Recombinant Nicotinic Acetylcholine Receptors by the Myristoylated Alanine-Rich C Kinase Substrate Peptide. Journal of Pharmacology and Experimental Therapeutics, 2008, 327, 884-890.	2.5	5
53	Structural Determinates for Apolipoprotein E-Derived Peptide Interaction with the Î±7 Nicotinic Acetylcholine Receptor. Molecular Pharmacology, 2007, 72, 838-849.	2.3	20
54	Dendritic Ca2+signalling due to activation of Î±7-containing nicotinic acetylcholine receptors in rat hippocampal neurons. Journal of Physiology, 2007, 582, 597-611.	2.9	35

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55	Gating of nicotinic ACh receptors; new insights into structural transitions triggered by agonist binding that induce channel opening. Journal of Physiology, 2007, 584, 727-733.	2.9	42
56	Functional somato-dendritic Î±7-containing nicotinic acetylcholine receptors in the rat basolateral amygdala complex. Journal of Physiology, 2006, 576, 865-872.	2.9	48
57	Inhibition of Neuronal Nicotinic Acetylcholine Receptor Channels Expressed in <I>Xenopus</I> Oocytes by Î²-Amyloid_{1â€“42} Peptide. Journal of Molecular Neuroscience, 2005, 27, 013-022.	2.3	62
58	Ca2+permeability of nicotinic acetylcholine receptors in rat hippocampal CA1 interneurones. Journal of Physiology, 2005, 566, 759-768.	2.9	45
59	Paired-pulse potentiation of Î±7-containing nAChRs in rat hippocampal CA1 stratum radiatum interneurones. Journal of Physiology, 2005, 568, 881-889.	2.9	24
60	Desensitization of nicotinic ACh receptors: shaping cholinergic signaling. Trends in Neurosciences, 2005, 28, 371-378.	8.6	308
61	Regulation of Nicotinic Acetylcholine Receptor Channel Function by Acetylcholinesterase Inhibitors in Rat Hippocampal CA1 Interneurons. Molecular Pharmacology, 2004, 66, 658-666.	2.3	67
62	Functional and molecular characterization of neuronal nicotinic ACh receptors in rat hippocampal interneurons. Progress in Brain Research, 2004, 145, 95-107.	1.4	19
63	5-HT3 receptors in the CNS: 3B or not 3B?. Trends in Pharmacological Sciences, 2003, 24, 157-160.	8.7	43
64	Functional Mapping and Ca²⁺Regulation of Nicotinic Acetylcholine Receptor Channels in Rat Hippocampal CA1 Neurons. Journal of Neuroscience, 2003, 23, 9024-9031.	3.6	120
65	Rat nicotinic ACh receptor Î±7 and Î²2 subunits coâ€assemble to form functional heteromeric nicotinic receptor channels. Journal of Physiology, 2002, 540, 425-434.	2.9	181
66	Serotonin 5â€HT 3 receptors in rat CA1 hippocampal interneurons: functional and molecular characterization. Journal of Physiology, 2002, 544, 715-726.	2.9	37
67	Single channel properties of neuronal nicotinic ACh receptors in stratum radiatum interneurons of rat hippocampal slices. Journal of Physiology, 2000, 527, 507-513.	2.9	46
68	Functional and molecular characterization of neuronal nicotinic ACh receptors in rat CA1 hippocampal neurons. Journal of Physiology, 2000, 527, 515-528.	2.9	173
69	The Nicotinic Î±4 Receptor Subunit Contributes to the Lining of the Ion Channel Pore When Expressed with the 5-HT3 Receptor Subunit. Journal of Biological Chemistry, 1999, 274, 3934-3936.	3.4	22
70	Inhibitory interneurons in hippocampus. Cell Biochemistry and Biophysics, 1999, 31, 207-218.	1.8	6
71	Nicotinic receptors in the brain: correlating physiology with function. Trends in Neurosciences, 1999, 22, 555-561.	8.6	401
72	MTSEA potentiates 5-HT3 receptors containing the nicotinic Î±4 subunit. Neuropharmacology, 1999, 38, 1913-1915.	4.1	3

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73	Ca²⁺ influx through voltageâ€gated Ca²⁺ channels regulates 5â€HT₃ receptor channel desensitization in rat glioma Ã— mouse neuroblastoma hybrid NG108â€“15 cells. Journal of Physiology, 1998, 510, 361-370.	2.9	18
74	Functional nicotinic ACh receptors on interneurones in the rat hippocampus. Journal of Physiology, 1997, 504, 603-610.	2.9	245
75	5-HT3 receptors mediate rapid responses in cultured hippocampus and a clonal cell line. Neuron, 1988, 1, 615-621.	8.1	254