

# Jerrel L Yakel

## List of Publications by Year in descending order

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75  
papers

4,922  
citations

94433

37  
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95266

68  
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77  
all docs

77  
docs citations

77  
times ranked

4606  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nicotinic receptors in the brain: correlating physiology with function. Trends in Neurosciences, 1999, 22, 555-561.	8.6	401
2	Nicotinic ACh receptors as therapeutic targets in CNS disorders. Trends in Pharmacological Sciences, 2015, 36, 96-108.	8.7	389
3	Desensitization of nicotinic ACh receptors: shaping cholinergic signaling. Trends in Neurosciences, 2005, 28, 371-378.	8.6	308
4	Cholinergic modulation of the hippocampal region and memory function. Journal of Neurochemistry, 2017, 142, 111-121.	3.9	273
5	5-HT <sub>3</sub> receptors mediate rapid responses in cultured hippocampus and a clonal cell line. Neuron, 1988, 1, 615-621.	8.1	254
6	Timing-Dependent Septal Cholinergic Induction of Dynamic Hippocampal Synaptic Plasticity. Neuron, 2011, 71, 155-165.	8.1	251
7	Functional nicotinic ACh receptors on interneurons in the rat hippocampus. Journal of Physiology, 1997, 504, 603-610.	2.9	245
8	Nicotinic acetylcholine receptor-mediated calcium signaling in the nervous system. Acta Pharmacologica Sinica, 2009, 30, 673-680.	6.1	186
9	Rat nicotinic ACh receptor $\alpha 7$ and $\beta 2$ subunits coassemble to form functional heteromeric nicotinic receptor channels. Journal of Physiology, 2002, 540, 425-434.	2.9	181
10	Functional and molecular characterization of neuronal nicotinic ACh receptors in rat CA1 hippocampal neurons. Journal of Physiology, 2000, 527, 515-528.	2.9	173
11	Functional Mapping and $Ca^{2+}$ Regulation of Nicotinic Acetylcholine Receptor Channels in Rat Hippocampal CA1 Neurons. Journal of Neuroscience, 2003, 23, 9024-9031.	3.6	120
12	Functional $\alpha 7$ Nicotinic ACh Receptors on Astrocytes in Rat Hippocampal CA1 Slices. Journal of Molecular Neuroscience, 2012, 48, 14-21.	2.3	97
13	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
14	Heteromeric $\alpha 7\beta 2$ Nicotinic Acetylcholine Receptors in the Brain. Trends in Pharmacological Sciences, 2016, 37, 562-574.	8.7	79
15	Cholinergic Coordination of Presynaptic and Postsynaptic Activity Induces Timing-Dependent Hippocampal Synaptic Plasticity. Journal of Neuroscience, 2012, 32, 12337-12348.	3.6	77
16	Cholinergic receptors: functional role of nicotinic ACh receptors in brain circuits and disease. Pflügers Archiv European Journal of Physiology, 2013, 465, 441-450.	2.8	69
17	Regulation of Nicotinic Acetylcholine Receptor Channel Function by Acetylcholinesterase Inhibitors in Rat Hippocampal CA1 Interneurons. Molecular Pharmacology, 2004, 66, 658-666.	2.3	67
18	Molecular actions of smoking cessation drugs at $\alpha 4\beta 2$ 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

#	ARTICLE	IF	CITATIONS
19	Inhibition of Neuronal Nicotinic Acetylcholine Receptor Channels Expressed in <i>Xenopus</i> Oocytes by $\text{A}\beta_{1-42}$ Peptide. <i>Journal of Molecular Neuroscience</i> , 2005, 27, 013-022.	2.3	62
20	A novel role of NLRP3-generated IL-1 $\beta$ in the acute-chronic transition of peripheral lipopolysaccharide-elicited neuroinflammation: implications for sepsis-associated neurodegeneration. <i>Journal of Neuroinflammation</i> , 2020, 17, 64.	7.2	60
21	Effects of neuronal nicotinic acetylcholine receptor allosteric modulators in animal behavior studies. <i>Biochemical Pharmacology</i> , 2013, 86, 1054-1062.	4.4	59
22	Presynaptic $\alpha 7$ Nicotinic Acetylcholine Receptors Enhance Hippocampal Mossy Fiber Glutamatergic Transmission via PKA Activation. <i>Journal of Neuroscience</i> , 2014, 34, 124-133.	3.6	59
23	The effect of $\alpha 7$ nicotinic receptor activation on glutamatergic transmission in the hippocampus. <i>Biochemical Pharmacology</i> , 2015, 97, 439-444.	4.4	59
24	Nicotinic ACh Receptors in the Hippocampus: Role in Excitability and Plasticity. <i>Nicotine and Tobacco Research</i> , 2012, 14, 1249-1257.	2.6	56
25	Septal cholinergic neurons gate hippocampal output to entorhinal cortex via oriens lacunosum moleculare interneurons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E1886-E1895.	7.1	55
26	The $\alpha 7$ nicotinic acetylcholine receptor function in hippocampal neurons is regulated by the lipid composition of the plasma membrane. <i>Journal of Physiology</i> , 2011, 589, 3163-3174.	2.9	50
27	Aromatic residues at position 55 of rat $\alpha 7$ nicotinic acetylcholine receptors are critical for maintaining rapid desensitization. <i>Journal of Physiology</i> , 2008, 586, 1105-1115.	2.9	49
28	Nicotinic ACh receptors in the hippocampal circuit; functional expression and role in synaptic plasticity. <i>Journal of Physiology</i> , 2014, 592, 4147-4153.	2.9	49
29	Functional somato-dendritic $\alpha 7$ -containing nicotinic acetylcholine receptors in the rat basolateral amygdala complex. <i>Journal of Physiology</i> , 2006, 576, 865-872.	2.9	48
30	Single channel properties of neuronal nicotinic ACh receptors in stratum radiatum interneurons of rat hippocampal slices. <i>Journal of Physiology</i> , 2000, 527, 507-513.	2.9	46
31	Crystal Structures of a Cysteine-modified Mutant in Loop D of Acetylcholine-binding Protein. <i>Journal of Biological Chemistry</i> , 2011, 286, 4420-4428.	3.4	46
32	Ca <sup>2+</sup> -permeability of nicotinic acetylcholine receptors in rat hippocampal CA1 interneurons. <i>Journal of Physiology</i> , 2005, 566, 759-768.	2.9	45
33	Allosteric Modulator Desformylflustrabromine Relieves the Inhibition of $\alpha 2\beta 2$ and $\alpha 4\beta 2$ Nicotinic Acetylcholine Receptors by $\text{A}\beta_{1-42}$ Peptide. <i>Journal of Molecular Neuroscience</i> , 2011, 45, 42-47.	2.3	45
34	5-HT <sub>3</sub> receptors in the CNS: 3B or not 3B?. <i>Trends in Pharmacological Sciences</i> , 2003, 24, 157-160.	8.7	43
35	Gating of nicotinic ACh receptors; new insights into structural transitions triggered by agonist binding that induce channel opening. <i>Journal of Physiology</i> , 2007, 584, 727-733.	2.9	42
36	Activation of $\alpha 7$ nicotinic acetylcholine receptors increases intracellular cAMP levels via activation of AC1 in hippocampal neurons. <i>Neuropharmacology</i> , 2015, 95, 405-414.	4.1	39

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37	Gating of nicotinic ACh receptors: latest insights into ligand binding and function. <i>Journal of Physiology</i> , 2010, 588, 597-602.	2.9	38
38	Allosteric modulators of the $\alpha 4\beta 2$ subtype of neuronal nicotinic acetylcholine receptors. <i>Biochemical Pharmacology</i> , 2011, 82, 952-958.	4.4	38
39	Serotonin 5-HT <sub>3</sub> receptors in rat CA1 hippocampal interneurons: functional and molecular characterization. <i>Journal of Physiology</i> , 2002, 544, 715-726.	2.9	37
40	Activation of the $\alpha 7$ nicotinic ACh receptor induces anxiogenic effects in rats which is blocked by a 5-HT <sub>1a</sub> receptor antagonist. <i>Neuropharmacology</i> , 2013, 70, 35-42.	4.1	37
41	Hippocampus and Entorhinal Cortex Recruit Cholinergic and NMDA Receptors Separately to Generate Hippocampal Theta Oscillations. <i>Cell Reports</i> , 2017, 21, 3585-3595.	6.4	37
42	Dendritic Ca <sup>2+</sup> signalling due to activation of $\alpha 7$ -containing nicotinic acetylcholine receptors in rat hippocampal neurons. <i>Journal of Physiology</i> , 2007, 582, 597-611.	2.9	35
43	Characterization of a Nicotine-Sensitive Neuronal Population in Rat Entorhinal Cortex. <i>Journal of Neuroscience</i> , 2009, 29, 10436-10448.	3.6	34
44	Identification and Functional Characterization of a Novel Acetylcholine-Binding Protein from the Marine Annelid <i>Capitella teleta</i> . <i>Biochemistry</i> , 2010, 49, 2279-2287.	2.5	28
45	Research tool: validation of floxed $\alpha 7$ nicotinic acetylcholine receptor conditional knockout mice using <i>in vitro</i> and <i>in vivo</i> approaches. <i>Journal of Physiology</i> , 2014, 592, 3201-3214.	2.9	26
46	Paired-pulse potentiation of $\alpha 7$ -containing nAChRs in rat hippocampal CA1 stratum radiatum interneurons. <i>Journal of Physiology</i> , 2005, 568, 881-889.	2.9	24
47	Genetic identification of a population of noradrenergic neurons implicated in attenuation of stress-related responses. <i>Molecular Psychiatry</i> , 2019, 24, 710-725.	7.9	24
48	The $\alpha 7$ nicotinic acetylcholine receptors regulate hippocampal adult-neurogenesis in a sexually dimorphic fashion. <i>Brain Structure and Function</i> , 2019, 224, 829-846.	2.3	23
49	Hippocampal Interneuronal $\alpha 7$ nAChRs Modulate Theta Oscillations in Freely Moving Mice. <i>Cell Reports</i> , 2020, 31, 107740.	6.4	23
50	The Nicotinic $\alpha 4$ Receptor Subunit Contributes to the Lining of the Ion Channel Pore When Expressed with the 5-HT <sub>3</sub> Receptor Subunit. <i>Journal of Biological Chemistry</i> , 1999, 274, 3934-3936.	3.4	22
51	Rapid desensitization of the rat $\alpha 7$ nAChR is facilitated by the presence of a proline residue in the outer $\beta$ -sheet. <i>Journal of Physiology</i> , 2010, 588, 4415-4429.	2.9	22
52	A mutation in the extracellular domain of the $\alpha 7$ nAChR reduces calcium permeability. <i>Pflügers Archiv European Journal of Physiology</i> , 2014, 466, 1571-1579.	2.8	21
53	$\alpha 7$ nicotinic acetylcholine receptors in the hippocampal circuit: taming complexity. <i>Trends in Neurosciences</i> , 2022, 45, 145-157.	8.6	21
54	Structural Determinates for Apolipoprotein E-Derived Peptide Interaction with the $\alpha 7$ Nicotinic Acetylcholine Receptor. <i>Molecular Pharmacology</i> , 2007, 72, 838-849.	2.3	20

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55	Functional and molecular characterization of neuronal nicotinic ACh receptors in rat hippocampal interneurons. <i>Progress in Brain Research</i> , 2004, 145, 95-107.	1.4	19
56	Ca <sup>2+</sup> influx through voltage-gated Ca <sup>2+</sup> channels regulates 5-HT <sub>3</sub> receptor channel desensitization in rat glioma Å— mouse neuroblastoma hybrid NG108Å“15 cells. <i>Journal of Physiology</i> , 1998, 510, 361-370.	2.9	18
57	Inhibition of Å“7Å“containing nicotinic ACh receptors by muscarinic M <sub>1</sub> ACh receptors in rat hippocampal CA1 interneurons in slices. <i>Journal of Physiology</i> , 2009, 587, 1033-1042.	2.9	16
58	Allosteric Modulation of Related Ligand-Gated Ion Channels Synergistically Induces Long-Term Potentiation in the Hippocampus and Enhances Cognition. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2011, 336, 908-915.	2.5	16
59	Absolute Configuration and Pharmacology of the Poison Frog Alkaloid Phantasmidine. <i>Journal of Natural Products</i> , 2018, 81, 1029-1035.	3.0	14
60	Hippocampal infusions of MARCKS peptides impair memory of rats on the radial-arm maze. <i>Brain Research</i> , 2010, 1308, 147-152.	2.2	12
61	Advances and hold-ups in the study of structure, function and regulation of Cys-loop ligand-gated ion channels and receptors. <i>Journal of Physiology</i> , 2010, 588, 555-556.	2.9	11
62	Loss of Å“7 nicotinic acetylcholine receptors in GABAergic neurons causes sex-dependent decreases in radial glia-like cell quantity and impairments in cognitive and social behavior. <i>Brain Structure and Function</i> , 2021, 226, 365-379.	2.3	10
63	Inducing theta oscillations in the entorhinal hippocampal network in vitro. <i>Brain Structure and Function</i> , 2017, 222, 943-955.	2.3	7
64	Inhibitory interneurons in hippocampus. <i>Cell Biochemistry and Biophysics</i> , 1999, 31, 207-218.	1.8	6
65	Functional Å“7Å“containing nicotinic acetylcholine receptors localize to cell bodies and proximal dendrites in the rat substantia nigra pars reticulata. <i>Journal of Physiology</i> , 2008, 586, 1365-1378.	2.9	6
66	Differential signalling induced by Å“7 nicotinic acetylcholine receptors in hippocampal dentate gyrus <i>in vitro</i> and <i>in vivo</i>. <i>Journal of Physiology</i> , 2021, 599, 4687-4704.	2.9	6
67	Levamisole: A Positive Allosteric Modulator for the Å“3Å“24 Nicotinic Acetylcholine Receptors Prevents Weight Gain in the CD-1 Mice on a High Fat Diet. <i>Current Pharmaceutical Design</i> , 2017, 23, 1869-1872.	1.9	6
68	Cholinergic Regulation of Hippocampal Theta Rhythm. <i>Biomedicines</i> , 2022, 10, 745.	3.2	6
69	Inhibition of Native and Recombinant Nicotinic Acetylcholine Receptors by the Myristoylated Alanine-Rich C Kinase Substrate Peptide. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2008, 327, 884-890.	2.5	5
70	Local cholinergic-GABAergic circuitry within the basal forebrain is modulated by galanin. <i>Brain Structure and Function</i> , 2017, 222, 1385-1400.	2.3	5
71	Regulation of hippocamposeptal input within the medial septum/diagonal band of Broca. <i>Neuropharmacology</i> , 2021, 191, 108589.	4.1	5
72	MTSEA potentiates 5-HT <sub>3</sub> receptors containing the nicotinic Å“4 subunit. <i>Neuropharmacology</i> , 1999, 38, 1913-1915.	4.1	3

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73	Functional Distribution and Regulation of Neuronal Nicotinic ACh Receptors in the Mammalian Brain. Receptors, 2014, , 93-114.	0.2	2
74	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
75	Dual Allosteric Modulators of Neuronal Nicotinicâ€Acetylcholine and GABAâ€A Receptors. FASEB Journal, 2010, 24, 579.5.	0.5	0