Joe Henry Steinbach

List of Publications by Year
in descending order

95 papers	4,134 citations	126858 33 h-index	118793 62 g-index
95 all docs	95 docs citations	95 times ranked	2640 citing authors

#	Article	IF	Citations
1	The extracellular patch clamp: A method for resolving currents through individual open channels in biological membranes. Pflugers Archiv European Journal of Physiology, 1978, 375, 219-228.	1.3	446
2	The distribution of Î±â€bungarotoxin binding sites on mammalian skeletal muscle developing <i>in vivo</i>. Journal of Physiology, 1977, 267, 195-213.	1.3	258
3	How quickly can GABAA receptors open?. Neuron, 1994, 12, 61-71.	3.8	239
4	Bicuculline and Gabazine Are Allosteric Inhibitors of Channel Opening of the GABA_AReceptor. Journal of Neuroscience, 1997, 17, 625-634.	1.7	221
5	Developmental changes in acetylcholine receptor aggregates at rat skeletal neuromuscular junctions. Developmental Biology, 1981, 84, 267-276.	0.9	144
6	Neurosteroid Access to the GABAA Receptor. Journal of Neuroscience, 2005, 25, 11605-11613.	1.7	144
7	3Î²-Hydroxypregnane Steroids Are Pregnenolone Sulfate-Like GABAAReceptor Antagonists. Journal of Neuroscience, 2002, 22, 3366-3375.	1.7	141
8	The C Terminus of the Human Nicotinic Î±4Î²2 Receptor Forms a Binding Site Required for Potentiation by an Estrogenic Steroid. Journal of Neuroscience, 2001, 21, 6561-6568.	1.7	125
9	Pregnenolone sulfate block of GABA A receptors: mechanism and involvement of a residue in the M2 region of the Î± subunit. Journal of Physiology, 2001, 532, 673-684.	1.3	121
10	How many kinds of nicotinic acetylcholine receptor are there?. Trends in Neurosciences, 1989, 12, 3-6.	4.2	91
11	Nicotine is Highly Effective at Producing Desensitization of Rat Î±4Î²2 Neuronal Nicotinic Receptors. Journal of Physiology, 2003, 553, 857-871.	1.3	87
12	Mutations of the GABA-A Receptor Î±1 Subunit M1 Domain Reveal Unexpected Complexity for Modulation by Neuroactive Steroids. Molecular Pharmacology, 2008, 74, 614-627.	1.0	82
13	Neuroactive steroids have multiple actions to potentiate GABAAreceptors. Journal of Physiology, 2004, 558, 59-74.	1.3	76
14	Steroid Inhibition of Rat Neuronal Nicotinic Î±4Î²2 Receptors Expressed in HEK 293 Cells. Molecular Pharmacology, 2000, 58, 341-351.	1.0	73
15	Neurosteroid Analog Photolabeling of a Site in the Third Transmembrane Domain of the Î²3 Subunit of the GABA_A Receptor. Molecular Pharmacology, 2012, 82, 408-419.	1.0	69
16	Structural domains of the human GABA A receptor Î²3 subunit involved in the actions of pentobarbital. Journal of Physiology, 2000, 524, 649-676.	1.3	62
17	Rare missense variants in CHRNB4 are associated with reduced risk of nicotine dependence. Human Molecular Genetics, 2012, 21, 647-655.	1.4	58
18	Activation of GABAAreceptors containing the Î±4 subunit by GABA and pentobarbital. Journal of Physiology, 2004, 556, 387-399.	1.3	56

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19	Rapsyn Clusters Neuronal Acetylcholine Receptors But Is Inessential for Formation of an Interneuronal Cholinergic Synapse. Journal of Neuroscience, 1998, 18, 4166-4176.	1.7	54
20	The channel opening rate of adult- and fetal-type mouse muscle nicotinic receptors activated by acetylcholine. Journal of Physiology, 1998, 506, 53-72.	1.3	53
21	Activation and block of recombinant GABAA receptors by pentobarbitone: a single-channel study. British Journal of Pharmacology, 2000, 130, 249-258.	2.7	53
22	Reversible loss of acetylcholine receptor clusters at the developing rat neuromuscular junction. Developmental Biology, 1981, 81, 386-391.	0.9	50
23	Channel open time of acetylcholine receptors on Xenopus muscle cells in dissociated cell culture. Developmental Biology, 1982, 91, 93-102.	0.9	47
24	Functional PDF Signaling in the Drosophila Circadian Neural Circuit Is Gated by Ral A-Dependent Modulation. Neuron, 2016, 90, 781-794.	3.8	45
25	Characteristics of concatemeric GABA_A receptors containing Î±4/Î´ subunits expressed in <i>Xenopus</i> oocytes. British Journal of Pharmacology, 2012, 165, 2228-2243.	2.7	43
26	Galantamine Activates Muscle-Type Nicotinic Acetylcholine Receptors without Binding to the Acetylcholine-Binding Site. Journal of Neuroscience, 2005, 25, 1992-2001.	1.7	42
27	The cholinergic antagonist Â-bungarotoxin also binds and blocks a subset of GABA receptors. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5149-5154.	3.3	42
28	Natural and Enantiomeric Etiocholanolone Interact with Distinct Sites on the Rat Î±1Î²2Î³2L GABAA Receptor. Molecular Pharmacology, 2007, 71, 1582-1590.	1.0	41
29	Propofol Is an Allosteric Agonist with Multiple Binding Sites on Concatemeric Ternary GABA_A Receptors. Molecular Pharmacology, 2018, 93, 178-189.	1.0	41
30	Multiple Non-Equivalent Interfaces Mediate Direct Activation of GABAA Receptors by Propofol. Current Neuropharmacology, 2016, 14, 772-780.	1.4	37
31	Neurosteroid migration to intracellular compartments reduces steroid concentration in the membrane and diminishes GABAâ€A receptor potentiation. Journal of Physiology, 2007, 584, 789-800.	1.3	36
32	<i>Î³</i>-Aminobutyric Acid Type A <i>Î±</i>4, <i>Î²</i>2, and <i>Î´</i> Subunits Assemble to Produce More Than One Functionally Distinct Receptor Type. Molecular Pharmacology, 2014, 86, 647-656.	1.0	35
33	Applying the Monod-Wyman-Changeux Allosteric Activation Model to Pseudoâ€“Steady-State Responses from GABA_AReceptors. Molecular Pharmacology, 2019, 95, 106-119.	1.0	35
34	A Portable Site: A Binding Element for 17Î²-Estradiol Can Be Placed on Any Subunit of a Nicotinic Î±4Î²2 Receptor. Journal of Neuroscience, 2011, 31, 5045-5054.	1.7	34
35	Neuroactive Steroids and Human Recombinant Ï1 GABA Receptors. Journal of Pharmacology and Experimental Therapeutics, 2007, 323, 236-247.	1.3	33
36	NEUROMUSCULAR BLOCKING AGENTS. International Anesthesiology Clinics, 1988, 26, 288-301.	0.3	32

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37	Dual Potentiating and Inhibitory Actions of a Benz[e]indene Neurosteroid Analog on Recombinant Î±1Î²2Î³2 GABAA Receptors. Molecular Pharmacology, 2006, 69, 2015-2026.	1.0	32
38	Low doses of ethanol and a neuroactive steroid positively interact to modulate rat GABA A receptor function. Journal of Physiology, 2003, 546, 641-646.	1.3	30
39	Steroid Interaction with a Single Potentiating Site Is Sufficient to Modulate GABA-A Receptor Function. Molecular Pharmacology, 2009, 75, 973-981.	1.0	30
40	GABA Type A Receptor Activation in the Allosteric Coagonist Model Framework: Relationship between EC₅₀ and Basal Activity. Molecular Pharmacology, 2018, 93, 90-100.	1.0	29
41	Activation and block of mouse muscle-type nicotinic receptors by tetraethylammonium. Journal of Physiology, 2003, 551, 155-168.	1.3	29
42	The Actions of Drug Combinations on the GABA_AReceptor Manifest as Curvilinear Isoboles of Additivity. Molecular Pharmacology, 2017, 92, 556-563.	1.0	28
43	What does phosphorylation do for the nicotinic acetylcholine receptor?. Trends in Neurosciences, 1987, 10, 61-64.	4.2	27
44	Activation and Block of the Adult Muscle-Type Nicotinic Receptor by Physostigmine: Single-Channel Studies. Molecular Pharmacology, 2008, 74, 764-776.	1.0	27
45	Occupation of Either Site for the Neurosteroid Allopregnanolone Potentiates the Opening of the GABA_A Receptor Induced from Either Transmitter Binding Site. Molecular Pharmacology, 2011, 80, 79-86.	1.0	27
46	Subunit-Specific Action of an Anticonvulsant Thiobutyrolactone on Recombinant Glycine Receptors Involves a Residue in the M2 Membrane-Spanning Region. Molecular Pharmacology, 2000, 58, 11-17.	1.0	26
47	The Nicotinic<i>Î±</i>5 Subunit Can Replace Either an Acetylcholine-Binding or Nonbinding Subunit in the<i>Î±</i>4<i>Î²</i>2* Neuronal Nicotinic Receptor. Molecular Pharmacology, 2014, 85, 11-17.	1.0	26
48	Analysis of GABA_A Receptor Activation by Combinations of Agonists Acting at the Same or Distinct Binding Sites. Molecular Pharmacology, 2019, 95, 70-81.	1.0	26
49	Functional Characterization of the Î±5(Asn398) Variant Associated with Risk for Nicotine Dependence in the Î±3Î²4Î±5 Nicotinic Receptor. Molecular Pharmacology, 2011, 80, 818-827.	1.0	25
50	Cytisine binds with similar affinity to nicotinic Î±4Î²2 receptors on the cell surface and in homogenates. Brain Research, 2003, 959, 98-102.	1.1	24
51	Structural elements near the Câ€terminus are responsible for changes in nicotinic receptor gating kinetics following patch excision. Journal of Physiology, 2000, 527, 405-417.	1.3	23
52	Enantiomers of Neuroactive Steroids Support a Specific Interaction with the GABA-C Receptor as the Mechanism of Steroid Action. Molecular Pharmacology, 2006, 69, 1779-1782.	1.0	23
53	Role of the Agonist Binding Site in Up-Regulation of Neuronal Nicotinic Î±4Î²2 Receptors. Molecular Pharmacology, 2006, 70, 2037-2044.	1.0	23
54	A Synthetic 18-Norsteroid Distinguishes between Two Neuroactive Steroid Binding Sites on GABA_A Receptors. Journal of Pharmacology and Experimental Therapeutics, 2010, 333, 404-413.	1.3	22

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55	Anticonvulsant and anesthetic effects of a fluorescent neurosteroid analog activated by visible light. Nature Neuroscience, 2007, 10, 523-530.	7.1	21
56	Kinetic and Structural Determinants for GABA-A Receptor Potentiation by Neuroactive Steroids. Current Neuropharmacology, 2010, 8, 18-25.	1.4	21
57	Chemogenetic Isolation Reveals Synaptic Contribution of Î´ GABA_AReceptors in Mouse Dentate Granule Neurons. Journal of Neuroscience, 2018, 38, 8128-8145.	1.7	21
58	FACTORS AFFECTING THE SUSCEPTIBILITY OF DIFFERENT STRAINS OF MICE TO EXPERIMENTAL MY ASTHENIA GRAVIS. Annals of the New York Academy of Sciences, 1981, 377, 237-257.	1.8	20
59	Steady-State Activation and Modulation of the Concatemeric <i>Î±</i>1<i>Î²</i>2<i>Î³</i>2L GABA_A Receptor. Molecular Pharmacology, 2019, 96, 320-329.	1.0	20
60	Hydrogen bonding between the 17Î²â€substituent of a neurosteroid and the GABA_A receptor is not obligatory for channel potentiation. British Journal of Pharmacology, 2009, 158, 1322-1329.	2.7	19
61	A neurosteroid potentiation site can be moved among GABA_A receptor subunits. Journal of Physiology, 2012, 590, 5739-5747.	1.3	19
62	Cis-Regulatory Variants Affect CHRNA5 mRNA Expression in Populations of African and European Ancestry. PLoS ONE, 2013, 8, e80204.	1.1	19
63	Kinetic analysis of voltageâ€dependent potentiation and block of the glycine Î±3 receptor by a neuroactive steroid analogue. Journal of Physiology, 2009, 587, 981-997.	1.3	17
64	Steadyâ€state activation and modulation of the synapticâ€type <i>Î±</i> 1 <i>Î²</i> 2 <i>Î³</i> 2L GABA _A receptor by combinations of physiological and clinical ligands. Physiological Reports, 2019, 7, e14230.	0.7	17
65	Ethanol Modulates the Interaction of the Endogenous Neurosteroid Allopregnanolone with the Î±1Î²2Î³2L GABAA Receptor. Molecular Pharmacology, 2007, 71, 461-472.	1.0	16
66	Pharmacology of structural changes at the GABA_A receptor transmitter binding site. British Journal of Pharmacology, 2011, 162, 840-850.	2.7	15
67	Neonatal Rat Cerebellar Granule and Purkinje Neurons in Culture Express Different GABAAReceptors. European Journal of Neuroscience, 1995, 7, 1895-1905.	1.2	14
68	Site-Specific Fluorescence Reveals Distinct Structural Changes Induced in the Human Ï1 GABA Receptor by Inhibitory Neurosteroids. Molecular Pharmacology, 2010, 77, 539-546.	1.0	13
69	Activation and Modulation of Concatemeric GABA-A Receptors Expressed in Human Embryonic Kidney Cells. Molecular Pharmacology, 2009, 75, 1400-1411.	1.0	12
70	Collagenase digestion alters the organization and turnover of junctional acetylcholine receptors. Neuroscience Letters, 1986, 66, 113-119.	1.0	10
71	Differences in the expression of GABAA receptors between functionally innervated and non-innervated granule neurons in neonatal rat cerebellar cultures. Brain Research, 1996, 714, 49-56.	1.1	10
72	Multiple Modes for Conferring Surface Expression of Homomeric Î²1 GABAA Receptors. Journal of Biological Chemistry, 2008, 283, 26128-26136.	1.6	10

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73	Functional Characterization Improves Associations between Rare Non-Synonymous Variants in CHRNB4 and Smoking Behavior. PLoS ONE, 2014, 9, e96753.	1.1	10
74	Mutations in the Main Cytoplasmic Loop of the GABAA Receptor Î±4 and Î´ Subunits Have Opposite Effects on Surface Expression. Molecular Pharmacology, 2014, 86, 20-27.	1.0	10
75	Potentiation of Neuronal Nicotinic Receptors by 17Î²-Estradiol: Roles of the Carboxy-Terminal and the Amino-Terminal Extracellular Domains. PLoS ONE, 2015, 10, e0144631.	1.1	10
76	Intrasubunit and intersubunit steroid binding sites independently and additively mediate Î±1Î²2Î³2L GABA_A receptor potentiation by the endogenous neurosteroid allopregnanolone. Molecular Pharmacology, 2021, 100, MOLPHARM-AR-2021-000268.	1.0	10
77	Mechanism of Action of the Nicotinic Acetylcholine Receptor. Novartis Foundation Symposium, 1990, 152, 53-67.	1.2	10
78	Application of the Co-Agonist Concerted Transition Model to Analysis of GABAA Receptor Properties. Current Neuropharmacology, 2019, 17, 843-851.	1.4	9
79	The Sulfated Steroids Pregnenolone Sulfate and Dehydroepiandrosterone Sulfate Inhibit the <i>Î±</i>1<i>Î²</i>3<i>Î³</i>2L GABA_A Receptor by Stabilizing a Novel Nonconducting State. Molecular Pharmacology, 2022, 101, 68-77.	1.0	9
80	Enhancement of muscimol binding and gating by allosteric modulators of the GABAA receptor: relating occupancy to state functions. Molecular Pharmacology, 2020, 98, MOLPHARM-AR-2020-000066.	1.0	8
81	Use of Concatemers of Ligand-Gated Ion Channel Subunits to Study Mechanisms of Steroid Potentiation. Anesthesiology, 2011, 115, 1328-1337.	1.3	7
82	Enhancement of Muscimol Binding and Gating by Allosteric Modulators of the GABA_AReceptor: Relating Occupancy to State Functions. Molecular Pharmacology, 2020, 98, 303-313.	1.0	6
83	Agonist-Specific Conformational Changes in the Î±1-Î³2 Subunit Interface of the GABAA Receptor. Molecular Pharmacology, 2012, 82, 255-263.	1.0	4
84	The E Loop of the Transmitter Binding Site Is a Key Determinant of the Modulatory Effects of Physostigmine on Neuronal Nicotinic <i>Î±</i>4<i>Î²</i>2 Receptors. Molecular Pharmacology, 2017, 91, 100-109.	1.0	4
85	Mild chronic perturbation of inhibition severely alters hippocampal function. Scientific Reports, 2019, 9, 16431.	1.6	4
86	Perspective on the relationship between GABAA receptor activity and the apparent potency of an inhibitor. Current Neuropharmacology, 2021, 19, .	1.4	4
87	Energetic Contributions to Channel Gating of Residues in the Muscle Nicotinic Receptor Î²1 Subunit. PLoS ONE, 2013, 8, e78539.	1.1	3
88	Chapter 7 Function of Mammalian Nicotinic Acetylcholine Receptors: Agonist Concentration Dependence of Single Channel Current Kinetics. Current Topics in Membranes and Transport, 1988, 33, 133-145.	0.6	2
89	Reduced Activation of the Synaptic-Type GABA_A Receptor Following Prolonged Exposure to Low Concentrations of Agonists: Relationship between Tonic Activity and Desensitization. Molecular Pharmacology, 2020, 98, 762-769.	1.0	2
90	Analysis of Modulation of the Ï•1 GABAA Receptor by Combinations of Inhibitory and Potentiating Neurosteroids Reveals Shared and Distinct Binding Sites. Molecular Pharmacology, 2020, 98, 280-291.	1.0	2

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91	How to Force Conformity on Transmitter-Gated Channels. Journal of General Physiology, 2000, 116, 445-448.	0.9	1
92	Flapping Loops: Roles for Hinges in a Ligand-Binding Domain of the Nicotinic Receptor. Molecular Pharmacology, 2011, 79, 337-339.	1.0	1
93	Introduced Amino Terminal Epitopes Can Reduce Surface Expression of Neuronal Nicotinic Receptors. PLoS ONE, 2016, 11, e0151071.	1.1	1
94	Unready for action. Nature, 2008, 454, 704-705.	13.7	0
95	Determination of the Residues in the Extracellular Domain of the Nicotinic <i>Î±</i> Subunit Required for the Actions of Physostigmine on Neuronal Nicotinic Receptors. Molecular Pharmacology, 2017, 92, 318-326.	1.0	0