

Trevor G Smart

List of Publications by Year in descending order

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98
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10,436
citations

41344

49
h-index

36028

97
g-index

106
all docs

106
docs citations

106
times ranked

8589
citing authors

#	ARTICLE	IF	CITATIONS
1	Endogenous neurosteroids regulate GABAA receptors through two discrete transmembrane sites. <i>Nature</i> , 2006, 444, 486-489.	27.8	650
2	HEK293 cell line: A vehicle for the expression of recombinant proteins. <i>Journal of Pharmacological and Toxicological Methods</i> , 2005, 51, 187-200.	0.7	528
3	Cloning and functional expression of a brain G-protein-coupled ATP receptor. <i>FEBS Letters</i> , 1993, 324, 219-225.	2.8	496
4	Constructing inhibitory synapses. <i>Nature Reviews Neuroscience</i> , 2001, 2, 240-250.	10.2	422
5	Modulation of inhibitory and excitatory amino acid receptor ion channels by zinc. <i>Progress in Neurobiology</i> , 1994, 42, 393-441.	5.7	416
6	A physiological role for endogenous zinc in rat hippocampal synaptic neurotransmission. <i>Nature</i> , 1991, 349, 521-524.	27.8	367
7	Assembly and Cell Surface Expression of Heteromeric and Homomeric \hat{I}^3 -Aminobutyric Acid Type A Receptors. <i>Journal of Biological Chemistry</i> , 1996, 271, 89-96.	3.4	293
8	Regulation of GABAA receptor function by protein kinase C phosphorylation. <i>Neuron</i> , 1994, 12, 1081-1095.	8.1	290
9	Constitutive Endocytosis of GABA _A Receptors by an Association with the Adaptin AP2 Complex Modulates Inhibitory Synaptic Currents in Hippocampal Neurons. <i>Journal of Neuroscience</i> , 2000, 20, 7972-7977.	3.6	281
10	Binding, activation and modulation of Cys-loop receptors. <i>Trends in Pharmacological Sciences</i> , 2010, 31, 161-174.	8.7	276
11	Brain-Derived Neurotrophic Factor Modulates Fast Synaptic Inhibition by Regulating GABAA Receptor Phosphorylation, Activity, and Cell-Surface Stability. <i>Journal of Neuroscience</i> , 2004, 24, 522-530.	3.6	249
12	Retrograde activation of presynaptic NMDA receptors enhances GABA release at cerebellar interneuron-Purkinje cell synapses. <i>Nature Neuroscience</i> , 2004, 7, 525-533.	14.8	240
13	Mutations in the gene encoding GlyT2 (SLC6A5) define a presynaptic component of human startle disease. <i>Nature Genetics</i> , 2006, 38, 801-806.	21.4	232
14	Zinc-mediated inhibition of GABAA receptors: discrete binding sites underlie subtype specificity. <i>Nature Neuroscience</i> , 2003, 6, 362-369.	14.8	226
15	GABAA receptor cell surface number and subunit stability are regulated by the ubiquitin-like protein Plic-1. <i>Nature Neuroscience</i> , 2001, 4, 908-916.	14.8	217
16	Adjacent phosphorylation sites on GABAA receptor \hat{I}^2 subunits determine regulation by cAMP-dependent protein kinase. <i>Nature Neuroscience</i> , 1998, 1, 23-28.	14.8	211
17	Neurosteroid binding sites on GABAA receptors. , 2007, 116, 7-19.		209
18	Modulation of GABAA receptors by tyrosine phosphorylation. <i>Nature</i> , 1995, 377, 344-348.	27.8	208

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19	Zn ²⁺ Ions: Modulators of Excitatory and Inhibitory Synaptic Activity. <i>Neuroscientist</i> , 2004, 10, 432-442.	3.5	207
20	Conserved site for neurosteroid modulation of GABA _A receptors. <i>Neuropharmacology</i> , 2009, 56, 149-154.	4.1	204
21	Cell Surface Stability of $\hat{\gamma}$ -Aminobutyric Acid Type A Receptors. <i>Journal of Biological Chemistry</i> , 1999, 274, 36565-36572.	3.4	167
22	Phospho-Dependent Functional Modulation of GABA _B Receptors by the Metabolic Sensor AMP-Dependent Protein Kinase. <i>Neuron</i> , 2007, 53, 233-247.	8.1	167
23	GABA _A Receptor Phosphorylation and Functional Modulation in Cortical Neurons by a Protein Kinase C-dependent Pathway. <i>Journal of Biological Chemistry</i> , 2000, 275, 38856-38862.	3.4	162
24	Dynamic mobility of functional GABA _A receptors at inhibitory synapses. <i>Nature Neuroscience</i> , 2005, 8, 889-897.	14.8	161
25	Extrasynaptic $\hat{\alpha}$ subunit GABA _A receptors on rat hippocampal pyramidal neurons. <i>Journal of Physiology</i> , 2006, 577, 841-856.	2.9	153
26	Crystal structures of a GABA _A -receptor chimera reveal new endogenous neurosteroid-binding sites. <i>Nature Structural and Molecular Biology</i> , 2017, 24, 977-985.	8.2	152
27	The major central endocannabinoid directly acts at GABA _A receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 18150-18155.	7.1	149
28	GABA Potency at GABA _A Receptors Found in Synaptic and Extrasynaptic Zones. <i>Frontiers in Cellular Neuroscience</i> , 2011, 6, 1.	3.7	134
29	Distinct activities of GABA agonists at synaptic and extrasynaptic GABA _A receptors. <i>Journal of Physiology</i> , 2010, 588, 1251-1268.	2.9	133
30	The desensitization gate of inhibitory Cys-loop receptors. <i>Nature Communications</i> , 2015, 6, 6829.	12.8	117
31	Cyclic AMP-dependent protein kinase phosphorylation facilitates GABA _B receptor effector coupling. <i>Nature Neuroscience</i> , 2002, 5, 415-424.	14.8	115
32	Pharmacological and Physiological Characterization of Murine Homomeric $\hat{\gamma}$ GABA _A Receptors. <i>European Journal of Neuroscience</i> , 1997, 9, 2225-2235.	2.6	114
33	Identification of Amino Acid Residues within GABA _A Receptor $\hat{\gamma}$ Subunits that Mediate Both Homomeric and Heteromeric Receptor Expression. <i>Journal of Neuroscience</i> , 1999, 19, 6360-6371.	3.6	107
34	Prolonged activation of NMDA receptors promotes dephosphorylation and alters postendocytic sorting of GABA _B receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 13918-13923.	7.1	107
35	Radixin regulates synaptic GABA _A receptor density and is essential for reversal learning and short-term memory. <i>Nature Communications</i> , 2015, 6, 6872.	12.8	106
36	Benzodiazepines Modulate GABA _A Receptors by Regulating the Preactivation Step after GABA Binding. <i>Journal of Neuroscience</i> , 2012, 32, 5707-5715.	3.6	99

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37	Identification of an inhibitory Zn ²⁺ -binding site on the human glycine receptor $\hat{\Gamma}$ ₁ subunit. <i>Journal of Physiology</i> , 1999, 520, 53-64.	2.9	89
38	Synaptic Neurotransmitter-Gated Receptors. <i>Cold Spring Harbor Perspectives in Biology</i> , 2012, 4, a009662-a009662.	5.5	83
39	Modulation of long-term potentiation in rat hippocampal pyramidal neurons by zinc. <i>Pflugers Archiv European Journal of Physiology</i> , 1994, 427, 481-486.	2.8	77
40	Modulation of neuronal and recombinant GABA _A receptors by redox reagents. <i>Journal of Physiology</i> , 1999, 517, 35-50.	2.9	74
41	Subcellular Localization and Endocytosis of Homomeric $\hat{\Gamma}$ ₂ Subunit Splice Variants of $\hat{\Gamma}$ ₃ -Aminobutyric Acid Type A Receptors. <i>Molecular and Cellular Neurosciences</i> , 1999, 13, 259-271.	2.2	74
42	Molecular Basis for Zinc Potentiation at Strychnine-sensitive Glycine Receptors. <i>Journal of Biological Chemistry</i> , 2005, 280, 37877-37884.	3.4	74
43	Identification of a Zn ²⁺ -binding site on the marine GABA _A receptor complex: Dependence on the Second transmembrane domain of $\hat{\Gamma}$ ₂ subunits. <i>Journal of Physiology</i> , 1997, 505, 633-640.	2.9	72
44	Identification of Residues within GABA _A Receptor $\hat{\Gamma}$ ₁ Subunits That Mediate Specific Assembly with Receptor $\hat{\Gamma}$ ₂ Subunits. <i>Journal of Neuroscience</i> , 2000, 20, 1297-1306.	3.6	67
45	Wnt Signaling Mediates LTP-Dependent Spine Plasticity and AMPAR Localization through Frizzled-7 Receptors. <i>Cell Reports</i> , 2018, 23, 1060-1071.	6.4	64
46	Interaction of H ⁺ and Zn ²⁺ on recombinant and native rat neuronal GABA _A receptors. <i>Journal of Physiology</i> , 1998, 507, 639-652.	2.9	63
47	Intracellular Chloride Ions Regulate the Time Course of GABA-Mediated Inhibitory Synaptic Transmission. <i>Journal of Neuroscience</i> , 2009, 29, 10416-10423.	3.6	63
48	Activation of single heteromeric GABA _A receptor ion channels by full and partial agonists. <i>Journal of Physiology</i> , 2004, 557, 389-413.	2.9	58
49	Disease-associated missense mutations in GluN2B subunit alter NMDA receptor ligand binding and ion channel properties. <i>Nature Communications</i> , 2018, 9, 957.	12.8	58
50	Methods for recording and measuring tonic GABA _A receptor-mediated inhibition. <i>Frontiers in Neural Circuits</i> , 2013, 7, 193.	2.8	56
51	Brief Report: Isogenic Induced Pluripotent Stem Cell Lines From an Adult With Mosaic Down Syndrome Model Accelerated Neuronal Ageing and Neurodegeneration. <i>Stem Cells</i> , 2015, 33, 2077-2084.	3.2	56
52	Molecular determinants of glycine receptor $\hat{\Gamma}$ ₁ $\hat{\Gamma}$ ₂ subunit sensitivities to Zn ²⁺ -mediated inhibition. <i>Journal of Physiology</i> , 2005, 566, 657-670.	2.9	49
53	Mutations in the <i>Gabrb1</i> gene promote alcohol consumption through increased tonic inhibition. <i>Nature Communications</i> , 2013, 4, 2816.	12.8	44
54	Identification of the Sites for CaMK-II-dependent Phosphorylation of GABA _A Receptors. <i>Journal of Biological Chemistry</i> , 2007, 282, 17855-17865.	3.4	43

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55	Interneuron- and GABA _A receptor-specific inhibitory synaptic plasticity in cerebellar Purkinje cells. <i>Nature Communications</i> , 2015, 6, 7364.	12.8	42
56	A half century of $\hat{1}^3$ -aminobutyric acid. <i>Brain and Neuroscience Advances</i> , 2019, 3, 239821281985824.	3.4	42
57	Single-channel recording of ligand-gated ion channels. <i>Nature Protocols</i> , 2007, 2, 2826-2841.	12.0	41
58	Identification of a $\hat{1}^2$ Subunit TM2 Residue Mediating Proton Modulation of GABA Type A Receptors. <i>Journal of Neuroscience</i> , 2002, 22, 5328-5333.	3.6	40
59	Differential agonist sensitivity of glycine receptor $\hat{1}^{\pm} 2$ subunit splice variants. <i>British Journal of Pharmacology</i> , 2004, 143, 19-26.	5.4	35
60	Sushi domains confer distinct trafficking profiles on GABA _B receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 12171-12176.	7.1	35
61	Protein kinase _C regulates tonic GABA _A receptor-mediated inhibition in the hippocampus and thalamus. <i>European Journal of Neuroscience</i> , 2013, 38, 3408-3423.	2.6	34
62	GABAAR isoform and subunit structural motifs determine synaptic and extrasynaptic receptor localisation. <i>Neuropharmacology</i> , 2020, 169, 107540.	4.1	34
63	Mapping a molecular link between allosteric inhibition and activation of the glycine receptor. <i>Nature Structural and Molecular Biology</i> , 2008, 15, 1084-1093.	8.2	33
64	Snake neurotoxin $\hat{1}^{\pm}$ -bungarotoxin is an antagonist at native GABA _A receptors. <i>Neuropharmacology</i> , 2015, 93, 28-40.	4.1	33
65	Proton sensitivity of rat cerebellar granule cell GABA A receptors: dependence on neuronal development. <i>Journal of Physiology</i> , 2001, 530, 219-233.	2.9	32
66	Proton modulation of recombinant GABA _A receptors: influence of GABA concentration and the $\hat{1}^2$ subunit TM2-TM3 domain. <i>Journal of Physiology</i> , 2005, 567, 365-377.	2.9	32
67	Epilepsy and intellectual disability linked protein Shrm4 interaction with GABA _B R shapes inhibitory neurotransmission. <i>Nature Communications</i> , 2017, 8, 14536.	12.8	31
68	Mechanisms of inhibition and activation of extrasynaptic $\hat{1}^{\pm} \hat{1}^2$ GABA _A receptors. <i>Nature</i> , 2022, 602, 529-533.	27.8	31
69	Inhibitory Neurosteroids and the GABA _A Receptor. <i>Advances in Pharmacology</i> , 2015, 72, 165-187.	2.0	28
70	Modulation of neurosteroid potentiation by protein kinases at synaptic- and extrasynaptic-type GABA _A receptors. <i>Neuropharmacology</i> , 2015, 88, 63-73.	4.1	27
71	Thiocyanate ions selectively antagonize AMPA-evoked responses in <i>Xenopus laevis</i> oocytes microinjected with rat brain mRNA. <i>British Journal of Pharmacology</i> , 1993, 109, 779-787.	5.4	24
72	Photo-antagonism of the GABA _A receptor. <i>Nature Communications</i> , 2014, 5, 4454.	12.8	22

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73	Î ² -Aminobutyric Acid Type B (GABAB) Receptor Internalization Is Regulated by the R2 Subunit. <i>Journal of Biological Chemistry</i> , 2011, 286, 24324-24335.	3.4	21
74	Î ³ -Aminobutyric Acid Type B (GABAB) Receptor Internalization Is Regulated by the R2 Subunit. <i>Journal of Biological Chemistry</i> , 2011, 286, 24324-24335.	3.4	20
75	Azogabazine; a photochromic antagonist of the GABA _A receptor. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 6676-6678.	2.8	19
76	Barbiturates Bind in the GLIC Ion Channel Pore and Cause Inhibition by Stabilizing a Closed State. <i>Journal of Biological Chemistry</i> , 2017, 292, 1550-1558.	3.4	19
77	Synthesis and evaluation of highly potent GABAA receptor antagonists based on gabazine (SR-95531). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 4252-4254.	2.2	18
78	Phospho-dependent Accumulation of GABABRs at Presynaptic Terminals after NMDAR Activation. <i>Cell Reports</i> , 2016, 16, 1962-1973.	6.4	18
79	Probing GABAA receptors with inhibitory neurosteroids. <i>Neuropharmacology</i> , 2018, 136, 23-36.	4.1	18
80	Tracking Cell Surface Mobility of GPCRs Using Î±-Bungarotoxin-Linked Fluorophores. <i>Methods in Enzymology</i> , 2013, 521, 109-129.	1.0	16
81	Tyrosine Phosphorylation of GABAA Receptor Î ² -Subunit Regulates Tonic and Phasic Inhibition in the Thalamus. <i>Journal of Neuroscience</i> , 2013, 33, 12718-12727.	3.6	15
82	Cell surface expression of homomeric GABAA receptors depends on single residues in subunit transmembrane domains. <i>Journal of Biological Chemistry</i> , 2018, 293, 13427-13439.	3.4	15
83	Giant GABAB-mediated Synaptic Potentials Induced by Zinc in the Rat Hippocampus: Paradoxical Effects of Zinc on the GABAB Receptor. <i>European Journal of Neuroscience</i> , 1993, 5, 430-436.	2.6	14
84	Physiological role for GABAA receptor desensitization in the induction of long-term potentiation at inhibitory synapses. <i>Nature Communications</i> , 2021, 12, 2112.	12.8	14
85	Murine startle mutant <i>Nmf11</i> affects the structural stability of the glycine receptor and increases deactivation. <i>Journal of Physiology</i> , 2016, 594, 3589-3607.	2.9	10
86	Effects of <i>Gabra2</i> Point Mutations on Alcohol Intake: Increased Binge-Like and Blunted Chronic Drinking by Mice. <i>Alcoholism: Clinical and Experimental Research</i> , 2016, 40, 2445-2455.	2.4	10
87	Differential Coassembly of Î ¹ -GABA _A Rs Associated with Epileptic Encephalopathy. <i>Journal of Neuroscience</i> , 2020, 40, 5518-5530.	3.6	10
88	Context-Dependent Modulation of GABA _A -Mediated Tonic Currents. <i>Journal of Neuroscience</i> , 2016, 36, 607-621.	3.6	9
89	Structural determinants and regulation of spontaneous activity in GABAA receptors. <i>Nature Communications</i> , 2021, 12, 5457.	12.8	8
90	Pharmacological characterisation of murine Î ⁴ GABAA receptors expressed in <i>Xenopus</i> oocytes. <i>BMC Neuroscience</i> , 2015, 16, 8.	1.9	6

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91	Developing New 4-PIOL and 4-PHP Analogues for Photoinactivation of \hat{I}^3 -Aminobutyric Acid Type A Receptors. ACS Chemical Neuroscience, 2019, 10, 4669-4684.	3.5	6
92	AKAP79 enables calcineurin to directly suppress protein kinase A activity. ELife, 2021, 10, .	6.0	6
93	Speciesâ€dependent functional properties of nonâ€NMDA receptors expressed in <i>Xenopus laevis</i> oocytes injected with mammalian and avian brain mRNA. British Journal of Pharmacology, 1994, 111, 803-810.	5.4	4
94	Phosphorylation of neuroligin-2 by PKA regulates its cell surface abundance and synaptic stabilization. Science Signaling, 2022, 15, .	3.6	4
95	Optopharmacology reveals a differential contribution of native GABAA receptors to dendritic and somatic inhibition using azogabazine. Neuropharmacology, 2020, 176, 108135.	4.1	3
96	Presynaptic NMDA Receptors. Frontiers in Neuroscience, 2008, , 313-328.	0.0	3
97	Use of Electrophysiological Methods in the Study of Recombinant and Native Neuronal Ligandâ€Gated Ion Channels. Current Protocols in Pharmacology, 2012, 59, Unit 11.4.	4.0	2
98	Neuronal Inhibition under the Spotlight. Neuron, 2015, 88, 845-847.	8.1	1