Paul A Davies

List of Publications by Year
in descending order

53 papers	3,396 citations	159585 30 h-index	189892 50 g-index
55 all docs	55 docs citations	55 times ranked	2942 citing authors

#	Article	IF	Citations
1	The 5-HT3B subunit is a major determinant of serotonin-receptor function. Nature, 1999, 397, 359-363.	27.8	559
2	Insensitivity to anaesthetic agents conferred by a class of GABAA receptor subunit. Nature, 1997, 385, 820-823.	27.8	392
3	NMDA receptor activity downregulates KCC2 resulting in depolarizing GABAA receptorâ€“mediated currents. Nature Neuroscience, 2011, 14, 736-743.	14.8	268
4	Memory Deficits Induced by Inflammation Are Regulated by Î±5-Subunit-Containing GABAA Receptors. Cell Reports, 2012, 2, 488-496.	6.4	147
5	KCC2 activity is critical in limiting the onset and severity of status epilepticus. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3523-3528.	7.1	139
6	The Residence Time of GABA_ARs at Inhibitory Synapses Is Determined by Direct Binding of the Receptor Î±1 Subunit to Gephyrin. Journal of Neuroscience, 2011, 31, 14677-14687.	3.6	134
7	A Novel Class of Ligand-gated Ion Channel Is Activated by Zn2+. Journal of Biological Chemistry, 2003, 278, 712-717.	3.4	130
8	Functional regulation of GABAA receptors in nervous system pathologies. Current Opinion in Neurobiology, 2012, 22, 552-558.	4.2	114
9	Neurosteroids promote phosphorylation and membrane insertion of extrasynaptic GABA _A receptors. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7132-7137.	7.1	95
10	Modulation by general anaesthetics of rat GABAA receptors comprised of Î± 1Î² 3 and Î² 3 subunits expressed in human embryonic kidney 293 cells. British Journal of Pharmacology, 1997, 120, 899-909.	5.4	88
11	Protein Kinase C Phosphorylation Regulates Membrane Insertion of GABAA Receptor Subtypes That Mediate Tonic Inhibition. Journal of Biological Chemistry, 2010, 285, 41795-41805.	3.4	87
12	Evidence for Expression of Heteromeric Serotonin 5-HT3 Receptors in Rodents. Journal of Neurochemistry, 2001, 75, 240-247.	3.9	82
13	High-frequency HTR3B variant associated with major depression dramatically augments the signaling of the human 5-HT _{3AB} receptor. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 722-727.	7.1	72
14	Proteomic Characterization of Inhibitory Synapses Using a Novel pHluorin-tagged Î³-Aminobutyric Acid Receptor, Type A (GABAA), Î±2 Subunit Knock-in Mouse. Journal of Biological Chemistry, 2016, 291, 12394-12407.	3.4	68
15	3B but which 3B? And that's just one of the questions: the heterogeneity of human 5-HT3 receptors. Trends in Pharmacological Sciences, 2008, 29, 437-444.	8.7	67
16	Preclinical characterization of zuranolone (SAGE-217), a selective neuroactive steroid GABAA receptor positive allosteric modulator. Neuropharmacology, 2020, 181, 108333.	4.1	65
17	Endogenous and synthetic neuroactive steroids evoke sustained increases in the efficacy of GABAergic inhibition via a protein kinaseÂC-dependent mechanism. Neuropharmacology, 2017, 113, 314-322.	4.1	56
18	Introduction of the 5-HT3B subunit alters the functional properties of 5-HT3 receptors native to neuroblastoma cells. Neuropharmacology, 2003, 44, 214-223.	4.1	55

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19	General Anesthetic-Induced Channel Gating Enhancement of 5-Hydroxytryptamine Type 3 Receptors Depends on Receptor Subunit Composition. Journal of Pharmacology and Experimental Therapeutics, 2005, 315, 771-776.	2.5	52
20	Modulation of Human 5-Hydroxytryptamine Type 3AB Receptors by Volatile Anesthetics and n-Alcohols. Journal of Pharmacology and Experimental Therapeutics, 2005, 314, 338-345.	2.5	50
21	Phosphorylation of GABAA receptors influences receptor trafficking and neurosteroid actions. Psychopharmacology, 2014, 231, 3453-3465.	3.1	47
22	The small molecule CLP257 does not modify activity of the K+â€“Clâ^' co-transporter KCC2 but does potentiate GABAA receptor activity. Nature Medicine, 2017, 23, 1394-1396.	30.7	47
23	Differential Effects of Serotonin and Dopamine on Human 5-HT_{3A}Receptor Kinetics: Interpretation within an Allosteric Kinetic Model. Journal of Neuroscience, 2007, 27, 13151-13160.	3.6	46
24	Allosteric modulation of the 5-HT3 receptor. Current Opinion in Pharmacology, 2011, 11, 75-80.	3.5	45
25	Compromising KCC2 transporter activity enhances the development of continuous seizure activity. Neuropharmacology, 2016, 108, 103-110.	4.1	42
26	Compromising the phosphodependent regulation of the GABA _A R Î²3 subunit reproduces the core phenotypes of autism spectrum disorders. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14805-14810.	7.1	41
27	Molecular Properties Important for Inhaled Anesthetic Action on Human 5-HT3A Receptors. Anesthesia and Analgesia, 2005, 100, 1696-1703.	2.2	40
28	Highâ€level expression and purification of Cysâ€loop ligandâ€gated ion channels in a tetracyclineâ€inducible stable mammalian cell line: GABA_A and serotonin receptors. Protein Science, 2010, 19, 1728-1738.	7.6	40
29	Evidence for the formation of functionally distinct Î±Î²Î³Îµ GABA A receptors. Journal of Physiology, 2001, 537, 101-113.	2.9	35
30	Disrupted Cl^{â^'} homeostasis contributes to reductions in the inhibitory efficacy of diazepam during hyperexcited states. European Journal of Neuroscience, 2013, 38, 2453-2467.	2.6	32
31	Metabotropic, but not allosteric, effects of neurosteroids on GABAergic inhibition depend on the phosphorylation of GABAA receptors. Journal of Biological Chemistry, 2019, 294, 12220-12230.	3.4	32
32	Enhanced Tonic Inhibition Influences the Hypnotic and Amnestic Actions of the Intravenous Anesthetics Etomidate and Propofol. Journal of Neuroscience, 2013, 33, 7264-7273.	3.6	31
33	The influence of an endogenous Î²3 subunit on recombinant GABAA receptor assembly and pharmacology in WSS-1 cells and transiently transfected HEK293 cells. Neuropharmacology, 2000, 39, 611-620.	4.1	22
34	Alternative transcripts of the GABAA receptor Îµ subunit in human and rat. Neuropharmacology, 2002, 43, 467-475.	4.1	18
35	Hyperpolarizing GABAergic transmission depends on KCC2 function and membrane potential. Channels, 2011, 5, 475-481.	2.8	16
36	Copper and protons directly activate the zinc-activated channel. Biochemical Pharmacology, 2016, 103, 109-117.	4.4	16

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37	Identification of a Core Amino Acid Motif within the Î± Subunit of GABAARs that Promotes Inhibitory Synaptogenesis and Resilience to Seizures. Cell Reports, 2019, 28, 670-681.e8.	6.4	16
38	Neuroactive Steroids Reverse Tonic Inhibitory Deficits in Fragile X Syndrome Mouse Model. Frontiers in Molecular Neuroscience, 2019, 12, 15.	2.9	16
39	Isolation and Characterization of Multi-Protein Complexes Enriched in the K-Cl Co-transporter 2 From Brain Plasma Membranes. Frontiers in Molecular Neuroscience, 2020, 13, 563091.	2.9	15
40	KCC2 is required for the survival of mature neurons but not for their development. Journal of Biological Chemistry, 2021, 296, 100364.	3.4	15
41	Neural circuits with long-distance axon tracts for determining functional connectivity. Journal of Neuroscience Methods, 2014, 222, 82-90.	2.5	14
42	Inhibitory Synapse Formation at the Axon Initial Segment. Frontiers in Molecular Neuroscience, 2019, 12, 266.	2.9	10
43	Ethanol Stabilizes the Open State of Single 5-Hydroxytryptamine3A(QDA) Receptors. Journal of Pharmacology and Experimental Therapeutics, 2010, 333, 896-902.	2.5	9
44	Characterization of the effects of four HTR3B polymorphisms on human 5-HT3AB receptor expression and signalling. Pharmacogenetics and Genomics, 2008, 18, 1027-1040.	1.5	8
45	Regulating the Efficacy of Inhibition Through Trafficking of Î³-Aminobutyric Acid Type A Receptors. Anesthesia and Analgesia, 2016, 123, 1220-1227.	2.2	5
46	Probing the molecular basis for signal transduction through the Zinc-Activated Channel (ZAC). Biochemical Pharmacology, 2021, 193, 114781.	4.4	4
47	Preventing Phosphorylation of the GABAAR Î²3 Subunit Compromises the Behavioral Effects of Neuroactive Steroids. Frontiers in Molecular Neuroscience, 2022, 15, 817996.	2.9	4
48	GABAA Receptor Genetics and Clinical Pharmacology. Current Anesthesiology Reports, 2014, 4, 42-48.	2.0	3
49	Delineation of the functional properties exhibited by the Zinc-Activated Channel (ZAC) and its high-frequency Thr128Ala variant (rs2257020) in Xenopus oocytes. Pharmacological Research, 2021, 169, 105653.	7.1	3
50	Discovery and functional characterization of N-(thiazol-2-yl)-benzamide analogs as the first class of selective antagonists of the Zinc-Activated Channel (ZAC). Biochemical Pharmacology, 2021, 193, 114782.	4.4	2
51	5-HT3A receptor kinetics: Agonist and anesthetic action. International Congress Series, 2005, 1283, 247-250.	0.2	0
52	General anesthetic action on 5-HT3 receptors: Influence of subunit composition. International Congress Series, 2005, 1283, 79-84.	0.2	0
53	Pharmacological Characterization of the Zinc-Activated Channel: A Cys-Loop Receptor Gated by Zn2+, Cu2+ And Protons. Biophysical Journal, 2019, 116, 396a.	0.5	0