

David Colquhoun

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102
papers

9,891
citations

51
h-index

99
g-index

130
ext. papers

10,519
ext. citations

13
avg, IF

6.48
L-index

#	Paper	IF	Citations
102	A P2X purinoceptor expressed by a subset of sensory neurons. <i>Nature</i> , 1995 , 377, 428-31	50.4	897
101	ATP receptor-mediated synaptic currents in the central nervous system. <i>Nature</i> , 1992 , 359, 144-7	50.4	746
100	Binding, gating, affinity and efficacy: the interpretation of structure-activity relationships for agonists and of the effects of mutating receptors. <i>British Journal of Pharmacology</i> , 1998 , 125, 924-47	8.6	727
99	Fast events in single-channel currents activated by acetylcholine and its analogues at the frog muscle end-plate. <i>Journal of Physiology</i> , 1985 , 369, 501-57	3.9	645
98	Inward current channels activated by intracellular Ca in cultured cardiac cells. <i>Nature</i> , 1981 , 294, 752-4	50.4	636
97	An investigation of the false discovery rate and the misinterpretation of p-values. <i>Royal Society Open Science</i> , 2014 , 1, 140216	3.3	411
96	On the nature of partial agonism in the nicotinic receptor superfamily. <i>Nature</i> , 2008 , 454, 722-7	50.4	266
95	Fitting and Statistical Analysis of Single-Channel Records 1995 , 483-587		248
94	The actions of tubocurarine at the frog neuromuscular junction. <i>Journal of Physiology</i> , 1979 , 293, 247-84	3.9	215
93	Studies of NMDA receptor function and stoichiometry with truncated and tandem subunits. <i>Journal of Neuroscience</i> , 2003 , 23, 1151-8	6.6	194
92	Single-channel conductances of NMDA receptors expressed from cloned cDNAs: comparison with native receptors. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 1992 , 250, 271-7	4.4	190
91	Single-channel activations and concentration jumps: comparison of recombinant NR1a/NR2A and NR1a/NR2D NMDA receptors. <i>Journal of Physiology</i> , 1998 , 510 (Pt 1), 1-18	3.9	188
90	Activation of ion channels in the frog end-plate by high concentrations of acetylcholine. <i>Journal of Physiology</i> , 1988 , 395, 131-59	3.9	186
89	Identification of amino acid residues of the NR2A subunit that control glutamate potency in recombinant NR1/NR2A NMDA receptors. <i>Journal of Neuroscience</i> , 1998 , 18, 581-9	6.6	170
88	Single-channel behavior of heteromeric alpha1beta glycine receptors: an attempt to detect a conformational change before the channel opens. <i>Journal of Neuroscience</i> , 2004 , 24, 10924-40	6.6	158
87	Activation of N-methyl-D-aspartate receptors by L-glutamate in cells dissociated from adult rat hippocampus. <i>Journal of Physiology</i> , 1992 , 456, 143-79	3.9	155
86	The Principles of the Stochastic Interpretation of Ion-Channel Mechanisms 1995 , 397-482		153

85	Mechanisms of activation of glutamate receptors and the time course of excitatory synaptic currents. <i>Annual Review of Physiology</i> , 1995 , 57, 495-519	23.1	130
84	An analysis of the action of a false transmitter at the neuromuscular junction. <i>Journal of Physiology</i> , 1977 , 266, 361-95	3.9	125
83	Effects of alirocumab on cardiovascular and metabolic outcomes after acute coronary syndrome in patients with or without diabetes: a prespecified analysis of the ODYSSEY OUTCOMES randomised controlled trial. <i>Lancet Diabetes and Endocrinology</i> , 2019 , 7, 618-628	18.1	120
82	Conductance of channels opened by acetylcholine-like drugs in muscle end-plate. <i>Nature</i> , 1975 , 253, 204-6	50.4	117
81	Currents through single glutamate receptor channels in outside-out patches from rat cerebellar granule cells. <i>Journal of Physiology</i> , 1991 , 432, 143-202	3.9	107
80	The reproducibility of research and the misinterpretation of p -values. <i>Royal Society Open Science</i> , 2017 , 4, 171085	3.3	104
79	Rectification of currents activated by nicotinic acetylcholine receptors in rat sympathetic ganglion neurones. <i>Journal of Physiology</i> , 1990 , 427, 625-55	3.9	101
78	The distributions of the apparent open times and shut times in a single channel record when brief events cannot be detected. <i>Philosophical Transactions of the Royal Society: Physical and Engineering Sciences</i> , 1990 , 332, 511-538		100
77	Block of acetylcholine-activated ion channels by an uncharged local anaesthetic. <i>Nature</i> , 1981 , 289, 596-8	30.4	96
76	The quality of maximum likelihood estimates of ion channel rate constants. <i>Journal of Physiology</i> , 2003 , 547, 699-728	3.9	93
75	How to impose microscopic reversibility in complex reaction mechanisms. <i>Biophysical Journal</i> , 2004 , 86, 3510-8	2.9	92
74	The ion channel properties of a rat recombinant neuronal nicotinic receptor are dependent on the host cell type. <i>Journal of Physiology</i> , 1997 , 505 (Pt 2), 299-306	3.9	91
73	The quantitative analysis of drug-receptor interactions: a short history. <i>Trends in Pharmacological Sciences</i> , 2006 , 27, 149-57	13.2	86
72	A reporter mutation approach shows incorporation of the "orphan" subunit beta3 into a functional nicotinic receptor. <i>Journal of Biological Chemistry</i> , 1998 , 273, 15317-20	5.4	86
71	Desensitization of the acetylcholine receptor of frog end-plates measured in a Vaseline-gap voltage clamp. <i>Journal of Physiology</i> , 1989 , 415, 159-88	3.9	85
70	Mechanisms of activation of muscle nicotinic acetylcholine receptors and the time course of endplate currents. <i>Annual Review of Physiology</i> , 1995 , 57, 469-93	23.1	81
69	The activation mechanism of alpha1 homomeric glycine receptors. <i>Journal of Neuroscience</i> , 2004 , 24, 895-906	6.6	79
68	Maximum likelihood fitting of single channel NMDA activity with a mechanism composed of independent dimers of subunits. <i>Journal of Physiology</i> , 2005 , 569, 395-418	3.9	79

67	Function and structure in glycine receptors and some of their relatives. <i>Trends in Neurosciences</i> , 2004 , 27, 337-44	13.3	77
66	Joint distributions of apparent open and shut times of single-ion channels and maximum likelihood fitting of mechanisms. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1996 , 354, 2555-2590	3	77
65	Properties of the human muscle nicotinic receptor, and of the slow-channel myasthenic syndrome mutant epsilonL221F, inferred from maximum likelihood fits. <i>Journal of Physiology</i> , 2003 , 547, 729-60	3.9	76
64	A Q-Matrix Cookbook 1995 , 589-633		75
63	The action of ganglionic blocking drugs on the synaptic responses of rat submandibular ganglion cells. <i>British Journal of Pharmacology</i> , 1982 , 75, 151-68	8.6	74
62	Conductance and kinetic properties of single nicotinic acetylcholine receptor channels in rat sympathetic neurones. <i>Journal of Physiology</i> , 1991 , 439, 717-50	3.9	70
61	The binding of tetrodotoxin and alpha-bungarotoxin to normal and denervated mammalian muscle. <i>Journal of Physiology</i> , 1974 , 240, 199-226	3.9	64
60	Conductances of single ion channels opened by nicotinic agonists are indistinguishable. <i>Nature</i> , 1984 , 309, 160-2	50.4	63
59	Five ways to fix statistics. <i>Nature</i> , 2017 , 551, 557-559	50.4	62
58	Single channel properties of cloned NMDA receptors in a human cell line: comparison with results from <i>Xenopus</i> oocytes. <i>Journal of Physiology</i> , 1994 , 476, 391-7	3.9	62
57	Openings of the rat recombinant alpha 1 homomeric glycine receptor as a function of the number of agonist molecules bound. <i>Journal of General Physiology</i> , 2002 , 119, 443-66	3.4	60
56	Mechanisms of drug action at the voluntary muscle endplate. <i>Annual Review of Pharmacology</i> , 1975 , 15, 307-25		60
55	From muscle endplate to brain synapses: a short history of synapses and agonist-activated ion channels. <i>Neuron</i> , 1998 , 20, 381-7	13.9	58
54	The False Positive Risk: A Proposal Concerning What to Do About p-Values. <i>American Statistician</i> , 2019 , 73, 192-201	5	55
53	Acetylcholine receptors: too many channels, too few functions. <i>Science</i> , 1995 , 269, 1681-2	33.3	52
52	Single channels activated by high concentrations of GABA in superior cervical ganglion neurones of the rat. <i>Journal of Physiology</i> , 1991 , 432, 203-33	3.9	50
51	Challenging the tyranny of impact factors. <i>Nature</i> , 2003 , 423, 479; discussion 480	50.4	47
50	Nicotinic acetylcholine receptors of nerve and muscle: Functional aspects. <i>Trends in Pharmacological Sciences</i> , 1987 , 8, 465-472	13.2	47

49	The α K276E startle disease mutation reveals multiple intermediate states in the gating of glycine receptors. <i>Journal of Neuroscience</i> , 2012 , 32, 1336-52	6.6	42
48	Kinetics of acetylcholine activated ion channels in chick ciliary ganglion neurones grown in tissue culture. <i>Pflugers Archiv European Journal of Physiology</i> , 1984 , 400, 44-50	4.6	41
47	Single-channel study of the spasmodic mutation alpha1A52S in recombinant rat glycine receptors. <i>Journal of Physiology</i> , 2007 , 581, 51-73	3.9	39
46	The actions of suxamethonium (succinylcholine) as an agonist and channel blocker at the nicotinic receptor of frog muscle. <i>Journal of Physiology</i> , 1990 , 428, 155-74	3.9	35
45	Perspectives on: conformational coupling in ion channels: allosteric coupling in ligand-gated ion channels. <i>Journal of General Physiology</i> , 2012 , 140, 599-612	3.4	34
44	Single-channel analysis of an NMDA receptor possessing a mutation in the region of the glutamate binding site. <i>Journal of Physiology</i> , 2000 , 527 Pt 2, 225-37	3.9	32
43	Why the Schild method is better than Schild realised. <i>Trends in Pharmacological Sciences</i> , 2007 , 28, 608-14	3.2	30
42	Properties of single ion channel currents elicited by a pulse of agonist concentration or voltage. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1997 , 355, 1743-1786	3.2	29
41	Agonist-activated ion channels. <i>British Journal of Pharmacology</i> , 2006 , 147 Suppl 1, S17-26	8.6	27
40	Agonist and blocking actions of choline and tetramethylammonium on human muscle acetylcholine receptors. <i>Journal of Physiology</i> , 2009 , 587, 5045-72	3.9	26
39	Activation of ion channels in the frog endplate by several analogues of acetylcholine. <i>Journal of Physiology</i> , 1991 , 433, 73-93	3.9	26
38	The long activations of α glycine channels can be described by a mechanism with reaction intermediates ("flip"). <i>Journal of General Physiology</i> , 2011 , 137, 197-216	3.4	25
37	Desensitization of N-methyl-D-aspartate receptors: a problem of interpretation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1995 , 92, 10327-9	11.5	25
36	The efficacy of agonists at the frog neuromuscular junction studied with single channel recording. <i>Pflugers Archiv European Journal of Physiology</i> , 1983 , 399, 246-8	4.6	25
35	The effect of tubocurarine competition on the kinetics of agonist action on the nicotinic receptor. <i>British Journal of Pharmacology</i> , 1982 , 75, 77-86	8.6	24
34	Science degrees without the science. <i>Nature</i> , 2007 , 446, 373-4	50.4	21
33	Imprecision in presentation of binding studies. <i>Trends in Pharmacological Sciences</i> , 1985 , 6, 197	13.2	19
32	In praise of single channel kinetics. <i>Journal of General Physiology</i> , 2016 , 148, 79-88	3.4	16

31	How fast do drugs work?. <i>Trends in Pharmacological Sciences</i> , 1981 , 2, 212-217	13.2	16
30	Nicotinic Acetylcholine Receptors 2003 , 357-405		15
29	What have we learned from single ion channels?. <i>Journal of Physiology</i> , 2007 , 581, 425-7	3.9	10
28	A human congenital myasthenia-causing mutation (epsilon L78P) of the muscle nicotinic acetylcholine receptor with unusual single channel properties. <i>Journal of Physiology</i> , 2005 , 564, 377-96	3.9	10
27	Single channel analysis costs time. <i>Trends in Pharmacological Sciences</i> , 1988 , 9, 157-8	13.2	10
26	Should NICE evaluate complementary and alternative medicines?. <i>BMJ, The</i> , 2007 , 334, 507	5.9	9
25	From shut to open: what can we learn from linear free energy relationships?. <i>Biophysical Journal</i> , 2005 , 89, 3673-5	2.9	9
24	Validity of the operational model. <i>Trends in Pharmacological Sciences</i> , 1989 , 10, 17	13.2	9
23	Relation of Lipoprotein(a) Levels to Incident Type 2 Diabetes and Modification by Alirocumab Treatment. <i>Diabetes Care</i> , 2021 , 44, 1219-1227	14.6	9
22	Is NADH effective in the treatment of chronic fatigue syndrome?. <i>Annals of Allergy, Asthma and Immunology</i> , 2000 , 84, 639-40	3.2	6
21	What to do about CAM?. <i>BMJ, The</i> , 2007 , 335, 736	5.9	5
20	Structural abnormalities of the AChR caused by mutations underlying congenital myasthenic syndromes. <i>Annals of the New York Academy of Sciences</i> , 2003 , 998, 114-24	6.5	5
19	Neher and Sakmann win Nobel Prize for patch-clamp work. <i>Trends in Pharmacological Sciences</i> , 1991 , 12, 449	13.2	4
18	Response to comment by Loisel & Ramchandra (2015). <i>Royal Society Open Science</i> , 2015 , 2, 150319	3.3	3
17	The reproducibility of research and the misinterpretation of P values		3
16	Alternative Medicine: My Part in its Downfall. <i>European Review</i> , 2013 , 21, S62-S67	0.3	2
15	Unravelling the paradox. <i>Trends in Pharmacological Sciences</i> , 1992 , 13, 429-30	13.2	2
14	Caution: agonists are complex. <i>Trends in Pharmacological Sciences</i> , 1986 , 7, 390	13.2	2

13	Single Ion Channels 2009 , 223-251		2
12	The A to Z of the wellbeing industry: from Angelic Reiki to patient centred care. Wellbeing is big business, but how much of it works?. <i>BMJ, The</i> , 2011 , 342, d2711	5.9	1
11	Unfair exchange. <i>Nature</i> , 1999 , 402, 230-230	50.4	1
10	Regulation of the acetylcholine receptor. <i>Trends in Pharmacological Sciences</i> , 1987 , 8, 294-295	13.2	1
9	Wilmshurst in context. <i>Prometheus</i> , 2011 , 29, 89-90	0	
8	The arrogance of trying to sum up abilities in a number. <i>Nature</i> , 2009 , 458, 145	50.4	
7	Worthless ranking. <i>Nature</i> , 1997 , 386, 320-320	50.4	
6	Treating critically ill patients with sugar pills. <i>Chest</i> , 2007 , 131, 635-6; author reply 636	5.3	
5	Abuse of prisoners at Abu Ghraib. <i>Science</i> , 2005 , 307, 1873-5; author reply 1873-5	33.3	
4	Trials of homoeopathy 1991 , 302, 1466-1466		
3	Ogden et al. reply. <i>Trends in Pharmacological Sciences</i> , 1987 , 8, 335	13.2	
2	A response to critiques of 'The reproducibility of research and the misinterpretation of -values?' <i>Royal Society Open Science</i> , 2019 , 6, 190819	3.3	
1	Placebo therapy for cancer-related pain: an alternative to psychotherapy or health misinformation?. <i>Supportive Care in Cancer</i> , 2020 , 28, 963-964	3.9	