# David Colquhoun

List of Publications by Year
in descending order



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|---|---|---|---|
| 123 papers | 11,368 citations | 36203 51 h-index | 30848 102 g-index |
| 130 all docs | 130 docs citations | 130 times ranked | 6641 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A P2X purinoceptor expressed by a subset of sensory neurons. Nature, 1995, 377, 428-431. | 13.7 | 985 |
| 2 | Binding, gating, affinity and efficacy: The interpretation of structure-activity relationships for agonists and of the effects of mutating receptors. British Journal of Pharmacology, 1998, 125, 923-947. | 2.7 | 808 |
| 3 | ATP receptor-mediated synaptic currents in the central nervous system. Nature, 1992, 359, 144-147. | 13.7 | 795 |
| 4 | Fast events in singleâ€channel currents activated by acetylcholine and its analogues at the frog muscle endâ€plate.. Journal of Physiology, 1985, 369, 501-557. | 1.3 | 723 |
| 5 | Inward current channels activated by intracellular Ca in cultured cardiac cells. Nature, 1981, 294, 752-754. | 13.7 | 694 |
| 6 | An investigation of the false discovery rate and the misinterpretation of p -values. Royal Society Open Science, 2014, 1, 140216. | 1.1 | 544 |
| 7 | On the nature of partial agonism in the nicotinic receptor superfamily. Nature, 2008, 454, 722-727. | 13.7 | 312 |
| 8 | Fitting and Statistical Analysis of Single-Channel Records. , 1995, , 483-587. | | 279 |
| 9 | The Principles of the Stochastic Interpretation of Ion-Channel Mechanisms. , 1995, , 397-482. | | 255 |
| 10 | The actions of tubocurarine at the frog neuromuscular junction.. Journal of Physiology, 1979, 293, 247-284. | 1.3 | 248 |
| 11 | Single-channel conductances of NMDA receptors expressed from cloned cDNAs: comparison with native receptors. Proceedings of the Royal Society B: Biological Sciences, 1992, 250, 271-277. | 1.2 | 207 |
| 12 | Studies of NMDA Receptor Function and Stoichiometry with Truncated and Tandem Subunits. Journal of Neuroscience, 2003, 23, 1151-1158. | 1.7 | 207 |
| 13 | 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. Lancet Diabetes and Endocrinology,the, 2019, 7, 618-628. | 5.5 | 207 |
| 14 | Single-channel activations and concentration jumps: comparison of recombinant NR1a/NR2A and NR1a/NR2D NMDA receptors. Journal of Physiology, 1998, 510, 1-18. | 1.3 | 206 |
| 15 | Activation of ion channels in the frog end-plate by high concentrations of acetylcholine.. Journal of Physiology, 1988, 395, 131-159. | 1.3 | 205 |
| 16 | Identification of Amino Acid Residues of the NR2A Subunit That Control Glutamate Potency in Recombinant NR1/NR2A NMDA Receptors. Journal of Neuroscience, 1998, 18, 581-589. | 1.7 | 180 |
| 17 | Single-Channel Behavior of Heteromeric Â1Â Glycine Receptors: An Attempt to Detect a Conformational Change before the Channel Opens. Journal of Neuroscience, 2004, 24, 10924-10940. | 1.7 | 178 |
| 18 | Activation of Nâ€methylâ€Dâ€aspartate receptors by Lâ€glutamate in cells dissociated from adult rat hippocampus.. Journal of Physiology, 1992, 456, 143-179. | 1.3 | 167 |

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|---|---|---|---|
| 19 | The reproducibility of research and the misinterpretation of p -values. Royal Society Open Science, 2017, 4, 171085. | 1.1 | 159 |
| 20 | An analysis of the action of a false transmitter at the neuromuscular junction.. Journal of Physiology, 1977, 266, 361-395. | 1.3 | 139 |
| 21 | Mechanisms of Activation of Glutamate Receptors and the Time Course of Excitatory Synaptic Currents. Annual Review of Physiology, 1995, 57, 495-519. | 5.6 | 137 |
| 22 | Conductance of channels opened by acetylcholine-like drugs in muscle end-plate. Nature, 1975, 253, 204-206. | 13.7 | 122 |
| 23 | How to Impose Microscopic Reversibility in Complex Reaction Mechanisms. Biophysical Journal, 2004, 86, 3510-3518. | 0.2 | 119 |
| 24 | Currents through single glutamate receptor channels in outsideâ€•out patches from rat cerebellar granule cells.. Journal of Physiology, 1991, 432, 143-202. | 1.3 | 114 |
| 25 | The quantitative analysis of drugâ€“receptor interactions: a short history. Trends in Pharmacological Sciences, 2006, 27, 149-157. | 4.0 | 113 |
| 26 | Rectification of currents activated by nicotinic acetylcholine receptors in rat sympathetic ganglion neurones.. Journal of Physiology, 1990, 427, 625-655. | 1.3 | 111 |
| 27 | The distributions of the apparent open times and shut times in a single channel record when brief events cannot be detected. Philosophical Transactions of the Royal Society: Physical and Engineering Sciences, 1990, 332, 511-538. | 1.0 | 110 |
| 28 | The quality of maximum likelihood estimates of ion channel rate constants. Journal of Physiology, 2003, 547, 699-728. | 1.3 | 106 |
| 29 | The ion channel properties of a rat recombinant neuronal nicotinic receptor are dependent on the host cell type. Journal of Physiology, 1997, 505, 299-306. | 1.3 | 101 |
| 30 | Acupuncture Is Theatrical Placebo. Anesthesia and Analgesia, 2013, 116, 1360-1363. | 1.1 | 101 |
| 31 | Block of acetylcholine-activated ion channels by an uncharged local anaesthetic. Nature, 1981, 289, 596-598. | 13.7 | 100 |
| 32 | Desensitization of the acetylcholine receptor of frog end-plates measured in a Vaseline-gap voltage clamp.. Journal of Physiology, 1989, 415, 159-188. | 1.3 | 94 |
| 33 | A Q-Matrix Cookbook. , 1995, , 589-633. | | 91 |
| 34 | A Reporter Mutation Approach Shows Incorporation of the â€œOrphanâ€•Subunit Î²3 into a Functional Nicotinic Receptor. Journal of Biological Chemistry, 1998, 273, 15317-15320. | 1.6 | 90 |
| 35 | The False Positive Risk: A Proposal Concerning What to Do About p-Values. American Statistician, 2019, 73, 192-201. | 0.9 | 90 |
| 36 | Five ways to fix statistics. Nature, 2017, 551, 557-559. | 13.7 | 86 |

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|---|---|---|---|
| 37 | Mechanisms of Activation of Muscle Nicotinic Acetylcholine Receptors and the Time Course of Endplate Currents. Annual Review of Physiology, 1995, 57, 469-493. | 5.6 | 85 |
| 38 | Joint distributions of apparent open and shut times of single-ion channels and maximum likelihood fitting of mechanisms. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1996, 354, 2555-2590. | 1.6 | 85 |
| 39 | Function and structure in glycine receptors and some of their relatives. Trends in Neurosciences, 2004, 27, 337-344. | 4.2 | 84 |
| 40 | THE ACTION OF GANGLIONIC BLOCKING DRUGS ON THE SYNAPTIC RESPONSES OF RAT SUBMANDIBULAR GANGLION CELLS. British Journal of Pharmacology, 1982, 75, 151-168. | 2.7 | 82 |
| 41 | The Activation Mechanism of Â1 Homomeric Glycine Receptors. Journal of Neuroscience, 2004, 24, 895-906. | 1.7 | 82 |
| 42 | Maximum likelihood fitting of single channel NMDA activity with a mechanism composed of independent dimers of subunits. Journal of Physiology, 2005, 569, 395-418. | 1.3 | 82 |
| 43 | Properties of the human muscle nicotinic receptor, and of the slow-channel myasthenic syndrome mutant ÂL221F, inferred from maximum likelihood fits. Journal of Physiology, 2003, 547, 729-760. | 1.3 | 80 |
| 44 | Conductance and kinetic properties of single nicotinic acetylcholine receptor channels in rat sympathetic neurones.. Journal of Physiology, 1991, 439, 717-750. | 1.3 | 75 |
| 45 | Challenging the tyranny of impact factors. Nature, 2003, 423, 479-479. | 13.7 | 74 |
| 46 | The binding of tetrodotoxin and Î±â€bungarotoxin to normal and denervated mammalian muscle. Journal of Physiology, 1974, 240, 199-226. | 1.3 | 71 |
| 47 | Conductances of single ion channels opened by nicotinic agonists are indistinguishable. Nature, 1984, 309, 160-162. | 13.7 | 67 |
| 48 | Single channel properties of cloned NMDA receptors in a human cell line: comparison with results from Xenopus oocytes.. Journal of Physiology, 1994, 476, 391-397. | 1.3 | 66 |
| 49 | Mechanisms of Drug Action at the Voluntary Muscle Endplate. Annual Review of Pharmacology, 1975, 15, 307-325. | 4.4 | 65 |
| 50 | From Muscle Endplate to Brain Synapses: A Short History of Synapses and Agonist-Activated Ion Channels. Neuron, 1998, 20, 381-387. | 3.8 | 64 |
| 51 | Acetylcholine receptors: too many channels, too few functions. Science, 1995, 269, 1681-1682. | 6.0 | 61 |
| 52 | Openings of the Rat Recombinant Î±1 Homomeric Glycine Receptor as a Function of the Number of Agonist Molecules Bound. Journal of General Physiology, 2002, 119, 443-466. | 0.9 | 61 |
| 53 | Single channels activated by high concentrations of GABA in superior cervical ganglion neurones of the rat.. Journal of Physiology, 1991, 432, 203-233. | 1.3 | 57 |
| 54 | Nicotinic acetylcholine receptors of nerve and muscle: Functional aspects. Trends in Pharmacological Sciences, 1987, 8, 465-472. | 4.0 | 55 |

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| 55 | The Î±1K276E Startle Disease Mutation Reveals Multiple Intermediate States in the Gating of Glycine Receptors. Journal of Neuroscience, 2012, 32, 1336-1352. | 1.7 | 52 |
| 56 | Kinetics of acetylcholine activated ion channels in chick ciliary ganglion neurones grown in tissue culture. Pflugers Archiv European Journal of Physiology, 1984, 400, 44-50. | 1.3 | 47 |
| 57 | The binding issue. Nature, 1993, 366, 510-511. | 13.7 | 47 |
| 58 | Single-channel study of the spasmodic mutation Î±1A52S in recombinant rat glycine receptors. Journal of Physiology, 2007, 581, 51-73. | 1.3 | 43 |
| 59 | Allosteric coupling in ligand-gated ion channels. Journal of General Physiology, 2012, 140, 599-612. | 0.9 | 43 |
| 60 | The actions of suxamethonium (succinyldicholine) as an agonist and channel blocker at the nicotinic receptor of frog muscle.. Journal of Physiology, 1990, 428, 155-174. | 1.3 | 41 |
| 61 | Agonist-activated ion channels. British Journal of Pharmacology, 2006, 147, S17-S26. | 2.7 | 36 |
| 62 | Why the Schild method is better than Schild realised. Trends in Pharmacological Sciences, 2007, 28, 608-614. | 4.0 | 36 |
| 63 | Properties of single ion channel currents elicted by a pulse of agonist concentration or voltage. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1997, 355, 1743-1786. | 1.6 | 35 |
| 64 | Singleâ€channel analysis of an NMDA receptor possessing a mutation in the region of the glutamate binding site. Journal of Physiology, 2000, 527, 225-237. | 1.3 | 32 |
| 65 | THE EFFECT OF TUBOCURARINE COMPETITION ON THE KINETICS OF AGONIST ACTION ON THE NICOTINIC RECEPTOR. British Journal of Pharmacology, 1982, 75, 77-86. | 2.7 | 31 |
| 66 | Activation of ion channels in the frog endplate by several analogues of acetylcholine.. Journal of Physiology, 1991, 433, 73-93. | 1.3 | 31 |
| 67 | Science degrees without the science. Nature, 2007, 446, 373-374. | 13.7 | 31 |
| 68 | The efficacy of agonists at the frog neuromuscular junction studied with single channel recording. Pflugers Archiv European Journal of Physiology, 1983, 399, 246-248. | 1.3 | 30 |
| 69 | Desensitization of N-methyl-D-aspartate receptors: a problem of interpretation.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 10327-10329. | 3.3 | 29 |
| 70 | Agonist and blocking actions of choline and tetramethylammonium on human muscle acetylcholine receptors. Journal of Physiology, 2009, 587, 5045-5072. | 1.3 | 29 |
| 71 | The long activations of Î±2 glycine channels can be described by a mechanism with reaction intermediates (â€œflipâ€). Journal of General Physiology, 2011, 137, 197-216. | 0.9 | 26 |
| 72 | Imprecision in presentation of binding studies. Trends in Pharmacological Sciences, 1985, 6, 197. | 4.0 | 22 |

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| 73 | In praise of single channel kinetics. Journal of General Physiology, 2016, 148, 79-88. | 0.9 | 20 |
| 74 | How fast do drugs work?. Trends in Pharmacological Sciences, 1981, 2, 212-217. | 4.0 | 19 |
| 75 | Relation of Lipoprotein(a) Levels to Incident Type 2 Diabetes and Modification by Alirocumab Treatment. Diabetes Care, 2021, 44, 1219-1227. | 4.3 | 19 |
| 76 | What have we learned from single ion channels?. Journal of Physiology, 2007, 581, 425-427. | 1.3 | 14 |
| 77 | A new type of ion-channel block. Nature, 1987, 329, 204-205. | 13.7 | 12 |
| 78 | A human congenital myasthenia-causing mutation (É›L78P) of the muscle nicotinic acetylcholine receptor with unusual single channel properties. Journal of Physiology, 2005, 564, 377-396. | 1.3 | 12 |
| 79 | â€˜Complementary & Alternative Medicineâ€™ (CAM): Ethical And Policy Issues. Bioethics, 2016, 30, 60-62. | 0.7 | 12 |
| 80 | Should NICE evaluate complementary and alternative medicines?. BMJ: British Medical Journal, 2007, 334, 507-507. | 2.4 | 11 |
| 81 | Single channel analysis costs time. Trends in Pharmacological Sciences, 1988, 9, 157-158. | 4.0 | 10 |
| 82 | From Shut to Open: What Can We Learn from Linear Free Energy Relationships?. Biophysical Journal, 2005, 89, 3673-3675. | 0.2 | 10 |
| 83 | Validity of the operational model. Trends in Pharmacological Sciences, 1989, 10, 17. | 4.0 | 9 |
| 84 | Letters to the editor. Annals of Allergy, Asthma and Immunology, 2000, 84, 639. | 0.5 | 8 |
| 85 | Secret remedies: 100 years on. BMJ: British Medical Journal, 2009, 339, b5432-b5432. | 2.4 | 7 |
| 86 | Neher and Sakmann win Nobel Prize for patch-clamp work. Trends in Pharmacological Sciences, 1991, 12, 449. | 4.0 | 6 |
| 87 | GABA and the single oocyte: relating binding to gating. Nature Neuroscience, 1999, 2, 201-202. | 7.1 | 6 |
| 88 | Structural Abnormalities of the AChR Caused by Mutations Underlying Congenital Myasthenic Syndromes. Annals of the New York Academy of Sciences, 2003, 998, 114-124. | 1.8 | 6 |
| 89 | What to do about CAM?. BMJ: British Medical Journal, 2007, 335, 736.2-736. | 2.4 | 6 |
| 90 | Molecular pharmacology: Structure and function of acetyl-choline-receptor ion channels. Nature, 1986, 321, 382-383. | 13.7 | 4 |

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| 91 | Unravelling the paradox. Trends in Pharmacological Sciences, 1992, 13, 429-430. | 4.0 | 3 |
| 92 | Alternative Medicine: My Part in its Downfall. European Review, 2013, 21, S62-S67. | 0.4 | 3 |
| 93 | Response to comment by Loiselle & Ramchandra (2015). Royal Society Open Science, 2015, 2, 150319. | 1.1 | 3 |
| 94 | The highs and lows of policy based evidence. BMJ: British Medical Journal, 2009, 339, b4564-b4564. | 2.4 | 3 |
| 95 | Caution: agonists are complex. Trends in Pharmacological Sciences, 1986, 7, 390. | 4.0 | 2 |
| 96 | The A to Z of the wellbeing industry: from angelic reiki to patient centred care. BMJ: British Medical Journal, 2011, 342, d2711-d2711. | 2.4 | 2 |
| 97 | Single Ion Channels. , 2009, , 223-251. | | 2 |
| 98 | MHRA label seems to be illegal. BMJ: British Medical Journal, 2009, 338, b2333-b2333. | 2.4 | 2 |
| 99 | Regulation of the acetylcholine receptor. Trends in Pharmacological Sciences, 1987, 8, 294-295. | 4.0 | 1 |
| 100 | Unfair exchange. Nature, 1999, 402, 230-230. | 13.7 | 1 |
| 101 | College of Medicine is Prince's Foundation reincarnated. BMJ: British Medical Journal, 2011, 343, d4368-d4368. | 2.4 | 1 |
| 102 | Biostatistics in Pharmacology. Volumes I and II.. Journal of the Royal Statistical Society Series A (General), 1974, 137, 439. | 0.6 | 0 |
| 103 | Cooperative Equilibrium in Physical Biochemistry. Biometrics, 1979, 35, 706. | 0.8 | 0 |
| 104 | Introduction to Membrane Noise. Louis J. DeFelice. Quarterly Review of Biology, 1983, 58, 287-288. | 0.0 | 0 |
| 105 | Mechanism of action of the nicotinic acetylcholine receptor, Advanced Research Workshop, Island of Santorini, Greece. May 19â€“23, 1986. Trends in Pharmacological Sciences, 1986, 7, 292-294. | 4.0 | 0 |
| 106 | Ogden et al. reply. Trends in Pharmacological Sciences, 1987, 8, 335. | 4.0 | 0 |
| 107 | Trials of homoeopathy. BMJ: British Medical Journal, 1991, 302, 1466-1466. | 2.4 | 0 |
| 108 | Worthless ranking. Nature, 1997, 386, 320-320. | 13.7 | 0 |

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| 109 | Abuse of Prisoners at Abu Ghraib. Science, 2005, 307, 1873b-1875b. | 6.0 | 0 |
| 110 | Treating Critically Ill Patients With Sugar Pills. Chest, 2007, 131, 635-636. | 0.4 | 0 |
| 111 | The arrogance of trying to sum up abilities in a number. Nature, 2009, 458, 145-145. | 13.7 | 0 |
| 112 | Channel Blocking Properties Of Tetramethylammonium At The Human Muscle Acetylcholine Receptor. Biophysical Journal, 2009, 96, 166a. | 0.2 | 0 |
| 113 | Problems In Determining A Mechanisms Of Receptor Activation And Relating It To Structure. Biophysical Journal, 2009, 96, 565a. | 0.2 | 0 |
| 114 | Wilmshurst in context. Prometheus, 2011, 29, 89-90. | 0.2 | 0 |
| 115 | Response to Whitehead. BMJ, The, 2012, 345, e7088-e7088. | 3.0 | 0 |
| 116 | Scarcely credible treatments do not merit university attention. BMJ: British Medical Journal, 2012, 344, e1628-e1628. | 2.4 | 0 |
| 117 | A response to critiques of â€˜The reproducibility of research and the misinterpretation of p -valuesâ€™. Royal Society Open Science, 2019, 6, 190819. | 1.1 | 0 |
| 118 | Placebo therapy for cancer-related pain: an alternative to psychotherapy or health misinformation?. Supportive Care in Cancer, 2020, 28, 963-964. | 1.0 | 0 |
| 119 | A very bad report on regulating complementary medicine. BMJ: British Medical Journal, 2008, 337, a591-a591. | 2.4 | 0 |
| 120 | Author's reply to the minister. BMJ: British Medical Journal, 2010, 340, c640-c640. | 2.4 | 0 |
| 121 | In Praise of Randomisation: The Importance of Causality in Medicine and its Subversion by Philosophers of Science. , 2011, , . | | 0 |
| 122 | What to do about research assessment (the REF)? A proposal for two-stage university education. The Winnower, 2015, , . | 0.0 | 0 |
| 123 | Diet and health. What can you believe: or does bacon kill you?. The Winnower, 2015, , . | 0.0 | 0 |