

Steven J Charlton

List of Publications by Year in descending order

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75
papers

3,778
citations

147566

31
h-index

128067

60
g-index

78
all docs

78
docs citations

78
times ranked

4246
citing authors

#	ARTICLE	IF	CITATIONS
1	The role of kinetic context in apparent biased agonism at GPCRs. <i>Nature Communications</i> , 2016, 7, 10842.	5.8	270
2	Long-acting target binding and rebinding as mechanisms to prolong <i>in vivo</i> drug action. <i>British Journal of Pharmacology</i> , 2010, 161, 488-508.	2.7	250
3	μ -Opioid Receptors: Correlation of Agonist Efficacy for Signalling with Ability to Activate Internalization. <i>Molecular Pharmacology</i> , 2010, 78, 756-766.	1.0	236
4	Exploring avidity: understanding the potential gains in functional affinity and target residence time of bivalent and heterobivalent ligands. <i>British Journal of Pharmacology</i> , 2013, 168, 1771-1785.	2.7	182
5	In Vitro and in Vivo Pharmacological Characterization of 5-[(R)-2-(5,6-Diethyl-indan-2-ylamino)-1-hydroxy-ethyl]-8-hydroxy-1H-quinolin-2-one (Indacaterol), a Novel Inhaled β_2 Adrenoceptor Agonist with a 24-h Duration of Action. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2006, 317, 762-770.	1.3	155
6	Extrapyramidal side effects of antipsychotics are linked to their association kinetics at dopamine D2 receptors. <i>Nature Communications</i> , 2017, 8, 763.	5.8	148
7	The M ₃ muscarinic receptor regulates learning and memory in a receptor phosphorylation/arrestin-dependent manner. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9440-9445.	3.3	134
8	PPADS and suramin as antagonists at cloned P _{2U} and P _{2Y} purinoceptors. <i>British Journal of Pharmacology</i> , 1996, 118, 704-710.	2.7	131
9	Expression and Characterization of a 5-oxo-6E,8Z,11Z,14Z-Eicosatetraenoic Acid Receptor Highly Expressed on Human Eosinophils and Neutrophils. <i>Molecular Pharmacology</i> , 2003, 63, 471-477.	1.0	115
10	The Influence of Receptor Kinetics on the Onset and Duration of Action and the Therapeutic Index of NVA237 and Tiotropium. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2012, 343, 520-528.	1.3	112
11	Quantifying the association and dissociation rates of unlabelled antagonists at the muscarinic M3 receptor. <i>British Journal of Pharmacology</i> , 2006, 148, 927-937.	2.7	111
12	Exploring the Mechanism of Agonist Efficacy: A Relationship between Efficacy and Agonist Dissociation Rate at the Muscarinic M ₃ Receptor. <i>Molecular Pharmacology</i> , 2009, 76, 543-551.	1.0	108
13	Agonist-Biased Signaling at the Histamine H ₄ Receptor: JNJ7777120 Recruits β -Arrestin without Activating G Proteins. <i>Molecular Pharmacology</i> , 2011, 79, 749-757.	1.0	103
14	Observed Drug-Receptor Association Rates Are Governed by Membrane Affinity: The Importance of Establishing Micro-Pharmacokinetic/Pharmacodynamic Relationships at the β_2 -Adrenoceptor. <i>Molecular Pharmacology</i> , 2014, 85, 608-617.	1.0	91
15	The Identification of Indacaterol as an Ultralong-Acting Inhaled β_2 -Adrenoceptor Agonist. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 3675-3684.	2.9	90
16	Evidence that P2Y4 nucleotide receptors are involved in the regulation of rat aortic smooth muscle cells by UTP and ATP. <i>British Journal of Pharmacology</i> , 1998, 124, 703-710.	2.7	89
17	Elusive equilibrium: the challenge of interpreting receptor pharmacology using calcium assays. <i>British Journal of Pharmacology</i> , 2010, 161, 1250-1265.	2.7	88
18	Endomorphin-2: A Biased Agonist at the μ -Opioid Receptor. <i>Molecular Pharmacology</i> , 2012, 82, 178-188.	1.0	88

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19	Cloned and transfected P2Y ₄ receptors: characterization of a suramin and PPADS-insensitive response to UTP. <i>British Journal of Pharmacology</i> , 1996, 119, 1301-1303.	2.7	85
20	M ₃ -muscarinic receptor promotes insulin release via receptor phosphorylation/arrestin-dependent activation of protein kinase D1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 21181-21186.	3.3	82
21	Biased Agonism in Drug Discovery—Is It Too Soon to Choose a Path?. <i>Molecular Pharmacology</i> , 2018, 93, 259-265.	1.0	76
22	Slow receptor dissociation is not a key factor in the duration of action of inhaled long-acting β_2 -adrenoceptor agonists. <i>British Journal of Pharmacology</i> , 2012, 165, 2672-2683.	2.7	70
23	Miniaturized Receptor Binding Assays: Complications Arising from Ligand Depletion. <i>Journal of Biomolecular Screening</i> , 2007, 12, 255-266.	2.6	57
24	Agonist efficacy and receptor desensitization: from partial truths to a fuller picture. <i>British Journal of Pharmacology</i> , 2009, 158, 165-168.	2.7	57
25	Fevipirant (QAW039), a Slowly Dissociating CRTh2 Antagonist with the Potential for Improved Clinical Efficacy. <i>Molecular Pharmacology</i> , 2016, 89, 593-605.	1.0	56
26	The Antiallergic Mast Cell Stabilizers Lodoxamide and Bufrolin as the First High and Equipotent Agonists of Human and Rat GPR35. <i>Molecular Pharmacology</i> , 2014, 85, 91-104.	1.0	53
27	Analysis of Multiple Histamine H ₄ Receptor Compound Classes Uncovers G β _i Protein- and β_2 -Arrestin2-Biased Ligands. <i>Molecular Pharmacology</i> , 2012, 82, 1174-1182.	1.0	51
28	Investigating the molecular mechanisms through which $\text{FTY}720$ causes persistent S1P ₁ receptor internalization. <i>British Journal of Pharmacology</i> , 2014, 171, 4797-4807.	2.7	46
29	The pharmacological rationale for combining muscarinic receptor antagonists and β_2 -adrenoceptor agonists in the treatment of airway and bladder disease. <i>Current Opinion in Pharmacology</i> , 2014, 16, 31-42.	1.7	45
30	Efficacy is a contributing factor to the clinical onset of bronchodilation of inhaled β_2 -adrenoceptor agonists. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2010, 382, 255-263.	1.4	38
31	Micro-pharmacokinetics: Quantifying local drug concentration at live cell membranes. <i>Scientific Reports</i> , 2018, 8, 3479.	1.6	38
32	Preassembled GPCR signaling complexes mediate distinct cellular responses to ultralow ligand concentrations. <i>Science Signaling</i> , 2018, 11, .	1.6	36
33	Discovery of Fevipirant (NVP-QAW039), a Potent and Selective DP ₂ Receptor Antagonist for Treatment of Asthma. <i>ACS Medicinal Chemistry Letters</i> , 2017, 8, 582-586.	1.3	30
34	Uncoupling the Structure-Activity Relationships of β_2 Adrenergic Receptor Ligands from Membrane Binding. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 5780-5789.	2.9	27
35	The inhibition of human lung fibroblast proliferation and differentiation by Gs-coupled receptors is not predicted by the magnitude of cAMP response. <i>Respiratory Research</i> , 2018, 19, 56.	1.4	27
36	The long-acting β_2 -adrenoceptor agonist, indacaterol, inhibits IgE-dependent responses of human lung mast cells. <i>British Journal of Pharmacology</i> , 2009, 158, 267-276.	2.7	26

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37	A physical properties based approach for the exploration of a 4-hydroxybenzothiazolone series of β_2 -adrenoceptor agonists as inhaled long-acting bronchodilators. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 5302-5307.	1.0	25
38	An investigation into the structure-activity relationships associated with the systematic modification of the β_2 -adrenoceptor agonist indacaterol. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 6280-6285.	1.0	25
39	PPAR β Is Not a Critical Mediator of Primary Monocyte Differentiation or Foam Cell Formation. <i>Biochemical and Biophysical Research Communications</i> , 2002, 290, 707-712.	1.0	20
40	Assessing the Minimum Number of Data Points Required for Accurate IC50 Determination. <i>Assay and Drug Development Technologies</i> , 2005, 3, 525-531.	0.6	20
41	The discovery of potent, orally bioavailable pyrazolo and triazolopyrimidine CXCR2 receptor antagonists. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 72-76.	1.0	17
42	A Single Point Mutation (N514Y) in the Human M3 Muscarinic Acetylcholine Receptor Reveals Differences in the Properties of Antagonists: Evidence for Differential Inverse Agonism. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2006, 317, 1134-1142.	1.3	16
43	The discovery of potent, orally bioavailable pyrimidine-5-carbonitrile-6-alkyl CXCR2 receptor antagonists. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 3285-3290.	1.0	16
44	Pharmacological Characterization of a Novel 5-Hydroxybenzothiazolone-Derived β_2 -Adrenoceptor Agonist with Functional Selectivity for Anabolic Effects on Skeletal Muscle Resulting in a Wider Cardiovascular Safety Window in Preclinical Studies. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2019, 369, 188-199.	1.3	16
45	Inhibition of the Proliferation of Human Lung Fibroblasts by Prostacyclin Receptor Agonists is Linked to a Sustained cAMP Signal in the Nucleus. <i>Frontiers in Pharmacology</i> , 2021, 12, 669227.	1.6	16
46	An Alternative Thiol-Reactive Dye to Analyze Ligand Interactions with the Chemokine Receptor CXCR2 Using a New Thermal Shift Assay Format. <i>Journal of Biomolecular Screening</i> , 2016, 21, 243-251.	2.6	15
47	Reassessment of the pharmacology of Sphingosine-1-phosphate S1P ₃ receptor ligands using the DiscoverX PathHunter [®] and Ca ²⁺ release functional assays. <i>British Journal of Pharmacology</i> , 2012, 167, 868-880.	2.7	13
48	High Throughput Mutagenesis for Identification of Residues Regulating Human Prostacyclin (hIP) Receptor Expression and Function. <i>PLoS ONE</i> , 2014, 9, e97973.	1.1	13
49	Long Receptor Residence Time of C26 Contributes to Super Agonist Activity at the Human β_2 Adrenoceptor. <i>Molecular Pharmacology</i> , 2016, 89, 467-475.	1.0	12
50	Structure-Kinetic Profiling of Haloperidol Analogues at the Human Dopamine D ₂ Receptor. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 9488-9520.	2.9	12
51	Simulating the influence of plasma protein on measured receptor affinity in biochemical assays reveals the utility of Schild analysis for estimating compound affinity for plasma proteins. <i>British Journal of Pharmacology</i> , 2015, 172, 5037-5049.	2.7	11
52	Single Step Determination of Unlabeled Compound Kinetics Using a Competition Association Binding Method Employing Time-Resolved FRET. <i>Methods in Molecular Biology</i> , 2018, 1824, 177-194.	0.4	11
53	Synthesis and evaluation of two series of 4-aza-carbocyclic nucleosides as adenosine A2A receptor agonists. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 1219-1224.	1.0	10
54	Functional desensitization of the β_2 adrenoceptor is not dependent on agonist efficacy. <i>Pharmacology Research and Perspectives</i> , 2015, 3, e00101.	1.1	10

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55	â€˜Partialâ€™ competition of heterobivalent ligand binding may be mistaken for allosteric interactions: a comparison of different target interaction models. <i>British Journal of Pharmacology</i> , 2015, 172, 2300-2315.	2.7	10
56	Airway remodeling disease: primary human structural cells and phenotypic and pathway assays to identify targets with potential to prevent or reverse remodeling. <i>Journal of Experimental Pharmacology</i> , 2018, Volume 10, 75-85.	1.5	10
57	Investigating the Influence of Tracer Kinetics on Competition-Kinetic Association Binding Assays: Identifying the Optimal Conditions for Assessing the Kinetics of Low-Affinity Compounds. <i>Molecular Pharmacology</i> , 2019, 96, 378-392.	1.0	10
58	ATP priming of macrophage-derived chemokine responses in CHO cells expressing the CCR4 receptor. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2004, 370, 64-70.	1.4	9
59	Measuring Receptor Target Coverage: A Radioligand Competition Binding Protocol for Assessing the Association and Dissociation Rates of Unlabeled Compounds. <i>Current Protocols in Pharmacology</i> , 2010, 50, Unit 9.14.	4.0	9
60	Interaction With the Lipid Membrane Influences Fentanyl Pharmacology. <i>Advances in Drug and Alcohol Research</i> , 0, 2, .	2.5	8
61	Design and synthesis of a library of chemokine antagonists. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 6249-6252.	1.0	7
62	Comparing the cardiovascular therapeutic indices of glycopyrronium and tiotropium in an integrated rat pharmacokinetic, pharmacodynamic and safety model. <i>Toxicology and Applied Pharmacology</i> , 2015, 287, 9-16.	1.3	7
63	Enhancement of the response to purinergic agonists in P2Y1 transfected 1321N1 cells by antagonists suramin and PPADS. <i>British Journal of Pharmacology</i> , 1997, 120, 1049-1052.	2.7	6
64	HDL-like discs for assaying membrane proteins in drug discovery. <i>Biophysical Chemistry</i> , 2012, 165-166, 56-61.	1.5	6
65	The in vitro metabolism of sphingosine-1-phosphate: Identification; inhibition and pharmacological implications. <i>European Journal of Pharmacology</i> , 2011, 672, 56-61.	1.7	3
66	Reply to â€˜Antipsychotics with similar association kinetics at dopamine D2 receptors differ in extrapyramidal side-effectsâ€™. <i>Nature Communications</i> , 2018, 9, 3568.	5.8	2
67	Kinetics of ligand binding and signaling. , 2020, , 171-194.		2
68	The Preclinical Pharmacology of Indacaterol. <i>Milestones in Drug Therapy</i> , 2014, , 25-37.	0.1	2
69	The identification of 7-[(R)-2-((1S,2S)-2-benzyloxycyclopentylamino)-1-hydroxyethyl]-4-hydroxybenzothiazolone as an inhaled long-acting Î²2-adrenoceptor agonist. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 4341-4347.	1.0	1
70	The Design of the Indacaterol Molecule. <i>Milestones in Drug Therapy</i> , 2014, , 39-65.	0.1	1
71	Identification of novel IP receptor agonists using historical ligand biased chemical arrays. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 2247-2250.	1.0	1
72	Exploring the kinetic selectivity of drugs targeting the Î² ₁ adrenoceptor. <i>Pharmacology Research and Perspectives</i> , 2022, 10, .	1.1	1

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73	BJP issue on drug discovery. British Journal of Pharmacology, 2010, 161, 1201-1202.	2.7	0
74	Kinetic Profiling of Ligands and Fragments Binding to GPCRs by TR-FRET. Topics in Medicinal Chemistry, 2021, , 1-32.	0.4	0
75	Kinetic investigations into G protein activation and biased agonism at the dopamine D2 receptor. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, PO1-1-118.	0.0	0