J Robert Lane

List of Publications by Year
in descending order

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78 papers	5,704 citations	109321 35 h-index	76900 74 g-index
78 all docs	78 docs citations	78 times ranked	6023 citing authors

#	Article	IF	Citations
1	The respiratory depressant effects of mitragynine are limited by its conversion to 7â€ŌH mitragynine. British Journal of Pharmacology, 2022, 179, 3875-3885.	5.4	10
2	OZITX, a pertussis toxin-like protein for occluding inhibitory G protein signalling including GÎ±z. Communications Biology, 2022, 5, 256.	4.4	7
3	Systematic Assessment of Chemokine Signaling at Chemokine Receptors CCR4, CCR7 and CCR10. International Journal of Molecular Sciences, 2021, 22, 4232.	4.1	8
4	New phosphosite-specific antibodies to unravel the role of GRK phosphorylation in dopamine D2 receptor regulation and signaling. Scientific Reports, 2021, 11, 8288.	3.3	19
5	Novel Dual-Target Î¼-Opioid Receptor and Dopamine D₃ Receptor Ligands as Potential Nonaddictive Pharmacotherapeutics for Pain Management. Journal of Medicinal Chemistry, 2021, 64, 7778-7808.	6.4	14
6	Enantioenriched Positive Allosteric Modulators Display Distinct Pharmacology at the Dopamine D1 Receptor. Molecules, 2021, 26, 3799.	3.8	2
7	Pharmacological Characterization of the Imipridone Anticancer Drug ONC201 Reveals a Negative Allosteric Mechanism of Action at the D₂Dopamine Receptor. Molecular Pharmacology, 2021, 100, 372-387.	2.3	14
8	Arrestin recruitment to dopamine D2 receptor mediates locomotion but not incentive motivation. Molecular Psychiatry, 2020, 25, 2086-2100.	7.9	55
9	Evidence for a Stereoselective Mechanism for Bitopic Activity by Extended-Length Antagonists of the D₃ Dopamine Receptor. ACS Chemical Neuroscience, 2020, 11, 3309-3320.	3.5	13
10	GRKs as Key Modulators of Opioid Receptor Function. Cells, 2020, 9, 2400.	4.1	11
11	Low intrinsic efficacy for G protein activation can explain the improved side effect profiles of new opioid agonists. Science Signaling, 2020, 13, .	3.6	219
12	Distinct inactive conformations of the dopamine D2 and D3 receptors correspond to different extents of inverse agonism. ELife, 2020, 9, .	6.0	31
13	Subtle Modifications to the Indole-2-carboxamide Motif of the Negative Allosteric Modulator N-((trans)-4-(2-(7-Cyano-3,4-dihydroisoquinolin-2(1H)-yl)ethyl)cyclohexyl)-1H-indole-2-carboxamide (SB269652) Yield Dramatic Changes in Pharmacological Activity at the Dopamine D₂ Receptor. Journal of Medicinal Chemistry, 2019, 62, 371-377.	6.4	17
14	Molecular Determinants of the Intrinsic Efficacy of the Antipsychotic Aripiprazole. ACS Chemical Biology, 2019, 14, 1780-1792.	3.4	19
15	Structureâ€“Kinetic Profiling of Haloperidol Analogues at the Human Dopamine D₂ Receptor. Journal of Medicinal Chemistry, 2019, 62, 9488-9520.	6.4	12
16	Evaluation and extension of the two-site, two-step model for binding and activation of the chemokine receptor CCR1. Journal of Biological Chemistry, 2019, 294, 3464-3475.	3.4	21
17	The differential actions of clozapine and other antipsychotic drugs on the translocation of dopamine D2 receptors to the cell surface. Journal of Biological Chemistry, 2019, 294, 5604-5615.	3.4	18
18	Influence of Chemokine N-Terminal Modification on Biased Agonism at the Chemokine Receptor CCR1. International Journal of Molecular Sciences, 2019, 20, 2417.	4.1	12

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19	Subtle modifications to a thieno[2,3-d]pyrimidine scaffold yield negative allosteric modulators and agonists of the dopamine D2 receptor. European Journal of Medicinal Chemistry, 2019, 168, 474-490.	5.5	6
20	A Thieno[2,3-d]pyrimidine Scaffold Is a Novel Negative Allosteric Modulator of the Dopamine D₂ Receptor. Journal of Medicinal Chemistry, 2019, 62, 174-206.	6.4	20
21	The action of a negative allosteric modulator at the dopamine D2 receptor is dependent upon sodium ions. Scientific Reports, 2018, 8, 1208.	3.3	16
22	The structural determinants of the bitopic binding mode of a negative allosteric modulator of the dopamine D 2 receptor. Biochemical Pharmacology, 2018, 148, 315-328.	4.4	26
23	Reply to â€˜Antipsychotics with similar association kinetics at dopamine D2 receptors differ in extrapyramidal side-effectsâ€™. Nature Communications, 2018, 9, 3568.	12.8	2
24	Identification of Positive Allosteric Modulators of the D₁ Dopamine Receptor That Act at Diverse Binding Sites. Molecular Pharmacology, 2018, 94, 1197-1209.	2.3	35
25	The E2.65A mutation disrupts dynamic binding poses of SB269652 at the dopamine D2 and D3 receptors. PLoS Computational Biology, 2018, 14, e1005948.	3.2	19
26	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
27	Synthesis and Pharmacological Characterization of Novel trans-Cyclopropylmethyl-Linked Bivalent Ligands That Exhibit Selectivity and Allosteric Pharmacology at the Dopamine D₃ Receptor (D₃R). Journal of Medicinal Chemistry, 2017, 60, 1478-1494.	6.4	44
28	Key determinants of selective binding and activation by the monocyte chemoattractant proteins at the chemokine receptor CCR2. Science Signaling, 2017, 10, .	3.6	33
29	Extrapyramidal side effects of antipsychotics are linked to their association kinetics at dopamine D2 receptors. Nature Communications, 2017, 8, 763.	12.8	148
30	A kinetic view of GPCR allostery and biased agonism. Nature Chemical Biology, 2017, 13, 929-937.	8.0	126
31	Î² 2 -Adrenoceptors on tumor cells play a critical role in stress-enhanced metastasis in a mouse model of breast cancer. Brain, Behavior, and Immunity, 2016, 57, 106-115.	4.1	77
32	Multivalent approaches and beyond: novel tools for the investigation of dopamine D₂ receptor pharmacology. Future Medicinal Chemistry, 2016, 8, 1349-1372.	2.3	8
33	The role of kinetic context in apparent biased agonism at GPCRs. Nature Communications, 2016, 7, 10842.	12.8	270
34	Positive Allosteric Modulation of the Muscarinic M₁Receptor Improves Efficacy of Antipsychotics in Mouse Glutamatergic Deficit Models of Behavior. Journal of Pharmacology and Experimental Therapeutics, 2016, 359, 354-365.	2.5	21
35	Systematic analysis of factors influencing observations of biased agonism at the mu-opioid receptor. Biochemical Pharmacology, 2016, 113, 70-87.	4.4	48
36	Novel Fused Arylpyrimidinone Based Allosteric Modulators of the M₁ Muscarinic Acetylcholine Receptor. ACS Chemical Neuroscience, 2016, 7, 647-661.	3.5	14

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37	The Î² ₂ ^{â€adrenoceptor} activates a positive cAMPâ€calcium feedforward loop to drive breast cancer cell invasion. FASEB Journal, 2016, 30, 1144-1154.	0.5	60
38	4-Phenylpyridin-2-one Derivatives: A Novel Class of Positive Allosteric Modulator of the M₁ Muscarinic Acetylcholine Receptor. Journal of Medicinal Chemistry, 2016, 59, 388-409.	6.4	35
39	Î²2-adrenoceptor signaling regulates invadopodia formation to enhance tumor cell invasion. Breast Cancer Research, 2015, 17, 145.	5.0	64
40	Proof of Concept Study for Designed Multiple Ligands Targeting the Dopamine D₂, Serotonin 5-HT_{2A}, and Muscarinic M₁ Acetylcholine Receptors. Journal of Medicinal Chemistry, 2015, 58, 1550-1555.	6.4	14
41	Structureâ€“Activity Study of N-((trans)-4-(2-(7-Cyano-3,4-dihydroisoquinolin-2(1H)-yl)ethyl)cyclohexyl)-1H-indole-2-carboxamide (SB269652), a Bitopic Ligand That Acts as a Negative Allosteric Modulator of the Dopamine D₂ Receptor. Journal of Medicinal Chemistry, 2015, 58, 5287-5307.	6.4	40
42	A structureâ€“activity relationship study of the positive allosteric modulator LY2033298 at the M₄ muscarinic acetylcholine receptor. MedChemComm, 2015, 6, 1998-2003.	3.4	7
43	Biased Agonism of Endogenous Opioid Peptides at theÎ¼-Opioid Receptor. Molecular Pharmacology, 2015, 88, 335-346.	2.3	93
44	Discovery of a Novel Class of Negative Allosteric Modulator of the Dopamine D₂ Receptor Through Fragmentation of a Bitopic Ligand. Journal of Medicinal Chemistry, 2015, 58, 6819-6843.	6.4	47
45	Mechanistic Insights into Allosteric Structure-Function Relationships at the M1 Muscarinic Acetylcholine Receptor. Journal of Biological Chemistry, 2014, 289, 33701-33711.	3.4	49
46	Molecular Mechanisms of Bitopic Ligand Engagement with the M1 Muscarinic Acetylcholine Receptor. Journal of Biological Chemistry, 2014, 289, 23817-23837.	3.4	55
47	Molecular Determinants of Allosteric Modulation at the M1 Muscarinic Acetylcholine Receptor. Journal of Biological Chemistry, 2014, 289, 6067-6079.	3.4	51
48	A new mechanism of allostery in a G proteinâ€“coupled receptor dimer. Nature Chemical Biology, 2014, 10, 745-752.	8.0	108
49	Biased Agonism at G Proteinâ€Coupled Receptors: The Promise and the Challengesâ€”A Medicinal Chemistry Perspective. Medicinal Research Reviews, 2014, 34, 1286-1330.	10.5	92
50	Structureâ€“Activity Relationships of Privileged Structures Lead to the Discovery of Novel Biased Ligands at the Dopamine D₂ Receptor. Journal of Medicinal Chemistry, 2014, 57, 4924-4939.	6.4	67
51	Allosteric Modulation of M1 Muscarinic Acetylcholine Receptor Internalization and Subcellular Trafficking. Journal of Biological Chemistry, 2014, 289, 15856-15866.	3.4	31
52	Synthesis, functional and binding profile of (R)-apomorphine based homobivalent ligands targeting the dopamine D2 receptor. MedChemComm, 2013, 4, 1290.	3.4	9
53	Structural basis for modulation of a G-protein-coupled receptor by allosteric drugs. Nature, 2013, 503, 295-299.	27.8	365
54	A Structureâ€“Activity Analysis of Biased Agonism at the Dopamine D2 Receptor. Journal of Medicinal Chemistry, 2013, 56, 9199-9221.	6.4	80

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55	Structure-Based Ligand Discovery Targeting Orthosteric and Allosteric Pockets of Dopamine Receptors. Molecular Pharmacology, 2013, 84, 794-807.	2.3	78
56	Reverse Engineering of the Selective Agonist TBPB Unveils Both Orthosteric and Allosteric Modes of Action at the M1 Muscarinic Acetylcholine Receptor. Molecular Pharmacology, 2013, 84, 425-437.	2.3	31
57	Allosteric Modulation of a Chemogenetically Modified G Protein-Coupled Receptor. Molecular Pharmacology, 2013, 83, 521-530.	2.3	24
58	Allosteric approaches to GPCR drug discovery. Drug Discovery Today: Technologies, 2013, 10, e219-e221.	4.0	9
59	Bridging the gap: bitopic ligands of G-protein-coupled receptors. Trends in Pharmacological Sciences, 2013, 34, 59-66.	8.7	150
60	Regulation of G Protein-Coupled Receptors by Allosteric Ligands. ACS Chemical Neuroscience, 2013, 4, 527-534.	3.5	47
61	A Novel Nonribose Agonist, LUF5834, Engages Residues That Are Distinct from Those of Adenosine-Like Ligands to Activate the Adenosine A_{2a} Receptor. Molecular Pharmacology, 2012, 81, 475-487.	2.3	39
62	Novel 3,6,7-Substituted Pyrazolopyrimidines as Positive Allosteric Modulators for the Hydroxycarboxylic Acid Receptor 2 (GPR109A). Journal of Medicinal Chemistry, 2012, 55, 3563-3567.	6.4	13
63	Sequential Conformational Rearrangements Dictate the Dynamics of Class C GPCR Activation. Science Signaling, 2012, 5, pe51.	3.6	4
64	The Best of Both Worlds? Bitopic Orthosteric/Allosteric Ligands of G Proteinâ€“Coupled Receptors. Annual Review of Pharmacology and Toxicology, 2012, 52, 153-178.	9.4	148
65	Homobivalent Ligands of the Atypical Antipsychotic Clozapine: Design, Synthesis, and Pharmacological Evaluation. Journal of Medicinal Chemistry, 2012, 55, 1622-1634.	6.4	39
66	A Monod-Wyman-Changeux Mechanism Can Explain G Protein-coupled Receptor (GPCR) Allosteric Modulation. Journal of Biological Chemistry, 2012, 287, 650-659.	3.4	98
67	A Prospective Cross-Screening Study on G-Protein-Coupled Receptors: Lessons Learned in Virtual Compound Library Design. Journal of Medicinal Chemistry, 2012, 55, 5311-5325.	6.4	28
68	The Structure of the Adenosine Receptors. Advances in Pharmacology, 2011, 61, 1-40.	2.0	9
69	Structure-Based Discovery of Novel Chemotypes for Adenosine A_{2A} Receptor Antagonists. Journal of Medicinal Chemistry, 2010, 53, 1799-1809.	6.4	231
70	The endocannabinoid 2-arachidonylglycerol is a negative allosteric modulator of the human A3 adenosine receptor. Biochemical Pharmacology, 2010, 79, 48-56.	4.4	44
71	Characterization of [3H]LUF5834: A novel non-ribose high-affinity agonist radioligand for the adenosine A1 receptor. Biochemical Pharmacology, 2010, 80, 1180-1189.	4.4	12
72	Ligand Binding and Subtype Selectivity of the Human A2A Adenosine Receptor. Journal of Biological Chemistry, 2010, 285, 13032-13044.	3.4	83

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73	Hybrid Ortho/Allosteric Ligands for the Adenosine A₁ Receptor. Journal of Medicinal Chemistry, 2010, 53, 3028-3037.	6.4	84
74	The 2.6 Angstrom Crystal Structure of a Human A _{2A} Adenosine Receptor Bound to an Antagonist. Science, 2008, 322, 1211-1217.	12.6	1,688
75	Antibodies that identify only the active conformation of G_ifamily G protein Î± subunits. FASEB Journal, 2008, 22, 1924-1932.	0.5	20
76	G Protein Coupling and Ligand Selectivity of the D_{2L}and D₃Dopamine Receptors. Journal of Pharmacology and Experimental Therapeutics, 2008, 325, 319-330.	2.5	57
77	Protean Agonism at the Dopamine D2 Receptor: (S)-3-(3-Hydroxyphenyl)-N-propylpiperidine Is an Agonist for Activation of Go1 but an Antagonist/Inverse Agonist for Gi1,Gi2, and Gi3. Molecular Pharmacology, 2007, 71, 1349-1359.	2.3	63
78	Novel pharmacological applications of G-protein-coupled receptorâ€“G protein fusions. Current Opinion in Pharmacology, 2007, 7, 521-526.	3.5	23