Denise Wootten

List of Publications by Year
in descending order

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101	6,611	76326	74163
papers	citations	40 h-index	75 g-index

113	113	113	5697
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanisms of signalling and biased agonism in G protein-coupled receptors. Nature Reviews Molecular Cell Biology, 2018, 19, 638-653.	37.0	457
2	Phase-plate cryo-EM structure of a class B GPCRâ€“G-protein complex. Nature, 2017, 546, 118-123.	27.8	424
3	Emerging paradigms in GPCR allostery: implications for drug discovery. Nature Reviews Drug Discovery, 2013, 12, 630-644.	46.4	396
4	Structure of the adenosine-bound human adenosine A1 receptorâ€“Gi complex. Nature, 2018, 558, 559-563.	27.8	274
5	Status of GPCR Modeling and Docking as Reflected by Community-wide GPCR Dock 2010 Assessment. Structure, 2011, 19, 1108-1126.	3.3	269
6	Phase-plate cryo-EM structure of a biased agonist-bound human GLP-1 receptorâ€“Gs complex. Nature, 2018, 555, 121-125.	27.8	263
7	Glucagon-Like Peptide-1 and Its Class B G Proteinâ€“Coupled Receptors: A Long March to Therapeutic Successes. Pharmacological Reviews, 2016, 68, 954-1013.	16.0	252
8	Lifting the lid on GPCRs: the role of extracellular loops. British Journal of Pharmacology, 2012, 165, 1688-1703.	5.4	242
9	Cryo-EM structure of the active, Gs-protein complexed, human CGRP receptor. Nature, 2018, 561, 492-497.	27.8	210
10	Polar transmembrane interactions drive formation of ligand-specific and signal pathway-biased family B G protein-coupled receptor conformations. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5211-5216.	7.1	203
11	Allosteric Ligands of the Glucagon-Like Peptide 1 Receptor (GLP-1R) Differentially Modulate Endogenous and Exogenous Peptide Responses in a Pathway-Selective Manner: Implications for Drug Screening. Molecular Pharmacology, 2010, 78, 456-465.	2.3	195
12	The Extracellular Surface of the GLP-1 Receptor Is a Molecular Trigger for Biased Agonism. Cell, 2016, 165, 1632-1643.	28.9	126
13	Activation of the GLP-1 receptor by a non-peptidic agonist. Nature, 2020, 577, 432-436.	27.8	119
14	Structural basis of G _s and G _i recognition by the human glucagon receptor. Science, 2020, 367, 1346-1352.	12.6	117
15	Ligand-Dependent Modulation of G Protein Conformation Alters Drug Efficacy. Cell, 2016, 167, 739-749.e11.	28.9	113
16	Differential GLP-1R Binding and Activation by Peptide and Non-peptide Agonists. Molecular Cell, 2020, 80, 485-500.e7.	9.7	111
17	Dominant Negative G Proteins Enhance Formation and Purification of Agonist-GPCR-G Protein Complexes for Structure Determination. ACS Pharmacology and Translational Science, 2018, 1, 12-20.	4.9	96
18	Rules of Engagement: GPCRs and G Proteins. ACS Pharmacology and Translational Science, 2018, 1, 73-83.	4.9	93

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19	Toward a Structural Understanding of Class B GPCR Peptide Binding and Activation. Molecular Cell, 2020, 77, 656-668.e5.	9.7	92
20	Allostery and Biased Agonism at Class B G Protein-Coupled Receptors. Chemical Reviews, 2017, 117, 111-138.	47.7	91
21	Polymorphism and Ligand Dependent Changes in Human Glucagon-Like Peptide-1 Receptor (GLP-1R) Function: Allosteric Rescue of Loss of Function Mutation. Molecular Pharmacology, 2011, 80, 486-497.	2.3	84
22	Positive allosteric mechanisms of adenosine A1 receptor-mediated analgesia. Nature, 2021, 597, 571-576.	27.8	84
23	Second Extracellular Loop of Human Glucagon-like Peptide-1 Receptor (GLP-1R) Has a Critical Role in GLP-1 Peptide Binding and Receptor Activation. Journal of Biological Chemistry, 2012, 287, 3642-3658.	3.4	83
24	Differential Activation and Modulation of the Glucagon-Like Peptide-1 Receptor by Small Molecule Ligands. Molecular Pharmacology, 2013, 83, 822-834.	2.3	77
25	Systematic Analysis of the Entire Second Extracellular Loop of the V1a Vasopressin Receptor. Journal of Biological Chemistry, 2007, 282, 17405-17412.	3.4	76
26	Receptor activity modifying proteins (<scp>RAMPs</scp>) interact with the <scp>VPAC</scp>₂ receptor and <scp>CRF</scp>₁ receptors and modulate their function. British Journal of Pharmacology, 2013, 168, 822-834.	5.4	71
27	Structure and Dynamics of Adrenomedullin Receptors AM₁ and AM₂ Reveal Key Mechanisms in the Control of Receptor Phenotype by Receptor Activity-Modifying Proteins. ACS Pharmacology and Translational Science, 2020, 3, 263-284.	4.9	71
28	Molecular Basis for Hormone Recognition and Activation of Corticotropin-Releasing Factor Receptors. Molecular Cell, 2020, 77, 669-680.e4.	9.7	70
29	Allosteric Modulation of Endogenous Metabolites as an Avenue for Drug Discovery. Molecular Pharmacology, 2012, 82, 281-290.	2.3	69
30	Î²-Arrestin-Biased Agonists of the GLP-1 Receptor from Î²-Amino Acid Residue Incorporation into GLP-1 Analogues. Journal of the American Chemical Society, 2016, 138, 14970-14979.	13.7	69
31	Modulation of the Glucagon-Like Peptide-1 Receptor Signaling by Naturally Occurring and Synthetic Flavonoids. Journal of Pharmacology and Experimental Therapeutics, 2011, 336, 540-550.	2.5	67
32	Glucagon-like peptide-1 receptor dimerization differentially regulates agonist signaling but does not affect small molecule allostery. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18607-18612.	7.1	62
33	Molecular mechanisms underlying physiological and receptor pleiotropic effects mediated by <scp>GLP</scp>â€<scp>1R</scp> activation. British Journal of Pharmacology, 2014, 171, 1114-1128.	5.4	60
34	Recent advances in understanding GLP-1R (glucagon-like peptide-1 receptor) function. Biochemical Society Transactions, 2013, 41, 172-179.	3.4	59
35	Structure and dynamics of the CGRP receptor in apo and peptide-bound forms. Science, 2021, 372, .	12.6	57
36	A Hydrogen-Bonded Polar Network in the Core of the Glucagon-Like Peptide-1 Receptor Is a Fulcrum for Biased Agonism: Lessons from Class B Crystal Structures. Molecular Pharmacology, 2016, 89, 335-347.	2.3	56

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37	Characterization of signal bias at the GLP-1 receptor induced by backbone modification of GLP-1. Biochemical Pharmacology, 2017, 136, 99-108.	4.4	53
38	Small Molecule Allosteric Modulation of the Glucagon-Like Peptide-1 Receptor Enhances the Insulinotropic Effect of Oxyntomodulin. Molecular Pharmacology, 2012, 82, 1066-1073.	2.3	51
39	Structure and dynamics of the active Gs-coupled human secretin receptor. Nature Communications, 2020, 11, 4137.	12.8	46
40	Glucagon-like peptide-1 receptor internalisation controls spatiotemporal signalling mediated by biased agonists. Biochemical Pharmacology, 2018, 156, 406-419.	4.4	45
41	Consequences of splice variation on Secretin family G proteinâ€coupled receptor function. British Journal of Pharmacology, 2012, 166, 98-109.	5.4	44
42	Two distinct domains of the glucagon-like peptide-1 receptor control peptide-mediated biased agonism. Journal of Biological Chemistry, 2018, 293, 9370-9387.	3.4	43
43	Receptor activityâ€modifying proteinâ€dependent impairment of calcitonin receptor splice variant Î”(1â€“47)<scp>hCT</scp>_(a) function. British Journal of Pharmacology, 2013, 168, 644-657.	5.4	42
44	Key interactions by conserved polar amino acids located at the transmembrane helical boundaries in Class B GPCRs modulate activation, effector specificity and biased signalling in the glucagon-like peptide-1 receptor. Biochemical Pharmacology, 2016, 118, 68-87.	4.4	41
45	Structures of the human cholecystokinin 1 (CCK1) receptor bound to Gs and Gq mimetic proteins provide insight into mechanisms of G protein selectivity. PLoS Biology, 2021, 19, e3001295.	5.6	41
46	The Molecular Control of Calcitonin Receptor Signaling. ACS Pharmacology and Translational Science, 2019, 2, 31-51.	4.9	38
47	Pharmacological characterization of mono-, dual- and tri-peptidic agonists at GIP and GLP-1 receptors. Biochemical Pharmacology, 2020, 177, 114001.	4.4	37
48	Routine sub-2.5â€‰Ã… cryo-EM structure determination of GPCRs. Nature Communications, 2021, 12, 4333.	12.8	37
49	O-GlcNAc Engineering of GPCR Peptide-Agonists Improves Their Stability and in Vivo Activity. Journal of the American Chemical Society, 2019, 141, 14210-14219.	13.7	35
50	Diverse Functional Motifs within the Three Intracellular Loops of the CGRP1Receptorâ€. Biochemistry, 2006, 45, 12976-12985.	2.5	32
51	Cryo-electron microscopy structure of the glucagon receptor with a dual-agonist peptide. Journal of Biological Chemistry, 2020, 295, 9313-9325.	3.4	31
52	Second Extracellular Loop of Human Glucagon-like Peptide-1 Receptor (GLP-1R) Differentially Regulates Orthosteric but Not Allosteric Agonist Binding and Function. Journal of Biological Chemistry, 2012, 287, 3659-3673.	3.4	30
53	Minireview: Signal Bias, Allosterism, and Polymorphic Variation at the GLP-1R: Implications for Drug Discovery. Molecular Endocrinology, 2013, 27, 1234-1244.	3.7	30
54	Dynamics of GLP-1R peptide agonist engagement are correlated with kinetics of G protein activation. Nature Communications, 2022, 13, 92.	12.8	30

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55	Evolving cryo-EM structural approaches for GPCR drug discovery. Structure, 2021, 29, 963-974.e6.	3.3	29
56	The complexity of signalling mediated by the glucagon-like peptide-1 receptor. Biochemical Society Transactions, 2016, 44, 582-588.	3.4	28
57	Molecular Mechanisms of Class B GPCR Activation: Insights from Adrenomedullin Receptors. ACS Pharmacology and Translational Science, 2020, 3, 246-262.	4.9	28
58	A structural basis for amylin receptor phenotype. Science, 2022, 375, eabm9609.	12.6	28
59	AM833 Is a Novel Agonist of Calcitonin Family G Proteinâ€"Coupled Receptors: Pharmacological Comparison with Six Selective and Nonselective Agonists. Journal of Pharmacology and Experimental Therapeutics, 2021, 377, 417-440.	2.5	27
60	Structure and dynamics of semaglutide- and taspoglutide-bound GLP-1R-Gs complexes. Cell Reports, 2021, 36, 109374.	6.4	27
61	Structural Basis for Allosteric Modulation of Class B G Proteinâ€"Coupled Receptors. Annual Review of Pharmacology and Toxicology, 2020, 60, 89-107.	9.4	26
62	Structural and functional insights into the juxtamembranous aminoâ€terminal tail and extracellular loop regions of class <scp>B GPCRs</scp>. British Journal of Pharmacology, 2014, 171, 1085-1101.	5.4	25
63	Extracellular loops 2 and 3 of the calcitonin receptor selectively modify agonist binding and efficacy. Biochemical Pharmacology, 2018, 150, 214-244.	4.4	24
64	Structural and functional diversity among agonist-bound states of the GLP-1 receptor. Nature Chemical Biology, 2022, 18, 256-263.	8.0	24
65	Use of Backbone Modification To Enlarge the Spatiotemporal Diversity of Parathyroid Hormone Receptor-1 Signaling via Biased Agonism. Journal of the American Chemical Society, 2019, 141, 14486-14490.	13.7	23
66	Evaluation of biased agonism mediated by dual agonists of the GLP-1 and glucagon receptors. Biochemical Pharmacology, 2020, 180, 114150.	4.4	23
67	Extracellular loops and ligand binding to a subfamily of Family A G-protein-coupled receptors. Biochemical Society Transactions, 2007, 35, 717-720.	3.4	20
68	RAMPs and CGRP Receptors. Advances in Experimental Medicine and Biology, 2012, 744, 13-24.	1.6	19
69	Characterization of signalling and regulation of common calcitonin receptor splice variants and polymorphisms. Biochemical Pharmacology, 2018, 148, 111-129.	4.4	19
70	Differential Impact of Amino Acid Substitutions on Critical Residues of the Human Glucagon-Like Peptide-1 Receptor Involved in Peptide Activity and Small-Molecule Allostery. Journal of Pharmacology and Experimental Therapeutics, 2015, 353, 52-63.	2.5	18
71	Formylpeptide receptor 2: Nomenclature, structure, signalling and translational perspectives: IUPHAR review 35. British Journal of Pharmacology, 2022, 179, 4617-4639.	5.4	18
72	Membranes under the Magnetic Lens: A Dive into the Diverse World of Membrane Protein Structures Using Cryo-EM. Chemical Reviews, 2022, 122, 13989-14017.	47.7	17

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73	A simple method to generate stable cell lines for the analysis of transient protein-protein interactions. BioTechniques, 2013, 54, 217-221.	1.8	16
74	Vascular and molecular pharmacology of the metabolically stable CGRP analogue, SAX. European Journal of Pharmacology, 2018, 829, 85-92.	3.5	15
75	Expression and activity of the calcitonin receptor family in a sample of primary human high-grade gliomas. BMC Cancer, 2019, 19, 157.	2.6	15
76	Cryo-EM structure of the dual incretin receptor agonist, peptide-19, in complex with the glucagon-like peptide-1 receptor. Biochemical and Biophysical Research Communications, 2021, 578, 84-90.	2.1	14
77	Monotreme glucagon-like peptide-1 in venom and gut: one gene â€“ two very different functions. Scientific Reports, 2016, 6, 37744.	3.3	12
78	Receptor Activity Modifying Proteins and Their Potential as Drug Targets. Progress in Molecular Biology and Translational Science, 2010, 91, 53-79.	1.7	11
79	Structural features embedded in G protein-coupled receptor co-crystal structures are key to their success in virtual screening. PLoS ONE, 2017, 12, e0174719.	2.5	11
80	Roles of Cholecystokinin in the Nutritional Continuum. Physiology and Potential Therapeutics. Frontiers in Endocrinology, 2021, 12, 684656.	3.5	10
81	The metabolic effects of mirabegron are mediated primarily by Î² 3 â€adrenoceptors. Pharmacology Research and Perspectives, 2020, 8, e00643.	2.4	9
82	Agonist-specific requirement for a glutamate in transmembrane helix 1 of the oxytocin receptor. Molecular and Cellular Endocrinology, 2011, 333, 20-27.	3.2	8
83	Improving virtual screening of G protein-coupled receptors via ligand-directed modeling. PLoS Computational Biology, 2017, 13, e1005819.	3.2	8
84	Deconvoluting the Molecular Control of Binding and Signaling at the Amylin 3 Receptor: RAMP3 Alters Signal Propagation through Extracellular Loops of the Calcitonin Receptor. ACS Pharmacology and Translational Science, 2019, 2, 183-197.	4.9	8
85	Prediction of Loops in G Protein-Coupled Receptor Homology Models: Effect of Imprecise Surroundings and Constraints. Journal of Chemical Information and Modeling, 2016, 56, 671-686.	5.4	7
86	Rational development of a high-affinity secretin receptor antagonist. Biochemical Pharmacology, 2020, 177, 113929.	4.4	7
87	Coexpressed Class B G Proteinâ€“Coupled Secretin and GLP-1 Receptors Self- and Cross-Associate: Impact on Pancreatic Islets. Endocrinology, 2017, 158, 1685-1700.	2.8	6
88	Differential engagement of polar networks in the glucagon-like peptide 1 receptor by endogenous variants of the glucagon-like peptide 1. Biochemical Pharmacology, 2018, 156, 223-240.	4.4	6
89	Meet the B family. Nature, 2013, 499, 417-418.	27.8	5
90	Molecular Basis of Action of a Small-Molecule Positive Allosteric Modulator Agonist at the Type 1 Cholecystokinin Holoreceptor. Molecular Pharmacology, 2019, 95, 245-259.	2.3	5

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91	Exploring Ligand Binding to Calcitonin Gene-Related Peptide Receptors. Frontiers in Molecular Biosciences, 2021, 8, 720561.	3.5	5
92	Insights into agonist-elicited activation of the human glucose-dependent insulinotropic polypeptide receptor. Biochemical Pharmacology, 2021, 192, 114715.	4.4	5
93	Implications of ligand-receptor binding kinetics on GLP-1R signalling. Biochemical Pharmacology, 2022, 199, 114985.	4.4	5
94	Discovery of a Positive Allosteric Modulator of Cholecystokinin Action at CCK1R in Normal and Elevated Cholesterol. Frontiers in Endocrinology, 2021, 12, 789957.	3.5	3
95	Chemical Synthesis and Characterization of a Nonfibrillating Glycoglucagon. Bioconjugate Chemistry, 2021, 32, 2148-2153.	3.6	2
96	Thermo Scientificâ„¢ Glacios Cryo-TEM: A Versatile 200 kV Tool for Structure-Based Drug Discovery. Microscopy and Microanalysis, 2021, 27, 3256-3258.	0.4	1
97	Correction to â€œDifferential Activation and Modulation of the Glucagon-Like Peptide-1 Receptor by Small Molecular Ligandsâ€• Molecular Pharmacology, 2013, 84, 170-170.	2.3	0
98	CGRP/Adrenomedullin. , 2013, , 744-751.		0
99	What determines the magnitude of cellular response for activation of G protein-coupled receptors?. Cell Cycle, 2017, 16, 392-394.	2.6	0
100	The structural basis of class B GPCR activation and signalling. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2021, 94, 2-JAL.	0.0	0
101	Secretin amino-terminal structure-activity relationships and complementary mutagenesis at the site of docking to the secretin receptor. Molecular Pharmacology, 2022, , MOLPHARM-AR-2022-000502.	2.3	0