Marc G Caron

List of Publications by Year
in descending order

107 papers	16,187 citations	53939 47 h-index	31191 106 g-index
109 all docs	109 docs citations	109 times ranked	12312 citing authors

#	Article	IF	Citations
1	Biased agonists of the chemokine receptor CXCR3 differentially signal through GÎ± _i :Î²-arrestin complexes. Science Signaling, 2022, 15, eabg5203.	1.6	13
2	Noncanonical scaffolding of G _{Î±i} and Î²-arrestin by G proteinâ€“coupled receptors. Science, 2021, 371, .	6.0	64
3	Biased Allosteric Modulators: New Frontiers in GPCR Drug Discovery. Trends in Pharmacological Sciences, 2021, 42, 283-299.	4.0	94
4	HER2 Isoforms Uniquely Program Intratumor Heterogeneity and Predetermine Breast Cancer Trajectories During the Occult Tumorigenic Phase. Molecular Cancer Research, 2021, 19, 1699-1711.	1.5	5
5	Biased Coupling to Î²-Arrestin of Two Common Variants of the CB2 Cannabinoid Receptor. Frontiers in Endocrinology, 2021, 12, 714561.	1.5	10
6	Loss of Î²â€arrestin2 in D2 cells alters neuronal excitability in the nucleus accumbens and behavioral responses to psychostimulants and opioids. Addiction Biology, 2020, 25, e12823.	1.4	9
7	Deletion of Glycogen Synthase Kinase-3Î² in D2 Receptorâ€“Positive Neurons Ameliorates Cognitive Impairment via NMDA Receptorâ€“Dependent Synaptic Plasticity. Biological Psychiatry, 2020, 87, 745-755.	0.7	17
8	Î²-Arrestin-Biased Allosteric Modulator of NTSR1 Selectively Attenuates Addictive Behaviors. Cell, 2020, 181, 1364-1379.e14.	13.5	74
9	Designing Functionally Selective Noncatechol Dopamine D₁ Receptor Agonists with Potent In Vivo Antiparkinsonian Activity. ACS Chemical Neuroscience, 2019, 10, 4160-4182.	1.7	21
10	Discovery of Î²-Arrestin Biased, Orally Bioavailable, and CNS Penetrant Neurotensin Receptor 1 (NTR1) Allosteric Modulators. Journal of Medicinal Chemistry, 2019, 62, 8357-8363.	2.9	22
11	Adipocyte Î²-arrestin-2 is essential for maintaining whole body glucose and energy homeostasis. Nature Communications, 2019, 10, 2936.	5.8	43
12	Encoding the Î²-Arrestin Trafficking Fate of Ghrelin Receptor GHSR1a: C-Tail-Independent Molecular Determinants in GPCRs. ACS Pharmacology and Translational Science, 2019, 2, 230-246.	2.5	8
13	Slow-release delivery enhances the pharmacological properties of oral 5-hydroxytryptophan: mouse proof-of-concept. Neuropsychopharmacology, 2019, 44, 2082-2090.	2.8	10
14	A Brief History of the Î²-Arrestins. Methods in Molecular Biology, 2019, 1957, 3-8.	0.4	20
15	The dopamine D2 receptor can directly recruit and activate GRK2 without G protein activation. Journal of Biological Chemistry, 2018, 293, 6161-6171.	1.6	41
16	Brain-region-specific Molecular Responses to Maternal Separation and Social Defeat Stress in Mice. Neuroscience, 2018, 373, 122-136.	1.1	14
17	Mechanisms of neuroprotection against ischemic insult by stressâ€inducible phosphoproteinâ€1/prion protein complex. Journal of Neurochemistry, 2018, 145, 68-79.	2.1	15
18	Brain-wide Electrical Spatiotemporal Dynamics Encode Depression Vulnerability. Cell, 2018, 173, 166-180.e14.	13.5	135

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19	Engineered D2R Variants Reveal the Balanced and Biased Contributions of G-Protein and Î²-Arrestin to Dopamine-Dependent Functions. Neuropsychopharmacology, 2018, 43, 1164-1173.	2.8	24
20	Ghrelin receptor antagonism of hyperlocomotion in cocaineâ€sensitized mice requires Î²arrestinâ€2. Synapse, 2018, 72, e22012.	0.6	12
21	h<i>CALCRL</i> mutation causes autosomal recessive nonimmune hydrops fetalis with lymphatic dysplasia. Journal of Experimental Medicine, 2018, 215, 2339-2353.	4.2	25
22	Î²-arrestin-2 is an essential regulator of pancreatic Î²-cell function under physiological and pathophysiological conditions. Nature Communications, 2017, 8, 14295.	5.8	63
23	Protamine is an antagonist of apelin receptor, and its activity is reversed by heparin. FASEB Journal, 2017, 31, 2507-2519.	0.2	26
24	Design, synthesis and biological evaluation of GPR55 agonists. Bioorganic and Medicinal Chemistry, 2017, 25, 4355-4367.	1.4	10
25	New Concepts in Dopamine D2 Receptor Biased Signaling and Implications for Schizophrenia Therapy. Biological Psychiatry, 2017, 81, 78-85.	0.7	99
26	Hepatic Î²-arrestin 2 is essential for maintaining euglycemia. Journal of Clinical Investigation, 2017, 127, 2941-2945.	3.9	40
27	Distinct cortical and striatal actions of a Î²-arrestinâ€"biased dopamine D2 receptor ligand reveal unique antipsychotic-like properties. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8178-E8186.	3.3	117
28	Antidepressants at work. Nature, 2016, 532, 320-321.	13.7	4
29	ML314: A Biased Neurotensin Receptor Ligand for Methamphetamine Abuse. ACS Chemical Biology, 2016, 11, 1880-1890.	1.6	33
30	Adjunctive 5-Hydroxytryptophan Slow-Release for Treatment-Resistant Depression: Clinical and Preclinical Rationale. Trends in Pharmacological Sciences, 2016, 37, 933-944.	4.0	98
31	SSRI Augmentation by 5-Hydroxytryptophan Slow Release: Mouse Pharmacodynamic Proof of Concept. Neuropsychopharmacology, 2016, 41, 2324-2334.	2.8	20
32	Design, synthesis, and analysis of antagonists of GPR55: Piperidine-substituted 1,3,4-oxadiazol-2-ones. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1827-1830.	1.0	6
33	Effects of Î²-Arrestin-Biased Dopamine D2 Receptor Ligands on Schizophrenia-Like Behavior in Hypoglutamatergic Mice. Neuropsychopharmacology, 2016, 41, 704-715.	2.8	59
34	A rapid and affordable screening platform for membrane protein trafficking. BMC Biology, 2015, 13, 107.	1.7	19
35	Receptor, Ligand and Transducer Contributions to Dopamine D2 Receptor Functional Selectivity. PLoS ONE, 2015, 10, e0141637.	1.1	18
36	Brain 5-HT deficiency increases stress vulnerability and impairs antidepressant responses following psychosocial stress. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2557-2562.	3.3	95

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37	Serotonin deficiency alters susceptibility to the long-term consequences of adverse early life experience. Psychoneuroendocrinology, 2015, 53, 69-81.	1.3	24
38	Chronic Fluoxetine Increases Extra-Hippocampal Neurogenesis in Adult Mice. International Journal of Neuropsychopharmacology, 2015, 18, pyu029-pyu029.	1.0	28
39	Lgr4 and Lgr5 drive the formation of long actin-rich cytoneme-like membrane protrusions. Journal of Cell Science, 2015, 128, 1230-40.	1.2	46
40	Targeting Î²-arrestin2 in the treatment of <scp>l</scp> -DOPAâ€"induced dyskinesia in Parkinsonâ€™s disease. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2517-26.	3.3	91
41	Essential role of D1R in the regulation of mTOR complex1 signaling induced by cocaine. Neuropharmacology, 2015, 99, 610-619.	2.0	34
42	G Protein and Î²-Arrestin Signaling Bias at the Ghrelin Receptor. Journal of Biological Chemistry, 2014, 289, 33442-33455.	1.6	64
43	Overlapping and Opposing Functions of G Protein-coupled Receptor Kinase 2 (GRK2) and GRK5 during Heart Development. Journal of Biological Chemistry, 2014, 289, 26119-26130.	1.6	25
44	Congenital brain serotonin deficiency leads to reduced ethanol sensitivity and increased ethanol consumption in mice. Neuropharmacology, 2014, 77, 177-184.	2.0	25
45	Integrated approaches to understanding antipsychotic drug action at GPCRs. Current Opinion in Cell Biology, 2014, 27, 56-62.	2.6	25
46	Sex differences in response to chronic mild stress and congenital serotonin deficiency. Psychoneuroendocrinology, 2014, 40, 123-129.	1.3	45
47	Imidazole-derived agonists for the neurotensin 1 receptor. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 262-267.	1.0	12
48	Selective Deletion of GRK2 Alters Psychostimulant-Induced Behaviors and Dopamine Neurotransmission. Neuropsychopharmacology, 2014, 39, 2450-2462.	2.8	19
49	Structural basis for Smoothened receptor modulation and chemoresistance to anticancer drugs. Nature Communications, 2014, 5, 4355.	5.8	208
50	Discovery of ML314, a Brain Penetrant Nonpeptidic Î²-Arrestin Biased Agonist of the Neurotensin NTR1 Receptor. ACS Medicinal Chemistry Letters, 2013, 4, 846-851.	1.3	35
51	The Stem Cell-Expressed Receptor Lgr5 Possesses Canonical and Functionally Active Molecular Determinants Critical to Î²-arrestin-2 Recruitment. PLoS ONE, 2013, 8, e84476.	1.1	9
52	Î²â€arrestinâ€dependent Signaling of Dopamine D2 Receptor in the CNS: Opportunities for functionally selective therapeutic approaches.. FASEB Journal, 2011, 25, 205.3.	0.2	0
53	â€œTo learn, you must pay attention.â€•Molecular insights into teachers' wisdom. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7267-7268.	3.3	4
54	Catecholamine release and uptake in the mouse prefrontal cortex. Journal of Neurochemistry, 2008, 79, 130-142.	2.1	104

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55	Pharmacological Characterization of Membrane-Expressed Human Trace Amine-Associated Receptor 1 (TAAR1) by a Bioluminescence Resonance Energy Transfer cAMP Biosensor. Molecular Pharmacology, 2008, 74, 585-594.	1.0	135
56	Dopamine: from pharmacology to molecular biology and back. Wiener Klinische Wochenschrift, 2006, 118, 565-568.	1.0	1
57	The Stability of the G Protein-coupled Receptor-Î²-Arrestin Interaction Determines the Mechanism and Functional Consequence of ERK Activation. Journal of Biological Chemistry, 2003, 278, 6258-6267.	1.6	316
58	Decreased Ethanol Preference and Consumption in Dopamine Transporter Female Knock-Out Mice. Alcoholism: Clinical and Experimental Research, 2002, 26, 758-764.	1.4	46
59	Molecular Determinants Underlying the Formation of Stable Intracellular G Protein-coupled Receptor-Î²-Arrestin Complexes after Receptor Endocytosis*. Journal of Biological Chemistry, 2001, 276, 19452-19460.	1.6	389
60	Role of the Sphingosine-1-Phosphate Receptor EDG-1 in PDGF-Induced Cell Motility. Science, 2001, 291, 1800-1803.	6.0	415
61	Antiproliferative action of dopamine and norepinephrine in neuroblastoma cells expressing the human dopamine transporter. FASEB Journal, 2001, 15, 1607-1609.	0.2	24
62	SIGNAL TRANSDUCTION: Bringing Channels Closer to the Action!. Science, 2001, 293, 62-63.	6.0	11
63	Dopamine D5 receptor immunolocalization in rat and monkey brain. Synapse, 2000, 37, 125-145.	0.6	197
64	Increased rewarding properties of morphine in dopamine-transporter knockout mice. European Journal of Neuroscience, 2000, 12, 1827-1837.	1.2	75
65	Differential regulation of the dopamine D1, D2 and D3 receptor gene expression and changes in the phenotype of the striatal neurons in mice lacking the dopamine transporter. European Journal of Neuroscience, 2000, 12, 19-26.	1.2	103
66	Mice lacking the norepinephrine transporter are supersensitive to psychostimulants. Nature Neuroscience, 2000, 3, 465-471.	7.1	435
67	Î¼-Opioid receptor desensitization by Î²-arrestin-2 determines morphine tolerance but not dependence. Nature, 2000, 408, 720-723.	13.7	834
68	Association of Î²-Arrestin with G Protein-coupled Receptors during Clathrin-mediated Endocytosis Dictates the Profile of Receptor Resensitization. Journal of Biological Chemistry, 1999, 274, 32248-32257.	1.6	501
69	Agonist-Specific Regulation of Î´-Opioid Receptor Trafficking by G Protein-Coupled Receptor Kinase and Î²-Arrestin. Journal of Receptor and Signal Transduction Research, 1999, 19, 301-313.	1.3	53
70	Differential regulation of tyrosine hydroxylase in the basal ganglia of mice lacking the dopamine transporter. European Journal of Neuroscience, 1999, 11, 3499-3511.	1.2	121
71	Application of microdialysis and voltammetry to assess dopamine functions in genetically altered. Psychopharmacology, 1999, 147, 30-32.	1.5	27
72	Cocaine self-administration in dopamine-transporter knockout mice. Nature Neuroscience, 1998, 1, 132-137.	7.1	463

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73	Increased MPTP Neurotoxicity in Vesicular Monoamine Transporter 2 Heterozygote Knockout Mice. Journal of Neurochemistry, 1998, 70, 1973-1978.	2.1	148
74	The dopamine transporter: A crucial component regulating dopamine transmission. Movement Disorders, 1997, 12, 629-633.	2.2	207
75	Dopamine Transporter Is Required for In Vivo MPTP Neurotoxicity: Evidence from Mice Lacking the Transporter. Journal of Neurochemistry, 1997, 69, 1322-1325.	2.1	286
76	Hyperlocomotion and indifference to cocaine and amphetamine in mice lacking the dopamine transporter. Nature, 1996, 379, 606-612.	13.7	2,267
77	Chimeric D₂/D₃ Dopamine Receptors Efficiently Inhibit Adenylyl Cyclase in HEK 293 Cells. Journal of Neurochemistry, 1996, 67, 212-219.	2.1	38
78	Modeling of Sequestration and Down Regulation in Cells Containing Beta2-Adrenergic Receptors. Journal of Receptor and Signal Transduction Research, 1995, 15, 677-690.	1.3	11
79	Glycine receptor Î²â€“subunit gene mutation in spastic mouse associated with LINEâ€“1 element insertion. Nature Genetics, 1994, 7, 136-142.	9.4	217
80	Epidermal Growth Factor Promotes Uncoupling from Adenylyl Cyclase of the Rat D_{2S} Receptor Expressed in GH4C1 Cells. Journal of Neurochemistry, 1994, 62, 907-915.	2.1	10
81	The chimaeras speak again. Nature, 1993, 366, 409-410.	13.7	7
82	D1Dopamine Receptor Binding and mRNA Levels Are Not Altered After Neonatal 6-Hydroxydopamine Treatment: Evidence Against Dopamine-Mediated Induction of D1Dopamine Receptors During Postnatal Development. Journal of Neurochemistry, 1993, 61, 1255-1262.	2.1	32
83	Identification, Quantification, and Localization of mRNA for Three Distinct Alpha₁Adrenergic Receptor Subtypes in Human Prostate. Journal of Urology, 1993, 150, 546-551.	0.2	310
84	Identification, characterization, and molecular cloning of a novel transporter-like protein localized to the central nervous system. FEBS Letters, 1992, 312, 115-122.	1.3	47
85	Cloning and functional characterization of a cocaine-sensitive dopamine transporter. FEBS Letters, 1991, 295, 149-154.	1.3	302
86	Molecular Characterization of G-protein Coupled Receptors: Isolation and Cloning of a D1 Dopamine Receptor. Journal of Receptors and Signal Transduction, 1991, 11, 521-534.	1.2	10
87	Receptor Research: The Past, the Present and the Outlook. Journal of Receptors and Signal Transduction, 1991, 11, 717-719.	1.2	0
88	Mechanisms involved in adrenergic receptor desensitization. Biochemical Society Transactions, 1990, 18, 541-544.	1.6	31
89	Molecular cloning and expression of the gene for a human D1 dopamine receptor. Nature, 1990, 347, 72-76.	13.7	655
90	Turning off the signal: desensitization of Î²â€adrenergic receptor function. FASEB Journal, 1990, 4, 2881-2889.	0.2	1,209

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91	Removal of phosphorylation sites from the Î²2-adrenergic receptor delays onset of agonist-promoted desensitization. Nature, 1988, 333, 370-373.	13.7	439
92	The genomic clone G-21 which resembles a Î²-adrenergic receptor sequence encodes the 5-HT1A receptor. Nature, 1988, 335, 358-360.	13.7	611
93	Cloning of the cDNA and Genes for the Hamster and Human Î²2-Adrenergic Receptors. Journal of Receptors and Signal Transduction, 1988, 8, 7-21.	1.2	13
94	Regulation of the Î²2-adrenergic receptor and its mRNA in the rat ventral prostate by testosterone. FEBS Letters, 1988, 233, 173-176.	1.3	49
95	Cross-talk between cellular signalling pathways suggested by phorbol-ester-induced adenylate cyclase phosphorylation. Nature, 1987, 327, 67-70.	13.7	538
96	An intronless gene encoding a potential member of the family of receptors coupled to guanine nucleotide regulatory proteins. Nature, 1987, 329, 75-79.	13.7	513
97	Cloning of the gene and cDNA for mammalian Î²-adrenergic receptor and homology with rhodopsin. Nature, 1986, 321, 75-79.	13.7	1,284
98	Light-dependent phosphorylation of rhodopsin by Î²-adrenergic receptor kinase. Nature, 1986, 321, 869-872.	13.7	207
99	Identification of the Subunit Structure of Rat Pineal Adrenergic Receptors by Photoaffinity Labeling. Journal of Neurochemistry, 1986, 46, 1153-1160.	2.1	12
100	Identification of the D₂â€‹_{â€‹}Dopamine Receptor Binding Subunit in Several Mammalian Tissues and Species by Photoaffinity Labeling. Journal of Neurochemistry, 1986, 47, 196-204.	2.1	47
101	Regulation of Adrenergic Receptor Function by Phosphorylation. Current Topics in Cellular Regulation, 1986, 28, 209-231.	9.6	46
102	A role for Ni in the hormonal stimulation of adenylate cyclase. Nature, 1985, 318, 293-295.	13.7	107
103	A novel radioiodinated high affinity ligand for the D2 -dopamine receptor. FEBS Letters, 1984, 176, 436-440.	1.3	21
104	Pure Î²-adrenergic receptor: the single polypeptide confers catecholamine responsiveness to adenylate cyclase. Nature, 1983, 306, 562-566.	13.7	117
105	Title is missing!. Die Makromolekulare Chemie, 1981, 182, 1945-1950.	1.1	7
106	Detergents Linked to Polysaccharides: Preparation and Effects on Membranes and Cells. FEBS Journal, 1979, 94, 11-18.	0.2	27
107	Temperature immutability of adenyl cyclase-coupled Î² adrenergic recptors. Nature, 1974, 249, 258-260.	13.7	31