Colleen M Niswender

List of Publications by Year
in descending order

182 papers	8,424 citations	61984 43 h-index	54911 84 g-index
187 all docs	187 docs citations	187 times ranked	6898 citing authors

#	Article	IF	Citations
1	Metabotropic Glutamate Receptors: Physiology, Pharmacology, and Disease. Annual Review of Pharmacology and Toxicology, 2010, 50, 295-322.	9.4	1,510
2	Structure of a Class C GPCR Metabotropic Glutamate Receptor 1 Bound to an Allosteric Modulator. Science, 2014, 344, 58-64.	12.6	476
3	Opportunities and challenges in the discovery of allosteric modulators of GPCRs for treating CNS disorders. Nature Reviews Drug Discovery, 2014, 13, 692-708.	46.4	226
4	Allosteric Modulation of Seven Transmembrane Spanning Receptors: Theory, Practice, and Opportunities for Central Nervous System Drug Discovery. Journal of Medicinal Chemistry, 2012, 55, 1445-1464.	6.4	212
5	Glutamate Receptors as Therapeutic Targets for Parkinsons Disease. CNS and Neurological Disorders - Drug Targets, 2009, 8, 475-491.	1.4	209
6	Discovery, Characterization, and Antiparkinsonian Effect of Novel Positive Allosteric Modulators of Metabotropic Glutamate Receptor 4. Molecular Pharmacology, 2008, 74, 1345-1358.	2.3	187
7	Discovery of Novel Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5 Reveals Chemical and Functional Diversity and In Vivo Activity in Rat Behavioral Models of Anxiolytic and Antipsychotic Activity. Molecular Pharmacology, 2010, 78, 1105-1123.	2.3	176
8	Practical Strategies and Concepts in GPCR Allosteric Modulator Discovery: Recent Advances with Metabotropic Glutamate Receptors. Chemical Reviews, 2016, 116, 6707-6741.	47.7	151
9	An allosteric potentiator of M4 mAChR modulates hippocampal synaptic transmission. Nature Chemical Biology, 2008, 4, 42-50.	8.0	144
10	Discovery and Characterization of Novel Allosteric Potentiators of M₁Muscarinic Receptors Reveals Multiple Modes of Activity. Molecular Pharmacology, 2009, 75, 577-588.	2.3	135
11	ML297 (VU0456810), the First Potent and Selective Activator of the GIRK Potassium Channel, Displays Antiepileptic Properties in Mice. ACS Chemical Neuroscience, 2013, 4, 1278-1286.	3.5	135
12	RNA-editing of the 5-HT2C receptor alters agonist-receptor-effector coupling specificity. British Journal of Pharmacology, 2001, 134, 386-392.	5.4	130
13	A Novel Selective Muscarinic Acetylcholine Receptor Subtype 1 Antagonist Reduces Seizures without Impairing Hippocampus-Dependent Learning. Molecular Pharmacology, 2009, 76, 356-368.	2.3	121
14	Biased mGlu 5 -Positive Allosteric Modulators Provide InÂVivo Efficacy without Potentiating mGlu 5 Modulation of NMDAR Currents. Neuron, 2015, 86, 1029-1040.	8.1	121
15	Selective Activation of M₄ Muscarinic Acetylcholine Receptors Reverses MK-801-Induced Behavioral Impairments and Enhances Associative Learning in Rodents. ACS Chemical Neuroscience, 2014, 5, 920-942.	3.5	116
16	Functional Impact of Allosteric Agonist Activity of Selective Positive Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5 in Regulating Central Nervous System Function. Molecular Pharmacology, 2012, 81, 120-133.	2.3	112
17	Antipsychotic-like Effects of M 4 Positive Allosteric Modulators Are Mediated by CB 2 Receptor-Dependent Inhibition of Dopamine Release. Neuron, 2016, 91, 1244-1252.	8.1	110
18	Selective Actions of Novel Allosteric Modulators Reveal Functional Heteromers of Metabotropic Glutamate Receptors in the CNS. Journal of Neuroscience, 2014, 34, 79-94.	3.6	107

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19	A Novel Assay of G_{i/o}-Linked G Protein-Coupled Receptor Coupling to Potassium Channels Provides New Insights into the Pharmacology of the Group III Metabotropic Glutamate Receptors. Molecular Pharmacology, 2008, 73, 1213-1224.	2.3	99
20	Novel Allosteric Agonists of M1 Muscarinic Acetylcholine Receptors Induce Brain Region-Specific Responses That Correspond with Behavioral Effects in Animal Models. Journal of Neuroscience, 2012, 32, 8532-8544.	3.6	98
21	The Metabotropic Glutamate Receptor 4-Positive Allosteric Modulator VU0364770 Produces Efficacy Alone and in Combination with l-DOPA or an Adenosine 2A Antagonist in Preclinical Rodent Models of Parkinson's Disease. Journal of Pharmacology and Experimental Therapeutics, 2012, 340, 404-421.	2.5	95
22	Unique Signaling Profiles of Positive Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5 Determine Differences in In Vivo Activity. Biological Psychiatry, 2013, 73, 501-509.	1.3	95
23	Investigating Metabotropic Glutamate Receptor 5 Allosteric Modulator Cooperativity, Affinity, and Agonism: Enriching Structure-Function Studies and Structure-Activity Relationships. Molecular Pharmacology, 2012, 82, 860-875.	2.3	90
24	Metabotropic glutamate receptor 3 activation is required for long-term depression in medial prefrontal cortex and fear extinction. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1196-1201.	7.1	86
25	Synthesis and Evaluation of a Series of Heterobiarylamides That Are Centrally Penetrant Metabotropic Glutamate Receptor 4 (mGluR4) Positive Allosteric Modulators (PAMs). Journal of Medicinal Chemistry, 2009, 52, 4115-4118.	6.4	79
26	Context-Dependent Pharmacology Exhibited by Negative Allosteric Modulators of Metabotropic Glutamate Receptor 7. Molecular Pharmacology, 2010, 77, 459-468.	2.3	73
27	Discovery of a Novel Chemical Class of mGlu₅ Allosteric Ligands with Distinct Modes of Pharmacology. ACS Chemical Neuroscience, 2010, 1, 702-716.	3.5	70
28	Group III mGluR regulation of synaptic transmission at the SC-CA1 synapse is developmentally regulated. Neuropharmacology, 2008, 54, 804-814.	4.1	68
29	A Novel Family of Potent Negative Allosteric Modulators of Group II Metabotropic Glutamate Receptors. Journal of Pharmacology and Experimental Therapeutics, 2007, 322, 254-264.	2.5	67
30	Discovery and optimization of a novel, selective and brain penetrant M1 positive allosteric modulator (PAM): The development of ML169, an MLPCN probe. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 2697-2701.	2.2	63
31	Discovery of a Selective and CNS Penetrant Negative Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 3 with Antidepressant and Anxiolytic Activity in Rodents. Journal of Medicinal Chemistry, 2015, 58, 7485-7500.	6.4	62
32	New Therapeutic Frontiers for Metabotropic Glutamate Receptors. Current Topics in Medicinal Chemistry, 2005, 5, 847-857.	2.1	59
33	mGluR4-positive allosteric modulation as potential treatment for Parkinsonâ€™s disease. Future Medicinal Chemistry, 2009, 1, 501-513.	2.3	59
34	M1-positive allosteric modulators lacking agonist activity provide the optimal profile for enhancing cognition. Neuropsychopharmacology, 2018, 43, 1763-1771.	5.4	56
35	Positive allosteric modulators of the metabotropic glutamate receptor subtype 4 (mGluR4): Part I. Discovery of pyrazolo[3,4-d]pyrimidines as novel mGluR4 positive allosteric modulators. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 5626-5630.	2.2	55
36	mGlu ₇ potentiation rescues cognitive, social, and respiratory phenotypes in a mouse model of Rett syndrome. Science Translational Medicine, 2017, 9, .	12.4	55

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37	Identification of Positive Allosteric Modulators VU0155094 (ML397) and VU0422288 (ML396) Reveals New Insights into the Biology of Metabotropic Glutamate Receptor 7. ACS Chemical Neuroscience, 2014, 5, 1221-1237.	3.5	53
38	Discovery, Synthesis, and Structureâ€“Activity Relationship Development of a Series of N-4-(2,5-Dioxopyrrolidin-1-yl)phenylpicolinamides (VU0400195, ML182): Characterization of a Novel Positive Allosteric Modulator of the Metabotropic Glutamate Receptor 4 (mGlu₄) with Oral Efficacy in an Antiparkinsonian Animal Model. Journal of Medicinal Chemistry, 2011, 54, 7639-7647.	6.4	52
39	Development and Antiparkinsonian Activity of VU0418506, a Selective Positive Allosteric Modulator of Metabotropic Glutamate Receptor 4 Homomers without Activity at mGlu_{2/4} Heteromers. ACS Chemical Neuroscience, 2016, 7, 1201-1211.	3.5	50
40	Positive allosteric modulators of the metabotropic glutamate receptor subtype 4 (mGluR4). Part II: Challenges in hit-to-lead. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 962-966.	2.2	49
41	mGlu₅positive allosteric modulation normalizes synaptic plasticity defects and motor phenotypes in a mouse model of Rett syndrome. Human Molecular Genetics, 2016, 25, 1990-2004.	2.9	48
42	Pharmacological stimulation of metabotropic glutamate receptor type 4 in a rat model of Parkinson's disease and l-DOPA-induced dyskinesia: Comparison between a positive allosteric modulator and an orthosteric agonist. Neuropharmacology, 2015, 95, 121-129.	4.1	46
43	Re-exploration of the PHCCC Scaffold: Discovery of Improved Positive Allosteric Modulators of mGluR4. ACS Chemical Neuroscience, 2010, 1, 411-419.	3.5	45
44	Discovery, Synthesis, and Structureâ^'Activity Relationship Development of a Series of N-(4-Acetamido)phenylpicolinamides as Positive Allosteric Modulators of Metabotropic Glutamate Receptor 4 (mGlu₄) with CNS Exposure in Rats. Journal of Medicinal Chemistry, 2011, 54, 1106-1110.	6.4	45
45	A Novel Class of Succinimide-Derived Negative Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 1 Provides Insight into a Disconnect in Activity between the Rat and Human Receptors. ACS Chemical Neuroscience, 2014, 5, 597-610.	3.5	45
46	Pharmacology of Metabotropic Glutamate Receptor Allosteric Modulators. Progress in Molecular Biology and Translational Science, 2013, 115, 61-121.	1.7	44
47	Diverse Effects on M₁ Signaling and Adverse Effect Liability within a Series of M₁ Ago-PAMs. ACS Chemical Neuroscience, 2017, 8, 866-883.	3.5	44
48	Discovery of VU0467485/AZ13713945: An M₄ PAM Evaluated as a Preclinical Candidate for the Treatment of Schizophrenia. ACS Medicinal Chemistry Letters, 2017, 8, 233-238.	2.8	43
49	Cholinergic Projections to the Substantia Nigra Pars Reticulata Inhibit Dopamine Modulation of Basal Ganglia through the M4 Muscarinic Receptor. Neuron, 2017, 96, 1358-1372.e4.	8.1	43
50	A Novel M₁ PAM VU0486846 Exerts Efficacy in Cognition Models without Displaying Agonist Activity or Cholinergic Toxicity. ACS Chemical Neuroscience, 2018, 9, 2274-2285.	3.5	43
51	Biotransformation of a Novel Positive Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 5 Contributes to Seizure-Like Adverse Events in Rats Involving a Receptor Agonism-Dependent Mechanism. Drug Metabolism and Disposition, 2013, 41, 1703-1714.	3.3	42
52	Discovery of molecular switches within the ADX-47273 mGlu5 PAM scaffold that modulate modes of pharmacology to afford potent mGlu5 NAMs, PAMs and partial antagonists. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 2711-2714.	2.2	41
53	Discovery of VU0409551/JNJ-46778212: An mGlu₅ Positive Allosteric Modulator Clinical Candidate Targeting Schizophrenia. ACS Medicinal Chemistry Letters, 2015, 6, 716-720.	2.8	41
54	VU0477573: Partial Negative Allosteric Modulator of the Subtype 5 Metabotropic Glutamate Receptor with In Vivo Efficacy. Journal of Pharmacology and Experimental Therapeutics, 2015, 356, 123-136.	2.5	41

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55	Allosteric activation of M4 muscarinic receptors improve behavioral and physiological alterations in early symptomatic YAC128 mice. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14078-14083.	7.1	41
56	Progress toward advanced understanding of metabotropic glutamate receptors: structure, signaling and therapeutic indications. Cellular Signalling, 2014, 26, 2284-2297.	3.6	40
57	Relationship between In Vivo Receptor Occupancy and Efficacy of Metabotropic Glutamate Receptor Subtype 5 Allosteric Modulators with Different In Vitro Binding Profiles. Neuropsychopharmacology, 2015, 40, 755-765.	5.4	40
58	Activation of Metabotropic Glutamate Receptor 7 Is Required for Induction of Long-Term Potentiation at SC-CA1 Synapses in the Hippocampus. Journal of Neuroscience, 2015, 35, 7600-7615.	3.6	40
59	Discovery, Synthesis, and Preclinical Characterization ofN-(3-Chloro-4-fluorophenyl)-1H-pyrazolo[4,3-b]pyridin-3-amine (VU0418506), a Novel Positive Allosteric Modulator of the Metabotropic Glutamate Receptor 4 (mGlu4). ACS Chemical Neuroscience, 2016, 7, 1192-1200.	3.5	39
60	Prefrontal Cortex-Mediated Impairments in a Genetic Model of NMDA Receptor Hypofunction Are Reversed by the Novel M₁ PAM VU6004256. ACS Chemical Neuroscience, 2016, 7, 1706-1716.	3.5	39
61	Discovery of 2â€(2â€Benzoxazoyl amino)â€4â€Arylâ€5â€Cyanopyrimidine as Negative Allosteric Modulators (NAMs) of Metabotropic Glutamate Receptorâ€…5 (mGlu₅): From an Artificial Neural Network Virtual Screen to an In Vivo Tool Compound. ChemMedChem, 2012, 7, 406-414.	3.2	38
62	Design and Synthesis of N-Aryl Phenoxyethoxy Pyridinones as Highly Selective and CNS Penetrant mGlu₃ NAMs. ACS Medicinal Chemistry Letters, 2017, 8, 925-930.	2.8	38
63	The Role of Aldehyde Oxidase and Xanthine Oxidase in the Biotransformation of a Novel Negative Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 5. Drug Metabolism and Disposition, 2012, 40, 1834-1845.	3.3	36
64	Acute restraint stress redirects prefrontal cortex circuit function through mGlu5 receptor plasticity on somatostatin-expressing interneurons. Neuron, 2022, 110, 1068-1083.e5.	8.1	36
65	Cognitive enhancement and antipsychotic-like activity following repeated dosing with the selective M4 PAM VU0467154. Neuropharmacology, 2018, 128, 492-502.	4.1	35
66	Synthesis and SAR of a novel positive allosteric modulator (PAM) of the metabotropic glutamate receptor 4 (mGluR4). Bioorganic and Medicinal Chemistry Letters, 2009, 19, 4967-4970.	2.2	33
67	Development of a novel, CNS-penetrant, metabotropic glutamate receptor 3 (mGlu3) NAM probe (ML289) derived from a closely related mGlu5 PAM. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 3921-3925.	2.2	33
68	Partial mGlu5 Negative Allosteric Modulators Attenuate Cocaine-Mediated Behaviors and Lack Psychotomimetic-Like Effects. Neuropsychopharmacology, 2016, 41, 1166-1178.	5.4	33
69	Design and Synthesis of mGlu₂ NAMs with Improved Potency and CNS Penetration Based on a Truncated Picolinamide Core. ACS Medicinal Chemistry Letters, 2017, 8, 919-924.	2.8	33
70	Metabotropic Glutamate Receptor 7: A New Therapeutic Target in Neurodevelopmental Disorders. Frontiers in Molecular Neuroscience, 2018, 11, 387.	2.9	33
71	The Metabotropic Glutamate Receptor 4 Positive Allosteric Modulator ADX88178 Inhibits Inflammatory Responses in Primary Microglia. Journal of NeuroImmune Pharmacology, 2016, 11, 231-237.	4.1	32
72	Challenges in the development of an M 4 PAM in vivo tool compound: The discovery of VU0467154 and unexpected DMPK profiles of close analogs. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 171-175.	2.2	32

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73	Design of 4-Oxo-1-aryl-1,4-dihydroquinoline-3-carboxamides as Selective Negative Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 2. Journal of Medicinal Chemistry, 2015, 58, 9027-9040.	6.4	31
74	Accelerating Precision Drug Development and Drug Repurposing by Leveraging Human Genetics. Assay and Drug Development Technologies, 2017, 15, 113-119.	1.2	30
75	Total RNA Sequencing of Rett Syndrome Autopsy Samples Identifies the M₄ Muscarinic Receptor as a Novel Therapeutic Target. Journal of Pharmacology and Experimental Therapeutics, 2018, 365, 291-300.	2.5	29
76	Activation of group II metabotropic glutamate receptors induces long-term depression of excitatory synaptic transmission in the substantia nigra pars reticulata. Neuroscience Letters, 2011, 504, 102-106.	2.1	28
77	Exploration of Allosteric Agonism Structureâ€"Activity Relationships within an Acetylene Series of Metabotropic Glutamate Receptor 5 (mGlu₅) Positive Allosteric Modulators (PAMs): Discovery of 5-((3-Fluorophenyl)ethynyl)-N-(3-methyloxetan-3-yl)picolinamide (ML254). Journal of Medicinal Chemistry, 2013, 56, 7976-7996.	6.4	28
78	Discovery of VU6005649, a CNS Penetrant mGlu_{7/8} Receptor PAM Derived from a Series of Pyrazolo[1,5-a]pyrimidines. ACS Medicinal Chemistry Letters, 2017, 8, 1110-1115.	2.8	28
79	The metabotropic glutamate receptor 8 agonist (S)-3,4-DCPG reverses motor deficits in prolonged but not acute models of Parkinson's disease. Neuropharmacology, 2013, 66, 187-195.	4.1	27
80	Differential Pharmacology and Binding of mGlu₂ Receptor Allosteric Modulators. Molecular Pharmacology, 2018, 93, 526-540.	2.3	27
81	Activating mGlu3 Metabotropic Glutamate Receptors Rescues Schizophrenia-like Cognitive Deficits Through Metaplastic Adaptations Within the Hippocampus. Biological Psychiatry, 2021, 90, 385-398.	1.3	27
82	Synthesis and SAR of novel, 4-(phenylsulfamoyl)phenylacetamide mGlu4 positive allosteric modulators (PAMs) identified by functional high-throughput screening (HTS). Bioorganic and Medicinal Chemistry Letters, 2010, 20, 5175-5178.	2.2	26
83	Discovery of N-(5-Fluoropyridin-2-yl)-6-methyl-4-(pyrimidin-5-yloxy)picolinamide (VU0424238): A Novel Negative Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 5 Selected for Clinical Evaluation. Journal of Medicinal Chemistry, 2017, 60, 5072-5085.	6.4	26
84	Application of Parallel Multiparametric Cell-Based FLIPR Detection Assays for the Identification of Modulators of the Muscarinic Acetylcholine Receptor 4 (M4). Journal of Biomolecular Screening, 2015, 20, 858-868.	2.6	25
85	Phenotypic profiling of <scp>mGlu₇</scp> knockout mice reveals new implications for neurodevelopmental disorders. Genes, Brain and Behavior, 2020, 19, e12654.	2.2	25
86	State-dependent alterations in sleep/wake architecture elicited by the M4 PAM VU0467154 â€" Relation to antipsychotic-like drug effects. Neuropharmacology, 2016, 102, 244-253.	4.1	23
87	Discovery and optimization of a novel series of highly CNS penetrant M 4 PAMs based on a 5,6-dimethyl-4-(piperidin-1-yl)thieno[2,3- d]pyrimidine core. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 3029-3033.	2.2	22
88	mGlu1 potentiation enhances prelimbic somatostatin interneuron activity to rescue schizophrenia-like physiological and cognitive deficits. Cell Reports, 2021, 37, 109950.	6.4	21
89	Recent progress in the development of mGluR4 positive allosteric modulators for the treatment of Parkinson's disease. Current Topics in Medicinal Chemistry, 2009, 9, 949-63.	2.1	21
90	Heterotropic Activation of the Midazolam Hydroxylase Activity of CYP3A by a Positive Allosteric Modulator of mGlu₅: In Vitro to In Vivo Translation and Potential Impact on Clinically Relevant Drug-Drug Interactions. Drug Metabolism and Disposition, 2013, 41, 2066-2075.	3.3	20

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91	Further optimization of the M5 NAM MLPCN probe ML375: Tactics and challenges. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 690-694.	2.2	20
92	Discovery of an Orally Bioavailable and Central Nervous System (CNS) Penetrant mGlu₇ Negative Allosteric Modulator (NAM) in Vivo Tool Compound: N-(2-(1H-1,2,4-triazol-1-yl)-5-(trifluoromethoxy)phenyl)-4-(cyclopropylmethoxy)-3-methoxybenzamide (VU6012962). Journal of Medicinal Chemistry, 2019, 62, 1690-1695.	6.4	20
93	PF-06827443 Displays Robust Allosteric Agonist and Positive Allosteric Modulator Activity in High Receptor Reserve and Native Systems. ACS Chemical Neuroscience, 2018, 9, 2218-2224.	3.5	19
94	mGlu₅ Positive Allosteric Modulators Facilitate Long-Term Potentiation via Disinhibition Mediated by mGlu₅-Endocannabinoid Signaling. ACS Pharmacology and Translational Science, 2019, 2, 198-209.	4.9	19
95	VU6010608, a Novel mGlu₇ NAM from a Series of N-(2-(1H-1,2,4-Triazol-1-yl)-5-(trifluoromethoxy)phenyl)benzamides. ACS Medicinal Chemistry Letters, 2017, 8, 1326-1330.	2.8	18
96	Optimization of M 4 positive allosteric modulators (PAMs): The discovery of VU0476406, a non-human primate in vivo tool compound for translational pharmacology. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 2296-2301.	2.2	17
97	Challenges in the development of an M 4 PAM preclinical candidate: The discovery, SAR, and biological characterization of a series of azetidine-derived tertiary amides. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 5179-5184.	2.2	17
98	Contextual Fear Extinction Induces Hippocampal Metaplasticity Mediated by Metabotropic Glutamate Receptor 5. Cerebral Cortex, 2018, 28, 4291-4304.	2.9	17
99	Discovery of Novel Central Nervous System Penetrant Metabotropic Glutamate Receptor Subtype 2 (mGlu₂) Negative Allosteric Modulators (NAMs) Based on Functionalized Pyrazolo[1,5-a]pyrimidine-5-carboxamide and Thieno[3,2-b]pyridine-5-carboxamide Cores. Journal of Medicinal Chemistry, 2019, 62, 378-384.	6.4	17
100	Discovery of VU2957 (Valiglurax): An mGlu4 Positive Allosteric Modulator Evaluated as a Preclinical Candidate for the Treatment of Parkinsonâ€™s Disease. ACS Medicinal Chemistry Letters, 2019, 10, 255-260.	2.8	17
101	Synthesis and SAR of a novel metabotropic glutamate receptor 4 (mGlu4) antagonist: Unexpected â€˜molecular switchâ€™ from a closely related mGlu4 positive allosteric modulator. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 6955-6959.	2.2	16
102	Substituted 1-Phenyl-3-(pyridin-2-yl)urea Negative Allosteric Modulators of mGlu₅: Discovery of a New Tool Compound VU0463841 with Activity in Rat Models of Cocaine Addiction. ACS Chemical Neuroscience, 2013, 4, 1217-1228.	3.5	16
103	Challenges in the development of an M 4 PAM preclinical candidate: The discovery, SAR, and in vivo characterization of a series of 3-aminoazetidine-derived amides. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 2990-2995.	2.2	16
104	Discovery, Structureâ€“Activity Relationship, and Biological Characterization of a Novel Series of 6-((1H-Pyrazolo[4,3-b]pyridin-3-yl)amino)-benzo[d]isothiazole-3-carboxamides as Positive Allosteric Modulators of the Metabotropic Glutamate Receptor 4 (mGlu₄). Journal of Medicinal Chemistry, 2019, 62, 342-358.	6.4	16
105	Approaches for Probing Allosteric Interactions at 7 Transmembrane Spanning Receptors. Progress in Molecular Biology and Translational Science, 2013, 115, 1-59.	1.7	15
106	Lead optimization of the VU0486321 series of mGlu 1 PAMs. Part 2: SAR of alternative 3-methyl heterocycles and progress towards an in vivo tool. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 751-756.	2.2	15
107	Discovery of a novel 2,4-dimethylquinoline-6-carboxamide M 4 positive allosteric modulator (PAM) chemotype via scaffold hopping. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 4999-5001.	2.2	15
108	Activated CaMKIIÎ± Binds to the mGlu5 Metabotropic Glutamate Receptor and Modulates Calcium Mobilization. Molecular Pharmacology, 2018, 94, 1352-1362.	2.3	15

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109	Surveying heterocycles as amide bioisosteres within a series of mGlu7 NAMs: Discovery of VU6019278. Bioorganic and Medicinal Chemistry Letters, 2019, 29, 1211-1214.	2.2	14
110	Input-specific regulation of glutamatergic synaptic transmission in the medial prefrontal cortex by mGlu ₂ /mGlu ₄ receptor heterodimers. Science Signaling, 2021, 14, .	3.6	14
111	Tetrahydronaphthyridine and Dihydronaphthyridinone Ethers As Positive Allosteric Modulators of the Metabotropic Glutamate Receptor 5 (mGlu₅). Journal of Medicinal Chemistry, 2014, 57, 5620-5637.	6.4	13
112	Lead optimization of the VU0486321 series of mGlu1 PAMs. Part 1: SAR of modifications to the central aryl core. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 5107-5110.	2.2	12
113	Functional selectivity induced by mGlu4 receptor positive allosteric modulation and concomitant activation of Gq coupled receptors. Neuropharmacology, 2013, 66, 122-132.	4.1	11
114	Further optimization of the M1 PAM VU0453595: Discovery of novel heterobicyclic core motifs with improved CNS penetration. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 3822-3825.	2.2	11
115	Discovery and SAR of a novel series of potent, CNS penetrant M4 PAMs based on a non-enolizable ketone core: Challenges in disposition. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 4282-4286.	2.2	11
116	VU6007477, a Novel M1 PAM Based on a Pyrrolo[2,3-b]pyridine Carboxamide Core Devoid of Cholinergic Adverse Events. ACS Medicinal Chemistry Letters, 2018, 9, 917-922.	2.8	11
117	A Coordinated Attack: Rett Syndrome Therapeutic Development. Trends in Pharmacological Sciences, 2019, 40, 233-236.	8.7	11
118	Discovery of the First Selective M₄ Muscarinic Acetylcholine Receptor Antagonists with in Vivo Antiparkinsonian and Antidystonic Efficacy. ACS Pharmacology and Translational Science, 2021, 4, 1306-1321.	4.9	11
119	M1 and M3 muscarinic receptors may play a role in the neurotoxicity of anhydroecgonine methyl ester, a cocaine pyrolysis product. Scientific Reports, 2015, 5, 17555.	3.3	10
120	Lead optimization of the VU0486321 series of mGlu1 PAMs. Part 3. Engineering plasma stability by discovery and optimization of isoindolinone analogs. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1869-1872.	2.2	10
121	Discovery of a Novel Series of Orally Bioavailable and CNS Penetrant Glucagon-like Peptide-1 Receptor (GLP-1R) Noncompetitive Antagonists Based on a 1,3-Disubstituted-7-aryl-5,5-bis(trifluoromethyl)-5,8-dihydropyrimido[4,5-d]pyrimidine-2,4(1H,3H)-dione Core. Journal of Medicinal Chemistry, 2017, 60, 1611-1616.	6.4	10
122	novel, CNS penetrant pan-muscarinic antagonists. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 3576-3581.	2.2	10
123	The discovery of VU0486846: steep SAR from a series of M1 PAMs based on a novel benzomorpholine core. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 2175-2179.	2.2	10
124	Profiling beneficial and potential adverse effects of MeCP2 overexpression in a hypomorphic Rett syndrome mouse model. Genes, Brain and Behavior, 2021, , 12752.	2.2	10
125	A GRM7 mutation associated with developmental delay reduces mGlu7 expression and produces neurological phenotypes. JCI Insight, 2021, 6, .	5.0	10
126	The Role of mGlu Receptors in Hippocampal Plasticity Deficits in Neurological and Psychiatric Disorders: Implications for Allosteric Modulators as Novel Therapeutic Strategies. Current Neuropharmacology, 2016, 14, 455-473.	2.9	10

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127	Iterative experimental and virtual high-throughput screening identifies metabotropic glutamate receptor subtype 4 positive allosteric modulators. Journal of Molecular Modeling, 2012, 18, 4437-4446.	1.8	9
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129	Discovery and SAR of novel series of imidazopyrimidinones and dihydroimidazopyrimidinones as positive allosteric modulators of the metabotropic glutamate receptor 5 (mGlu5). Bioorganic and Medicinal Chemistry Letters, 2015, 25, 1310-1317.	2.2	9
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